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**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

TECHNOLOGY PROPERTIES LIMITED
LLC, PHOENIX DIGITAL SOLUTIONS
LLC and PATRIOT SCIENTIFIC
CORPORATION,

Plaintiffs,

v.

LG ELECTRONICS, INC. and LG
ELECTRONICS U.S.A., INC.,
Defendants.

Case No. 3:12-CV-03880-VC (PSG)

JURY TRIAL DEMANDED

**PDS'S MOTION TO COMPEL
DISCOVERY FROM LG**

Hearing:

Date: August 11, 2015

Time: 10:00 a.m.

Place: Courtroom 5, 4th Floor

Judge: Hon. Paul S. Grewal

PDS'S MOTION TO COMPEL DISCOVERY FROM LG

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NOTICE OF MOTION AND MOTION

1
2 Plaintiff Phoenix Digital Solutions LLC (“PDS”) hereby provides the following notice to
3 all parties and their attorneys of record: PLEASE TAKE NOTICE that on August 11, 2015, at
4 10:00 a.m., or as soon as the matter may be heard before Hon. Paul S. Grewal in the U.S. District
5 Court for the Northern District of California, in Courtroom 5 of the Robert F. Peckham Federal
6 Building, 280 South 1st Street, San Jose, California 95113, PDS shall and hereby does move the
7 Court for an order compelling Defendants LG Electronics, Inc. and LG Electronics, U.S.A., Inc.
8 (“LG” or the “LG Defendants”) to provide complete financial and damages-related information
9 and documents in response to PDS’s Request for Production No. 4 and for the full scope of
10 Accused Products identified in Plaintiffs’ Infringement Contentions.

11 Concurrently with the instant motion, PDS has also filed a Motion to Shorten Time for
12 Briefing and Hearing on PDS’s Motion to Compel Discovery from LG. As detailed in that
13 motion, PDS requests that the Court consider this motion on an expedited basis to allow PDS
14 time to analyze the compelled discovery so that it may properly depose LG witnesses before the
15 end of fact discovery on September 8, 2015.

RELIEF REQUESTED

16
17 PDS seeks entry of an Order pursuant to Fed. R. Civ. P. 37(a) compelling LG to provide
18 complete financial and damages-related documents and information responsive to PDS’s Request
19 for Production No. 4 for the full scope of LG Accused Products identified in Plaintiffs’
20 Infringement Contentions within five (5) business days of the Court’s Order.

MEMORANDUM OF POINTS AND AUTHORITIES
IN SUPPORT OF PDS’S MOTION TO COMPEL DISCOVERY FROM LG

I. INTRODUCTION

21
22
23
24 PDS seeks relief from LG’s deliberate refusal to timely and properly engage in fair
25 discovery. PDS served discovery requests on LG that seek production of financial and damages-
26 related documents for the LG products that are accused of infringement in this case. More
27 specifically, PDS has requested price, revenue, and profit information for each of LG’s Accused
28 Products identified in Plaintiffs’ Infringement Contentions. This information is plainly within the

1 broad scope of Rule 26, and is relevant to Plaintiffs' claims for damages in this case.

2 LG, however, refuses to provide complete discovery in response to PDS's request, based
3 on its unilateral belief that the scope of "Accused Products" is limited to LG Accused Products
4 that contain one of seven specific processor models that LG has unilaterally deemed to have been
5 sufficiently "charted" in Plaintiff's Infringement Contentions. PDS, however, provided LG with
6 notice of its infringement theories over five months ago, when Plaintiffs' served their
7 infringement contentions to LG and provided a list specifically identifying the LG products
8 accused of infringement. LG should be compelled to produce such highly relevant information
9 because this information is responsive to PDS's long-outstanding discovery requests, and this
10 information is necessary to establish the merits of PDS's claims.

11 LG's refusal to produce damages related discovery is highly prejudicial to PDS,
12 particularly at this stage in the litigation when fact discovery ends in under three months. Due to
13 LG's failure to provide adequate discovery, PDS finds it difficult to proceed with depositions of
14 LG witnesses in this action due to the lack of documents. Given the looming fact discovery
15 deadline, PDS cannot afford any further delay by LG in producing damages related discovery.
16 As presented below, LG's discovery conduct has caused and will continue to cause PDS
17 prejudice and unnecessary litigation expense. Importantly, LG's position has resulted in
18 protracted and unproductive discovery in this matter and otherwise unnecessary use of judicial
19 resources. Accordingly, PDS respectfully requests the Court's Order compelling LG to cooperate
20 and produce the requested discovery.

21 **II. FACTUAL BACKGROUND**

22 Plaintiffs' infringement claims against LG have been pending in this action since July 24,
23 2012, when Plaintiffs filed their original Complaint alleging infringement of U.S. Patent Nos.
24 5,440,749 ("the '749 Patent"), 5,530,890 ("the '890 Patent"), and 5,809,336 ("the '336 Patent")
25 (together, the "Asserted Patents"). DKT. NO. 1.¹

26 On October 12, 2013, this action was stayed as a result of the International Trade

27 ¹ Unless otherwise stated, citations herein to "Dkt. No. []" refer to docket entries in the above-
28 captioned case.

1 Commission's determination to institute Investigation No. 337-TA-853. *See* DKT. NO. 9. In the
2 ITC Investigation, certain LG products were accused of infringing the '336 Patent, including LG
3 products accused of infringement in this action. DECL. OF BARRY J. BUMGARDNER IN SUPPORT OF
4 PDS'S MOT. TO COMPEL DISCOVERY FROM LG ("DECL."), ¶ 2. After the stay was lifted in this
5 case, the Initial Case Management Conference was held on November 18, 2014, and LG filed its
6 Answer to Plaintiffs' original Complaint on December 18, 2014. DKT. NO. 41. Discovery is
7 ongoing in this case, and the deadline for completion of fact discovery is September 8, 2015.
8 DKT. NO. 28.

9 **A. PLAINTIFFS' INFRINGEMENT CONTENTIONS**

10 On January 20, 2015, Plaintiffs served their Disclosure of Asserted Claims and
11 Infringement Contentions to LG (as well as other defendants in related cases) in accordance with
12 Patent L.R. 3-1 and the Court's scheduling order. DECL., ¶¶ 3, 4; EXS. 1, 2.² Plaintiffs'
13 Infringement Contentions specifically identify the accused instrumentalities that are at issue in
14 this case, and the LG Accused Products are set forth in Table A.6 of Exhibit A to Plaintiffs'
15 Infringement Contentions. DECL., ¶ 4; EX. 2, pp. 56-68.

16 **B. PDS'S DISCOVERY REQUESTS AND LG'S RESPONSES**

17 On March 9, 2015, PDS served its Second Set of Requests for Production on LG (Nos. 4-
18 11). DECL., ¶ 5; EX. 3. At issue in the instant motion is PDS's Request for Production No. 4,
19 which seeks production of financial and damages-related documents for LG's Accused Products,
20 including LG's sales, profits, and revenues for the Accused Products. *See* EX. 3. LG served its
21 Objections and Responses to PDS's Second Set of Requests for Production on April 13, 2015.
22 DECL., ¶ 6; EX. 4.

23 **C. THE PARTIES' DISCUSSIONS REGARDING LG'S DISCOVERY RESPONSES**

24 On February 28, 2015, LG sent a letter to Plaintiffs in which it unilaterally declared
25 Plaintiffs' Infringement Contentions to be deficient, and stated that they "should be struck in their
26 entirety." DECL., ¶ 7; EX. 5, at p. 6. In the letter, LG also made express reservations of its "right
27

28 ² Citations to exhibits refer to the exhibits of the Bumgardner Declaration.

1 to ... seek a protective order in light of these deficiencies,” and “right to refuse to provide any
2 technical discovery to the Accused Products until TPL has fully complied with its obligation to
3 fully and fairly disclose its infringement contentions against those products.” Ex. 5, at p. 6. On
4 March 18, 2015, Plaintiffs responded to LG, explaining that Plaintiffs’ Infringement Contentions
5 were sufficient, and stating that Plaintiffs were available for a meet and confer that same week.
6 DECL., ¶ 8; EX. 6.

7 On April 15, 2015, Nelson Bumgardner became counsel of record for PDS in this case
8 and began reviewing LG’s discovery responses. DECL., ¶ 9. During the course of PDS’s
9 investigations and discussions with LG it became apparent that LG had failed to produce
10 damages-related documents responsive to PDS’s discovery requests, under the cover of its
11 objections to PDS’s definition of “Accused Products.” DECL., ¶ 9.

12 PDS has attempted to resolve these discovery issues with LG on several occasions over
13 multiple weeks, but ultimately no agreement was reached with respect to PDS’s Request for
14 Production No. 4. PDS initially contacted LG on May 11, 2015 to request a meet and confer
15 regarding LG’s responses to PDS’s requests for production (DECL., ¶ 11; Ex. 7) and, after
16 repeated requests, the parties held a meet and confer on May 21, 2015 (DECL., ¶¶ 12, 13; EXS. 8,
17 9). During the May 21, 2015 meet and confer, the parties discussed LG’s discovery responses,
18 including LG’s obligation to produce financial documents responsive to PDS’s Request for
19 Production No. 4 for the full scope of LG’s Accused Products. DECL., ¶ 14. On May 21, 2015,
20 in following up from the parties’ discussion regarding production of financial information, PDS
21 sent LG an email enclosing briefing and the Court’s order in related litigation involving the ’336
22 Patent and concerning damages. See DECL., ¶ 15; EX. 10. PDS and LG held a second meet and
23 confer on May 29, 2015 (DECL., ¶ 16; EX. 11), where the parties continued to discuss these
24 discovery issues, although ultimately no agreement was reached with respect to PDS’s Request
25 for Production No. 4 (see DECL., ¶ 17).

26 On June 8, 2015, in response to PDS’s follow-up query regarding LG’s production of
27 financial documents, LG stated that it would produce “unit sales and revenue information for the
28 accused LG products with processors charted in plaintiffs’ infringement contentions.” DECL., ¶

1 20; Ex. 13. During the course of these communications it became apparent that LG was refusing
2 to produce financial documents for the full scope of the LG Accused Products identified in
3 Plaintiffs' Infringement Contentions, based on LG's unilateral belief as to the scope of Accused
4 Products charted in Plaintiffs' Infringement Contentions. DECL., ¶ 21. In a responsive email
5 dated June 8, 2015, LG explained that its financial document production would be limited to
6 "unit sales and revenue information for the accused U.S.-sold LG products with processors
7 charted in plaintiffs' infringement contentions"—that is, LG would only agree to provide specific
8 types of financial documents, and only for a small subset of the Accused Products. DECL., ¶ 22;
9 Ex. 15.

10 On June 9, 2015, in an attempt to get to the crux of the parties' dispute regarding LG's
11 production of financial documents, PDS stated:

12 We want data for all LG products listed in Exhibit A [to the Infringement
13 Contentions]. My understanding is that LG does not plan on producing
14 information for all of the products (i.e., just the ones you deem "charted"). That
is what we discussed. If I am wrong, please let me know.

15 DECL., ¶ 23; Ex. 16. LG did not refute PDS's characterization in its June 9, 2015 email. Shortly
16 thereafter, on June 12, 2015, PDS sent LG an email requesting a meet and confer regarding
17 deficiencies in LG's document production. In the June 12, 2015 email, PDS indicated its intent
18 to file a motion to compel LG's production of financial and damages-related documents that are
19 responsive to PDS's Request for Production No. 4. DECL., ¶ 24; Ex. 17.

20 On June 15, 2015, LG responded to PDS's email of June 12, 2015, reiterating that LG
21 would produce "units and revenue information for the accused U.S. products containing
22 processors charted in Plaintiffs' infringement contentions." Additionally, and for the first time in
23 its June 15, 2015 email, LG indicated that it intended to file a motion to strike Plaintiffs'
24 Infringement Contentions. DECL., ¶ 25; Ex. 18.

25 PDS and LG held a third meet and confer on June 15, 2015, where the parties discussed
26 these discovery issues and specifically including LG's obligations to provide financial
27 information for the full scope of LG Accused Products identified in Plaintiffs' Infringement
28 Contentions. LG stated that it would provide a list of the seven processor models that LG

1 deemed to have been “charted” in Plaintiffs’ Infringement Contentions, and for which LG would
2 provide certain financial information for the LG Accused Products that contain or had contained
3 those particular processors. DECL., ¶ 26. LG identified the following processor models in its
4 June 15, 2015 email to PDS:

- 5 • Qualcomm MSM8960
- 6 • Qualcomm MSM8660
- 7 • Qualcomm MSM8260
- 8 • Qualcomm MSM7227
- 9 • TI OMAP4430
- 10 • TI OMAP4460
- 11 • TI OMAP4470

12 (Decl., 28; Ex. 19). In sum, while the parties discussed potential solutions to these discovery
13 issues in the meet and confer, ultimately no agreement was reached with respect to PDS’s
14 Request for Production No. 4, and it became apparent that the parties were at an impasse.

15 **D. THE PARTIES’ DISCUSSIONS REGARDING EXPEDITED BRIEFING**

16 During the course of the negotiations, the parties also discussed a letter briefing procedure
17 that would simplify and speed up the resolution of discovery disputes. PDS sent LG (and the
18 other defendants in related cases) an email on June 4, 2015, asking if they would agree to entry of
19 a letter briefing procedure for the purpose of handling discovery disputes in this case, as the
20 procedure had previously been entered by this Court in a similar patent-infringement case.
21 DECL., ¶ 18; EX. 12. PDS indicated that it would ask the Court to adopt such a procedure, and
22 asked that LG and the other defendants respond by June 9, 2015. DECL., ¶ 19. LG did not
23 respond to PDS’s proposal.

24 On June 12, 2015, when PDS indicated to LG its intent to file a motion to compel LG’s
25 financial and damages-related discovery, PDS also stated that it would be asking the Court to
26 expedite the hearing date and move it up to June 30, 2015 from August 11, 2015. PDS asked
27 whether LG would oppose the motion to expedite the hearing. DECL., ¶ 24; EX. 17. During the
28 June 15, 2015, LG represented that it could not agree to the June 30, 2015 hearing date, but also
stated that it did not oppose expediting the hearing to a date prior to August 11, 2015. DECL., ¶
27.

1 Despite several months of correspondence regarding these issues, LG has failed to
2 demonstrate any reasonable justification for its refusal to produce damages-related documents
3 that are responsive to PDS's Request for Production No. 4. As an initial example, LG has *not*
4 argued that PDS's Request for Production No. 4 is improper, or that PDS's discovery requests
5 otherwise seek information that falls outside the scope of discovery. LG has *not* argued that, as a
6 result of the alleged deficiencies in Plaintiffs' Infringement Contentions, LG is unable to
7 understand or comprehend Plaintiffs' infringement theories, or that LG is not able to identify the
8 Accused Products specifically recited in the Infringement Contentions. There is no plausible
9 basis for LG's failure to produce non-privilege documents and information responsive to PDS's
10 discovery requests. The Court should compel production of these documents.

11 **III. ARGUMENT**

12 **A. THE COURT SHOULD COMPEL LG TO PRODUCE FINANCIAL AND DAMAGES** 13 **DOCUMENTS**

14 PDS's Request for Production No. 4 seeks production of financial documents and
15 damages-related information for LG's Accused Products. PDS seeks information that falls well
16 within the broad scope of Rule 26, and is plainly relevant to damages in this case. To date, LG
17 has failed to produce financial documents that are responsive to PDS's Request for Production
18 No. 4, and has no reasonable justification for its failure. Accordingly, the Court should compel
19 LG to provide complete financial and damages-related documents for the full scope of LG
20 Accused Products.

21 **1. PDS's Request for Production No. 4 and LG's Objections and Responses**

22 Pursuant to Civil L.R. 37-2, PDS's Request for Production No. 4 is set forth in full below,
23 with LG's corresponding objection following immediately thereafter.

24 **REQUEST FOR PRODUCTION NO. 4:**

25 Documents sufficient to show sales, sales price, revenues, gross margin, net
26 margin, cost and profit information for each of the Accused Products, broken
27 down by quarter, including all Documents sufficient to explain any acronyms or
28 terminologies employed by Your accounting systems.

RESPONSE TO REQUEST FOR PRODUCTION NO. 4:

1
2 LG incorporates by reference its General Statement and Objections as
3 though fully set forth herein. LG objects to this Request to the extent the phrase
4 “Accused Products” seeks information that is irrelevant or is not reasonably
5 calculated to lead to the discovery of admissible evidence, is vague, overbroad,
6 and unduly burdensome. Plaintiffs’ Initial Infringement Contentions include
7 products that were released after the expiration of asserted U.S. Patents No.
8 5,440,749 and 5,530,890, have not been sold in the United States, and/or for
9 which Plaintiffs have not provided infringement claim charts required by Patent
10 Local Rule 3-1.

11 LG objects to this Request to the extent the phrase “any acronyms or
12 terminologies” includes “acronyms or terminologies” that are not relevant to any
13 of the issues in this litigation and seeks information that is irrelevant or is not
14 reasonably calculated to lead to the discovery of admissible evidence, is vague,
15 overbroad, and unduly burdensome.

16 LG objects to this Request to the extent it calls for LG to prepare
17 documents and/or things that do not already exist, or calls for information in a
18 format other than that in which it is ordinarily kept by LG.

19 LG objects to this Request to the extent it contains multiple subparts and
20 attempts to circumvent the applicable limits on written discovery set by Federal
21 Rules of Civil Procedure 33 and 36 and this Court’s November 20, 2014 Case
22 Management Order (D.I. 40).

23 Subject to and without waiving its foregoing general and specific
24 objections, LG responds that it is willing to meet and confer with Plaintiffs on the
25 scope of the Accused Products and this Request.

2. LG Has Failed To Produce Complete Financial and Damages-Related Documents Responsive to Request for Production No. 4

26 To date, LG has failed to produce financial documents and information responsive to
27 PDS’s Request for Production No. 4. The Federal Rules of Civil Procedure afford both parties in
28 this case a broad right to discovery. Rule 26 states that “[p]arties may obtain discovery regarding
any nonprivileged matter that is relevant to any party's claim or defense.” FED. R. CIV. P.
26(b)(1). The information that PDS seeks is well within the scope of Rule 26, and is at least
relevant to damages in this case, and LG should be compelled to produce it.

The arguments that LG *has not raised* demonstrate that LG has no reasonable
justification for its failure to produce financial and damages documents responsive to PDS’s
Request for Production No. 4. Despite unilaterally declaring Plaintiffs’ Infringement Contentions
deficient, stating that they “should be struck in their entirety,” and broadly reserving the right to
move the Court for a “protective order in light of these deficiencies” as early as February 2015
(EX. 3, p. 6), to date, LG has not moved the Court for an order of protection from discovery based

1 on Plaintiffs' Infringement Contentions, and did not indicate any intent to file a motion to strike
2 Plaintiffs' Infringement Contentions until nearly 5 months had passed. Tellingly, LG has *not*
3 argued that PDS's Request for Production No. 4 is improper, or that PDS's discovery requests
4 otherwise seek information that falls outside the scope of discovery. LG has *not* argued that, as a
5 result of the alleged deficiencies in Plaintiffs' Infringement Contentions, LG is unable to
6 understand or comprehend Plaintiffs' infringement theories, or that LG is not able to identify the
7 Accused Products specifically recited in the Infringement Contentions. As such, there is no
8 plausible basis for LG's failure to produce non-privilege documents and information responsive
9 to PDS's discovery requests. Accordingly, the Court should compel production of these
10 documents.

11 LG's justification for its lack of production is that it believes that PDS's Infringement
12 Contentions are defective and therefore LG has no obligation to produce broad categories of
13 documents relating to LG Accused Products that LG has not deemed to have been "charted." As
14 discussed above, PDS provided LG with notice of its infringement theories and of the Accused
15 Products in the case almost six months ago, when Plaintiffs served their infringement contentions
16 on LG. Until PDS threatened to file this motion, LG never sought to address with the Court
17 alleged deficiencies with the contentions, nor sought protection from PDS's discovery requests or
18 the requirements of Patent L.R. 3-4. Instead, LG did nothing and simply ignored its obligations
19 under the Federal Rules of Civil Procedure and the Patent Local Rules. This unilateral refusal to
20 participate in the discovery phase of a lawsuit until being forced to act should not be condoned.

21 LG's delay in providing these documents is prejudicial to PDS. Fact discovery is
22 scheduled to end on September 8, 2015. However, PDS is hampered in its ability to proceed with
23 depositions and other preparations for trial until LG produces the damages-related documents
24 responsive to PDS's discovery request and Patent L.R. 3-4(a). LG should be required to produce
25 this information immediately so that depositions and additional discovery are not further delayed.

1 **IV. CONCLUSION**

2 For the foregoing reasons, PDS respectfully requests that the Court enter an Order
3 compelling LG to provide complete financial and damages-related documents and information
4 responsive to PDS's Request for Production No. 4, and for the full scope LG Accused Products
5 that are specifically identified in Plaintiffs' Infringement Contentions, within five (5) business
6 days of the Court's Order.

7
8 Dated: June 16, 2015

Respectfully Submitted,

9 /s/ Barry J. Bumgardner

10 **NELSON BUMGARDNER, P.C.**

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PDS’S CERTIFICATION PURSUANT TO FED. R. CIV. P. 37(a)(1)

PDS hereby certifies that it has in good faith conferred with LG in an effort to obtain the discovery described herein without Court action. PDS’s efforts to resolve this discovery dispute without court intervention are described herein and in the Declaration of Barry J. Bumgardner in Support of PDS’s Motion to Compel Discovery from LG.

Dated: June 16, 2015

NELSON BUMGARDNER, P.C.

By: /s/ Barry J. Bumgardner
Barry J. Bumgardner

Attorneys for Plaintiff
Phoenix Digital Solutions LLC

CERTIFICATE OF SERVICE

I, Barry J. Bumgardner, hereby declare:

I am employed in Tarrant County, State of Texas. I am over the age of 18 years and not a party to the within action. My business address is: Nelson Bumgardner, P.C., 3131 W. 7th Street, Suite 300, Fort Worth, Texas 76107.

On this date, I served: **PDS’S MOTION TO COMPEL DISCOVERY FROM LG** by forwarding the document(s) by electronic transmission on this date to the electronic mail addresses for counsel of record for LG ELECTRONICS CO., LTD. and LG ELECTRONICS AMERICA, INC., as identified below:

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Dated: June 16, 2015

By: /s/ Barry J. Bumgardner
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Attorneys for Plaintiff

PHOENIX DIGITAL SOLUTIONS LLC

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

TECHNOLOGY PROPERTIES LIMITED
LLC, PLAINTIFF DIGITAL SOLUTIONS
LLC, and PATRIOR SCIENTIFIC
CORPORATION,

Plaintiffs,

v.

LG ELECTRONICS CO., LTD.
and LG ELECTRONICS
AMERICA, INC.,

Defendants.

Case No. 3:12-CV-03880-VC (PSG)

JURY TRIAL DEMANDED

**DECLARATION OF BARRY J.
BUMGARDNER IN SUPPORT OF
PDS'S MOTION TO COMPEL
DISCOVERY FROM LG**

Hearing:

Date: August 11, 2015

Time: 10:00 a.m.

Place: Courtroom 5, 4th Floor

Judge: Hon. Paul S. Grewal

1 I, Barry J. Bumgardner, submit this declaration in support of PDS's Motion to Compel
2 Discovery from LG, and declare as follows:

3 1. I am a partner at the law firm of Nelson Bumgardner, P.C., attorneys of record for
4 Phoenix Digital Solutions LLC ("PDS"). If called as a witness, I could and would testify
5 competently to the information set forth in this declaration.

6 2. In ITC Investigation No. 337-TA-853, certain LG products were accused of
7 infringing U.S. Patent No. 5,809,336, including LG products that are accused of infringement in
8 this case.

9 3. Attached as **Exhibit 1** is a true and correct copy of the Cover Pleading for
10 Plaintiffs Phoenix Digital Solutions LLC ("PDS"), Technology Properties Limited LLC ("TPL"),
11 and Patriot Scientific Corporation's ("PSC") (collectively, "Plaintiffs") Patent L.R. 3-1
12 Disclosure of Asserted Claims and Infringement Contentions, which were served on LG (and
13 other defendants in related cases) on January 20, 2015.

14 4. Attached as **Exhibit 2** is a true and correct copy of Exhibit A to Plaintiffs'
15 Infringement Contentions, titled "Accused Products." Exhibit A is made up of seven separate
16 Tables (A.1-A.7), and each Table is directed to a different defendant and specifically lists the
17 "Accused Products" in each defendant's corresponding claim charts. The LG Accused Products
18 are specifically identified in Table A.6 (pages 56-68) of Exhibit A to Plaintiffs' Infringement
19 Contentions (attached hereto as Exhibit 2).

20 5. Attached as **Exhibit 3** is a true and correct copy of PDS's Second Set of Requests
21 for Production to LG (Nos. 4-11), which were served on March 9, 2015.

22 6. Attached as **Exhibit 4** is a true and correct copy of LG's Objections and
23 Responses to PDS's Second Set of Requests for Production, which were served on April 13,
24 2015.

25 7. Attached as **Exhibit 5** is a true and correct copy of a February 28, 2015 letter from
26 LG to Plaintiffs. In this letter, LG unilaterally declared Plaintiffs' Infringement Contentions to be
27 deficient and stated that they "should be struck in their entirety." LG also made express
28 reservations of its "right to ... seek a protective order in light of these deficiencies," and "right to

1 refuse to provide any technical discovery to the Accused Products until TPL has fully complied
2 with its obligation to fully and fairly disclose its infringement contentions against those
3 products.” Ex. 5, at p. 6.

4 8. Attached as **Exhibit 6** is a true and correct copy of a March 18, 2015 letter from
5 PDS to LG. In this letter, PDS responded to LG’s letter dated February 28, 2015, explaining the
6 sufficiency of Plaintiffs’ Infringement Contentions and stating that PDS was available for a meet
7 and confer that same week.

8 9. Nelson Bumgardner became counsel of record for PDS on April 15, 2015. After
9 Nelson Bumgardner took over the representation of PDS in this matter, attorneys from Nelson
10 Bumgardner began reviewing LG’s responses to PDS’s discovery requests. It became apparent
11 that LG was objecting to producing damages related documents under the cover of its objection
12 to PDS’s definition of “Accused Products.”

13 10. PDS has attempted on several occasions to resolve its discovery issues with LG.
14 While the parties discussed potential solutions, there was ultimately no agreement reached with
15 respect to RFP No. 4.

16 11. Attached as **Exhibit 7** is a true and correct copy of a May 11, 2015 email from
17 PDS to LG. In this email, PDS requested a meet and confer with LG regarding LG’s responses to
18 PDS’s requests for production.

19 12. Attached as **Exhibit 8** is a true and correct copy of a May 14, 2015 email from
20 PDS to LG. In this email, PDS followed up on its original request to meet and confer with LG on
21 these discovery issues.

22 13. Attached as **Exhibit 9** is a true and correct copy of a May 14, 2015 email from
23 PDS to LG, where the parties scheduled a meet and confer for May 21, 2015 regarding these
24 discovery issues.

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1 14. PDS and LG held a meet and confer on May 21, 2015. During the meet and
2 confer, the parties discussed LG's responses to PDS's requests for production, including LG's
3 obligation to produce financial documents and information for the full scope of LG Accused
4 Products in response to PDS's requests for production. The parties discussed these discovery
5 issues and potential solutions, but ultimately no agreement was reached.

6 15. Attached as **Exhibit 10** is a true and correct copy of a May 21, 2015 email from
7 PDS to LG. In this email, PDS followed up on the parties' May 21, 2015 discussions regarding
8 LG's obligation to provide financial documents and information. PDS enclosed copies of
9 briefing and the Court's order in related litigation involving the '336 Patent and related to
10 damages.

11 16. Attached as **Exhibit 11** is a true and correct copy of an email dated May 29, 2015
12 from PDS to LG (as well as correspondence in the email chain). In this email, PDS and LG
13 followed up from the parties' May 21, 2015 meet and confer and continuing discussions
14 regarding discovery, and scheduled a meet and confer for May 29, 2015.

15 17. PDS and LG held a meet and confer on May 29, 2015. During the meet and
16 confer, the parties discussed these discovery issues, including LG's obligation to produce
17 financial documents and information for LG Accused Products in response to PDS's requests for
18 production. The parties discussed these discovery issues and potential solutions, but ultimately
19 no agreement was reached.

20 18. Attached as **Exhibit 12** is a true and correct copy of a June 4, 2015 email from
21 PDS to LG (and other defendants in related cases). In this email, PDS asked if LG would agree
22 to entry of a letter briefing procedure for the purposes of handling discovery disputes in this case,
23 and that the procedure had been adopted and entered by this Court in similar patent infringement
24 cases.

25 19. In its June 4, 2015 email, PDS indicated that it would ask the Court to adopt the
26 proposed letter briefing procedure for discovery disputes, and asked LG and the other defendants
27 to respond by June 9, 2015. LG did not provide any response to PDS's June 4, 2015 proposal.
28

1 20. Attached as **Exhibit 13** is a true and correct copy of a June 8, 2015 email from LG
2 to PDS (as well as correspondence in the email chain), where the parties followed up from their
3 May 29, 2015 meet and confer and continuing discussions regarding discovery. With respect to
4 financial documents, LG stated that it would provide “unit sales and revenue information for the
5 accused LG products with processors charted in plaintiffs’ infringement contentions.”

6 21. Attached as **Exhibit 14** is a true and correct copy of a June 8, 2015 email from
7 PDS to LG, where the parties continued their discussions regarding these discovery issues.
8 During the course of these communications it became apparent that LG was refusing to produce
9 responsive documents and financial information for the full scope of the LG Accused Products
10 identified in Plaintiffs’ Infringement Contentions, based on its position as to the scope of
11 Accused Products it deemed to have been “charted” in Plaintiffs’ Infringement Contentions.

12 22. Attached as **Exhibit 15** is a true and correct copy of a June 8, 2015 email from LG
13 to PDS (and related correspondence in the email chain). In this email, LG indicated that it would
14 only provide specific types of financial information for a limited subset of the LG Accused
15 Products—that is, LG would provide “unit sales and revenue information for the accused U.S.-
16 sold LG products with processors charted in plaintiffs’ infringement contentions.”

17 23. Attached as **Exhibit 16** is a true and correct copy of a June 9, 2015 email from
18 PDS to LG. In response to LG’s statement that it would provide only certain financial
19 information for the LG Accused Products sold in the United States with “processors charted in
20 plaintiffs’ infringement contentions,” PDS explained that its discovery requests sought “data for
21 all LG produces listed in Exhibit A [to the Infringement Contentions]. My understanding is that
22 LG does not plan on producing information for all of the products (i.e., just the ones you deem
23 “charted”). That is what we discussed. If I am wrong, please let me know.”

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1 24. Attached as **Exhibit 17** is a true and correct copy of a June 12, 2015 email from
2 PDS to LG requesting a meet and confer with LG on or before June 15, 2015 regarding LG's
3 deficient document production. In the email, PDS indicated to LG that it intended to file a
4 motion to compel LG's production of financial documents responsive to PDS's Request for
5 Production No. 4. PDS also stated that it would be asking the Court for an expedited hearing
6 date, and asked whether LG would oppose this motion.

7 25. Attached as **Exhibit 18** is a true and correct copy of a June 15, 2015 email from
8 LG to PDS in response to PDS's June 12, 2015 request for a meet and confer. Regarding
9 financial information, LG reiterated that it would produce "units and revenue information for the
10 accused U.S. products containing processors charted in Plaintiffs' infringement contentions."
11 Additionally, and for the first time in its June 15, 2015 email, LG indicated that it intended to file
12 a motion to strike Plaintiffs' Infringement Contentions.

13 26. PDS and LG held a meet and confer on June 15, 2015, where the parties discussed
14 these discovery issues, and specifically including LG's obligations to provide documents and
15 financial information for the full scope of LG Accused Products identified in PDS's Infringement
16 Contentions. LG stated that it would provide PDS with a list of the seven processor models that
17 LG deemed to have been "charted" in Plaintiffs' Infringement Contentions, and for which LG
18 would provide certain financial information for the LG Accused Products that contain or had
19 contained those particular processors. While the parties discussed potential solutions to these
20 discovery issues in the meet and confer, ultimately no agreement was reached with respect to
21 PDS's Request for Production No. 4, and it became apparent that the parties were at an impasse.

22 27. During the June 15, 2015 meet and confer, LG stated that it would not agree to
23 PDS's request to move the hearing date to June 30, 2015, but that it would not oppose to moving
24 the hearing up from the currently scheduled date of August 11, 2015.

25 28. Attached as **Exhibit 19** is a true and correct copy of a June 15, 2015 email from
26 LG to PDS following up from the parties' meet and confer held earlier that afternoon. In this
27 email, LG identified seven processor models that LG deems to have been "charted" in Plaintiffs'
28 Infringement Contentions, and for which LG agreed to provide financial documents and

1 information for the subset of LG Accused Products sold in the United States that contain or have
2 contained one of the seven identified processor models. The microprocessor models are:

- 3 • Qualcomm MSM8960
- 4 • Qualcomm MSM8660
- 5 • Qualcomm MSM8260
- 6 • Qualcomm MSM7227
- 7 • TI OMAP4430
- 8 • TI OMAP4460
- 9 • TI OMAP4470

10 29. Despite stating that Plaintiffs' Infringement Contentions are defective and "should
11 be struck in their entirety," and reserving the right to move for a protective order "in light of
12 these deficiencies" in February 2015 (*see* Ex. 5), LG did not move for a protective order from
13 discovery based on alleged deficiencies Plaintiffs' Infringement Contentions, or move to strike
14 Plaintiffs' Infringement Contentions for approximately four months. LG did not communicate its
15 intent to file a motion to strike Plaintiffs' Infringement Contentions until its June 15, 2015 email
16 (*see* Ex. 19).

17 30. LG does not contend that PDS's Request for Production No. 4 is improper, of that
18 PDS's discovery requests otherwise seek information that falls outside the scope of discovery or
19 is privileged.

20 31. Regarding PDS's Request for Production Number 4, LG has stated that it will not
21 produce financial documents and information for the full scope of LG Accused Products
22 identified in Plaintiffs' Infringement Contentions. Instead, LG has only agreed to produce certain
23 types of financial information for a subset of LG's Accused Products—that is, LG Accused
24 Products containing or that have contained one of the seven processor models that LG has
25 unilaterally deemed to have been "charted" in Plaintiffs' Infringement Contentions.

26 I declare under penalty of perjury under the laws of the United States of America that the
27 foregoing is true and correct. This declaration is executed on June 16, 2015 in Fort Worth,
28 Texas.

Dated: June 16, 2015

By: /s/ Barry J. Bumgardner
Barry J. Bumgardner

Exhibit 1

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12 Attorneys for Plaintiff
13 PATRIOT SCIENTIFIC CORPORATION

14 **UNITED STATES DISTRICT COURT**
15 **NORTHERN DISTRICT OF CALIFORNIA**

16
17 TECHNOLOGY PROPERTIES LIMITED
18 LLC, PHOENIX DIGITAL SOLUTIONS
19 LLC, and PATRIOT SCIENTIFIC
CORPORATION,

20 Plaintiffs,

21 vs.

22 BARNES & NOBLE, INC.,

23 Defendants.

Case No. 3:12-cv-03863-VC

**PLAINTIFFS' PATENT L.R. 3-1
DISCLOSURE OF ASSERTED
CLAIMS AND INFRINGEMENT
CONTENTIONS**

1 TECHNOLOGY PROPERTIES LIMITED
2 LLC, PHOENIX DIGITAL SOLUTIONS
3 LLC, and PATRIOT SCIENTIFIC
CORPORATION,

Plaintiffs,

4 vs.

5 HUAWEI TECHNOLOGIES CO., LTD.
6 and HUAWEI NORTH AMERICA,

7 Defendants.

Case No. 2:12-cv-03865-VC

8
9 TECHNOLOGY PROPERTIES LIMITED
10 LLC, PHOENIX DIGITAL SOLUTIONS
11 LLC, and PATRIOT SCIENTIFIC
CORPORATION,

12 Plaintiffs,

13 vs.

14 GARMIN LTD., GARMIN
INTERNATIONAL, INC., AND GARMIN
15 USA, INC.,

16 Defendants.

Case No. 3:12-cv-03870-VC

17 TECHNOLOGY PROPERTIES LIMITED
18 LLC, PHOENIX DIGITAL SOLUTIONS
19 LLC, and PATRIOT SCIENTIFIC
CORPORATION,

20 Plaintiffs,

21 vs.

22 ZTE CORPORATION and ZTE (USA)
INC.,

23 Defendants.

Case No. 3:12-cv-03876-VC

1 TECHNOLOGY PROPERTIES LIMITED
2 LLC, PHOENIX DIGITAL SOLUTIONS
3 LLC, and PATRIOT SCIENTIFIC
4 CORPORATION,

Plaintiffs,

5 vs.

6 SAMSUNG ELECTRONICS CO., LTD.
7 and SAMSUNG ELECTRONICS
8 AMERICA, INC.,

Defendants.

Case No. 3:12-cv-03877-VC

9 TECHNOLOGY PROPERTIES LIMITED
10 LLC, PHOENIX DIGITAL SOLUTIONS
11 LLC, and PATRIOT SCIENTIFIC
12 CORPORATION,

Plaintiffs,

13 vs.

14 NOVATEL WIRELESS, INC.,

Defendant.

Case No. 3:12-cv-03879-VC

16 TECHNOLOGY PROPERTIES LIMITED
17 LLC, PHOENIX DIGITAL SOLUTIONS
18 LLC, and PATRIOT SCIENTIFIC
19 CORPORATION,

Plaintiffs,

20 vs.

21 LG ELECTRONICS, INC. and LG
22 ELECTRONICS U.S.A., INC.,

Defendants.

Case No. CV 12-03880-VC

1 TECHNOLOGY PROPERTIES LIMITED
 2 LLC, PHOENIX DIGITAL SOLUTIONS
 3 LLC, and PATRIOT SCIENTIFIC
 CORPORATION,

Case No. 3:12-cv-03881-VC

4 Plaintiffs,

5 v.

6 NINTENDO CO., LTD. and NINTENDO
 OF AMERICA INC.,

7 Defendants.
 8

9 Pursuant to Patent Local Rule 3-1, Plaintiffs Technology Properties Limited LLC,
 10 Phoenix Digital Solutions LLC, and Patriot Scientific Corporation (collectively “PDS”) hereby
 11 serve these Disclosures of Asserted Claims and Infringement Contentions on each of the
 12 following defendants below (collectively “Defendants”) pursuant to Patent L.R. 3-1.¹
 13

Defendants	Case No.
1. Huawei Technologies Co Ltd, Huawei Device Co., Ltd., Huawei Device USA Inc., Futurewei Technologies, Inc. d/b/a Huawei Technologies (USA) (Collectively “Huawei”)	12-cv-03865-VC
2. Garmin International Inc., Garmin USA Inc. (Collectively “Garmin”)	12-cv-03870-VC
3. ZTE Corp., ZTE USA Inc. (Collectively “ZTE”)	12-cv-03876-VC
4. Samsung Electronics Co., LTD, Samsung Electronics America Inc. (Collectively “Samsung”)	12-cv-03877-VC
5. Novatel Wireless Inc.	12-cv-03879-VC
6. LG Electronics, Inc., LG Electronics U.S.A., Inc. (Collectively “LG”)	12-cv-03880-VC
7. Nintendo Co., Ltd., Nintendo of America, Inc. (Collectively “Nintendo”)	12-cv-03881-VC

23 PDS’ discovery and investigation in this action is only in its early stages and is
 24 continuing, including information that PDS is seeking regarding every product made, used, sold,
 25 offered for sale, or imported into the United States by Defendants that utilizes a microprocessor.
 26

27 ¹ PDS has separately served its Disclosures of Asserted Claims and Infringement Contentions on Defendant Barnes & Noble Inc.

1 In particular, these contentions are based on information presently available to PDS.

2 Accordingly, PDS reserves its right to supplement, amend, and augment the disclosures made
3 herein as new, additional, or different information is learned and discovered.

4 **(A) Asserted Claims (Patent L.R. 3-1(a))**

5 PDS asserts the following claims of the patents-in suit under 35 U.S.C § 271(a), and (b):

- 6 • Claims 6, 7, 9, 13, 14, and 15 of U.S. Patent No. 5,809,336 (the “336 patent”);
- 7 • Claims 1, 7, 9, 11, 12, 13, 17 and 19 of U.S. Patent No. 5,530,890 (the “890 patent”);
- 8 and
- 9 • Claims 1, 43 and 59 of U.S. Patent No. 5,440,749 (“the ’749 Patent”)

10 Exemplar claim charts for the Accused Instrumentalities that infringe the asserted claims
11 are produced herewith. The claim charts include a listing of the claim limitations for Claim 9 of
12 the ’749 patent because Claim 59 depends from Claim 9. However, PDS is not presently
13 asserting Claim 9, and is only including it in the attached claim charts to show that all limitations
14 of Claim 59 are met by the Accused Products.

15 This identification of asserted claims is based on information reasonably available to PDS
16 at this time. PDS reserves the right to supplement its accused claims based on information
17 developed in the course of this lawsuit through discovery or additional factual investigation, in
18 view of the Court’s claim construction order, or as other circumstances may require.

19 **(B) Accused Instrumentalities (Patent L.R. 3-1(b))**

20 The list of accused instrumentalities in this action includes those listed in Ex. A, and all
21 models thereof.

22 This identification of Accused Instrumentalities is based on information reasonably
23 available to PDS at this time. Accordingly, PDS reserves the right to supplement its listing of
24 Accused Instrumentalities based on information developed in the course of this lawsuit through
25 discovery or additional factual investigation, in view of the Court’s claim construction order, or
26 as other circumstances may require.

1 (C) **Charts Identifying Where Each Element of Each Asserted Claim Is Found (Pat L.R.**
2 **3-1(c))**

3 PDS produces herewith in its service email a URL to download supporting references and
4 representative claim charts, which identify where each element of the asserted claims is found
5 within one or more of the Accused Instrumentalities identified above.

6 These claim charts are based on information reasonably available to PDS at this time.
7 PDS is likely to have additional contentions and evidentiary support regarding Defendants'
8 infringement after a reasonable opportunity for further investigation and discovery. PDS
9 reserves the right to supplement or amend these claim charts, or add additional claim charts,
10 based on information developed in the course of this lawsuit through discovery or additional
11 factual investigation, in view of the Court's claim construction order, or as other circumstances
12 may require.

13 Claim Charts:

14 1. Huawei:

15 Attached hereto as Exhibit B-1 are charts identifying where each element of each asserted
16 claim of the '336 patent may be found within Huawei's Accused Instrumentalities identified in
17 Ex. A.

18 Attached hereto as Exhibit B-2 are charts identifying where each element of each asserted
19 claim of the '890 patent may be found within Huawei's Accused Instrumentalities identified in
20 Ex. A.

21 Attached hereto as Exhibit B-3 are charts identifying where each element of each asserted
22 claim of the '749 patent may be found within Huawei's Accused Instrumentalities identified in
23 Ex. A.

24 2. Garmin:

25 Attached hereto as Exhibit C-1 are charts identifying where each element of each asserted
26 claim of the '336 patent may be found within Garmin's Accused Instrumentalities identified in
27 Ex. A.

Attached hereto as Exhibit C-2 are charts identifying where each element of each asserted
Plaintiffs' Infringement Contentions Page 6

1 claim of the '890 patent may be found within Garmin's Accused Instrumentalities identified in
2 Ex. A.

3 Attached hereto as Exhibit C-3 are charts identifying where each element of each asserted
4 claim of the '749 patent may be found within Garmin's Accused Instrumentalities identified in
5 Ex. A.

6 3. ZTE:

7 Attached hereto as Exhibit D-1 are charts identifying where each element of each
8 asserted claim of the '336 patent may be found within ZTE's Accused Instrumentalities
9 identified in Ex. A.

10 Attached hereto as Exhibit D-2 are charts identifying where each element of each
11 asserted claim of the '890 patent may be found within ZTE's Accused Instrumentalities
12 identified in Ex. A.

13 Attached hereto as Exhibit D-3 are charts identifying where each element of each
14 asserted claim of the '749 patent may be found within ZTE's Accused Instrumentalities
15 identified in Ex. A.

16 4. Samsung:

17 Attached hereto as Exhibit E-1 are charts identifying where each element of each asserted
18 claim of the '336 patent may be found within Samsung's Accused Instrumentalities identified in
19 Ex. A.

20 Attached hereto as Exhibit E-2 are charts identifying where each element of each asserted
21 claim of the '890 patent may be found within Samsung's Accused Instrumentalities identified in
22 Ex. A.

23 Attached hereto as Exhibit E-3 are charts identifying where each element of each asserted
24 claim of the '749 patent may be found within Samsung's Accused Instrumentalities identified in
25 Ex. A.

1 5. Novatel:

2 Attached hereto as Exhibit F-1 are charts identifying where each element of each asserted
3 claim of the '336 patent may be found within Novatel's Accused Instrumentalities identified in
4 Ex. A.

5 Attached hereto as Exhibit F-2 are charts identifying where each element of each asserted
6 claim of the '890 patent may be found within Novatel's Accused Instrumentalities identified in
7 Ex. A.

8 Attached hereto as Exhibit F-3 are charts identifying where each element of each asserted
9 claim of the '749 patent may be found within Novatel's Accused Instrumentalities identified in
10 Ex. A.

11 6. LG:

12 Attached hereto as Exhibit G-1 are charts identifying where each element of each
13 asserted claim of the '336 patent may be found within LG's Accused Instrumentalities identified
14 in Ex. A.

15 Attached hereto as Exhibit G-2 are charts identifying where each element of each
16 asserted claim of the '890 patent may be found within LG's Accused Instrumentalities identified
17 in Ex. A.

18 Attached hereto as Exhibit G-3 are charts identifying where each element of each
19 asserted claim of the '749 patent may be found within LG's Accused Instrumentalities identified
20 in Ex. A.

21 7. Nintendo:

22 Attached hereto as Exhibit H-1 are charts identifying where each element of each
23 asserted claim of the '336 patent may be found within Nintendo's Accused Instrumentalities
24 identified in Ex. A.

25 Attached hereto as Exhibit H-2 are charts identifying where each element of each
26 asserted claim of the '890 patent may be found within Nintendo's Accused Instrumentalities
27 identified in Ex. A.

1 Attached hereto as Exhibit H-3 are charts identifying where each element of each
2 asserted claim of the '749 patent may be found within Nintendo's Accused Instrumentalities
3 identified in Ex. A.

4 PDS also intends to rely on the testimony of fact and expert witnesses and related
5 documentary evidence in support of its infringement allegations.

6 **(D) Indirect Infringement (Patent L.R. 3-1(d))**

7 PDS alleges that Defendants directly infringes the patents-in-suit. PDS further alleges
8 that Defendants induce their customers to infringe the patents-in-suit by instructing their
9 customers to use the accused instrumentalities in an infringing manner. Acts of direct and
10 indirect infringement related to the Accused Instrumentalities are discussed in detail in the claim
11 charts identified above. PDS also intends to rely on the testimony of fact and expert witnesses
12 and related documentary evidence in support of its infringement allegations.

13 **(E) Literal Infringement of the Asserted Claims (Patent L.R. 3-1(e))**

14 PDS contends that each element of the asserted claims is literally infringed by the
15 Accused Instrumentalities. In the event that a claim element is not found to be literally present in
16 the Accused Instrumentalities, PDS asserts that the Accused Instrumentalities infringe under the
17 doctrine of equivalents.

18 **(F) Priority Dates of the Asserted Patents (Patent L.R. 3-1(f))**

19 Each asserted claim of the '336 patent claims a priority date of August 3, 1989, when the
20 application that led to its issuance was filed.

21 Each asserted claim of the '890 patent claims a priority date of August 3, 1989, when
22 Application No. 389,334 was filed.

23 Each asserted claim of the '749 Patent claims a priority date of August 3, 1989, when
24 Application No. 389,334 was filed.

25 **(G) Identification of PDS' Products that Incorporate or Reflect the Asserted Claims**
26 **(Patent L.R. 3-1(g))**

27 PDS has sold millions of dollars of products implementing the MMP Portfolio

1 technology, including the asserted claims. These products include:

2 • **'336 Patent**

Product Line	Model #	'336 Asserted Claims Incorporated
Intelliasys	Seaforth 24A	6, 7, 9, 13, 14, and 15
Intelliasys	Seaforth 40A	6, 7, 9, 13, 14, and 15
OnSpec	90C46D	6, 7, 9, 13, 14, and 15
OnSpec	XSil 268	6, 7, 9, 13, 14, and 15
OnSpec	XSil 248/248B	6, 7, 9, 13, 14, and 15
OnSpec	XSil 269-G	6, 7, 9, 13, 14, and 15
OnSpec	XSil 258	6, 7, 9, 13, 14, and 15
OnSpec	XSil 251/251-LF	6, 7, 9, 13, 14, and 15
OnSpec	XSil 259/259-LF	6, 7, 9, 13, 14, and 15
OnSpec	XSil 267	6, 7, 9, 13, 14, and 15
OnSpec	XSil 261-G	6, 7, 9, 13, 14, and 15
Indigita	iND60C32	6, 7, 9, 13, 14, and 15
Indigita	iND60C80	6, 7, 9, 13, 14, and 15
Indigita	iND60C70	6, 7, 9, 13, 14, and 15
Indigita	iND60C90	6, 7, 9, 13, 14, and 15

14 • **'890 Patent**

Product Line	Model #	'890 Asserted Claims Incorporated
Indigita	720-127 DEV BRD	1, 11, 12, 13, 17 and 19
Indigita	AVHD-160	1, 11, 12, 13, 17 and 19
Indigita	AVHD-250	1, 11, 12, 13, 17 and 19
Indigita	AVHD-40	1, 11, 12, 13, 17 and 19
Indigita	AVHD-500	1, 11, 12, 13, 17 and 19
Indigita	AVHD80	1, 11, 12, 13, 17 and 19
Indigita	AVHD80-RCA	1, 11, 12, 13, 17 and 19
Indigita	DVR2080	1, 11, 12, 13, 17 and 19
Indigita	DVR2160	1, 11, 12, 13, 17 and 19
Indigita	GEM DEVELOPMENT KIT	1, 11, 12, 13, 17 and 19
Indigita	IDT804PCI	1, 11, 12, 13, 17 and 19
Indigita	IDT832B	1, 11, 12, 13, 17 and 19
Indigita	IDT882PCI	1, 11, 12, 13, 17 and 19
Indigita	iND60C32	1, 11, 12, 13, 17 and 19
Indigita	iND60C32A	1, 11, 12, 13, 17 and 19
Indigita	iND60C70	1, 11, 12, 13, 17 and 19
Indigita	iND60C80	1, 11, 12, 13, 17 and 19
Indigita	iND60C90	1, 11, 12, 13, 17 and 19

1 • **'749 Patent**

2

Product Line	Model #	'749 Asserted Claims Incorporated
Indigita	720-127 DEV BRD	1, 43 and 59
Indigita	AVHD-160	1, 43 and 59
Indigita	AVHD-250	1, 43 and 59
Indigita	AVHD-40	1, 43 and 59
Indigita	AVHD-500	1, 43 and 59
Indigita	AVHD80	1, 43 and 59
Indigita	AVHD80-RCA	1, 43 and 59
Indigita	DVR2080	1, 43 and 59
Indigita	DVR2160	1, 43 and 59
Indigita	GEM DEVELOPMENT KIT	1, 43 and 59
Indigita	IDT804PCI	1, 43 and 59
Indigita	IDT832B	1, 43 and 59
Indigita	IDT882PCI	1, 43 and 59
Indigita	iND60C32	1, 43 and 59
Indigita	iND60C32A	1, 43 and 59
Indigita	iND60C70	1, 43 and 59
Indigita	iND60C80	1, 43 and 59
Indigita	iND60C90	1, 43 and 59
Indigita	SEA40C18	1, 43 and 59
Indigita	SEA40C18-A	1, 43 and 59
Indigita	Seaforth 24A (AR24-C18)	1, 43 and 59
Indigita	Seaforth 40A (AR40-C18)	1, 43 and 59
Indigita	SEK40C18	1, 43 and 59

3 PDS reserves the right to supplement these lists of products in view of the Court's claim
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18 construction ruling or as other circumstances may require.

19 **(H) Willful Infringement (Patent L.R. 3-1(h))**

20 PDS provided written notice of Defendants' infringement at least as early as on Jan. 14,
21 2010. Having this knowledge, Defendants continued to directly and indirectly infringe the
22 asserted claims by importing, selling, offering for sale, using and inducing the use of the
23 Accused Instrumentalities.

1 Dated: January 20, 2015

Respectfully submitted,

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20
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Exhibit 2

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

TABLE A.1: HUAWEI

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
Ascend D LTE (U9501L)	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
Ascend D1 (U9500)	1024MiB RAM/7630MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
Ascend D1 Quad/Ascend D quad (U9510)	1024MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
Ascend D1 Quad XL (T9510E)	1024MiB RAM/7630MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend D1 Quad XL/Ascend D quad XL (U9510E)	1024MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon S3 MSM8260	2x Qualcomm Scorpion	ARMv7
Ascend D1 XL (U9500E)	1024MiB RAM/7630MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
Ascend D2-0082 HSPA	2048MiB RAM/30518MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
Ascend D2-2010 CDMA	2048MiB RAM/30518MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
Ascend D2-6070 TD-LTE	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend D2-6114 HW-03E/U9701L	2048MiB RAM/30518MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G300 (U8815)	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
Ascend G300 NFC (U8815N)	512MiB RAM/MiB ROM	32bit Qualcomm Snapdragon S3 MSM8260	2x Qualcomm Scorpion	ARMv7
Ascend G305T (T8828)	512MiB RAM/3814MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
Ascend G312 QWERTY U8730 (Buddy)	1024MiB RAM/3814MiB ROM	32bit MediaTek MT6575	ARM Cortex-A9	ARMv7
Ascend G330D (U8825D)	512MiB RAM/3814MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G350-U00	512MiB RAM/1907MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G500D U8832D (Panama)	512MiB RAM/3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
Ascend G510 U8951	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
Ascend G521-L076 TD-LTE	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Ascend G525-U00	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 200 MSM8625Q	4x ARM Cortex-A5	ARMv7-A
Ascend G600 (U8950D)	768MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
Ascend G610-C00	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8625	2x ARM Cortex-A5	ARMv7-A
Ascend G615	1024MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8227	2x Qualcomm Krait	ARMv7
Ascend G620-A2 H891L LTE	1024MiB RAM/3814MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Ascend G620-L72 TD-LTE	1024MiB RAM/MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Ascend G620S-L02 LTE-A	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G620S-L03 LTE-A	1024MiB RAM/7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Ascend G630-U20	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8928	4x ARM Cortex-A7 Mpcore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
Ascend G6-L11 4G LTE-A	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Ascend G6-L22 4G LTE-A	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G6-L33 4G LTE-A	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G6-T00 TD	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Ascend G6-U00	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
Ascend G700-U00	2048MiB RAM/7630MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G716-L070	1024MiB RAM/3815MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G730-L072 LTE-A	1024MiB RAM/3815MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G730-L073 TD-LTE	1024MiB RAM/3815MiB ROM	32bit Huawei HiSilicon KIRIN910T Hi6620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend G730-L075 TD-LTE	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Ascend G730-T00	1024MiB RAM/3815MiB ROM	32bit Rockchip RK3168	2x ARM Cortex-A9	ARMv7-A
Ascend G730-U00	1024MiB RAM/3815MiB ROM			
Ascend G740-L00	1024MiB RAM/7630MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend G7-L01 LTE	2048MiB RAM/15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Ascend G7-L03 LTE	2048MiB RAM/15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Ascend G7-TL00 Dual SIM TD-LTE	2048MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN920 Hi3630	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7
Ascend GX1 SC-CL00 TD-LTE Dual SIM	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Ascend II M865	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
Ascend II NA	256MiB RAM/512MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655T	Qualcomm Scorpion	ARMv7
Ascend M860/C8600	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7225	ARM1136EJ-S	ARMv6
Ascend Mate 2 4G LTE MT2-L03	2048MiB RAM/15259MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend Mate 2 MT2-C00 CDMA	2048MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
Ascend Mate 2 MT2-U071	2048MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon 400 MSM8928	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend Mate 2 TD-LTE MT2-L00	2048MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
Ascend Mate 2 TD-LTE MT2-L05	2048MiB RAM/15259MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend Mate 7 CDMA MT7-CL00 16GB	2048MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Ascend Mate 7 Dual SIM TD-LTE MT7-TL00	3072MiB RAM/30518MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
Ascend Mate 7 Dual SIM TD-LTE MT7-TL10	3048MiB RAM/30518MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Ascend Mate 7 HSPA MT7-UL00	2048MiB RAM/15259MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend Mate 7 LTE-A MT7-L09	2048MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN920 Hi3630	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7
Ascend Mate MT1-U06	2048MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
Ascend P1 (U9200)	1024MiB RAM/3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
Ascend P1 LTE U9202L-1	1024MiB RAM/3814MiB ROM	32bit MediaTek MT6517		ARMv7
Ascend P1 LTE U9202L-2	1024MiB RAM/3814MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend P1 LTE U9202L-3	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
Ascend P1 S (U9200S)	1024MiB RAM/3814MiB ROM			
Ascend P1 TD (T9200)	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
Ascend P1 XL (U9200E)	1024MiB RAM/3814MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
Ascend P2	1024MiB RAM/15258MiB ROM	32bit MediaTek MT6589	4x ARM Cortex-A7	ARMv7
Ascend P2-6011 LTE	1024MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 200 MSM8225Q	4x ARM Cortex-A5	ARMv7-A
Ascend P6 S LTE-A GL11S (Echo)	2048MiB RAM/15258MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Ascend P6 S P6S-U00 (Echo)	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
Ascend P6-U06	2048MiB RAM/7630MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend P7 Arsenal Edition (Sophia)	2048MiB RAM/15259MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend P7 mini	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN910T Hi6620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend P7-L00 (Sophia)	2048MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Ascend P7-L10 (Sophia)	2048MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Ascend Q M660	/ MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
Ascend W1-C00	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
Ascend W1-U00	512MiB RAM/3814MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend W2-T00	512MiB RAM/7630MiB ROM	32bit Huawei HiSilicon K3V2E	4x ARM Cortex-A9 MPCore	ARMv7
Ascend W2-U00	512MiB RAM/7630MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend W2-U00 NA	512MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend Y100 (U8185)	/ MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
Ascend Y200 (U8655)	256MiB RAM/1024MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
Ascend Y201 (U8666)	256MiB RAM/512MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend Y201 Pro (U8666E)	256MiB RAM/512MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
Ascend Y210 (U8685D)	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
Ascend Y300-0100 U8833 (Asura)	512MiB RAM/3815MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend Y300-0151 (Asura)	512MiB RAM/3815MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ascend Y300-F1/Ascend Y300 II	512MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
Ascend Y330-U01	512MiB RAM/3815MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend Y523-L076 TD-LTE	512MiB RAM/3815MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Ascend Y530	512MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8628	4x ARM Cortex-A7 Mpcore	ARMv7
Ascend Y550-L01 LTE	1024MiB RAM/3815MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Ascend Y550-L02 LTE	1024MiB RAM/3815MiB ROM	32bit Huawei HiSilicon KIRIN920 Hi3630	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7
Ascend Y550-L03 LTE	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
Ascend Y635-CL00 CDMA	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Boulder U8350	256MiB RAM/512MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
C8000	128MiB RAM/256MiB ROM			
C8100	128MiB RAM/256MiB ROM			
C8817E	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Deuce U8520	512MiB RAM/1908MiB ROM	32bit Qualcomm MSM7230	Qualcomm Scorpion	ARMv7
EE Eagle 4G LTE/Mediapad M1 8.0 S8-301L 16GB	1024MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
EE Kestrel LTE-A	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Fusion U8652 (Jengu)	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
H887L	1024MiB RAM/MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230	2x Qualcomm Krait 200	ARMv7
Honor (U8860)	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
Honor 2/Honor Quad (U9508)	2048MiB RAM/7630MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Honor 3 HN3-U01	2048MiB RAM/7629MiB ROM	32bit Rockchip RK3168	2x ARM Cortex-A9	ARMv7-A
Honor 3C 4G LTE H30-L02	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Honor 3C Dual SIM H30-U10	2048MiB RAM/7629MiB ROM	32bit MediaTek MT6592	8x ARM Cortex-A7	ARMv7
Honor 3C Dual SIM TD H30-T00	2048MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230	2x Qualcomm Krait 200	ARMv7
Honor 3C Play Dual SIM Hol-U10	1024MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN920 Hi3630	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7
Honor 3C Play Dual SIM TD Hol-T10	1024MiB RAM/15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Honor 3X Pro	2048MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Honor 4X Che-A1 H892L CDMA	3072MiB RAM/15258MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
Honor 6 Extreme Edition dual SIM	3072MiB RAM/30518MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	Cortex-A7 Mpcore 4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Honor 6 H60-L01 4G TD-LTE (Mulan)	3072MiB RAM/15258MiB ROM	32bit Huawei HiSilicon KIRIN910T Hi6620	4x ARM Cortex-A9 MPCore	ARMv7
Honor 6 H60-L02 Dual SIM TD-LTE (Mulan)	3072MiB RAM/15258MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
Honor 6 H60-L04 4G TD-LTE (Mulan)	3072MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Honor 6 H60-L11 4G TD-LTE (Mulan)	3072MiB RAM/30518MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Honor 6 H60-L12 Dual SIM TD-LTE (Mulan)	3072MiB RAM/30518MiB ROM	32bit Huawei HiSilicon KIRIN920 Hi3630	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7
Honor 6 HW-H60-J1 LTE-A/X3 (Mulan)	3072MiB RAM/30518MiB ROM	32bit Huawei HiSilicon KIRIN928	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Honor 6 Plus PE-CL00 Dual SIM CDMA	3072MiB RAM/15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Honor 6 Plus PE-TL00M Dual SIM TD-LTE	3072MiB RAM/15258MiB ROM	64bit Huawei Honor KIRIN620	8x ARM Cortex-A53 Mpcore	ARMv8-A (A32, A64)
Honor 6 Plus PE-TL10 Dual SIM TD-LTE 32GB	3072MiB RAM/30518MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Honor 6 Plus PE-TL20 Dual SIM TD-LTE 16GB	3072MiB RAM/15258MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Honor 6 Plus PE-UL00 Dual SIM TD-LTE/Honor 6X	3072MiB RAM/15258MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Honor Holly Dual SIM Hol-U19	1024MiB RAM/15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Honor Play 4 TD-LTE Dual SIM	1024MiB RAM/7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Honor Play 4X TD-LTE Dual SIM	2048MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN920 Hi3630	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7
Honor Spree 4x Dual SIM TD-LTE	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
Honor Tablet 8 3G	1024MiB RAM/15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Honor U8860-51 (U8860)	512MiB RAM/3814MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
Honor X1/Mediapad X1 7.0 LTE-A 7D-504L	2048MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
Honor X1/Mediapad X1 7.0 TD-LTE	2048MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
7D-503L	ROM			
Honor X1/Mediapad X1 7.0 TD-LTE	2048MiB RAM/15259MiB			
7D-503LT	ROM			
Honor+ (T8950)	768MiB RAM/3814MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
Ideos S7-103	256MiB RAM/256+1908MiB ROM	32bit Qualcomm MSM7230	Qualcomm Scorpion	ARMv7
Ideos S7-104	256MiB RAM/256+7630MiB ROM	32bit Qualcomm MSM7625	ARM1136EJ-S	ARMv6
Ideos S7-105	512MiB RAM/256+7630MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
Ideos S7-201u Slim	512MiB RAM/512+7630MiB ROM	32bit Qualcomm MSM7225	ARM1136EJ-S	ARMv6
Ideos U8150	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7225	ARM1136EJ-S	ARMv6
Ideos X1 U8180 (Gaga)	256MiB RAM/512MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
Ideos X3 U8510 (Blaze)	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7230	Qualcomm Scorpion	ARMv7
Ideos X5 Pro	512MiB RAM/3814MiB ROM	32bit Qualcomm MSM7625	ARM1136EJ-S	ARMv6
Ideos X5 U8800	512MiB RAM/3814MiB ROM	32bit Qualcomm MSM7225	ARM1136EJ-S	ARMv6
Ideos X5 U8800H	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
Ideos X6 (U9000)	512MiB RAM/1908MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
M835/C8500/C8511	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7225	ARM1136EJ-S	ARMv6
M881/H881C (Asura)	512MiB RAM/3815MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 10 FHD LTE S10-101L 64GB	2048MiB RAM/61035MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 10 FHD S10-101u 16GB	2048MiB RAM/15258MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
MediaPad 10 FHD S10-101u 64GB	2048MiB RAM/61035MiB ROM	32bit Rockchip RK2818	ARM9	ARMv5
MediaPad 10 FHD WiFi S10-101w	2048MiB RAM/15258MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
MediaPad 10 Link 3G S10-201u	1024MiB RAM/15258MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 10 Link 3G S10-202u	1024MiB RAM/15258MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 10 Link LTE-A S10-201L 16GB	1024MiB RAM/15258MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 10 Link LTE-A S10-201L 32GB	1024MiB RAM/30518MiB ROM	32bit Rockchip RK3168	2x ARM Cortex-A9	ARMv7-A
MediaPad 10 Link WiFi S10-201w	1024MiB RAM/15258MiB	32bit Qualcomm Snapdragon 400 MSM8230	2x Qualcomm Krait 200	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
16GB	ROM			
MediaPad 7 Lite S7-931u	1024MiB RAM/7630MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 7 Vogue	1024MiB RAM/7629MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 7 Youth 3G 8GB S7-701u/S7-711u	1024MiB RAM/7629MiB ROM	32bit Rockchip RK3168	2x ARM Cortex-A9	ARMv7-A
MediaPad 7 Youth 3G 8GB S7-702u	1024MiB RAM/7630MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 7 Youth WiFi 4GB S7-701w	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
MediaPad 7 Youth WiFi 8GB S7-701wa	1024MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230	2x Qualcomm Krait 200	ARMv7
MediaPad 7 Youth2 S7-721u	1024MiB RAM/3815MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
MediaPad 7 Youth2 WiFi S7-721w	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8928	4x ARM Cortex-A7 Mpcore	ARMv7
Mediapad M1 8.0 3G S8-301u	1024MiB RAM/7629MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
Mediapad M1 8.0 LTE-A S8-301L	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
Mediapad M1 8.0 LTE-A S8-306L	1024MiB RAM/15258MiB ROM	32bit Huawei HiSilicon KIRIN920 Hi3630	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7
Mediapad M1 8.0 TD-LTE S8-303L	1024MiB RAM/15258MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Mediapad T1 8.0 3G S8-701u/Honor Pad T1	1024MiB RAM/7630MiB ROM	32bit Huawei HiSilicon KIRIN920 Hi3630	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 MPcore	ARMv7
Mediapad T1 8.0 4G LTE T1-821L	1024MiB RAM/15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Mediapad T1 8.0 WiFi T1-821W	1024MiB RAM/15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
Mediapad X1 7.0 3G 7D-501u	2048MiB RAM/15259MiB ROM	32bit Huawei HiSilicon KIRIN910 Hi6620 V9R1	4x ARM Cortex-A9 MPCore	ARMv7
Mediapad X1 7.0 LTE-A 7D-501L	2048MiB RAM/15259MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
Mercury M886 (Glory)	512MiB RAM/1908MiB ROM	32bit Qualcomm Snapdragon S3 MSM8260	2x Qualcomm Scorpion	ARMv7
Premia 4G M931	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
S7-301c MediaPad	1024MiB RAM/MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
S7-301u MediaPad	1024MiB RAM/7630MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
S7-302u MediaPad 4G	1024MiB RAM/MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
Shine U8836D	512MiB RAM/3814MiB ROM			
Sonic (U8650)	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7225	ARM1136EJ-S	ARMv6
STREAM X GL07S	1024MiB RAM/30518MiB ROM	32bit Huawei HiSilicon K3V2 Hi3620	4x ARM Cortex-A9 MPCore	ARMv7
T8301	512MiB RAM/MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
U8100	256MiB RAM/512MiB ROM			
U8110	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7200A	ARM1136EJ-S	ARMv6
U8230	128MiB RAM/256MiB ROM			
U8300	256MiB RAM/512MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
U8800 Impulse 4G	512MiB RAM/MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
Vision (U8850)	512MiB RAM/1908MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

TABLE A.2: GARMIN

Model Name	Device Type
Edge 500	Cycling Computer
Edge 1000	Cycling Computer
Edge 510	Cycling Computer
Edge 810	Cycling Computer
fēnix 2	
Forerunner 220	GPS Watch
Forerunner 610	GPS Watch
dēzl 560LMT	Portable GPS
dēzl 760LMT	Portable GPS
Edge 205	Cycling Computer
Edge 305	Cycling Computer
Edge 605	Cycling Computer
Edge 705	Cycling Computer
A50/Garminfone	Phone
Astro	Dog Tracker
Astro 220	Dog Tracker
Colorado 300	Portable GPS
Colorado 400c	Portable GPS
Colorado 400i	Portable GPS
Colorado 400t	Portable GPS
Dakota 20	Portable GPS
echoMAP 50dv	GPS Chart Plotter
echoMAP 50s	GPS Chart Plotter
echoMAP 70dv	GPS Chart Plotter
echoMAP 70s	GPS Chart Plotter
Edge 200	Cycling Computer
Edge 800	Cycling Computer
Edge Touring	Cycling Computer
Edge Touring Plus	Cycling Computer
eMap	Portable GPS Electronic Map
eTrex 10	Handheld GPS
eTrex 20	Handheld GPS
eTrex 30	Handheld GPS
eTrex HC	Handheld GPS
eTrex Legend HCx	Handheld GPS
eTrex Venture	Handheld GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
eTrex Venture HC	Handheld GPS
eTrex Vista HCx	Handheld GPS
fēnix	
Forerunner 10	GPS Watch
Forerunner 110	GPS Watch
Forerunner 15	GPS Watch
Forerunner 205	GPS Watch
Forerunner 210	GPS Watch
Forerunner 305	GPS Watch
Forerunner 310XT	GPS Watch
Forerunner 405	GPS Watch
Forerunner 405CX	GPS Watch
Forerunner 50	GPS Watch
Forerunner 60	GPS Watch
Forerunner 70	GPS Watch
Forerunner 910XT	GPS Watch
Foretrex 301	Portable GPS
Foretrex 401	Portable GPS
G1000	
G1000 for Cessna CitationJet	
G1000 for King Air	
G1000H	
GPSMAP 176	GPS
GPSMAP 176C	GPS
GPSMAP 178 Sounder	GPS
GPSMAP 178C Sounder	GPS
GPSMAP 192C	GPS
GPSMAP 2006/2006C	GPS
GPSMAP 2010/2010C	GPS
GPSMAP 276C	GPS
GPSMAP 278	GPS
GPSMAP 292	GPS
GPSMAP 296	GPS
GPSMAP 298	GPS
GPSMAP 3205	GPS
GPSMAP 3206	GPS
GPSMAP 3210	GPS
GPSMAP 378	GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
GPSMAP 392	GPS
GPSMAP 396	GPS
GPSMAP 398	GPS
GPSMAP 478	GPS
GPSMAP 492	GPS
GPSMAP 498	GPS
GPSMAP 520	GPS
GPSMAP 520/520s	GPS
GPSMAP 5208	GPS
GPSMAP 520s	GPS
GPSMAP 521	GPS
GPSMAP 5212	GPS
GPSMAP 5215	GPS
GPSMAP 521s	GPS
GPSMAP 525	GPS
GPSMAP 525/525s	GPS
GPSMAP 525s	GPS
GPSMAP 526	GPS
GPSMAP 526s	GPS
GPSMAP 527	GPS
GPSMAP 527xs	GPS
GPSMAP 530	GPS
GPSMAP 530/530s	GPS
GPSMAP 530s	GPS
GPSMAP 531	GPS
GPSMAP 531s	GPS
GPSMAP 535	GPS
GPSMAP 535/535s	GPS
GPSMAP 535s	GPS
GPSMAP 536	GPS
GPSMAP 536s	GPS
GPSMAP 540	GPS
GPSMAP 540/540s	GPS
GPSMAP 540s	GPS
GPSMAP 541	GPS
GPSMAP 541s	GPS
GPSMAP 545	GPS
GPSMAP 545/545s	GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
GPSMAP 545s	GPS
GPSMAP 546	GPS
GPSMAP 546s	GPS
GPSMAP 547	GPS
GPSMAP 547xs	GPS
GPSMAP 550	GPS
GPSMAP 550s	GPS
GPSMAP 555	GPS
GPSMAP 555s	GPS
GPSMAP 556	GPS
GPSMAP 556s	GPS
GPSMAP 60C	GPS
GPSMAP 60CS	GPS
GPSMAP 60CSx	GPS
GPSMAP 60Cx	GPS
GPSMAP 62	GPS
GPSMAP 620	GPS
GPSMAP 640	GPS
GPSMAP 695	GPS
GPSMAP 696	GPS
GPSMAP 720	GPS
GPSMAP 720s	GPS
GPSMAP 721	GPS
GPSMAP 7212	GPS
GPSMAP 7215	GPS
GPSMAP 721xs	GPS
GPSMAP 740	GPS
GPSMAP 740s	GPS
GPSMAP 741	GPS
GPSMAP 741xs	GPS
GPSMAP 750	GPS
GPSMAP 750s	GPS
GPSMAP 76	GPS
GPSMAP 76C	GPS
GPSMAP 76CS	GPS
GPSMAP 76CSx	GPS
GPSMAP 78	GPS
GPSMAP 78s	GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
GPSMAP 78sc	GPS
GPSMAP 8000V	GPS
GPSMAP 8008 MFD	GPS
GPSMAP 8012 MFD	GPS
GPSMAP 8015 MFD	GPS
GPSMAP 820	GPS
GPSMAP 8208 MFD	GPS
GPSMAP 820xs	GPS
GPSMAP 8212 MFD	GPS
GPSMAP 8215 MFD	GPS
GPSMAP 840xs	GPS
GPSMAP 96	GPS
GPSMAP 96c	GPS
HUD (Head-Up Display)	Heads Up Display/GPS
HUD+ (Head-Up Display)	Heads Up Display/GPS
Montana 600	GPS
Montana 600t Camo	GPS
Montana 650	GPS
Montana 650t	GPS
nüvi 1100	GPS
nüvi 1200/1210/1240/1250/1260	GPS
nüvi 1300/1340/1350/1355	GPS
nüvi 1310/1370/1375	GPS
nüvi 1390	GPS
nüvi 1410	GPS
nüvi 1420/1470	GPS
nüvi 1440/1450	GPS
nüvi 1480	GPS
nüvi 1490	GPS
nüvi 1490LMT	GPS
nüvi 1490TV	GPS
nüvi 1690	GPS
nüvi 2360LT	GPS
nüvi 2455LM	GPS
nüvi 2455LMT	GPS
nüvi 2457LMT	GPS
nüvi 2460LT	GPS
nüvi 2475LT	GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
nüvi 2495LMT	GPS
nüvi 2497LMT	GPS
nüvi 2557LMT	GPS
nüvi 2598LMTHD	GPS
nüvi 30	GPS
nüvi 3450	GPS
nüvi 3450LM	GPS
nüvi 3490LMT	GPS
nüvi 3550LM	GPS
nüvi 3590LMT	GPS
nüvi 3597LMTHD	GPS
nüvi 3790T	GPS
nüvi 40	GPS
nüvi 50	GPS
nüvi 55	GPS
nüvi 56	GPS
nüvi 65LM	GPS
nüvi 65LMT	GPS
nüvi 66LM	GPS
nüvi 66LMT	GPS
Oregon 200	GPS
Oregon 300	GPS
Oregon 400c	GPS
Oregon 400i	GPS
Oregon 400t	GPS
Oregon 450	GPS
Oregon 450t	GPS
Oregon 550	GPS
Oregon 550t	GPS
Oregon 600	GPS
Oregon 600t	GPS
Oregon 650	GPS
Oregon 650t	GPS
quatix	GPS Watch
Rino 520	GPS + Radio
Rino 530	GPS + Radio
Rino 610	GPS + Radio
Rino 650	GPS + Radio

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
Rino 655t	GPS + Radio
RV 760LMT	RV GPS
RV 760LMT with Wireless Backup Camera	RV GPS
tactix	Tactical GPS Watch
VIRB Elite	Action Camera
Vivofit	Activity Tracker
zūmo 220	GPS for Motorcycles
zūmo 350LM	GPS for Motorcycles
zūmo 350LM	
zūmo 390LM	GPS for Motorcycles
zūmo 390LM	
zūmo 450	GPS for Motorcycles
zūmo 500, 550	GPS for Motorcycles
zūmo 590	GPS for Motorcycles
zūmo 590LM	GPS for Motorcycles
zūmo 590LM	
zūmo 660	GPS for Motorcycles
zūmo 660	
zūmo 660LM	GPS for Motorcycles
zūmo 660LM	
zūmo 665	GPS for Motorcycles
zūmo 665	
zūmo 665LM	GPS for Motorcycles
zūmo 665LM	
aera 500	Portable GPS
aera 510	Portable GPS
aera 550	Portable GPS
aera 560	Portable GPS
aera 795	Portable GPS
aera 796	Portable GPS
Alpha	Dog Tracker
Apollo GX50	GPS
Apollo GX55	GPS
Apollo GX60	GPS
Apollo GX65	GPS
Approach G3, North and Latin America	Golf GPS
Approach G5, North and Latin America	Golf GPS
Approach G6	Golf GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
Approach G7	Golf GPS
Approach G8	Golf GPS
Approach S1	Golf GPS Watch
Approach S2	Golf GPS Watch
Approach S3	Golf GPS Watch
Approach S4	Golf GPS Watch
Approach S6	Golf GPS Watch
Astro 320	Dog Tracker
CNX 80	Pilots Portable GPS
D2	Pilots Watch
Dakota 10	Portable GPS
echo 100	Fish Tracker
echo 101	Fish Tracker
echo 150	Fish Tracker
echo 151	Fish Tracker
echo 151dv	Fish Tracker
echo 200	Fish Tracker
echo 201	Fish Tracker
echo 201dv	Fish Tracker
echo 300C	Fish Tracker
echo 301c	Fish Tracker
echo 301dv	Fish Tracker
echo 500C	Fish Tracker
echo 501c	Fish Tracker
echo 550C	Fish Tracker
echo 551c	Fish Tracker
echo 551dv	Fish Tracker
eTrex	Handheld GPS
eTrex "yellow"	Handheld GPS
eTrex Camo	Handheld GPS
eTrex Legend	Handheld GPS
eTrex Legend C	Handheld GPS
eTrex Legend Cx	Handheld GPS
eTrex Legend H	Handheld GPS
eTrex Mariner	Handheld GPS
eTrex Summit	Handheld GPS
eTrex Summit HC	Handheld GPS
eTrex Venture Cx	Handheld GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
eTrex Vista	Handheld GPS
eTrex Vista C	Handheld GPS
eTrex Vista Cx	Handheld GPS
eTrex Vista H	Handheld GPS
Fishfinder 100	Portable Sonar
Fishfinder 100 Blue	Portable Sonar
Fishfinder 120	Portable Sonar
Fishfinder 140	Portable Sonar
Fishfinder 145	Portable Sonar
Fishfinder 160	Portable Sonar
Fishfinder 160 Blue	Portable Sonar
Fishfinder 160C	Portable Sonar
Fishfinder 240	Portable Sonar
Fishfinder 240 Blue	Portable Sonar
Fishfinder 250	Portable Sonar
Fishfinder 250C	Portable Sonar
Fishfinder 300C	Portable Sonar
Fishfinder 320C	Portable Sonar
Fishfinder 340C	Portable Sonar
Fishfinder 400C	Portable Sonar
Fishfinder 80	Portable Sonar
Fishfinder 85	Portable Sonar
Fishfinder 90	Portable Sonar
Fishfinder 95	Portable Sonar
Forerunner 101	GPS Watch
Forerunner 201	GPS Watch
Forerunner 301	GPS Watch
Forerunner 410	GPS Watch
Forerunner 620	GPS Watch
Foretrex 101	Portable GPS
Foretrex 201	Portable GPS
G2000	
G300 for Cessna SkyCatcher	
G3000	
G3X	
G500	
G5000	
G5000 for Beechjet	

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
G5000H	
G500H	
G60	
G600	
G900X	
G950	
Garmin Dash Cam 20	
Garmin Swim	
Geko 101	
Geko 201	
Geko 301	
GHC 10	
GHC 20	
GHC 20 Marine Autopilot Control Unit	
GHP 10	
GHP 10 Marine Autopilot System	
GHP 10V	
GHP 10V Marine Autopilot System	
GHP 12	
GHP 12 Autopilot System	
GHP 20 Marine Autopilot System for Steer-by-Wire	
GHP 20 Marine Autopilot System for Viking	
GHP 20 Marine Autopilot System for Yamaha Helm Master	
GHP 20 Marine Autopilot System with SmartPump	
GHP 20 Steer-by-Wire	
GHP 20 Viking	
GHP 20 with SmartPump	
GHP 20 Yamaha Helm Master	
GMM 150	
GMM 170	
GMM 190	
GMX 200	
GNC 250	
GNC 250XL	
GNC 300	
GNC 300XL	
GNC 300XL TSO	
GNC 420	

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
GNC 420w	
GNS 430	
GNS 430w	
GNS 480	
GNS 530	
GNS 530w	
GPS 12	
GPS 120	
GPS 120XL	
GPS 125 Sounder	
GPS 126	
GPS 128	
GPS 12CX	
GPS 12MAP	
GPS 12XL	
GPS 150	
GPS 150XL	
GPS 152	
GPS 152/152H	
GPS 152H	
GPS 152H™	
GPS 155 TSO	
GPS 155/165	
GPS 155XL	
GPS 155XL TSO	
GPS 165	
GPS 165 TSO	
GPS 38	
GPS 40	
GPS 400	
GPS 400w	
GPS 45	
GPS 48	
GPS 500	
GPS 500w	
GPS 60	
GPS 72	
GPS 72H	

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
GPS 75	
GPS 76	
GPS 76S	
GPS 89	
GPS 90	
GPS 92	
GPS II	
GPS II Plus	
GPS III	
GPS III Pilot	
GPS III Pilot™	
GPS III Plus	
GPS V	
GPSCOM 170	
GPSCOM 190	
GPSMAP 1020	GPS
GPSMAP 1020	GPS
GPSMAP 1020xs	GPS
GPSMAP 1040xs	GPS
GPSMAP 120/120XL	GPS
GPSMAP 130	GPS
GPSMAP 135 Sounder	GPS
GPSMAP 162	GPS
GPSMAP 168 Sounder	GPS
GPSMAP 172	GPS
GPSMAP 172C	GPS
GPSMAP 175	GPS
GPSMAP 180	GPS
GPSMAP 182/182C	GPS
GPSMAP 185 Sounder	GPS
GPSMAP 188/188c	GPS
GPSMAP 188/188C Sounder	GPS
GPSMAP 195	GPS
GPSMAP 196	GPS
GPSMAP 198c	GPS
GPSMAP 198C Sounder	GPS
GPSMAP 2006C	GPS
GPSMAP 2010C	GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
GPSMAP 205	GPS
GPSMAP 210	GPS
GPSMAP 2106	GPS
GPSMAP 2110	GPS
GPSMAP 215	GPS
GPSMAP 220	GPS
GPSMAP 2206	GPS
GPSMAP 2210	GPS
GPSMAP 225	GPS
GPSMAP 230	GPS
GPSMAP 232	GPS
GPSMAP 235 Sounder	GPS
GPSMAP 238 Sounder	GPS
GPSMAP 295	GPS
GPSMAP 298 Sounder	GPS
GPSMAP 3006C	GPS
GPSMAP 3010C	GPS
GPSMAP 376C	GPS
GPSMAP 398 Sounder	GPS
GPSMAP 4008	GPS
GPSMAP 4010	GPS
GPSMAP 4012	GPS
GPSMAP 420	GPS
GPSMAP 420/420s	GPS
GPSMAP 4208	GPS
GPSMAP 420s	GPS
GPSMAP 421	GPS
GPSMAP 4210	GPS
GPSMAP 4212	GPS
GPSMAP 421s	GPS
GPSMAP 430	GPS
GPSMAP 430/430s	GPS
GPSMAP 430s	GPS
GPSMAP 430sx	GPS
GPSMAP 430x	GPS
GPSMAP 431	GPS
GPSMAP 431s	GPS
GPSMAP 440	GPS

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
GPSMAP 440/440s	GPS
GPSMAP 440s	GPS
GPSMAP 440sx	GPS
GPSMAP 440x	GPS
GPSMAP 441	GPS
GPSMAP 441s	GPS
GPSMAP 450	GPS
GPSMAP 450s	GPS
GPSMAP 495	GPS
GPSMAP 496	GPS
GPSMAP 498 Sounder	GPS
GPSMAP 5008	GPS
GPSMAP 5012	GPS
GPSMAP 5015	GPS
GPSMAP 60	GPS
GPSMAP 6008	GPS
GPSMAP 6012	GPS
GPSMAP 6208	GPS
GPSMAP 6212	GPS
GPSMAP 62s	GPS
GPSMAP 62sc	GPS
GPSMAP 62st	GPS
GPSMAP 62stc	GPS
GPSMAP 64	GPS
GPSMAP 64s	GPS
GPSMAP 64st	GPS
GPSMAP 7012	GPS
GPSMAP 7015	GPS
GPSMAP 76CS Plus	GPS
GPSMAP 76Cx	GPS
GPSMAP 76S	GPS
GPSMAP 8500 Black Box	GPS
GPSMAP 8530 Black Box	GPS
GTN 625	GPS/Nav/Comm Avionics
GTN 635	GPS/Nav/Comm Avionics
GTN 650	GPS/Nav/Comm Avionics
GTN 725	GPS/Nav/Comm Avionics
GTN 750	GPS/Nav/Comm Avionics

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
GTX 320	Transponder
GTX 320A	Transponder
HSVT	
HTAWS	Helicopter add-on for GTN Series
iQue 3600a	GPS/PDA (Discontinued)
MX20	
nüvi 2555LM	GPS
nüvi 2555LMT	GPS
nüvi 2577LT	GPS
nüvi 2595LMT	GPS
nüvi 2597LMT	GPS
nüvi 2757LM	GPS
nüvi 2797LMT	GPS
nüvi 2798LMT with Backup Camera	GPS
nüvi 40LM	GPS
nüvi 42	GPS
nüvi 42LM	GPS
nüvi 44	GPS
nüvi 44LM	GPS
nüvi 465LMT	GPS
nüvi 465T	GPS
nüvi 50LM	GPS
nüvi 52	GPS
nüvi 52LM	GPS
nüvi 54	GPS
nüvi 54LM	GPS
nüvi 55LM	GPS
nüvi 55LMT	GPS
nüvi 56LM	GPS
nüvi 56LMT	GPS
Rino 110	GPS + Radio
Rino 120	GPS + Radio
Rino 130	GPS + Radio
Rino 520HCx	GPS + Radio
Rino 530HCx	GPS + Radio
SVT for G1000	
SVT for G600/G500	
TR-1 Gladiator	Autopilot

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

Model Name	Device Type
TR-1 Gold Marine Autopilot	Autopilot

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

TABLE A.3: ZTE

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTIONS SET
ZTE Q705U	1024MiB RAM/3815MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
ZTE T72	512MiB RAM/15258MiB ROM	32bit ARM Cortex-A8	ARM Cortex	ARMv7-A
ZTE PF112	7630MiB ROM/	32bit ARM Cortex-A9 MPCore	2x Cortex-A9	ARMv7-A
ZTE V81	1024MiB RAM/3814MiB ROM	32bit ARM Cortex-A9 MPCore	2x Cortex-A9	ARMv7-A
ZTE Q801T TD-LTE	1024MiB RAM/3815MiB ROM	32bit Leadcore InnoPower LC1810	2x Cortex-A9	ARMv7
ZTE Blade G Lux	512MiB RAM/3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
ZTE Blade Q	1024MiB RAM/3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
ZTE Blade Q Maxi	1024MiB RAM/3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
ZTE Blade Q Mini	1024MiB RAM/3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
ZTE Kis 3 Max	512MiB RAM/3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
ZTE U879	512MiB RAM/3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
ZTE V879	512MiB RAM/3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
ZTE Blade Super	1024MiB RAM/3814MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
ZTE Grand X 3G V970/V970M (ZTE Mimosa X)	512MiB RAM/3814MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
ZTE Grand X Pro V983	1024MiB RAM/3815MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
ZTE Grand X V970T (ZTE Mimosa X)	512MiB RAM/3814MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
ZTE V887	512MiB RAM/3814MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
ZTE V889M	512MiB RAM/3814MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
ZTE Blade Vec 3G	1024MiB RAM/7630MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE Blade L2	1024MiB RAM/3815MiB ROM	32bit MediaTek MT6582M	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE V987	1024MiB RAM/3815MiB ROM	32bit MediaTek MT6589	4x ARM Cortex-A7	ARMv7
ZTE Blade Vec Pro	1024MiB RAM/7630MiB ROM	32bit MediaTek MT6592M	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE Grand Era V985	1024MiB RAM/7630MiB ROM	32bit NVIDIA Tegra 3 AP33H	5x ARM Cortex-A9 MPCore	ARMv7-A
ZTE Grand Memo U9815 TD-LTE	2048MiB RAM/15258MiB ROM	32bit NVIDIA Tegra 3 T30L	5x ARM Cortex-A9 MPCore	ARMv7-A
ZTE Geek CDMA N988	2048MiB RAM/15258MiB ROM	32bit NVIDIA Tegra 4i SP3X	5x ARM Cortex-A9-R4 MPCore	ARMv7-A
ZTE Geek U988S	2048MiB RAM/15258MiB ROM	32bit NVIDIA Tegra 4i SP3X	5x ARM Cortex-A9-R4 MPCore	ARMv7-A
ZTE Open	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
ZTE Skate Kis	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
ZTE V790/Viettel V8403	512MiB RAM/1024MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
ZTE V790 Kis	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
ZTE Z660G Whirl	512MiB RAM/3815MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
ZTE Z992 Avail 2	512MiB RAM/3815MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
ZTE Z993 Prelude	512MiB RAM/3815MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTIONS SET
ZTE Avail Z990 (ZTE Roamer)	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
ZTE Libra	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
ZTE Light Tab (ZTE V9)	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
ZTE Lutea (ZTE Blade)	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
ZTE Micromax A60 (ZTE Penguin)	512MiB ROM/	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
ZTE Style Q	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
ZTE Blade II	512MiB RAM/1024MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
ZTE Blade III	512MiB RAM/3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
ZTE Kis Lite	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
ZTE Nova V6500	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
ZTE Orbit	256MiB RAM/3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
ZTE Skate Acqua	512MiB RAM/3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
ZTE Amigo	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
ZTE Atlas W	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
ZTE Blade S (ZTE Crescent)	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
ZTE Light Tab Pro (ZTE V9C)	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
ZTE Skate	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
ZTE Tureis	256MiB RAM/512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
ZTE Z665C Valet	512MiB RAM/3815MiB ROM	32bit Qualcomm MSM7625A	ARM Cortex-A5	ARMv7-A
ZTE R750	512MiB RAM/512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
ZTE Score M X500M	512MiB RAM/1024MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
ZTE Score X500	512MiB RAM/1024MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
ZTE Goove X501	512MiB RAM/1024MiB ROM	32bit Qualcomm MSM7627A	ARM1136EJ-S	ARMv6
ZTE Render N859	512MiB RAM/3814MiB ROM	32bit Qualcomm MSM7627A	ARM1136EJ-S	ARMv6
ZTE Grand X Z777	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
ZTE Kis 3	512MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
ZTE Z730 Concord II	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
ZTE Zinger	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
ZTE Grand X MAX	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
ZTE Blade V	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8225Q	4x ARM Cortex-A5	ARMv7-A
ZTE Optik 2 V72C	1024MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon 200 MSM8625Q	4x ARM Cortex-A5	ARMv7-A
ZTE Sonata 4G Z740G	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230	2x Qualcomm Krait 200	ARMv7
ZTE Z740 Radiant	1024MiB RAM/2080MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230	2x Qualcomm Krait 200	ARMv7
ZTE A880	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Blade Apex 2/Orange Hi 4G/KPN Smart 400	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTIONS SET
ZTE Blade Vec 4G LTE-A/Soshphone 4G/Orange Rono/Turkcell T50	1024MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Grand Memo II LTE	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Grand X MAX+ 4G LTE	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Imperial II 4G LTE	1024MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE MF97A Sprint LivePro Smart Projector	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE N9515 Warp Sync TD-LTE	2048MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Nubia 5S mini LTE NX405H	2048MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Q801L TD-LTE	1024MiB RAM/MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Q801U TD-LTE	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Q802T TD-LTE	1024MiB RAM/MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE V5 Red Bull TD-LTE 8GB	2048MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE V9820 TD-LTE	2048MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Z830 Compel LTE-A	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Z970 ZMax LTE-A	2048MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
ZTE Blade G LTE	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE Grand S Flex	1024MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE N9101 Imperial LTE	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE N9510 Boost Warp 4G	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE N9510C	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE N9520 Boost Max LTE	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE Source N9511	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE Z995C Overture LTE	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE Z998 (ZTE Mustang)	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
ZTE Grand Memo CDMA	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
ZTE Grand Memo V9815	1024MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
ZTE Nubia Z5S mini LTE	2048MiB RAM/30518MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
ZTE Nubia Z5S mini LTE NX404H	2048MiB RAM/MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
ZTE Nubia Z5S mini NX403A	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
ZTE Grand S II CDMA P897A21	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8674 v1	4x Qualcomm Krait 400	ARMv7
ZTE MF97B SPro2 Smart Projector	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974 v1	4x Qualcomm Krait 400	ARMv7
ZTE Grand S II Dual S252	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
ZTE Grand S II LTE-A	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTIONS SET
ZTE Grand S Pro N9835	2048MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
ZTE Nubia Z5S LTE 32GB	2048MiB RAM/30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
ZTE Nubia Z5S LTE 64GB	2048MiB RAM/61035MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
ZTE Star S2005 TD-LTE	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
ZTE Nubia Z7 Mini Dual SIM TD-LTE NX507J	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AA v3	4x Qualcomm Krait 400	ARMv7
ZTE Nubia W5	3072MiB RAM/61035MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AB v3	4x Qualcomm Krait 400	ARMv7
ZTE Star 2 TD-LTE	2048MiB RAM/15259MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AB v3	4x Qualcomm Krait 400	ARMv7
ZTE Nubia Z7 Dual SIM TD-LTE NX506J	3072MiB RAM/30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
ZTE Nubia Z7 Max Dual SIM TD-LTE NX505J	2048MiB RAM/30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
ZTE Star S2004 TD-LTE	3072MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
ZTE Light Tab 2 (ZTE V9 Plus)	512MiB RAM/512+3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
ZTE Light Tab 2 (ZTE V9A)	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
ZTE Tania (ZTE Spirit)	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
ZTE Fury N850	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
ZTE N810 Virgin Mobile Reef	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
ZTE Warp N860	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
ZTE Engage/Nova 4.0 V8000	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655T	Qualcomm Scorpion	ARMv7
ZTE Warp Sequent N861	768MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655T	Qualcomm Scorpion	ARMv7
ZTE Light Tab V9S	1024MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon S3 MSM8260	2x Qualcomm Scorpion	ARMv7
ZTE Anthem 4G N910	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7
ZTE Optik V55	1024MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7
ZTE Blade G V880G	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
ZTE Blade III Pro V889F	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
ZTE N8000 Engage LT	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
ZTE V8300	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
ZTE Velox V72A	1024MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
ZTE N800 Awe	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8625	2x ARM Cortex-A5	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTIONS SET
ZTE N8300	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8625	2x ARM Cortex-A5	ARMv7-A
ZTE Z750C Savvy	768MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon S4 MSM8625	2x ARM Cortex-A5	ARMv7-A
ZTE Z795G Solar	768MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon S4 MSM8625	2x ARM Cortex-A5	ARMv7-A
ZTE Z796C Majesty	768MiB RAM/3815MiB ROM	32bit Qualcomm Snapdragon S4 MSM8625	2x ARM Cortex-A5	ARMv7-A
ZTE EasyTouch 4G T82	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
ZTE Flash N9500	1024MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
ZTE Grand Era LTE V9800	1024MiB RAM/7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
ZTE Grand X LTE T82	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
ZTE N9810 Supreme (ZTE Quantum)	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
ZTE N9810 Vital (ZTE Quantum)	1024MiB RAM/7629MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
ZTE T81	1024MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
ZTE N9120 Avid 4G	512MiB RAM/3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
ZTE Grand S V988 (ZTE Athena)	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
ZTE Nubia Z5 mini CDMA NX402	2048MiB RAM/15258MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
ZTE N958st V5 Max TD-LTE Dual SIM	2048MiB RAM/15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
ZTE Q802C CDMA	1024MiB RAM/7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
ZTE Q802D Dual CDMA	1024MiB RAM/7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
ZTE Speed CDMA	1024MiB RAM/7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
ZTE V5 Max TD-LTE Dual SIM	1024MiB RAM/7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
ZTE V5S TD-LTE	1024MiB RAM/7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
ZTE G719C Dual SIM TD-LTE	2048MiB RAM/7629MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
ZTE G720C Dual SIM TD-LTE	2048MiB RAM/15259MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
ZTE S6 Plus	2048MiB RAM/15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
ZTE e811	/128MiB ROM			
ZTE Mercury	/MiB ROM			

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTIONS SET
ZTE N600 Racer (ZTE Link)	128MiB RAM/256MiB ROM			
ZTE N850L Director	512MiB RAM/3814MiB ROM			
ZTE S8Q 8GB	1024MiB RAM/7629MiB ROM			
ZTE X950 (ZTE Smooth)	/MiB ROM			

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

TABLE A.4 SAMSUNG

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
5.1CH Blu-Ray Home Theater System				
A3LDV300F		ZORAN ZR36474BGCG		
A3LEKGN120		ARM DRIM IV Engine		
A3LEVNXF1		ARM		
A3LEX2F		ARM DRIM		
A3LNX30		ARM DRIM IV Engine		
A3LSH100		ZORAN ZR36474BGCG		
A3LWB850F		ARM DRIM III Engine		
CLP-300 Series		Samsung Samsung CorrusM 170MHz		
CLP-300/XSG		Samsung CHORUSm 300Mhz		
CLP-310 Series		Samsung Samsung 360 MHz		
CLP-310/315/310N		Jupiter 375MHz		
CLP-315/XAZ		Samsung CHORUS3 360MHz		
CLP-315W		Chorus 360MHz		
CLP-31x Series		Samsung Jupiter 375MHz (CLP-310/315/310N)		
CLP-320/325 Series		Samsung Jupiter5 (360MHz,CLP-320/325/320N/325W)		
CLP-510/CLP-510N		Samsung Samsung SPGPm 120Mhz, 32-bit RISC core (ARM 946ES)		
CLP-510/XBH		Samsung Samsung SPGPm 120Mhz, 32-bit RISC core (ARM 946ES)		
CLP-550		Motorola Motorola SPC603e 266MHz		
CLP-610ND		Samsung Samsung CHORUS3 300 MHz		
CLX-2160/XAA		Samsung Samsung CHORUSm 300 Mhz		
CLX-2160N		Samsung CHORUSm 300 MHz		
CLX-3175FN		Samsung CHORUS3 (360Mhz) Proprietary SOC		
GT-18150				
GT-18350				
GT-19300		166 MHz		
GT-C5130				
GT-I18190				
GT-i5510		1GHz		
GT-i9010				
GT-i9100		Exynos 1.2 GHz Cortex-A9		
GT-I9300				
GT-I9500				

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
GT-N7000/N7000L Common		1.5 GHz Qualcomm MSM8660 Snapdragon SoC S3		
GT-S5570		Qualcomm MSM7227 Snapdragon		
GT-S5750E/S5753E		HSDPA 3.6 900(option)/2100MHz		
GT-S8600		Qualcomm MSM8255		
HT-C5200				
ML-1610/XBH		Samsung 150MHz Jupiter4e CPU		
ML-1630W		Samsung Samsung 150Mhz		
ML-1700 Series		Samsung Jupiter Samsung Jupiter4 90MHz		
ML-1700 Series		Samsung Samsung Jupiter4 90MHz/Samsung SPGPm 166MHz		
ML-2010		Jupiter4e		
ML-2015/XEV		Samsung 150MHz Jupiter4e CPU		
ML-2250 Series		166MHz SPGPm		
ML-2250 Series		166MHz SPGPm		
ML-2251NP				
ML-2-2851ND		Samsung Samsung 400MHz		
ML-2550 Series		SPGPi + Power PC 266 MHz		
ML-2571N/FEV		Samsung 150MHz Jupiter4e CPU 400MHz SPGP V3 CPU		
ML-2850 Series		Samsung SPGPv3		
ML-2850 Series		Samsung 400MHz processor		
ML-331x/ML-371x Series		Samsung Samsung 375MHz/Samsung 600 MHz		
ML-3550N		Motorola POWER PC 603EI		
ML-4550 Series		Marvell Marvell Ferocen 2850 ARM 600 MHz		
ProXpress M337x/M387x/407x series				
Chromebook 2 XE503C32	4096MiB RAM/ 15259MiB ROM	32bit Samsung Exynos 5 Octa 5800	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
EK-GC100 Galaxy Camera	1024MiB RAM/ 7630MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
EK-GC200 Galaxy Camera 2	2048MiB RAM/ 7630MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
ET-G900VMKA Galaxy S 5 Developer Edition (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
Galaxy S III London Olympic Games Premium Edition	1024MiB RAM/ MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
Galaxy V Duos	512MiB RAM/ 3814MiB ROM			
GT-B5620 OmniaPRO 5/GT-B6520 Omnia 652	256MiB RAM/ 512MiB ROM	32bit ARM 1136JF-S	ARM11	ARMv6
GT-B7300 OmniaLITE (Buckingham)	256MiB RAM/ 512MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-B7320 OmniaPRO	256MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7225, 528MHz	ARM1136EJ-S	ARMv6
GT-B7320L OmniaPRO	256MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7225, 528MHz	ARM1136EJ-S	ARMv6

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
GT-B7330 OmniaPRO	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7225, 528MHz	ARM1136EJ-S	ARMv6
GT-B7350 OmniaPRO 4	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
GT-B7510 Galaxy Pro	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T		
GT-B7610 OmniaPRO (Louvre)	256MiB RAM/ 512+1908MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-B7620 Giorgio Armani	256MiB RAM/ 512+7630MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-B7800 Galaxy M Pro	MiB ROM/ 2.7" 480x320 LCD			
GT-B7810	512MiB RAM/ MiB ROM			
GT-C6620	128MiB RAM/ 128MiB ROM	32bit STMicroelectronics Nomadik STn8810	ARM926EJ	ARMv5TE
GT-C6625 Valencia	128MiB RAM/ 256MiB ROM	32bit STMicroelectronics Nomadik STn8810	ARM926EJ	ARMv5TE
GT-C6625v	128MiB RAM/ 256MiB ROM	32bit STMicroelectronics Nomadik STn8810	ARM926EJ	ARMv5TE
GT-i5500 Galaxy 5/Corby Smartphone	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
GT-i5500 Galaxy Europa	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
GT-i5500M Galaxy Europa	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
GT-i5510 Galaxy 551	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
GT-i5510M Galaxy 551	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
GT-i5700 Galaxy Portal	256MiB RAM/ 512MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i5700 Galaxy Spica	256MiB RAM/ 512MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i5800 Galaxy 3/Galaxy Taos	256MiB RAM/ 512MiB ROM	32bit Samsung S5P6422	ARM1176JZF-S	ARMv6
GT-i5800 Galaxy 580	256MiB RAM/ 512MiB ROM	32bit Samsung S5P6422	ARM1176JZF-S	ARMv6
GT-i5801 Galaxy Apollo/Galaxy Naos	256MiB RAM/ 512MiB ROM	32bit Samsung S5P6422	ARM1176JZF-S	ARMv6
GT-i6410 M1	256MiB RAM/ 1024MiB ROM	32bit Texas Instruments OMAP 3430	ARM Cortex-A8	ARMv7
GT-i7110	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
GT-i7500 Galaxy	192MiB RAM/ 7630MiB ROM	32bit Qualcomm MSM7200A	ARM1136EJ-S	ARMv6
GT-i7500L Galaxy	192MiB RAM/ 7630MiB ROM	32bit Qualcomm MSM7200A	ARM1136EJ-S	ARMv6
GT-i8000 Omnia II/GT-i8000H M8 8GB	256MiB RAM/ 512+7836MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i8000 Omnia II M16 16GB	256MiB RAM/ 512+15672MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i8000 Omnia II M2 2GB	256MiB RAM/ 512+1908MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i8000L Omnia II M16 16GB	256MiB RAM/ 15612MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i8000L Omnia II M8 8GB	256MiB RAM/ 7836MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i8000T Omnia Icon M8 8GB	256MiB RAM/ 512+7836MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i8000U M2 2GB	256MiB RAM/ 512+1908MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
GT-i8150 Galaxy W (Ancora)	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
GT-i8160 Galaxy Ace 2	768MiB RAM/ 3814MiB ROM			
GT-i8190 Galaxy S III Mini 8GB (Golden)	1024MiB RAM/ 7630MiB ROM	32bit ST-Ericsson NovaThor U8420	2x ARM Cortex-A9	ARMv7
GT-i8190 Galaxy S III Mini Crystal Edition (Golden)	1024MiB RAM/ 15258MiB ROM	32bit ST-Ericsson NovaThor U8420	2x ARM Cortex-A9	ARMv7
GT-i8190 Galaxy S III Mini NFC 16GB (Golden)	1024MiB RAM/ 15258MiB ROM	32bit ST-Ericsson NovaThor U8420	2x ARM Cortex-A9	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
GT-i8190 Galaxy S III Mini NFC 8GB (Golden)	1024MiB RAM/ 7630MiB ROM	32bit ST-Ericsson NovaThor U8420	2x ARM Cortex-A9	ARMv7
GT-i8190L Galaxy S III Mini (Golden)	1024MiB RAM/ 7630MiB ROM	32bit ST-Ericsson NovaThor U8420	2x ARM Cortex-A9	ARMv7
GT-i8190T Galaxy S III Mini NFC 16GB (Golden)	1024MiB RAM/ 15258MiB ROM	32bit ST-Ericsson NovaThor U8420	2x ARM Cortex-A9	ARMv7
GT-i8260 Galaxy Core	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
GT-i8262/GT-i8262D Galaxy Core Duos	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
GT-i8320 Protector	256MiB RAM/ 15360MiB ROM	32bit Texas Instruments OMAP 3430	ARM Cortex-A8	ARMv7
GT-i8350 Omnia W (Wembley)	512MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
GT-i8510 INNOV8 16GB	128MiB RAM/ 256+15258MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
GT-i8510 INNOV8 8GB	128MiB RAM/ 256+7630MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
GT-i8510L 8GB	128MiB RAM/ 256+7630MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
GT-i8520 Galaxy Beam 16GB/Halo	384MiB RAM/ 512+15360MiB ROM	32bit Texas Instruments OMAP 3440	ARM Cortex-A8	ARMv7
GT-i8530 Galaxy Beam	768MiB RAM/ 7630MiB ROM	32bit ST-Ericsson NovaThor U8500	2x ARM Cortex-A9	ARMv7
GT-i8550 Galaxy Win	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 200 MSM8225Q	4x ARM Cortex-A5	ARMv7-A
GT-i8550L Galaxy Win	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 200 MSM8225Q	4x ARM Cortex-A5	ARMv7-A
GT-i8552 Galaxy Win Duos/Galaxy Grand Quattro	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 200 MSM8625Q	4x ARM Cortex-A5	ARMv7-A
GT-i8700 Omnia 7	512+7600MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
GT-i8730 Galaxy Express	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
GT-i8730T Galaxy Express	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
GT-i8750 Ativ S 16GB	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 MSM8260A	2x Qualcomm Krait	ARMv7
GT-i8750 Ativ S 32GB	1024MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 MSM8260A	2x Qualcomm Krait	ARMv7
GT-i8910 16GB/Omnia HD	256MiB RAM/ 256+15258MiB ROM	32bit Texas Instruments OMAP 3430	ARM Cortex-A8	ARMv7
GT-i8910 HD 8GB	256MiB RAM/ 256+7630MiB ROM	32bit Texas Instruments OMAP 3430	ARM Cortex-A8	ARMv7
GT-i9000 Galaxy S 16GB	512MiB RAM/ 15600MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
GT-i9000 Galaxy S 8GB	512MiB RAM/ 7800MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
GT-i9000M Galaxy S Vibrant	512MiB RAM/ 15600MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
GT-i9001 Galaxy S Plus/Galaxy S 2011 Edition	512MiB RAM/ 7800MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
GT-i9003 Galaxy SL	512MiB RAM/ 15600MiB ROM	32bit Texas Instruments OMAP 3630	ARM Cortex-A8	ARMv7
GT-i9010 Giorgio Armani Galaxy S	512MiB RAM/ 15600MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
GT-i9020A Nexus S (Soju)	512MiB RAM/ 15258MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
GT-i9020T Nexus S (Soju)	512MiB RAM/ 15258MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
GT-i9023 Nexus S (Soju)	512MiB RAM/ 1908+15258MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
GT-i9070 Galaxy S Advance	768MiB RAM/ 7630MiB ROM	32bit ST-Ericsson NovaThor U8500	2x ARM Cortex-A9	ARMv7
GT-i9070P Galaxy S Advance NFC	768MiB RAM/ 7630MiB ROM	32bit ST-Ericsson NovaThor U8500	2x ARM Cortex-A9	ARMv7
GT-i9100 Galaxy S II 16GB	1024MiB RAM/ 15600MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9100 Galaxy S II 32GB	1024MiB RAM/ 31000MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9100 Galaxy S2 Crystal Edition	1024MiB RAM/ 31000MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
GT-i9100G Galaxy S II	1024MiB RAM/ 15600MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-i9100L Galaxy S II LATAM	1024MiB RAM/ 15600MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9100M Galaxy S II CA	1024MiB RAM/ 15600MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9100P Galaxy S II NFC	1024MiB RAM/ 15600MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9100T Galaxy S II AU	1024MiB RAM/ 15600MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9103 Galaxy Z/Galaxy R	1024MiB RAM/ 7630MiB ROM	32bit NVIDIA Tegra 2 250 AP20H	2x ARM Cortex-A9	ARMv7-A
GT-i9158 Galaxy Mega 5.8	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9158V Galaxy Mega Plus 4G TD-LTE	2048MiB RAM/ 7630MiB ROM			
GT-i9190 Galaxy S4 Mini 16GB (Serrano)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230AB	2x Qualcomm Krait	ARMv7
GT-i9190 Galaxy S4 Mini 8GB (Serrano)	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230AB	2x Qualcomm Krait	ARMv7
GT-i9190 Galaxy S4 Mini La Fleur Edition (Serrano)	1536MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230AB	2x Qualcomm Krait	ARMv7
GT-i9192 Galaxy S4 Mini Duos (Serrano)	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230AB	2x Qualcomm Krait	ARMv7
GT-i9195 Galaxy S4 Mini Black Edition (Serrano)	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9195 Galaxy S4 Mini LTE (Serrano)	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9195 Galaxy S4 Mini LTE 16GB (Serrano)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9197 Galaxy S4 Mini TD-LTE (Serrano)	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9200 Galaxy Mega 6.3 16GB	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230AB	2x Qualcomm Krait	ARMv7
GT-i9200 Galaxy Mega 6.3 8GB	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230AB	2x Qualcomm Krait	ARMv7
GT-i9200X Galaxy Mega 6.3	1536MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230AB	2x Qualcomm Krait	ARMv7
GT-i9205 Galaxy Mega 6.3 LTE 16GB	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9205 Galaxy Mega 6.3 LTE 8GB	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9210 Galaxy S II LTE EU (Celox)	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
GT-i9210T Galaxy S II 4G AU (Celox)	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
GT-i9220 Galaxy Note 16GB	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9220 Galaxy Note 32GB	1024MiB RAM/ 30518MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9228 Galaxy Note	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-i9230 Galaxy Golden	1536MiB RAM/ 15259MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9235 Galaxy Golden LTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
GT-i9250 Galaxy Nexus 16 GB/Prime (Yakju)	1024MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
GT-i9250 Galaxy Nexus 32GB/Prime (Yakju)	1024MiB RAM/ 30518MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
GT-i9250M Galaxy Nexus (Yakju)	1024MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
GT-i9260 Galaxy Premier 16GB (Superior)	1024MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 4470	2x ARM Cortex-A9	ARMv7
GT-i9295 Galaxy S4 Active (Fortius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9300 Galaxy S III 16GB/Galaxy S3	1024MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-i9300 Galaxy S III 32GB	1024MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
GT-i9300 Galaxy S III 64GB	1024MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-i9300 Galaxy S III La Fleur Edition	1024MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-i9300I Galaxy SIII Neo+ Duos/Galaxy S3 Neo	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
GT-i9300T Galaxy S III	1024MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-i9305 Galaxy S III LTE EU	2048MiB RAM/ MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-i9305T Galaxy S III 4G	2048MiB RAM/ MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-i9500 Galaxy S 4 16GB (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5410	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
GT-i9500 Galaxy S4 32GB (Altius)	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5410	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
GT-i9500 Galaxy S4 64GB (Altius)	2048MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5410	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
GT-i9500 Galaxy S4 Crystal Edition (Altius)	2048MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5410	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
GT-i9500 Galaxy S4 La Fleur Edition (Altius)	2048MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5410	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
GT-i9505 Galaxy S4 Black Edition 32GB (Altius)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9505 Galaxy S4 LTE/Galaxy S IV LTE 64GB (Altius)	2048MiB RAM/ 61035MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9505 Galaxy S4 LTE 16GB (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9505 Galaxy S4 LTE 32GB (Altius)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9505G Galaxy S4 LTE Google Play (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9506 Galaxy S4 with LTE+/Galaxy S4 Advance 16GB	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
GT-i9506 Galaxy S4 with LTE+/Galaxy S4 Advance 32GB	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
GT-i9507 Galaxy S4 TDD LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9507V Galaxy S4 TD-LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9515 Galaxy S4 Value Edition (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-i9515L Galaxy S4 Value Edition/S4 VE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
GT-N5100 Galaxy Note 8.0/Galaxy Note 510 16GB (Kona)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N5100 Galaxy Note 8.0 32GB (Kona)	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N5105 Galaxy Note 8.0 LTE 32GB (Kona)	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N5110 Galaxy Note 8.0 WiFi/Galaxy Note 511 16GB (Kona)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
GT-N5110 Galaxy Note 8.0 WiFi 32GB (Kona)	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N5120 Galaxy Note 8.0 LTE 16GB (Kona)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N7000/GT-N7000B Galaxy Note 16GB	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-N7000 Galaxy Note 32GB	1024MiB RAM/ 30518MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-N7005 Galaxy Note LTE	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
GT-N7100 Galaxy Note II 16GB	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N7100 Galaxy Note II 32GB	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N7100 Galaxy Note II 64GB	2048MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N7105 Galaxy Note II LTE 32GB	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N7105T Galaxy Note II LTE	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N8000/GT-N8005 Galaxy Note 800 16GB	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N8000 Galaxy Note 10.1 3G/GT-N8005 Galaxy Note 800 3G 32GB	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N8000 Galaxy Note 10.1 3G 64GB/GT-N8005	2048MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N8010 Galaxy Note 10.1 WiFi/GT-N8013 32GB	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-N8010 Galaxy Note 10.1 WiFi 64GB	2048MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
GT-P1000 Galaxy Tab 7.0 16GB	512MiB RAM/ 15600MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
GT-P1000 Galaxy Tab 7.0 32GB	512MiB RAM/ 31200MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
GT-P1000N Galaxy Tab 7.0	512MiB RAM/ 15600MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
GT-P1010 Galaxy Tab 7.0 Wi-Fi 16GB	512MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 3621	ARM Cortex-A8	ARMv7
GT-P3100 Galaxy Tab 2 7.0 3G 16GB	1024MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-P3100 Galaxy Tab 2 7.0 3G 32GB	1024MiB RAM/ 30518MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-P3105 Galaxy Tab 2 7.0 3G 16GB	1024MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-P3110 Galaxy Tab 2 7.0 WiFi 16GB	1024MiB RAM/ 30518MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-P3113 Galaxy Tab 2 7.0 WiFi 8GB	1024MiB RAM/ 7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-P5100 Galaxy Tab 2 10.1 16GB	1024MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-P5100 Galaxy Tab 2 10.1 32GB	1024MiB RAM/ 30518MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-P5110 Galaxy Tab 2 10.1 WiFi 16GB	1024MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
GT-P6200 Galaxy Tab 7.0 Plus 16GB	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-P6201 Galaxy Tab 7.0 Plus N 16GB	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-P6210 Galaxy Tab 7.0 Plus WiFi 16GB	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-P6211 Galaxy Tab 7.0 Plus N WiFi 16GB	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-P6800 Galaxy Tab 7.7 64GB	1024MiB RAM/ 61035MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-P6810 Galaxy Tab 7.7 WiFi 16GB	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-P7100 Galaxy Tab 10.1v 16GB	1024MiB RAM/ 15600MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
GT-P7300 Galaxy Tab 8.9 16GB/Galaxy Tab 730	1024MiB RAM/ 30518MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7300 Galaxy Tab 8.9 32GB/Galaxy Tab 730	1024MiB RAM/ 30518MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7310 Galaxy Tab 8.9 Wi-Fi 16GB	1024MiB RAM/ 15600MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7320 Galaxy Tab 8.9 LTE 16GB	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
GT-P7500 Galaxy Tab 10.1 16GB/Galaxy Tab 750 (Arnold)	1024MiB RAM/ 15258MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7500 Galaxy Tab 10.1 32GB (Arnold)	1024MiB RAM/ 30518MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7500 Galaxy Tab 10.1 64GB (Arnold)	1024MiB RAM/ 62000MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7501 Galaxy Tab 10.1N 16GB	1024MiB RAM/ 15258MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7510 Galaxy Tab 10.1 Wi-Fi 16GB	1024MiB RAM/ 15600MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7510 Galaxy Tab 10.1 Wi-Fi 32GB	1024MiB RAM/ 31000MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
GT-P7560 Galaxy Tab 7.0 Plus 16GB	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-P7560 Galaxy Tab 7.0 Plus 32GB	1024MiB RAM/ 30518MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
GT-P8510 Ativ Tab 32GB	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 APQ8060A	2x Qualcomm Krait	ARMv7
GT-P8510 Ativ Tab 64GB	2048MiB RAM/ 61035MiB ROM	32bit Qualcomm Snapdragon S4 APQ8060A	2x Qualcomm Krait	ARMv7
GT-S5283B Galaxy Star Trios	512MiB RAM/ 3815MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
GT-S5570 Galaxy Mini	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
GT-S5660 Galaxy Gio	512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
GT-S5670 Galaxy Fit	512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
GT-S5830 Galaxy Ace (Cooper)	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
GT-S5830T Galaxy Ace (Cooper)	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
GT-S6310 Galaxy Young	768MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
GT-S6310N Galaxy Young	768MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
GT-S6312 Galaxy Young Duos	768MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
GT-S6313T Galaxy Young Duos TV	768MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
GT-S6500 Galaxy Mini 2 (Jena)	384MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
GT-S7260 Galaxy Star Pro	512MiB RAM/ 3815MiB ROM			
GT-S7262 Galaxy Star Pro Duos	512MiB RAM/ 3815MiB ROM			
GT-S7275/GT-S7275R Galaxy Ace 3 LTE	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
GT-S7500 Galaxy Ace Plus	512MiB RAM/ 2860MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
GT-S7500L Galaxy Ace Plus	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
GT-S7530 Omnia M/GT-S7530E	384MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
GT-S7530L Omnia M	384MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
GT-S7562 Galaxy S Duos	768MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A
GT-S7710 Galaxy Xcover 2	1024MiB RAM/ 3814MiB ROM	32bit ST-Ericsson NovaThor U8420	2x ARM Cortex-A9	ARMv7
GT-S8500 Wave 2GB	1908MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
GT-S8500 Wave 8GB	7800MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
GT-S8530 Galaxy Ace Hugo Boss Edition (Cooper)	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
SCH-i100 Gem	256MiB RAM/ 512MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
SCH-i110 Illusion	512MiB RAM/ 2048MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-i200 Galaxy Stellar 4G (Jasper)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SCH-i220 Code	128MiB RAM/ 128MiB ROM			
SCH-i225 Exec	128MiB RAM/ 256MiB ROM			
SCH-I400 Galaxy S Continuum	384MiB RAM/ 512+1908MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SCH-i405 Stratosphere 4G (Aegis)	512MiB RAM/ 3814MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-i405U Galaxy Metrix 4G (Aegis)	512MiB RAM/ MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-i415 Galaxy Stratosphere II	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SCH-I435 Galaxy S4 Mini LTE (Serrano)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SCH-I500 Galaxy S Fascinate	512MiB RAM/ 1908MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SCH-I500 Galaxy S Mesmerize	512MiB RAM/ 1908MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SCH-i510 Droid Charge 4G LTE (Stealth)	512MiB RAM/ 1908MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-i515 Galaxy Nexus (Prime)	1024MiB RAM/ 30518MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
SCH-i545 Galaxy S4 (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SCH-i545 Galaxy S4 32GB (Altius)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SCH-i545L Galaxy S4 LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SCH-i605 Galaxy Note II LTE	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SCH-i705 Galaxy Tab 2 7.0 4G LTE	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
SCH-I759 Galaxy Infinite	768MiB RAM/ 3815MiB ROM	32bit Qualcomm Snapdragon S4 MSM8625	2x ARM Cortex-A5	ARMv7-A
SCH-i760	64MiB RAM/ 128MiB ROM	32bit Samsung SC32442	ARM920T	ARMv4T
SCH-i770 Saga	128MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7500	ARM1136EJ-S	ARMv6
SCH-i869 Galaxy Win	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 200 MSM8225Q	4x ARM Cortex-A5	ARMv7-A
SCH-i899	256MiB RAM/ 512MiB ROM			
SCH-i915 Galaxy Tab 2 10.1 4G	1024MiB RAM/ MiB ROM			
SCH-i920 Omnia II 8GB	256MiB RAM/ 512+7680MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
SCH-i925 Galaxy Note 10.1 LTE	2048MiB RAM/ MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SCH-i925U Galaxy Note 10.1 LTE	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SCH-i930 Ativ S/Ativ Odyssey	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SCH-M620	64MiB RAM/ 128MiB ROM	32bit Texas Instruments OMAP 1710	ARM926TEJ	ARMv5TEJ
SCH-M828C Galaxy Precedent	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
SCH-P709 Galaxy Mega 5.8	1536MiB RAM/ 7630MiB ROM			
SCH-R530 Galaxy S III LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SCH-R530M Galaxy S III LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SCH-R680 Repp	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SCH-R720 Admire	512MiB ROM/ 3.5" 320x480 LCD	800MHz CPU		
SCH-R720 Vitality	512MiB RAM/ 512MiB ROM			
SCH-R730 Transfix	512MiB ROM/ 3.5" 320x480 LCD	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
SCH-R760 Galaxy S II CDMA	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
SCH-R820 Galaxy Admire 4G	512MiB RAM/ 1908MiB ROM			
SCH-R830 Galaxy Axiom	768MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
SCH-R860 Ativ Odyssey	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SCH-R880 Acclaim	512MiB ROM/ 3.2" 320x480 LCD	800MHz CPU		
SCH-R910 Galaxy Indulge/Forte	512MiB RAM/ 1908MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-R915 Indulge	512MiB RAM/ 1908MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-R920 Galaxy Attain 4G	512MiB RAM/ 1908MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
SCH-R930 Galaxy S Aviator (Stealth)	512MiB RAM/ 1908MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-R940 Galaxy S Lightray 4G (Stealth)	512MiB RAM/ 1908MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-R950 Galaxy Note II LTE	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SCH-R960 Galaxy Mega 6.3 LTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SCH-R970 Galaxy S IV LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SCH-R970C Galaxy S 4 LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SCH-R970X Galaxy S4 LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SCH-S720C Galaxy Proclaim	512MiB RAM/ 2048MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SCH-S738C Galaxy Centura	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7625A	ARM Cortex-A5	ARMv7-A
SCH-W789 Galaxy Folder (Hennessy)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 200 MSM8625Q	4x ARM Cortex-A5	ARMv7-A
SGH-D720	32MiB RAM/ 64MiB ROM	32bit Texas Instruments OMAP 5910	ARM925T (TI-enhanced)	ARMv5
SGH-D730	32MiB RAM/ 64MiB ROM	32bit Texas Instruments OMAP 5910	ARM925T (TI-enhanced)	ARMv5
SGH-G810	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
SGH-i187 Ativ S Neo (Cronus LTE)	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
SGH-i200	64MiB RAM/ 128MiB ROM	32bit STMicroelectronics Nomadik STn8810	ARM926EJ	ARMv5TE
SGH-i257 Galaxy S4 Mini (Serrano)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SGH-i317 Galaxy Note II LTE	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SGH-i317M Galaxy Note II LTE	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SGH-i337 Galaxy S 4 LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SGH-i337 Galaxy S 4 LTE 32GB (Altius)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SGH-i337M Galaxy S 4 LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SGH-i337Z Galaxy S 4 LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SGH-i400	64MiB RAM/ 128MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
SGH-i437 Galaxy Express	768MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SGH-i450	64MiB RAM/ 128MiB ROM	32bit Texas Instruments OMAP 2431	ARM1136	ARMv6
SGH-i467 Galaxy Note 8.0 LTE (Kona)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SGH-i467M Galaxy Note 8.0 LTE (Kona)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SGH-i497 Galaxy Tab 2 10.1	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SGH-i520/SGH-i520v	64MiB RAM/ 128MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
SGH-i527 Galaxy Mega 6.3 LTE	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SGH-i527M Galaxy Mega 6.3 LTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SGH-i537 Galaxy S 4 Active (Fortius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SGH-i550	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
SGH-i550w	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
SGH-i560/SGH-i560v	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2430	ARM1136	ARMv6
SGH-i577 Galaxy Exhilarate	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S3 MSM8260	2x Qualcomm Scorpion	ARMv7
SGH-i600 HSDPA	64MiB RAM/ 128MiB ROM	32bit Texas Instruments OMAP 1710	ARM926TEJ	ARMv5TEJ
SGH-i607 BlackJack	64MiB RAM/ 128MiB ROM	32bit Texas Instruments OMAP 1710	ARM926TEJ	ARMv5TEJ
SGH-i616	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2420	ARM1136	ARMv6
SGH-i617 BlackJack II	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2420	ARM1136	ARMv6
SGH-i617 Jack	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2420	ARM1136	ARMv6
SGH-i617T	128MiB RAM/ 256MiB ROM	32bit Texas Instruments OMAP 2420	ARM1136	ARMv6
SGH-i627 Propel Pro	128MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7201A	ARM1136EJ-S	ARMv6
SGH-i637 Jack	256MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7225, 528MHz	ARM1136EJ-S	ARMv6
SGH-i667 Focus 2 (Mandel)	512MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
SGH-i677 Focus Flash	512MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
SGH-i717 Galaxy Note LTE	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SGH-i717D Galaxy Note	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SGH-i727 Galaxy S II Skyrocket	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SGH-i727R Galaxy S II LTE (Celox)	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SGH-i747 Galaxy S III LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SGH-i747M Galaxy S III LTE 16GB	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SGH-i747M Galaxy S III LTE 32GB	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SGH-i757M Galaxy S II HD LTE (Dali)	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SGH-i777 Galaxy S II (Singa)	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
SGH-i777 Saga	128MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7500	ARM1136EJ-S	ARMv6
SGH-i827 Galaxy Appeal	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
SGH-i827D Galaxy Ace Q	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
SGH-i847 Rugby Smart	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
SGH-i857 DoubleTime (Habrok)	256MiB RAM/ 1024MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
SGH-i897 Galaxy S Captivate	512MiB RAM/ 15600MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-i907 Epix	128MiB RAM/ 256MiB ROM	32bit Qualcomm MSM6260	ARM926EJ-S	ARMv5TEJ
SGH-i917 Focus (Cetus)	256MiB RAM/ 512+7630MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SGH-i927 Captivate Glide (Gidim)	1024MiB RAM/ 1024+7630MiB ROM	32bit NVIDIA Tegra 2 250 AP20H	2x ARM Cortex-A9	ARMv7-A
SGH-i937 Focus S (Kupua)	15258MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255T	Qualcomm Scorpion	ARMv7
SGH-i957 Galaxy Tab 8.9 4G LTE 64GB	1024MiB RAM/ 61035MiB ROM	32bit NVIDIA Tegra 2 3D T25	2x ARM Cortex-A9	ARMv7-A
SGH-i987 Galaxy Tab 7.0	640MiB RAM/ 512+17166MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-i997 Galaxy S Infuse 4G	512MiB RAM/ 15258MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-i997R Galaxy S Infuse 4G	512MiB RAM/ 15258MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-iT999 Galaxy S III	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SGH-L870	128MiB RAM/ 256MiB ROM	32bit STMicroelectronics Nomadik STn8815P14	ARM926EJ-S	ARMv5TEJ
SGH-M819N Galaxy Mega 6.3 LTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SGH-M919 Galaxy S4 (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SGH-M919V Galaxy S4 (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SGH-N044 Galaxy Nexus SC-04D (Yakju SC)	1024MiB RAM/ 30518MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7
SGH-N075T Galaxy J	3072MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SGH-S970G Galaxy S 4 LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SGH-T399 Galaxy Light (Garda)	1024MiB RAM/ 7630MiB ROM			
SGH-T499 Dart (Tass)	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
SGH-T499Y Galaxy Mini (Tass)	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
SGH-T589 Gravity SMART/Gravity Touch 2	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
SGH-T589R Galaxy Q	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227, 600MHz	ARM1136EJ-S	ARMv6
SGH-T599 Galaxy Exhibit	1024MiB RAM/ 15258MiB ROM	32bit ST-Ericsson NovaThor U8420	2x ARM Cortex-A9	ARMv7
SGH-T679 Exhibit II 4G (Ancora)	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
SGH-T679M Galaxy W 4G (Ancora)	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
SGH-T759 Exhibit 4G	512MiB RAM/ 1024MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-T779 Galaxy Tab 2 10.1 4G	1024MiB RAM/ MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
SGH-T859 Galaxy Tab 10.1 4G 16GB (Arnold)	1024MiB RAM/ 15258MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
SGH-T879 Galaxy Note	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SGH-T889 Galaxy Note 2 LTE	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SGH-T889V Galaxy Note 2	2048MiB RAM/ MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SGH-T899M Ativ S LTE	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S1 QSD8650	Qualcomm Scorpion	ARMv7
SGH-t939 Behold II	320MiB RAM/ 512MiB ROM			
SGH-T959 Galaxy S Vibrant	512MiB RAM/ 15600MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-T959D Galaxy S Fascinate 3G+	512MiB RAM/ 15600MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-T959P Fascinate 4G	512MiB RAM/ 1024MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-T959V Galaxy S 4G	512MiB RAM/ 1024MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SGH-T989 Galaxy SII Plus (Hercules)	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SGH-T989D Galaxy S II X (Hercules)	1024MiB RAM/ 15600MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
SGH-Z600	64MiB RAM/ 128MiB ROM	32bit Texas Instruments OMAP 5910	ARM925T (TI-enhanced)	ARMv5

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SM-A3009 Galaxy A3 Duos TD-LTE	1024MiB RAM/ 15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A300F Galaxy A3 LTE	1024MiB RAM/ 15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A300FU Galaxy A3 LTE	1024MiB RAM/ 15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A300G Galaxy A3 Duos LTE	1024MiB RAM/ 15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A300H Galaxy A3 HSPA	1024MiB RAM/ 15259MiB ROM			
SM-A300H/DS Galaxy A3 Duos HSPA	1024MiB RAM/ 15259MiB ROM			
SM-A300M Galaxy A3 LTE	1024MiB RAM/ 15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A300Y Galaxy A3 LTE	1024MiB RAM/ 15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A300YZ Galaxy A3 LTE	1024MiB RAM/ 15259MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500F Galaxy A5 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500FD Galaxy A5 Duos LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500FU Galaxy A5 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500G Galaxy A5 Duos LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500H Galaxy A5 HSPA	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500K Galaxy A5 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500L Galaxy A5 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500M Galaxy A5 TD-LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500S Galaxy A5 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500Y Galaxy A5 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-A500YZ Galaxy A5 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32,

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SM-A7000 Galaxy A7 Duos TD-LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	A64) ARMv8 (A32, A64)
SM-A7009 Galaxy A7 Duos TD-LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-A700F Galaxy A7 LTE-A	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-A700FD Galaxy A7 Duos LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-A700H Galaxy A7 HSPA	2048MiB RAM/ 15258MiB ROM	64bit Samsung Exynos 5 Octa 5433	4x ARM Cortex-A57 MPcore + 4x ARM Cortex-A53 Mpcore	ARMv8-A (A32, A64)
SM-A700K Galaxy A7 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-A700L Galaxy A7 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-A700S Galaxy A7 LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-A700YD Galaxy A7 Duos LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-C101 Galaxy S4 Zoom/SM-C1010	1536MiB RAM/ 7630MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-C105 Galaxy S4 Zoom LTE	1536MiB RAM/ 7630MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-C105A Galaxy S4 Zoom LTE	1536MiB RAM/ 7630MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-C111 Galaxy K zoom 3G	2048MiB RAM/ 7630MiB ROM	32bit Samsung Exynos 5 Hexa 5260	2x ARM Cortex-A15	ARMv7
SM-C115 Galaxy K zoom LTE-A	2048MiB RAM/ 7630MiB ROM	32bit Samsung Exynos 5 Hexa 5260	2x ARM Cortex-A15	ARMv7
SM-C115M Galaxy K zoom LTE-A	2048MiB RAM/ 7630MiB ROM	32bit Samsung Exynos 5 Hexa 5260	2x ARM Cortex-A15	ARMv7
SM-E500F/DS Galaxy E5 Duos 4G LTE	1536MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-E700F/DS Galaxy E7 Duos 4G LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-E700M/DS Galaxy E7 Duos 4G LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G110B Galaxy Pocket 2 Duos	512MiB RAM/ 3814MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
SM-G130E Galaxy Star 2 Duos	512MiB RAM/ 3815MiB ROM	32bit Spreadtrum SC6815A	ARM Cortex-A7 Mpcore	ARMv7-A
SM-G130H Galaxy Young 2 Duos	512MiB RAM/ 3814MiB ROM	32bit Spreadtrum SC6815A	ARM Cortex-A7 Mpcore	ARMv7-A
SM-G130HN Galaxy Young 2 Duos NFC	512MiB RAM/ 3814MiB ROM	32bit Spreadtrum SC6815A	ARM Cortex-A7 Mpcore	ARMv7-A
SM-G310A Galaxy Ace 4 LTE/SM-G310AZ	1024MiB RAM/ 3815MiB ROM			
SM-G310R5 GreatCall Touch3/Jitterbug Touch	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 200 MSM8610	2x ARM Cortex-A7	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
3				
SM-G3139D Galaxy Ace 4 CDMA	1024MiB RAM/ 3815MiB ROM			
SM-G313H Galaxy Ace NXT Duos/SM-G313H/DS Galaxy Ace 4 Lite	512MiB RAM/ 3815MiB ROM	32bit Spreadtrum SC7715	ARM Cortex-A7	ARMv7-A
SM-G350E Galaxy Star Advance	512MiB RAM/ 3815MiB ROM			
SM-G3518 Galaxy Core TD-LTE	1024MiB RAM/ 7630MiB ROM			
SM-G3556D Galaxy Core 2 Duos	512MiB RAM/ 3815MiB ROM			
SM-G3558 Galaxy Core 2 TD	512MiB RAM/ 3815MiB ROM			
SM-G3559 Galaxy Core 2 CDMA	512MiB RAM/ 3815MiB ROM			
SM-G355H Galaxy Core 2 Duos	512MiB RAM/ 3815MiB ROM			
SM-G355HN Galaxy Core 2	768MiB RAM/ 3815MiB ROM			
SM-G3568V Galaxy Core Mini 4G TD-LTE	1536MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
SM-G357FZ Galaxy Ace Style LTE/Galaxy Ace 4	1024MiB RAM/ 7630MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G357M Galaxy Ace Style LTE/Galaxy Ace 4	1024MiB RAM/ 7630MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G3586H Galaxy Core Lite 4G LTE	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
SM-G3586V Galaxy Core Lite 4G LTE	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
SM-G3588V Galaxy Core Lite 4G TD-LTE	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
SM-G360F Galaxy Core Prime LTE	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G360G Galaxy Core Prime TD-LTE	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G360GY Galaxy Core Prime TD-LTE	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G360H/DS Galaxy Core Prime Duos	1024MiB RAM/ 7629MiB ROM	32bit Spreadtrum SC8830A	4x ARM Cortex-A7 Mpcore	ARMv7-A
SM-G360M Galaxy Core Prime TD-LTE	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G360P Galaxy Prevail LTE/Galaxy Core Prime TD-LTE	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G360V Galaxy Core Prime	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G3815 Galaxy Express 2	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SM-G3858 Galaxy Beam 2 TD	1024MiB RAM/ MiB ROM			
SM-G3868V	1536MiB RAM/ MiB ROM			
SM-G386F Galaxy Core LTE/Galaxy Core 4G (Afyon)	1024MiB RAM/ 7630MiB ROM			

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SM-G386T Galaxy Avant/SM-G386T1 (Afyon)	1536MiB RAM/ 15258MiB ROM			
SM-G510F Galaxy Core Max LTE	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G5308 Galaxy Grand Prime TD-LTE (Fortuna)	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G530FZ Galaxy Grand Prime Duos LTE (Fortuna)	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8216	4x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-G530H Galaxy Grand Prime Duos (Fortuna)	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8216	4x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-G530M Galaxy Grand Prime LTE (Fortuna)	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G530Y Galaxy Grand Prime 4G LTE (Fortuna)	1024MiB RAM/ 7629MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G7102 Galaxy Grand 2 Duos	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G7102T Galaxy Grand 2 Duos	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G7105 Galaxy Grand 2 LTE	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
SM-G7105L Galaxy Grand 2 LTE	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
SM-G720AX Galaxy Grand 3 LTE	1536MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G720N0 Galaxy Grand Max LTE	1536MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
SM-G730A Galaxy S III Mini LTE	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
SM-G730V Galaxy S III Mini LTE	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
SM-G730W8 Galaxy S III Mini LTE	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
SM-G750A Galaxy Mega 2 4G LTE (Vasta)	1536MiB RAM/ 15258MiB ROM			
SM-G750F Galaxy Mega 2 LTE-A (Vasta)	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4415	4x ARM Cortex-A9 Mpcore	ARMv7
SM-G750H Galaxy Mega 2 Duos (Vasta)	1536MiB RAM/ 7630MiB ROM	64bit Qualcomm Snapdragon 410 MSM8216	4x ARM Cortex-A53 Mpcore	ARMv8 (A32, A64)
SM-G800A Galaxy S5 Mini LTE-A (Atlantic)	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 3 Quad 3470	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G800F Galaxy S5 Dx LTE-A/Galaxy S5 Mini (Atlantic)	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 3 Quad 3470	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G800H Galaxy S5 Mini HSPA (Atlantic)	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 3 Quad 3470	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G800H/DS Galaxy S5 Mini Duos (Atlantic)	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 3 Quad 3470	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G800M Galaxy S5 Mini LTE-A (Atlantic)	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 3 Quad 3470	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G800R4 Galaxy S5 Mini LTE-A (Atlantic)	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 3 Quad 3470	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G800Y Galaxy S5 Mini LTE-A (Atlantic)	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 3 Quad 3470	4x ARM Cortex-A7 Mpcore	ARMv7
SM-G850A Galaxy Alpha LTE-A	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SM-G850F Galaxy Alpha LTE-A/Galaxy Alpha 4G+	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5430		
SM-G850T Galaxy Alpha LTE-A	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G860P Galaxy S5 Sport TD-LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G870A Galaxy S5 Active LTE-A	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G870F Galaxy S5 Active LTE-A	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G870W Galaxy S5 Active LTE-A	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G9009D Galaxy S5 Duos (Pacific)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900A Galaxy S5 LTE-A (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900F Galaxy S5 LTE-A 16GB (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900FD Galaxy S5 Duos LTE-A (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900FG Galaxy S5 Google Play Edition (Pacific)	2048MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900H Galaxy S5 HSPA 16GB (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5422	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7 MPCore	ARMv7
SM-G900I Galaxy S5 4G LTE 16GB (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900M Galaxy S5 LTE-A (Pacific)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900MD Galaxy S5 Duos 4G LTE-A (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900P Galaxy S5 LTE-A (Pacific)	2048MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900R4 Galaxy S5 LTE-A (Pacific)	2048MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900R7 Galaxy S5 LTE-A (Pacific)	2048MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900T Galaxy S5 LTE-A (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900V Galaxy S5 LTE-A (Pacific)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G900W8 Galaxy S5 LTE-A (Pacific)	2048MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
SM-G901F Galaxy S5 4G+ LTE-A/Galaxy S 5 Plus	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084	4x Qualcomm Krait 450	ARMv7-A
SM-G9105 Galaxy Round LTE	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N750 Galaxy Note 3 Neo 3G/Note3 Lite	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Hexa 5260	2x ARM Cortex-A15	ARMv7
SM-N7500Q Galaxy Note 3 Neo 3G	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Hexa 5260	2x ARM Cortex-A15	ARMv7
SM-N7502 Galaxy Note 3 Neo Duos	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8228	4x ARM Cortex-A7 MPCore	ARMv7
SM-N7505 Galaxy Note 3 Neo LTE+	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Hexa 5260	2x ARM Cortex-A15	ARMv7
SM-N7505L Galaxy Note 3 Neo LTE+	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Hexa 5260	2x ARM Cortex-A15	ARMv7
SM-N7507 Galaxy Note 3 Neo 4G LTE	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Hexa 5260	2x ARM Cortex-A15	ARMv7
SM-N900 Galaxy Note 3 32GB/SM-N900X	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7 MPCore	ARMv7
SM-N900 Galaxy Note 3 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7 MPCore	ARMv7
SM-N9000Q Galaxy Note 3	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7 MPCore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
			Mpcore	
SM-N9005 Galaxy Note 3 LTE 32GB	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N9005 Galaxy Note 3 Olympic Games Edition	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N9007 Galaxy Note3 TD-LTE	3072MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N900A Galaxy Note 3 LTE 32GB	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N900P Galaxy Note 3 LTE	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N900R4 Galaxy Note 3 LTE	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N900T Galaxy Note 3 LTE	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N900U Galaxy Note 3 4G LTE 32GB	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N900V Galaxy Note 3 LTE	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N900W8 Galaxy Note 3 LTE	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
SM-N910A Galaxy Note 4 LTE-A (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N910F Galaxy Note 4 LTE-A (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N910G Galaxy Note 4 TD-LTE (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N910H Galaxy Note 4 HSPA (Muscat)	3072MiB RAM/ 30518MiB ROM	64bit Samsung Exynos 5 Octa 5433	4x ARM Cortex-A57 MPcore + 4x ARM Cortex-A53 Mpcore	ARMv8-A (A32, A64)
SM-N910P Galaxy Note 4 LTE-A (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N910R4 Galaxy Note 4 LTE-A (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N910T Galaxy Note 4 LTE-A (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N910U Galaxy Note 4 LTE-A (Muscat)	3072MiB RAM/ 30518MiB ROM	64bit Samsung Exynos 5 Octa 5433	4x ARM Cortex-A57 MPcore + 4x ARM Cortex-A53 Mpcore	ARMv8-A (A32, A64)
SM-N910V Galaxy Note 4 LTE-A (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N910VMKEVZW Galaxy Note 4 LTE-A Developer Edition (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N910W8 Galaxy Note 4 LTE-A (Muscat)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N9150 Galaxy Note Edge TD-LTE	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N915A Galaxy Note Edge 4G LTE	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N915F Galaxy Note Edge LTE-A 32GB	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N915FY Galaxy Note Edge LTE Cat. 6	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N915G Galaxy Note Edge TD-LTE	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N915P Galaxy Note Edge 4G TD-LTE	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N915R4 Galaxy Note Edge 4G LTE	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-N915V Galaxy Note Edge XLTE	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084 Pro	4x Qualcomm Krait 450	ARMv7-A
SM-P600 Galaxy Note 10.1 2014 WiFi 16GB	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-P600 Galaxy Note 10.1 2014 WiFi 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SM-P600 Galaxy Note 10.1 2014 WiFi 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P601 Galaxy Note 10.1 2014 3G 16GB	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P601 Galaxy Note 10.1 2014 3G 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P601 Galaxy Note 10.1 2014 3G 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P602 Galaxy Note 10.1 2014 Edition 3G	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P605 Galaxy Note 10.1 2014 LTE-A 16GB	3072MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P605 Galaxy Note 10.1 2014 LTE-A 32GB	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P605 Galaxy Note 10.1 2014 LTE-A 64GB	3072MiB RAM/ 61035MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P605M Galaxy Note 10.1 2014 LTE-A	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P605V Galaxy Note 10.1 2014 LTE-A	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P607T Galaxy Note 10.1 2014 LTE-A	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P900 Galaxy NotePRO 12.2 WiFi 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P900 Galaxy NotePRO 12.2 WiFi 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P901 Galaxy NotePRO 12.2 3G 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P901 Galaxy NotePRO 12.2 3G 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P902 Galaxy NotePRO 12.2 3G	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	Mpcore 4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7
SM-P905 Galaxy NotePRO 12.2 LTE-A 32GB	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P905 Galaxy NotePRO 12.2 LTE-A 64GB	3072MiB RAM/ 61035MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P905M Galaxy NotePRO 12.2 LTE-A	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P905V Galaxy NotePRO 12.2 LTE-A 64GB	3072MiB RAM/ 61035MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-P907A Galaxy NotePRO 12.2 LTE-A	3072MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-R350 Gear Fit	/ MiB ROM			
SM-R380 Gear 2	512MiB RAM/ 3814MiB ROM	32bit Samsung Exynos 3 Dual 3250	2x ARM Cortex-A7	ARMv7
SM-R381 Gear 2 Neo	512MiB RAM/ 3814MiB ROM	32bit Samsung Exynos 3 Dual 3250	2x ARM Cortex-A7	ARMv7
SM-R382 Gear Live	512MiB RAM/ 3814MiB ROM			
SM-R750 Gear S 3G	512MiB RAM/ 3815MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SM-R750B Gear S 3G	512MiB RAM/ 3815MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
SM-R750D Gear S 3G	512MiB RAM/ 3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
SM-R750P Gear S CDMA	512MiB RAM/ 3815MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
SM-R750R4 Gear S CDMA	512MiB RAM/ 3815MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
SM-R750V Gear S CDMA	512MiB RAM/ 3815MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
SM-S890L Galaxy S4 Mini LTE (Serrano)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SM-S975L Galaxy S 4 LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SM-T215 Galaxy Tab 3 7.0 4G LTE	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SM-T217A Galaxy Tab 3 7.0 4G LTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SM-T217S Galaxy Tab 3 7.0 4G LTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SM-T217T Galaxy Tab 3 7.0 4G LTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SM-T237P Galaxy Tab4 7.0 LTE (Degas)	1024MiB RAM/ 7629MiB ROM			
SM-T2556 Galaxy TabQ/Galaxy Mega 7.0	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T310 Galaxy Tab 3 8.0 WiFi 16GB	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-T310 Galaxy Tab 3 8.0 WiFi 32GB	1536MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-T311 Galaxy Tab 3 8.0 3G 16GB	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-T311 Galaxy Tab 3 8.0 3G 32GB	1536MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-T315 Galaxy Tab 3 8.0 LTE 16GB	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-T315T Galaxy Tab 3 8.0 LTE 16GB	1536MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Dual 4212	2x ARM Cortex-A9	ARMv7
SM-T320 Galaxy TabPRO 8.4 WiFi/SM-T320X Galaxy Tab PRO 8.4 16GB	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 APQ8074 v1	4x Qualcomm Krait 400	ARMv7
SM-T320 Galaxy TabPRO 8.4 WiFi/SM-T320X Galaxy Tab PRO 8.4 32GB	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 APQ8074 v1	4x Qualcomm Krait 400	ARMv7
SM-T325 Galaxy TabPRO 8.4 LTE-A 16GB	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-T325 Galaxy TabPRO 8.4 LTE-A 32GB	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-T327A Galaxy TabPRO 8.4 LTE-A	2048MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-T330 Galaxy Tab4 8.0 WiFi (Millet)	1536MiB RAM/ 15258MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
SM-T331 Galaxy Tab4 8.0 3G (Millet)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
SM-T335 Galaxy Tab4 8.0 LTE-A (Millet)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T337A Galaxy Tab 4 8.0 LTE-A (Millet)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T337T Galaxy Tab 4 8.0 LTE (Millet)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T337V Galaxy Tab 4 8.0 LTE-A (Millet)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T360 Galaxy Tab Active WiFi	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 APQ8026	4x ARM Cortex-A7 Mpcore	ARMv7
SM-T365 Galaxy Tab Active LTE-A	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T520 Galaxy TabPRO 10.1 WiFi 16GB (Picasso)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T520 Galaxy TabPRO 10.1 WiFi 32GB	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
(Picasso)			Mpcore	
SM-T525 Galaxy TabPRO 10.1 LTE-A 16GB	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
(Picasso)				
SM-T525 Galaxy TabPRO 10.1 LTE-A 32GB	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
(Picasso)				
SM-T527P Galaxy TabPRO 10.1 TD-LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
(Picasso)				
SM-T530 Galaxy Tab 4 Education	1536MiB RAM/ 15259MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
SM-T530 Galaxy Tab 4 NOOK 10.1	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 APQ8026	4x ARM Cortex-A7 Mpcore	ARMv7
SM-T530 Galaxy Tab4 10.1 WiFi	1536MiB RAM/ 15258MiB ROM	32bit ARM Cortex-A7 MPCore	2x ARM Cortex-A7	ARMv7-A
SM-T531 Galaxy Tab4 10.1 3G	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
SM-T535 Galaxy Tab4 10.1 LTE-A	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T537A Galaxy Tab4 10.1 LTE-A	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T537R4 Galaxy Tab4 10.1 LTE-A	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T537V Galaxy Tab4 10.1 XLTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPCore	ARMv7
SM-T700 Galaxy Tab S 8.4-inch WiFi 16GB	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
(Klimt)			Mpcore	
SM-T700 Galaxy Tab S 8.4-inch WiFi 32GB	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
(Klimt)			Mpcore	
SM-T705 Galaxy Tab S 8.4-inch LTE-A 16GB	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
(Klimt)			Mpcore	
SM-T705 Galaxy Tab S 8.4-inch LTE-A 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
(Klimt)			Mpcore	
SM-T705M Galaxy Tab S 8.4-inch LTE-A (Klimt)	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
			Mpcore	
SM-T705Y Galaxy Tab S 8.4-inch LTE-A (Klimt)	3072MiB RAM/ MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
			Mpcore	
SM-T707A Galaxy Tab S 8.4-inch LTE-A (Klimt)	3072MiB RAM/ MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
			Mpcore	
SM-T707V Galaxy Tab S 8.4-inch XLTE (Klimt)	3072MiB RAM/ MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
			Mpcore	
SM-T800 Galaxy Tab S 10.5-inch WiFi 16GB	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
(Chagall)			Mpcore	
SM-T800 Galaxy Tab S 10.5-inch WiFi 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
(Chagall)			Mpcore	
SM-T805 Galaxy Tab S 10.5-inch LTE-A 16GB	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPCore + 4x ARM Cortex-A7	ARMv7
(Chagall)			Mpcore	

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SM-T805 Galaxy Tab S 10.5-inch LTE-A 32GB (Chagall)	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T805M Galaxy Tab S 10.5-inch LTE-A (Chagall)	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T805Y Galaxy Tab S 10.5-inch LTE-A (Chagall)	3072MiB RAM/ MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T807A Galaxy Tab S 10.5-inch LTE-A (Chagall)	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T807P Galaxy Tab S 10.5-inch TD-LTE (Chagall)	3072MiB RAM/ 15258MiB ROM			
SM-T807R4 Galaxy Tab S 10.5-inch LTE-A (Chagall)	3072MiB RAM/ MiB ROM			
SM-T807T Galaxy Tab S 10.5-inch LTE-A (Chagall)	3072MiB RAM/ MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T807V Galaxy Tab S 10.5-inch XLTE (Chagall)	3072MiB RAM/ 15258MiB ROM			
SM-T900 Galaxy TabPRO 12.2 WiFi 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T900 Galaxy TabPRO 12.2 WiFi 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T905 Galaxy TabPRO 12.2 LTE-A 32GB	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-T905 Galaxy TabPRO 12.2 LTE-A 64GB	3072MiB RAM/ 61035MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-V700 Galaxy Gear	512MiB RAM/ 3814MiB ROM			
SM-W750V Ativ SE (Huron)	2048MiB RAM/ 15259MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-Z130H/DS Z1 Duos	768MiB RAM/ 3814MiB ROM	32bit Spreadtrum SC7727S	2x ARM Cortex-A7	ARMv7-A
SPH-D600 Conquer 4G	512MiB RAM/ 1024MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
SPH-D700 Galaxy S Epic 4G	512MiB RAM/ 512MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SPH-D710 Galaxy S II 4G (Within)	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
SPH-D710 Galaxy S2 Epic Touch 4G (Within)	1024MiB RAM/ 15258MiB ROM	32bit Samsung S5PC210 Exynos 4 Dual 4210	2x ARM Cortex-A9	ARMv7
SPH-D720 Nexus S 4G (Soju)	512MiB RAM/ 15258MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
SPH-i325 ACE	64MiB RAM/ 128MiB ROM	32bit Qualcomm MSM6500		
SPH-i350 Intrepid	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7600		
SPH-i800 Ativ S Neo (Cronus LTE)	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
SPH-L300 Galaxy Victory 4G LTE (Gogh)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
SPH-L520 Galaxy S4 Mini TD-LTE (Serrano)	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SPH-L600 Galaxy Mega 6.3 TD-LTE	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930AB	2x Qualcomm Krait	ARMv7
SPH-L700 Galaxy Nexus 4G LTE (Prime)	1024MiB RAM/ 30518MiB ROM	32bit Texas Instruments OMAP 4460	2x ARM Cortex-A9	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SPH-L710 Galaxy S III LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
SPH-L710T Galaxy S III TD-LTE	2048MiB RAM/ 15258MiB ROM			
SPH-L720 Galaxy S4 (Altius)	2048MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SPH-L720T Galaxy S4 TD-LTE (Altius)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064AB	4x Qualcomm Krait 300	ARMv7
SPH-L900 Galaxy Note II LTE	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SPH-M580 Replenish	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
SPH-M6200 Ultra Messaging	64MiB RAM/ 128MiB ROM	32bit Texas Instruments OMAP 1710	ARM926TEJ	ARMv5TEJ
SPH-M820 Galaxy Prevail	384MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
SPH-M830 Galaxy Rush	768MiB RAM/ 1908MiB ROM	32bit Qualcomm MSM7627A	ARM1136EJ-S	ARMv6
SPH-M8400 Show OMNIA	256MiB RAM/ 512+3814MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
SPH-M900 Moment	288MiB RAM/ 512+64MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
SPH-M910 Intercept	256MiB RAM/ 512MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
SPH-M920 Transform	256MiB RAM/ 512MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
SPH-M930 Transform Ultra	512MiB RAM/ 1024MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
SPH-M950 Galaxy Reverb	768MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655T	Qualcomm Scorpion	ARMv7
SPH-P100 Galaxy Tab 7.0	640MiB RAM/ 512+1908MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
SPH-P600 Galaxy Note 10.1 LTE	2048MiB RAM/ MiB ROM	32bit Samsung Exynos 4 Quad 4412	4x ARM Cortex-A9 Mpcore	ARMv7
SWD-M100 Mondri	256MiB RAM/ 3814MiB ROM			
YP-G1CW/YP-G1CB Galaxy S WiFi 4.0 8GB	512MiB RAM/ 7630MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
YP-G1EW/YP-G1EB Galaxy S WiFi 4.0 16GB	512MiB RAM/ 15258MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
YP-G70CW/YP-G70CB Galaxy S WiFi 5.0 8GB	512MiB RAM/ 7630MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
YP-G70EW/YP-G70EB Galaxy S WiFi 5.0 16GB	512MiB RAM/ 15258MiB ROM	32bit Samsung-Intrinsity S5PC110	Samsung Hummingbird	ARMv7
YP-GI1CW/YP-GI1CB/Galaxy Player 4.2/Galaxy S WiFi 4.2 8GB	512MiB RAM/ 7630MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
YP-GI1EW/YP-GI1EB Galaxy Player 4.2 16GB	512MiB RAM/ 15258MiB ROM	32bit Samsung S5PC111 Exynos 3110	ARM Cortex-A8	ARMv7
YP-GP50 Galaxy Play 50/Galaxy Rossi 8GB	256MiB RAM/ 7800MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
YP-GP50 Galaxy Player 50/Galaxy Rossi 16GB	256MiB RAM/ 15600MiB ROM	32bit Samsung S3C6410	ARM1176JZF-S	ARMv6
YP-GS1CB/YP-GS1CW/Galaxy Player 3.6/Galaxy S WiFi 3.6 8GB	512MiB RAM/ 7630MiB ROM	32bit Texas Instruments OMAP 3620	ARM Cortex-A8	ARMv7
YP-GS1EB/YP-GS1EW Galaxy Player 3.6 16GB	512MiB RAM/ 15258MiB ROM	32bit Texas Instruments OMAP 3620	ARM Cortex-A8	ARMv7
Z SM-Z9005 (Redwood)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SCX-4100		Samsung Samsung Chorus2 16Bit RISC		
SCX-4100		Samsung Chorus2 (16Bit RISC)		
SCX-4200		Samsung Chorus2 CPU : Use 16/32 Bit		
SCX-4216F Series				
SCX-4300 Series		Samsung 16/32 Bit RISC Processor) Chorus 2		
SCX-4521F Series		Samsung Chorus-2 (66MHz)		

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU Core	Instruction Set(s)
SCX-4824FN/XBH		Samsung Chorus3 360 MHz		
SCX-6345N/XAA		SPGPv3(400MHz) + CIP4e		
SCX-6345N/XEE		SPGPv3(400MHz) + CIP4e		
SCX-6545N		Orion Orion2(500MHz) + CIP5+Hyper3		
SF-565P		SPGPm		
SF-565PR/XIP		SPGP		
SF-6800		?? ??		
sgH-l770				
SGH-S100				
SGH-T400				
SGH-X400				
SGH-X700				
SGH-Z240				
SRP-270				
SRP-350				
SS-1450		66 MHz		

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

TABLE A.5: NOVATEL

PRODUCT	TRADE NAME	PROCESSOR	PRIMARY CPU	INSTRUCTION SET
PKRNVWE396	Expedite E396	Qualcomm Gobi 3000		
NBZNRM-MC545	Ovation MC545	Qualcomm MDM8__		
PKRNVWMC679	Ovation MC679	Qualcomm MDM9200	Cortex A5	ARMv7
PKRNVWE371	Expedite E371	Qualcomm MDM9200	Cortex A5	ARMv7
PKRNVWMIFI5792	MiFi 5792/MiFi 2 LTE Touchscreen Mobile Hotspot	Qualcomm MDM9215	Cortex A5	ARMv7
PKRNVWMC551	Ovation MC551	Qualcomm MDM9600	Cortex A5	ARMv7
PKRNVWE362	Expedite E362	Qualcomm MDM9600	Cortex A5	ARMv7
PKRNVWMC551S	MC551S USB Modem	Qualcomm MDM9600	Cortex A5	ARMv7
PKRNVWMIFI5510	MiFi 5510 3G/4G Mobile Hotspot	Qualcomm MDM9615	Cortex A5	ARMv7
PKRNVWMIFI5580	MiFi 500 LTE Mobile Hotspot	Qualcomm MDM9615	Cortex A5	ARMv7
PKRNVWMIFI6620	PKRNVWMIFI6621	Qualcomm MDM9625	Cortex A5	ARMv7
PKRNVWMIFI4082	MiFi 4082 3G/4G Mobile Hotspot	Qualcomm MSM----		
NBZNRM-MIFI3352	MiFi 3352 3G Mobile Hotspot	Qualcomm MSM7225	ARM1136EJ-S	ARMv6
NBZNRM-MIFI2352R	MiFi 2352	Qualcomm MSM7225	ARM1136EJ-S	ARMv6
NBZNRM-MIFI2372R	MiFi 2372	Qualcomm MSM7225	ARM1136EJ-S	ARMv6
PKRNVWMIFI4510	MiFi 4510 3G/4G Mobile Hotspot	Qualcomm MSM9600	Cortex A5	ARMv7
PKRNVWMIFI4620	MiFi 4620L 3G/4G Mobile Hotspot	Qualcomm MSM9600	Cortex A5	ARMv7
PKRNVWGS0508	Expedite L10-G	Mediatek MT6250D		
NBZNRM-MC547	Ovation MC547	Qualcomm PM8026		
PKRNVWMC760	Ovation MC760	Qualcomm QSC6066		
PKRNVWMIFI2200	MiFi 2200 3G Mobile Hotspot	Qualcomm QSC6085		
PKRNVWCC760	Merlin CC760/C777	Qualcomm QSC6085		
PKRNVWMC550	MC550 Modem	Qualcomm QSC6085		

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

TABLE A.6: LG

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
22LY340C				
26LT670H				
29LY340C				
32LD650H				
32LD655H				
32LD665H				
32LH250H				
32LH255H				
32LM6200				
32LN541C				
32LN549E				
32LN5700		Dual Core Processor		
32LN5700		Dual Core Processor		
32LT560E				
32LT670H				
32LV555H				
32LY340C				
32LY750H				
37LD650H				
37LD655H				
37LD665H				
37LT560E				
37LT670H				
37LT770H				
37LV555H				
39LN549E				
39LN5700		Dual Core Processor		
39LY340C				
39LY750H				
42CQ610H				
42GA6400		Dual Core Processor		
42GA6400		Dual Core Processor		
42LA6200		Dual Core Processor		
42LB6300				
42LD650H				

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
42LD655H				
42LD665H				
42LM6200				
42LN541C				
42LN549E				
42LN5700		Dual Core Processor		
42LT560E				
42LT670H				
42LT770H				
42LV555H				
42LY340C				
42LY750H				
42PM4700				
47G2		LG L9 Dual Core Processor		
47LA6900		Dual Core Processor		
47LA7400		Dual Core Processor		
47LB6300				
47LD650H				
47LM6200				
47LM6700				
47LM8600				
47LM9600				
47LN541C				
47LN549E				
47LN5750		Dual Core Processor		
47LN5790		Dual Core Processor		
47LT560E				
47LT770H				
47LV555H				
47LY340C				
47LY750H				
50LA6200		Dual Core Processor		
50LA6970		Dual Core Processor		
50LB6300				
50LN5600		Dual Core Processor		
50PM4700				
50PM6700				

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
50PM9700				
50PM9700				
55EA8800				
55EA9800		Dual Core Processor		
55GA6450		Dual Core Processor		
55GA7900		Dual Core Processor		
55LA6200		Dual Core Processor		
55LA8600		Dual Core Processor		
55LA9650		Dual Core Processor		
55LA9700		Dual Core Processor		
55LB6300				
55LD650H				
55LM6200				
55LM6700				
55LM8600		Dual Core Processor		
55LM9600				
55LN541C				
55LN549E				
55LN5600		Dual Core Processor		
55LS675H				
55LV555H				
55LY340C				
55LY750H				
60LA8600		Dual Core Processor		
60LB6300				
60LM7200				
60LN5400				
60LN549E				
60LS5700				
60LS5750				
60LY340C				
60PH6700				
60PM6700				
60PM9700				
60PM9700				
65LA9650		Dual Core Processor		
65LA9700		Dual Core Processor		

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
65LB6300				
65LM6200				
65LY340C				
84LM9600		Dual Core Processor		
BD670				
BD690				
BD690				
LG Ally VS740	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG Arena KM900	128MiB RAM/ 256+7630MiB ROM			
LG AS680 Optimus 2	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
LG AS695 Optimus Plus	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7627A	ARM1136EJ-S	ARMv6
LG AS740 Axis	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG AS876 F90 LTE	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG au Fx0 LGL25	1536MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG C550 Optimus Chat	512MiB RAM/ MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
LG C570 Hotmail Phone/C570g	128MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7225	ARM1136EJ-S	ARMv6
LG C660 Optimus Pro	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
LG C729 DoublePlay	512MiB RAM/ 1908MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
LG C800G Eclipse 4G	512MiB RAM/ 1024MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
LG C900 Optimus 7Q (LG Pacific)	256MiB RAM/ 512+15258MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
LG C900k Quantum (LG Pacific)	256MiB RAM/ 512+15258MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
LG D100 L Series III L20	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6572M	2x ARM Cortex-A7	ARMv7
LG D105 L Series III L20 Dual	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6572M	2x ARM Cortex-A7	ARMv7
LG D120 L Series III L30 Sporty	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6572M	2x ARM Cortex-A7	ARMv7
LG D125 L Series III L30 Dual	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6572M	2x ARM Cortex-A7	ARMv7
LG D150 L Series III L35	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D160 L Series III L40/D160TR L40	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D160F L Series III L40	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D170 L Series III L40 Dual	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D213N L Series III L50 Sporty	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
LG D227 L Series III L50 Sporty TV Dual	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
LG D280N L Series III L65	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D285 L Series III L65 Dual	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D290 L Fino	1024MiB RAM/ 3815MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
LG D290N L Fino	1024MiB RAM/ 3815MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
LG D295 G2 Lite Dual/D295f L Fino	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
LG D300 Fireweb	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG D315 F70 LTE	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D315K F70 TD-LTE	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D320 L Series III L70/D320TR L70 (LG W5)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D320F8/D320G8 L Series III L70 (LG W5)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D320N L Series III L70 (LG W5)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D325 L Series III L70 Dual (LG W5)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D329 L Series III L70 (LG W5)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D331 L Bello	1024MiB RAM/ 7629MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
LG D335 L Bello Dual	1024MiB RAM/ 7629MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
LG D337 L Prime Dual	1024MiB RAM/ 7629MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
LG D340 L Series III L70 Tri	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D370 L Series III L80 (LG W6)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D373 L Series III L80 (LG W6)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D375 L Series III L80 Dual TV (LG W6)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D380 L Series III L80 Dual (LG W6)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D385 L Series III L80 TV Dual (LG W6)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG D390 F60 4G LTE	1024MiB RAM/ 3814MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
LG D390N F60 4G LTE	1024MiB RAM/ 3814MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
LG D392 F60 4G LTE Dual	1024MiB RAM/ 3814MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
LG D400HN L Series III L90 (LG W7)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
LG D405 L Series III L90/D405N/D405TR (LG W7)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
LG D410 L Series III L90 Dual (LG W7)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
LG D415 Optimus L90/L Series III L90 (LG W7)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
LG D486 Wine Smart	1024MiB RAM/ 3815MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D500 Optimus F6	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
LG D505 Optimus F6	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
LG D520 Optimus F3Q 4G LTE (LG FX3)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
LG D605 Optimus L9 II	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8230	2x Qualcomm Krait 200	ARMv7
LG D610 G2 Mini 3G/D610TR	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
LG D610AR G2 Mini 3G	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
LG D618 G2 Mini 3G Dual SIM	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
LG D620 G2 Mini LTE-A	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D620K G2 Mini LTE-A	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D625 G2 Mini LTE-A LATAM	1024MiB RAM/ 7630MiB ROM	32bit NVIDIA Tegra 4i SP3X	5x ARM Cortex-A9-R4 MPCore	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG D631 G Vista/G Pro 2 Lite LTE-A (LG B1 Lite)	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D680 G Pro Lite/D682/D682TR/D683	1024MiB RAM/ 7630MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
LG D685 G Pro Lite Dual/D686	1024MiB RAM/ 7630MiB ROM	32bit MediaTek MT6577	2x ARM Cortex-A9	ARMv7
LG D690 G3 Stylus	1024MiB RAM/ 7630MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
LG D690N G3 Stylus	1024MiB RAM/ 7630MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
LG D693N G3 Stylus	1024MiB RAM/ 7630MiB ROM	32bit MediaTek MT6582	4x ARM Cortex-A7 Mpcore	ARMv7
LG D722 G3 Mini LTE-A/D722v G3 S (LG B2 Mini)	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D722J G3 Beat LTE (LG B2 Mini)	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D722K G3 Beat TD-LTE (LG B2 Mini)	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D724 G3s Dual (LG B2 Mini)	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7
LG D725 G3 Vigor/G3 S LTE-A (LG B2 Mini)	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG D820 Nexus 5 NA TD-LTE 16GB	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG D821 Nexus 5 LTE-A 16GB	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG D821 Nexus 5 LTE-A 32GB	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG D830 G Pro 2 LTE-A (LG B1)	3072MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
LG D838 G Pro 2 LTE-A (LG B1)	3072MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AB v2	4x Qualcomm Krait 400	ARMv7
LG D950 G Flex	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG D951 G Flex	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8274AB v2	4x Qualcomm Krait 400	ARMv7
LG D955 G Flex	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG D956 G Flex	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG D958 G Flex	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG D959 G Flex	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG E400 Optimus L3	384MiB RAM/ 1024MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E405 Optimus L3 Dual/Optimus L2	384MiB RAM/ 1024MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E410 Optimus L1 II	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E410I Optimus L1 II	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E420 Optimus L1 II Dual	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E425/E425G Optimus L3 II/Optimus L3X	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E425f Optimus L3 II	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E430 Optimus L3 II	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E435/E435G/E435k Optimus L3 II Dual/Optimus L2 II	512MiB RAM/ 3815MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E435f Optimus L3 II Dual	512MiB RAM/ 3815MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E440/E440G Optimus L4 II/Optimus L4X	512MiB RAM/ 3815MiB ROM	32bit MediaTek MT6575	ARM Cortex-A9	ARMv7
LG E445/E445f Optimus L4 II Dual	512MiB RAM/ 3815MiB ROM	32bit MediaTek MT6575	ARM Cortex-A9	ARMv7
LG E450 Optimus L5 II/E460 Optimus L5X	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6575	ARM Cortex-A9	ARMv7
LG E455 Optimus L5 II Dual	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6575	ARM Cortex-A9	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG E470f Optimus L4 II Tri	512MiB RAM/ 3815MiB ROM	32bit MediaTek MT6575	ARM Cortex-A9	ARMv7
LG E475 Optimus L1 II Tri	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E510 Optimus Hub (LG Univa)	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
LG E610 Optimus L5	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E612 Optimus L5	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E615 Optimus L5 Dual	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7225A	ARM Cortex-A5	ARMv7-A
LG E720 Optimus Chic	/ 512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
LG E730 Optimus Sol (LG Victor)	512MiB RAM/ 1908MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
LG E740 Miracle (LG Fantasy)	/ 7630MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
LG E900 Optimus 7	512MiB RAM/ 512+15258MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
LG E900H Optimus 7	512MiB RAM/ 512+15258MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
LG E906 Jil Sander	512MiB RAM/ 512+15258MiB ROM	32bit Qualcomm Snapdragon S2 MSM8255	Qualcomm Scorpion	ARMv7
LG E940 Optimus G Pro (LG Gee FHD)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E960 Nexus 4 (LG Mako)	2048MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E960 Nexus 4 16GB (LG Mako)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E970 Optimus G 4G LTE (LG Gee)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E971 Optimus G 2600 4G LTE (LG Gee)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E973 Optimus G 4G LTE (LG Gee)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E975 Optimus G 4G LTE (LG Gee)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E975K Optimus G 4G LTE (LG Gee)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E975W Optimus GJ (LG Gee B)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E976 Optimus G 4G LTE (LG Gee)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E977 Optimus G 4G LTE (LG Gee)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG E980 Optimus G Pro 5.5 4G LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG E986 Optimus G Pro 5.5 4G LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG E988 Optimus G Pro 5.5 4G LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG E989 Optimus G Pro 5.5	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG F100L Optimus Vu/Optimus Sketch	1024MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7
LG F100S Optimus Vu	1024MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
LG F-160L Optimus LTE 2/LTE2	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
LG F220K Optimus GK	2048MiB RAM/ 15259MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG F370K F70	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG F370L F70	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG F370S F70	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG F490K G3 Screen LTE-A (LG Liger)	2048MiB RAM/ 30518MiB ROM	32bit LG Nuclun LG7111	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
LG F490L G3 Screen LTE-A (LG Liger)	2048MiB RAM/ 30518MiB ROM	32bit LG Nuclun LG7111	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG F60S TD-LTE 402LG/YS1401	1024MiB RAM/ 3814MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	Mpcore 4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
LG F90 LTE	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG Fathom VS750	256MiB RAM/ 512MiB ROM	32bit Qualcomm Snapdragon S1 QSD8650	Qualcomm Scorpion	ARMv7
LG G2 3G D806	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8274 v1	4x Qualcomm Krait 400	ARMv7
LG G2 D800 4G LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG G2 D801 4G LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG G2 D802 4G LTE 16GB	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG G2 D802 4G LTE 32GB	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG G2 D802TA TD-LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG G2 D803 4G LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG G2 D805 4G LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG G3 D850 LTE-A (LG B2)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 D851 LTE-A (LG B2)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 D852G 3G (LG B2)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8274AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 D855 TD-LTE 16GB (LG B2)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 D855 TD-LTE 32GB (LG B2)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 D855K TD-LTE (LG B2)		32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 D855P LTE-A/D855AR (LG B2)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 F460K LTE-A Cat. 6	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084	4x Qualcomm Krait 450	ARMv7-A
LG G3 F460L LTE-A Cat. 6	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084	4x Qualcomm Krait 450	ARMv7-A
LG G3 F460S LTE-A Cat. 6	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 805 APQ8084	4x Qualcomm Krait 450	ARMv7-A
LG G3 LS990 TD-LTE (LG B2)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 US990 LTE-A/AS990 (LG B2)	3072MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG G3 VS985 LTE-A (LG B2)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG GM550	128MiB RAM/ 256MiB ROM			
LG GM730 (LG Eigen)	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7201A	ARM1136EJ-S	ARMv6
LG GM730f	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7201A	ARM1136EJ-S	ARMv6
LG GM750 (LG Layla)	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7201A	ARM1136EJ-S	ARMv6
LG Google Nexus 5 LTE-A EM01L	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG GT500/GT505	128MiB RAM/ 256MiB ROM			
LG GT810H	128MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7201A	ARM1136EJ-S	ARMv6
LG GW550	/ 256MiB ROM			
LG GW620f (LG Etna)	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7200A	ARM1136EJ-S	ARMv6
LG GW820 eXpo (LG Monaco)	256MiB RAM/ 512MiB ROM	32bit Qualcomm Snapdragon S1 QSD8650	Qualcomm Scorpion	ARMv7
LG GW825 IQ (LG Monaco)	256MiB RAM/ 512MiB ROM	32bit Qualcomm Snapdragon S1 QSD8650	Qualcomm Scorpion	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG GW880	/ 512MiB ROM			
LG GW910 (LG Panther)	512MiB RAM/ MiB ROM	32bit Qualcomm Snapdragon S1 QSD8250	Qualcomm Scorpion	ARMv7
LG Incite CT810	128MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7201A	ARM1136EJ-S	ARMv6
LG InTouch Max GW620 (LG Etna)	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7200A	ARM1136EJ-S	ARMv6
LG InTouch Max GW620 US (LG Etna)	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7200A	ARM1136EJ-S	ARMv6
LG KS10	64MiB RAM/ 256MiB ROM	32bit STMicroelectronics Nomadik STn8810	ARM926EJ	ARMv5TE
LG KS1302 au isai FL LGL24	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 801 MSM8974AC v3	4x Qualcomm Krait 400	ARMv7
LG KS20	128MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7200	ARM1136EJ-S	ARMv6
LG KT610	/ 256MiB ROM	128MiB RAM		
LG KT615	128MiB RAM/ 256MiB ROM			
LG L45C Optimus Net	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
LG L55C Optimus Q (LG Gelato Q)	/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
LG LG730 Venice	768MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
LG LN400	64MiB RAM/ 64MiB ROM	32bit Samsung S3C2410	ARM920T	ARMv4T
LG LN500/LN505/LN510/LN515	64MiB RAM/ 512MiB ROM	32bit Centrality Atlas II	ARM926EJ-S	ARMv5TEJ
LG LN550/LN555	64MiB RAM/ 32MiB ROM	32bit Centrality Atlas II	ARM926EJ-S	ARMv5TEJ
LG LN600	64MiB RAM/ 32MiB ROM	32bit Samsung S3C2410	ARM920T	ARMv4T
LG LN700/LN704/LN705/LN710/LN715	64MiB RAM/ 64MiB ROM	32bit Centrality Atlas II	ARM926EJ-S	ARMv5TEJ
LG LN730	64MiB RAM/ 1024MiB ROM	32bit Centrality Atlas II	ARM926EJ-S	ARMv5TEJ
LG LN735	64MiB RAM/ 1908MiB ROM	32bit Centrality Atlas II	ARM926EJ-S	ARMv5TEJ
LG LN740	64MiB RAM/ 1908MiB ROM	32bit Centrality Atlas II	ARM926EJ-S	ARMv5TEJ
LG LN790	64MiB RAM/ 1908MiB ROM	32bit Nokia Rapido Y	ARM11	ARMv6
LG LN800	64MiB RAM/ 32MiB ROM	32bit Centrality Atlas II	ARM926EJ-S	ARMv5TEJ
LG LN800T	64MiB RAM/ 32MiB ROM	32bit Centrality Atlas II	ARM926EJ-S	ARMv5TEJ
LG LN830/LN830R	64MiB RAM/ 1908MiB ROM	32bit Samsung S3C2443	ARM920T	ARMv4T
LG LN835/LN835R	64MiB RAM/ 1908MiB ROM	32bit Samsung S3C2443	ARM920T	ARMv4T
LG LN840/LN840R	64MiB RAM/ 1908MiB ROM	32bit Samsung S3C2443	ARM920T	ARMv4T
LG LN845/LN845R	64MiB RAM/ 1908MiB ROM	32bit Samsung S3C2443	ARM920T	ARMv4T
LG LN855/LN855R	64MiB RAM/ 1908MiB ROM	32bit Samsung S3C2443	ARM920T	ARMv4T
LG LS660 Tribute 4G TD-LTE/LS660P	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG LS670 Optimus S	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG LS696/VM696 Optimus Elite	512MiB RAM/ 1024MiB ROM	32bit Qualcomm MSM7627A	ARM1136EJ-S	ARMv6
LG LS700 Optimus Slider (LG Gelato Q)	/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
LG LS720 Optimus F3 4G LTE	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG LS740 Volt 4G TD-LTE/F90	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG LS840 Viper 4G LTE	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7
LG LS855 Marquee	512MiB RAM/ MiB ROM	32bit Texas Instruments OMAP 3630	ARM Cortex-A8	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG LS860 Mach 4G LTE (LG Cayenne)	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG LS885 G3 Vigor TD-LTE (LG B2 Mini)	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG LS970 Optimus G/Eclipse 4G (LG Gee)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG LS975 Optimus G	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 Pro APQ8064	4x Qualcomm Krait	ARMv7
LG LS980 G2 TD-LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG LS995 G Flex TD-LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG LW690 Optimus C	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG LW770 Optimus Regard	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG LW870	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG MS323 L Series III L70 (LG W5)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG MS395 F60 4G LTE	1024MiB RAM/ 3814MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	4x ARM Cortex-A53 MPcore	ARMv8 (A32, A64)
LG MS500 Optimus F6	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
LG MS659 Optimus F3 4G LTE	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
LG MS690 Optimus M	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG MS695 Optimus M+	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7627A	ARM1136EJ-S	ARMv6
LG MS770 Motion 4G	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG MS840 Connect 4G (LG Cayman)	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7
LG MS870 Spirit 4G	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG MS910 Esteem 4G (LG Bryce)	512MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
LG N10	64MiB RAM/ 1024MiB ROM	32bit Samsung S3C2443	ARM920T	ARMv4T
LG N10T	64MiB RAM/ 1024MiB ROM	32bit Samsung S3C2443	ARM920T	ARMv4T
LG Optimus Exceed 2	MiB ROM/ 4" LCD	1200MHz CPU		
LG Optimus F7 LG870	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
LG Optimus F7 US780	2048MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
LG Optimus GT540 (LG Swift)	256MiB RAM/ 256MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
LG Optimus White Edition	512MiB RAM/ 1908MiB ROM	32bit Texas Instruments OMAP 3630	ARM Cortex-A8	ARMv7
LG Optimus Zone 2/L Series III L40 CDMA	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A
LG P350 Pecan/Optimus Me	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
LG P490L G Pad 8.0 4G LTE	1024MiB RAM/ 15259MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG P500 Optimus One	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
LG P509 Optimus T/P504	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227	ARM1136EJ-S	ARMv6
LG P655H Optimus F3 4G LTE	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
LG P690 Optimus Net (LG Gelato)	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
LG P692 Optimus Net (LG Gelato)	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
LG P698 Optimus Link/Optimus Net Dual	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7227T	ARM1136EJ-S	ARMv6
LG P700 Optimus L7/P705	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7227A	ARM Cortex-A5	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG P710 Optimus L7II/P713 Optimus L7 II	768MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
LG P714 Optimus L7 II/Optimus L7X	768MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
LG P715 Optimus L7 II Dual	768MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
LG P716 Optimus L7 II Dual	768MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8225	2x ARM Cortex-A5	ARMv7-A
LG P720 Optimus 3D Max/P725 (LG CX2)	1024MiB RAM/ 7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P720H Optimus 3D Max (LG CX2)	1024MiB RAM/ 7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P760 Optimus L9	1024MiB RAM/ 3814MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P765 Optimus L9	1024MiB RAM/ 3814MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P768 Optimus L9/P768E	1024MiB RAM/ 3814MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P768f Optimus L9	1024MiB RAM/ 3814MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P768G Optimus L9	1024MiB RAM/ 3814MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P768N Optimus L9	1024MiB RAM/ 3814MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P769 Optimus L9	1024MiB RAM/ 3814MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P870 Escape 4G	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
LG P875 Optimus F5	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG P875H Optimus F5	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG P880 Optimus 4X HD (LG X3)	1024MiB RAM/ 15258MiB ROM	32bit NVIDIA Tegra 3 AP33H	5x ARM Cortex-A9 MPCore	ARMv7-A
LG P880G Optimus 4X HD (LG X3)	1024MiB RAM/ 15258MiB ROM	32bit NVIDIA Tegra 3 AP33H	5x ARM Cortex-A9 MPCore	ARMv7-A
LG P895 Optimus Vu	1024MiB RAM/ 30518MiB ROM	32bit NVIDIA Tegra 3 AP30H	5x ARM Cortex-A9 MPCore	ARMv7-A
LG P920 Optimus 3D	512MiB RAM/ 7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P920H Optimus 3D	512MiB RAM/ 7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P925 Thrill 4G	512MiB RAM/ 7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P929 Thrill 4G	512MiB RAM/ 7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P930 Nitro HD	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
LG P935 Optimus 4G LTE/P930	1024MiB RAM/ 1908MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
LG P936 Optimus True HD LTE	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S3 APQ8060	2x Qualcomm Scorpion	ARMv7
LG P940 Prada 3.0 (LG K2)	1024MiB RAM/ 512+7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P940H Prada 3.0 (LG K2)	1024MiB RAM/ 512+7630MiB ROM	32bit Texas Instruments OMAP 4430	2x ARM Cortex-A9	ARMv7
LG P970 Optimus Black/Optimus Schwarz	512MiB RAM/ 1908MiB ROM	32bit Texas Instruments OMAP 3630	ARM Cortex-A8	ARMv7
LG P970H Optimus Black	512MiB RAM/ 1908MiB ROM	32bit Texas Instruments OMAP 3630	ARM Cortex-A8	ARMv7
LG P990 Optimus 2X (LG Star)	512MiB RAM/ 7630MiB ROM	32bit NVIDIA Tegra 2 250 AP20H	2x ARM Cortex-A9	ARMv7-A
LG UK410 G Pad 7.0 LTE (LG E7)	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG UN270 Attune	/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG US670 Optimus U	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG US730 Splendor	1024MiB RAM/ 1908MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
LG US740 Apex	256MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG V400 G Pad 7.0 (LG E7)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8226	4x ARM Cortex-A7 Mpcore	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG V410 G Pad 7.0 LTE (LG E7)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG V480 G Pad 8.0 WiFi	1024MiB RAM/ 15259MiB ROM	32bit Qualcomm Snapdragon 400 APQ8026	4x ARM Cortex-A7 Mpcore	ARMv7
LG V490 G Pad 8.0 4G LTE	1024MiB RAM/ 15259MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG V500 G Pad 8.3 WiFi	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG V507L G Pad 8.3 4G LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG V510 G Pad 8.3 WiFi Google Play Edition	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG V700 G Pad 10.1 WiFi	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 APQ8026	4x ARM Cortex-A7 Mpcore	ARMv7
LG V900 Optimus Pad	1024MiB RAM/ 30518MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
LG V909 Optimus Pad/G-Slate	1024MiB RAM/ 30518MiB ROM	32bit NVIDIA Tegra 2 250 T20	2x ARM Cortex-A9	ARMv7-A
LG VK410 G Pad 7.0 LTE-A (LG E7)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG VK700 G Pad 10.1 4G LTE	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG VK810 G Pad 8.3 4G LTE	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 600 APQ8064T	4x Qualcomm Krait 400	ARMv7
LG VM670 Optimus V	512MiB RAM/ 512MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG VM701 Optimus Slider (LG Gelato Q)	/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
LG VM720 Optimus F3 4G LTE	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG VN270 Cosmos Touch	/ MiB ROM	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG VN360 Exalt	/ MiB ROM			
LG VS410PP Optimus Zone/Optimus L3	512MiB RAM/ 3814MiB ROM	32bit Qualcomm MSM7625A	ARM Cortex-A5	ARMv7-A
LG VS660 Vortex	MiB ROM/ 3.2" 320x480 color transfective TFT LCD	32bit Qualcomm MSM7627	ARM1136EJ-S	ARMv6
LG VS700 Enlighten (LG Gelato Q)	/ 512MiB ROM	32bit Qualcomm MSM7627T	ARM1136EJ-S	ARMv6
LG VS810PP L Fino LTE	1024MiB RAM/ 3815MiB ROM	32bit Qualcomm Snapdragon 200 MSM8212	4x ARM Cortex-A7	ARMv7-A
LG VS840 Lucid 4G (LG Cayman)	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7
LG VS840PP Optimus Exceed	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7
LG VS870 Lucid 2	1024MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960 Lite	2x Qualcomm Krait	ARMv7
LG VS876 Lucid 3/F90 LTE	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG VS880 G Vista/G Pro 2 Lite LTE-A (LG B1 Lite)	1536MiB RAM/ 7630MiB ROM	32bit Qualcomm Snapdragon 400 MSM8926	4x ARM Cortex-A7 MPcore	ARMv7
LG VS890 Enact (LG FX3)	1024MiB RAM/ 7629MiB ROM	32bit Qualcomm Snapdragon 400 MSM8930	4x ARM Cortex-A7 Mpcore	ARMv7
LG VS910 Revolution 4G	512MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S2 MSM8655	Qualcomm Scorpion	ARMv7
LG VS920 Spectrum 4G	1024MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon S3 MSM8660	2x Qualcomm Scorpion	ARMv7
LG VS930 Spectrum 2/Optimus LTE 2	1024MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
LG VS950 Intuition/Optimus Vu	1024MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon S4 MSM8960	2x Qualcomm Krait	ARMv7
LG VS980 G2 4G LTE	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
LG W100 G Watch	512MiB RAM/ 3815MiB ROM	32bit Qualcomm Snapdragon 400 APQ8026	4x ARM Cortex-A7 Mpcore	ARMv7
LG W110 G Watch R	512MiB RAM/ 3815MiB ROM	32bit Qualcomm Snapdragon 400 APQ8026	4x ARM Cortex-A7 Mpcore	ARMv7
LG W120L Audi G Watch	MiB ROM	32bit Qualcomm Snapdragon 400 MSM8626	4x ARM Cortex-A7 Mpcore	ARMv7
LG X132 L Series III L45 Dual	512MiB RAM/ 3814MiB ROM	32bit Qualcomm Snapdragon 200 MSM8210	2x ARM Cortex-A7	ARMv7-A

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET(S)
LG X145 L Series III L60 Dual	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
LG X147 L Series III L60 Dual	512MiB RAM/ 3814MiB ROM	32bit MediaTek MT6572	2x ARM Cortex-A7	ARMv7
ST600				
STB-2000				

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

TABLE A.7: NINTENDO

PRODUCT	PROCESSOR	890 Not Accused
Wii	IBM PowerPC-Based "Broadway"	x
Wii U	1.24 GHz Tri-Core IBM PowerPC "Espresso"	x
Nintendo DS	ARM7TDM, ARM7(touch screen); ARM946E-S, ARM9 (upper screen)	x
Nintendo DS Lite	ARM7(touch screen) ARM9 (upper screen)	x
Nintendo DSi	ARM7(touch screen) ARM9 (upper screen)	x
Nintendo DSi XL	ARM7(touch screen) ARM9 (upper screen)	x
Nintendo 3DS	Dual-Core ARM11 MPCore, single-core ARM9 - Nintendo 1048 0H ARM CPU	
Nintendo 3DS XL	Dual-Core ARM11 MPCore, single-core ARM9	
Nintendo 2DS	Dual-Core ARM11 MPCore	
Game Boy Micro	32-bit ARM7TDMI (16.78 MHz)	x

Exhibit 3

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Telephone: (650) 227-4800
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6 Attorneys for Plaintiffs
PHOENIX DIGITAL SOLUTIONS LLC and
7 TECHNOLOGY PROPERTIES LIMITED LLC

8 CHARLES T. HOGE, State Bar No. 110696
choge@knlh.com
9 Kirby Noonan Lance & Hoge LLP
350 Tenth Avenue, Suite 1300
10 San Diego, CA 92101
Telephone: (619) 231-8666

11 Attorneys for Plaintiff
12 PATRIOT SCIENTIFIC CORPORATION

13 **UNITED STATES DISTRICT COURT**
14 **NORTHERN DISTRICT OF CALIFORNIA**
15

16 TECHNOLOGY PROPERTIES LIMITED
17 LLC, PHOENIX DIGITAL SOLUTIONS
18 LLC, and PATRIOT SCIENTIFIC
CORPORATION,

19 Plaintiffs,

20 vs.

21 LG ELECTRONICS, INC., LG
ELECTRONICS U.S.A., INC.,

22 Defendants.
23
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27
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Case No. 12-cv-03880-VC

**PDS'S SECOND SET OF REQUESTS
FOR PRODUCTION OF DOCUMENTS
TO LG DEFENDANTS (NOS. 4 -11)**

1 Pursuant to Rule 34 of the Federal Rules of Civil Procedure, Plaintiff Phoenix Digital
2 Solutions LLC (“PDS”) requests that LG Electronics, Inc. and LG Electronics U.S.A., Inc.
3 (“Defendants”) serve PDS with written responses to these requests for production and produce
4 copies of the documents and things requested at the law offices of Agility IP Law, 149
5 Commonwealth Drive, Suite 1033, Menlo Park, California 94025 within 30 days after service
6 hereof.

7 **DEFINITIONS**

8 1. “YOU,” “YOUR,” or “YOURS” means Defendants, their predecessors and
9 successors, past and present parents, divisions, subsidiaries, affiliates, and related companies,
10 and all past and present directors, officers, employees, agents, consultants, attorneys and others
11 purporting to act on their behalf.

12 2. “DOCUMENT” is used in the broadest possible sense as interpreted under the
13 Federal Rules of Civil Procedure and includes, without limitation, all originals and copies,
14 duplicates, drafts, and recordings of any written, printed, graphic or otherwise recorded matter,
15 however produced or reproduced, and all “writings,” as defined in Federal Rule of Evidence
16 1001, of any nature, whether on paper, magnetic tape, electronically recorded or any other
17 information storage means, including film and computer memory devices; and where any such
18 items contain any marking not appearing on the original or are altered from the original, then
19 such items shall be considered to be separate original documents.

20 3. “Accused Products” means those products identified in Plaintiffs’ Initial
21 Infringement Contentions and any subsequent or Amended Infringement Contentions.

22 4. As used in these Requests for Production, the singular shall include the plural, and
23 the past tense shall include the present tense, and vice versa; the words “and” and “or” shall be
24 both conjunctive and disjunctive; the word “all” shall mean “any and all;” the word “including”
25 shall mean “including without limitation,” so as to be most inclusive.

INSTRUCTIONS

1
2 1. DOCUMENTS produced in response to these requests should be produced as they
3 are kept in the usual course of business or should be organized and labeled to correspond with
4 the categories in the requests.

5 2. If YOU contend that a portion of a DOCUMENT is subject to being withheld
6 under a claim of privilege or immunity from production or that a portion of a DOCUMENT is
7 non-responsive to the requests below, produce the entire document with any necessary
8 redactions.

9 3. If any DOCUMENT is withheld under a claim of privilege or immunity from
10 production, identify that document as required by Federal Rule of Civil Procedure 26(b)(5).

REQUESTS FOR PRODUCTION

Request For Production No. 4

12 Documents sufficient to show sales, sales price, revenues, gross margin, net margin, cost
13 and profit information for each of the Accused Products, broken down by quarter, including all
14 Documents sufficient to explain any acronyms or terminologies employed by Your accounting
15 systems.
16

Request For Production No. 5

17 All license, royalty, technology transfer, or authorization to use agreements entered into
18 by YOU relating in any way to the Accused Products.
19

Request For Production No. 6

20 Documents sufficient to show the number and identity of the microprocessors in each
21 Accused Product.
22

Request For Production No. 7

23 For each Accused Product, documents sufficient to show the performance corner values
24 and associated nominal voltages for each microprocessor chip in the Accused Product. By way
25 of example and not limitation, the Qualcomm MSM8974 for PMIC PM8841 supports the
26 following performance corners and nominal voltages: “0 = None [n/a]; 1 = Retention (0.5000
27
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1 V); 2 = SVS Krait (0.7250 V); 3 = SVS SOC (0.8125 V); 4 = Normal (0.9000 V); 5 = Turbo
2 (0.9875 V); 6 = Super Turbo (1.0500 V).” *See, e.g.*, Ex. A - “rpm-regulator-smd” (description of
3 “qcom,init-voltage-corner” variable).

4 **Request For Production No. 8**

5 For each microprocessor in each Accused Product, documents sufficient to identify any
6 software or hardware that controls, modulates, or changes voltage and/or current level for each
7 microprocessor chip based on semiconductor process variation and/or temperature variation. By
8 way of example and not limitation, the Qualcomm RBCPR (Rapid Bridge Core Power
9 Reduction) is a module “that controls the voltage level on the chip based on feedback received
10 through various sensors on the chip that allow compensation of the chip process variation,
11 temperature etc.” *See, e.g.*, Ex. B -- “rpm-rbcpr-stats”

12 **Request For Production No. 9**

13 For each microprocessor in each Accused Product, documents sufficient to show any
14 information provided by the microprocessor chip manufacturer indicating the bin(s) to which
15 each microprocessor chip is assigned with respect to speed, frequency, and/or voltage. By way
16 of example and not limitation, the assigned speed, frequency, and/or voltage bin(s) may be
17 recorded within or on a chip (*e.g.*, by using a printed barcode or embedded non-volatile memory
18 devices) for reference when setting up power supplies in a system using a particular chip.

19 **Request For Production No. 10**

20 For each Accused Product that received a Federal Communications Commission (“FCC”)
21 Grant of Equipment Authorization and FCC Identifier, a copy of the exhibits submitted to the
22 FCC (in the file type, format, resolution, and color as submitted to the FCC, preserving all
23 internal document links and/or external hyperlinks) for which YOU requested temporary or
24 permanent confidential treatment, including but not limited to block diagrams, schematics, parts
25 lists and/or bill of materials, tune up information, operational descriptions, and/or user manuals,
26 as those terms are defined for purposes of FCC submissions. A sample “Request for
27 Confidentiality” and exemplary FCC exhibits are attached as Exhibit C.

1 **Request For Production No. 11**

2 For each Accused Product that has an EC Declaration of Conformity and/or bear CE
3 markings, a copy of the technical documentation or file kept pursuant to the applicable European
4 Directive(s). By way of example and not limitation, the “Low Voltage” and “Radio and
5 telecommunications terminal equipment” directives require manufacturers to retain for 10 years:
6 (1) a general description of the electrical equipment; (2) conceptual design and manufacturing
7 drawings and schemes of components, sub-assemblies, circuits, etc.; and (3) descriptions and
8 explanations necessary for the understanding of said drawings and schemes and the operation of
9 the electrical equipment. *See* Directive 2006/95/EC, Annex IV, Nr. 3; Directive 1999/5/EC,
10 Annex II, Point 4; [http://ec.europa.eu/enterprise/policies/single-market-goods/cemarking/about-](http://ec.europa.eu/enterprise/policies/single-market-goods/cemarking/about-ce-marking/index_en.htm)
11 [ce-marking/index_en.htm](http://ec.europa.eu/enterprise/policies/single-market-goods/cemarking/about-ce-marking/index_en.htm); <https://www.gov.uk/ce-marking>. A sample “Declaration of
12 Conformity” is attached as Exhibit D.

13
14 Dated: March 9, 2015

Respectfully submitted,

AGILITY IP LAW, LLP

15
16 /s/ James C. Otteson

James C. Otteson
17 149 Commonwealth Drive
Menlo Park, CA 94025
18 Telephone: (650) 227-4800

19 Attorneys for Plaintiffs
Phoenix Digital Solutions LLC and
20 Technology Properties Limited LLC
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CERTIFICATE OF SERVICE

I, Sherri Mills, hereby declare:

I am employed in San Mateo County, State of California. I am over the age of 18 years and not a party to the within action. My business address is Agility IP Law LLP, 149 Commonwealth Drive, Menlo Park, CA 94025.

On this date, I served: **PDS’S SECOND SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS TO LG DEFENDANTS (NOS. 4 -11)**

By forwarding the document(s) by electronic transmission on this date to the following electronic mail addresses:

PARTY	COUNSEL	EMAIL ADDRESS
LG	Fish Richardson	LG-TPLITCService@fr.com

I am readily familiar with Agility IP Law’s practice for collection and processing of documents for delivery according to instructions indicated above. In the ordinary course of business, documents would be handled accordingly.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed at Menlo Park, California on March 9, 2015.

/s/ Sherri Mills
Sherri Mills

Exhibit 4

1 Shelley Mack (SBN 234701), mack@fr.com
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4

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16 Attorneys for Defendants
LG ELECTRONICS, INC. and LG ELECTRONICS U.S.A., INC.

17
18 UNITED STATES DISTRICT COURT
19 NORTHERN DISTRICT OF CALIFORNIA
20 SAN FRANCISCO DIVISION

21 TECHNOLOGY PROPERTIES LIMITED LLC,
22 PHOENIX DIGITAL SOLUTIONS LLC, and
Patriot Scientific Corporation,

23 Plaintiffs,

24 v.

25 LG ELECTRONICS, INC. AND LG
26 ELECTRONICS U.S.A., INC.,

27 Defendants.
28

Case No. 3:12-cv-03880-VC

**DEFENDANTS LG ELECTRONICS,
INC. AND LG ELECTRONICS U.S.A.,
INC.'S OBJECTIONS AND
RESPONSES TO PHOENIX DIGITAL
SOLUTIONS LLC'S SECOND SET OF
REQUESTS FOR PRODUCTION
(NOS. 4-11)**

1 Pursuant to Federal Rules of Civil Procedure 26 and 34, Defendants LG Electronics, Inc.
2 and LG Electronics U.S.A., Inc. (collectively “LG”) object and respond to Plaintiff Phoenix Digital
3 Solutions LLC’s (“PDS” or “Plaintiff”) Second Set of Requests for Production (“Requests”) (Nos.
4 4-11).

5 **GENERAL STATEMENTS AND OBJECTIONS**

6 The responses provided herein are submitted on behalf of LG, and reflect LG’s continuing
7 investigation of facts and discovery of information and documents relating to the claims and
8 defenses at issue in this case. Accordingly, LG’s responses to these Requests are based upon LG’s
9 current knowledge and reasonable beliefs. LG expressly reserves the right to modify and/or
10 supplement any response, and to assert additional objections to these Requests as necessary and/or
11 appropriate.

12 Nothing in these objections and responses shall be deemed an admission by LG regarding
13 the existence of any information, the relevance, authenticity, materiality or admissibility of any
14 information, for any purpose, or the truth or accuracy of any statement or characterization
15 contained in any Request. Where LG responds by stating that it will produce non-privileged
16 documents, such response shall not be construed as an admission concerning the accuracy of
17 PDS’s characterization of the subject matter. LG expressly reserves the right to object to the use of
18 these responses, the subject matter contained herein, or the documents produced in connection
19 herewith during any subsequent proceeding, including during trial of this or any other action.

20 LG makes the following General Objections to the Requests as a whole and to each and
21 every separate Request, whether or not separately set forth in each response to each Instruction,
22 Definition, and Request made in PDS’s Second Set of Requests for Production:

23 1. LG objects to each and every Request, Definition and Instruction to the extent it
24 seeks information or documents protected by any applicable privilege, including but not limited to
25 the attorney-client privilege, the work-product doctrine or immunity, joint-defense privilege,
26 common-interest privilege, and any other applicable privilege, immunity, or exemption from
27 discovery as outlined in the Federal Rules of Civil Procedure, Local Rules, orders of the Court, and
28 applicable law. For the sake of clarity, LG hereby asserts such privileges and/or exemptions. Any

1 inadvertent disclosure or production of information and/or documents shall not be deemed a waiver
2 of any privilege with respect to such information or documents or of any work-product doctrine or
3 immunity that may attach thereto.

4 2. LG objects to each and every Request, Definition and Instruction to the extent it
5 seeks information or documents not relevant to the claims or defenses of any party, not reasonably
6 calculated to lead to the discovery of admissible evidence, or otherwise not within the scope of
7 relevant discovery. In particular, LG objects to each request because they indiscriminately call for
8 documents and information produced in the ITC Investigation, some of which relates to issues,
9 such as importation of products and domestic industry, which are not disputed in this case and are
10 not relevant to this case. LG objects to producing documents or information from the ITC
11 Investigation to the extent they are not relevant to any disputed issues in this suit.

12 3. LG objects to each and every Request, Definition and Instruction to the extent it
13 seeks documents that LG is under an obligation to third parties not to disclose, or information
14 otherwise subject to confidentiality restrictions of a third party. LG will not disclose or produce
15 such documents except in conformity with its obligations to such third parties.

16 4. LG objects to each and every Request, Definition and Instruction to the extent it
17 seeks information that is a matter of public record, that is otherwise equally available to PDS
18 and/or equally obtainable from more convenient sources, or that purports to impose upon LG a
19 burden or obligation beyond the duties imposed by the Federal Rules of Civil Procedure or other
20 applicable rules or law governing this action.

21 5. LG objects to each and every Request, Definition and Instruction to the extent it is
22 compound, duplicative, or cumulative of one or more other Requests.

23 6. LG objects to each and every Request, Definition and Instruction to the extent it is
24 overly broad, unduly burdensome, oppressive, harassing, incomprehensible, or constitutes an abuse
25 of process, particularly when the cost necessary to investigate or respond is high compared to
26 PDS's alleged need for the information.

27 7. LG objects to each and every Request, Definition and Instruction to the extent that it
28 is cumulative and duplicative of other forms of discovery that are more convenient and less

1 burdensome. LG objects to each and every Request, Definition and Instruction to the extent that it
2 seeks to require LG to do more than conduct an examination of those files or sources that
3 reasonably may be expected to yield responsive information, or to inquire of those persons who
4 may be reasonably expected to possess responsive information.

5 8. LG objects to each and every Request, Definition and Instruction to the extent it is
6 inconsistent with or seek to impose obligations beyond those imposed by the Federal Rules of
7 Civil Procedure, Local Rules, or orders of the Court.

8 9. LG objects to the Definitions of “YOU,” “YOUR,” and “YOURS” as vague and
9 ambiguous to the extent that the scope of the terms “predecessors,” “successors,” “parents,”
10 “divisions,” “subsidiaries,” “affiliates,” “related companies,” “agents” and “consultants” is vague.
11 LG objects to the Definitions of “YOU,” “YOUR” and “YOURS” as overly broad and unduly
12 burdensome to the extent that they (in combination with the individual Requests): (i) seeks to
13 encompass information that is neither relevant nor reasonably calculated to lead to the discovery of
14 admissible evidence; (ii) are not reasonably limited in time or scope; (iii) seek to encompass
15 information not within LG’s possession, custody or control; (iv) seek to encompass information
16 protected from disclosure by the attorney-client privilege, the work product doctrine, the common
17 interest privilege, Fed. R. Civ. P. 26(b)(4)(A), or any other applicable privilege or immunity;
18 and/or (v) include persons or entities that are separate and distinct from LG, over whom LG
19 exercises no control, and/or are defunct or no longer in existence. LG also objects to these
20 Definitions to the extent that they presume that LG has knowledge of each of the persons or
21 entities within the scope of these Definitions. LG has thousands of full-time, part-time and
22 temporary employees and any request that purports to require LG to ascertain the knowledge of
23 thousands of individuals is overbroad, harassing and unduly burdensome. LG will construe these
24 terms to mean Defendants LG Electronics, Inc. and LG Electronics U.S.A., Inc. in responding to
25 each Request.

26 10. LG objects to the definition of “Accused Products” as “those products identified in
27 Plaintiffs’ Initial Infringement Contentions and any subsequent or Amended Infringement
28 Contentions.” Plaintiffs’ Initial Infringement Contentions include products that were released after

1 the expiration of asserted U.S. Patents No. 5,440,749 and 5,530,890, have not been sold in the
2 United States, and/or for which Plaintiffs have not provided infringement claim charts required by
3 Patent Local Rule 3-1. Plaintiffs' definition of "Accused Products" therefore seeks information
4 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
5 vague, ambiguous, overbroad, and unduly burdensome.

6 11. LG objects to each and every Request, Definition and Instruction as overly broad to
7 the extent it fails to specify a relevant time period for which information is requested, to the extent
8 the specified period is irrelevant, or to the extent the specified period includes periods of time for
9 which PDS would not be entitled to collect any documents.

10 12. LG objects to each and every Request, Definition and Instruction as overly broad to
11 the extent it fails to specify a relevant geographic area for which information is requested, and to
12 the extent a specified geographic area is irrelevant.

13 13. LG objects to each and every Request, Definition and Instruction to the extent it
14 uses terms that are not defined or understood. LG will not speculate as to the meaning ascribed to
15 these terms, and will respond to the extent it understands such Requests. Further, nothing in LG's
16 responses shall be taken as an admission or acquiescence of any characterizations, whether explicit
17 or implied, in the Requests, Definitions or Instructions.

18 14. LG objects to each and every Request, Definition and Instruction to the extent it
19 seeks legal opinions or conclusions, including constructions of claim terms, or presents questions
20 of pure law. Any response by LG shall not be construed as providing a legal conclusion regarding
21 the meaning or application of any terms or phrases used in PDS's Requests, Definitions or
22 Instructions.

23 15. LG objects to each and every Request, Definition and Instruction to the extent it
24 seeks information or the identification of documents not within LG's possession, custody or
25 control, or refers to persons, entities, or events not known to LG, on the grounds that such
26 Definitions, Instructions, and Requests seek to require more of LG than any obligation imposed by
27 law, would subject LG to unreasonable and undue oppression, burden and expense, and further
28 seek to impose upon LG an obligation to investigate or discover information or materials from

1 third parties or sources which are equally accessible to PDS.

2 16. LG objects to each and every Interrogatory, Definition and Instruction to the extent
3 it uses unlimited, undefined, subjective or open-ended terms and phrases that are vague,
4 ambiguous, overbroad and/or unduly burdensome, including but not limited to “all.” LG objects to
5 each and every Request, Definition and Instruction to the extent it seeks production of “all”
6 documents that refer or relate to a particular subject on the grounds of overbreadth, lack of
7 relevance, undue burden, and expense. Without waiving this objection, and subject to all other
8 applicable objections, LG will produce non-duplicative documents sufficient to describe or
9 demonstrate the topic identified in a request.

10 17. LG objects to each and every Request, Definition and Instruction to the extent it is
11 premature, for example, by seeking information or materials prior to the deadline(s) for their
12 disclosure in the Court’s scheduling order or local rule(s). In particular, LG objects to each request
13 to the extent it prematurely seeks technical information covered by Patent Local Rule 3–4(a).
14 Technical information within the scope of that rule need not be produced until service of invalidity
15 contentions. LG objects to each request on the grounds that PDS is improperly seeking discovery
16 on accused products prior to serving adequate infringement contentions. LG objects to each and
17 every Request, Definition and Instruction as unfairly prejudicial and premature to the extent that it
18 would require LG to formulate its full contentions on various topics in order to answer at this stage
19 in the litigation. LG’s investigation, discovery, and analysis are ongoing, and its responses are
20 based on its present investigation and information presently available to LG. LG reserves the right
21 to produce evidence of subsequently discovered facts, and to modify, supplement, or otherwise
22 change or amend its responses to these Requests as necessary.

23 18. LG objects to each and every Request, Definition, and Instruction to the extent that
24 it improperly and prematurely seeks discovery of expert opinions. LG will disclose such
25 documents and information within the timeframe specified by the Court’s Scheduling Order and
26 the applicable local rules.

27 19. LG objects to each and every Request, Definition and Instruction to the extent that it
28 (i) is framed in terms that PDS has not specifically or reasonably defined or (ii) fails to identify

1 with reasonable particularity the information requested. LG objects to such Requests on the
2 grounds that they are vague, ambiguous, and unduly broad.

3 20. LG reserves the right to make any use of, or to introduce at any hearing and/or at
4 trial, information and/or documents responsive to the Requests but discovered subsequent to the
5 date of LG's response, including, but not limited to, any such information or documents obtained
6 in discovery in this action.

7 21. LG objects to each and every definition, instruction, and Request to the extent that it
8 seeks electronically stored information from sources that are not reasonably accessible because of
9 undue burden or cost, including but not limited to backup tapes; inactive email accounts;
10 voicemail; instant messaging; legacy data; metadata; and any type of residual, fragmented, or
11 damaged data.

12 22. LG uses the term "will produce" throughout its responses to indicate that it will
13 comply with the particular demand and any related obligations imposed by the Federal Rules of
14 Civil Procedure, the Patent or Civil Local Rules, and/or the scheduling orders governing this case,
15 subject to the qualifications and objections set forth in the specific response and these general
16 objections. LG's statement that it "will produce" responsive information or documents is not a
17 representation that such documents or information exist.

18 23. To the extent that LG produces any documents in response to the Requests that
19 include private, business confidential, proprietary, trade secret or otherwise protected information,
20 LG will only produce such documents subject to an appropriate protective order.

21 24. LG objects to each request to the extent it is unduly burdensome because it is
22 duplicative of the requests in the ITC Proceedings, the responsive materials were produced in the
23 ITC Proceedings, and the parties have executed a cross-use agreement as to those materials.

24 25. LG incorporates by reference the general objections set forth above into each of the
25 specific objections and responses set forth below. LG may repeat a general objection for emphasis
26 or some other reason. The failure to repeat any general objections, or failure to specifically
27 incorporate a general objection by reference, does not waive any general objection to the Request.
28 Moreover, LG does not waive its rights to amend its objections and responses to these Requests.

1 **SPECIFIC OBJECTIONS AND RESPONSES**

2 Subject to the foregoing general objections and reservation of rights, as well as the specific
3 objections set forth below, LG responds to PDS's Second Set of Requests for Production (Nos. 4-
4 11) as follows:

5 **REQUEST FOR PRODUCTION NO. 4:**

6 Documents sufficient to show sales, sales price, revenues, gross margin, net margin, cost
7 and profit information for each of the Accused Products, broken down by quarter, including all
8 Documents sufficient to explain any acronyms or terminologies employed by Your accounting
9 systems.

10 **RESPONSE TO REQUEST FOR PRODUCTION NO. 4:**

11 LG incorporates by reference its General Statement and Objections as though fully set forth
12 herein. LG objects to this Request to the extent the phrase "Accused Products" seeks information
13 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
14 vague, overbroad, and unduly burdensome. Plaintiffs' Initial Infringement Contentions include
15 products that were released after the expiration of asserted U.S. Patents No. 5,440,749 and
16 5,530,890, have not been sold in the United States, and/or for which Plaintiffs have not provided
17 infringement claim charts required by Patent Local Rule 3-1.

18 LG objects to this Request to the extent the phrase "any acronyms or terminologies"
19 includes "acronyms or terminologies" that are not relevant to any of the issues in this litigation and
20 seeks information that is irrelevant or is not reasonably calculated to lead to the discovery of
21 admissible evidence, is vague, overbroad, and unduly burdensome.

22 LG objects to this Request to the extent it calls for LG to prepare documents and/or things
23 that do not already exist, or calls for information in a format other than that in which it is ordinarily
24 kept by LG.

25 LG objects to this Request to the extent it contains multiple subparts and attempts to
26 circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33
27 and 36 and this Court's November 20, 2014 Case Management Order (D.I. 40).

28

1 Subject to and without waiving its foregoing general and specific objections, LG responds
2 that it is willing to meet and confer with Plaintiffs on the scope of the Accused Products and this
3 Request.

4 REQUEST FOR PRODUCTION NO. 5:

5 All license, royalty, technology transfer, or authorization to use agreements entered into by
6 YOU relating in any way to the Accused Products.

7 RESPONSE TO REQUEST FOR PRODUCTION NO. 5:

8 LG incorporates by reference its General Statement and Objections as though fully set forth
9 herein. LG objects to this Request to the extent the phrase “Accused Products” seeks information
10 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
11 vague, overbroad, and unduly burdensome. Plaintiffs’ Initial Infringement Contentions include
12 products that were released after the expiration of asserted U.S. Patents No. 5,440,749 and
13 5,530,890, have not been sold in the United States, and/or for which Plaintiffs have not provided
14 infringement claim charts required by Patent Local Rule 3-1.

15 LG objects to this Request to the extent the terms “license, royalty, technology transfer, or
16 authorization to use agreements” are vague, overbroad, unduly burdensome, and seek information
17 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence. In
18 addition, LG objects to this Request to the extent the phrase “[a]ll ... agreements ... relating in any
19 way to the Accused Products” includes such “agreements” that are not relevant to any of the issues
20 in this litigation and for this reason also seeks information that is irrelevant or is not reasonably
21 calculated to lead to the discovery of admissible evidence, is vague, overbroad, and unduly
22 burdensome.

23 LG objects to this Request to the extent it calls for LG to prepare documents and/or things
24 that do not already exist, or calls for information in a format other than that in which it is ordinarily
25 kept by LG.

26 LG objects to this Request to the extent it seeks information that LG is under an obligation
27 to any third party not to disclose, including documents that, if produced, would require LG to
28 breach a confidentiality agreement, protective order, settlement, or other duty to a third party to

1 maintain confidentiality. LG will not disclose or produce such information except in conformity
2 with its obligations to such third parties.

3 LG objects to this Request to the extent it seeks to elicit information subject to and
4 protected by the attorney-client privilege, the attorney work product doctrine, joint defense or
5 common interest privilege, and/or any other applicable privileges, protections, or immunities.

6 LG objects to this Request to the extent it contains multiple subparts and attempts to
7 circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33
8 and 36 and this Court's November 20, 2014 Case Management Order (D.I. 40).

9 Subject to and without waiving its foregoing general and specific objections, LG responds
10 that it is willing to meet and confer with Plaintiffs on the scope of the Accused Products and this
11 Request.

12 REQUEST FOR PRODUCTION NO. 6:

13 Documents sufficient to show the number and identity of the microprocessors in each
14 Accused Product.

15 RESPONSE TO REQUEST FOR PRODUCTION NO. 6:

16 LG incorporates by reference its General Statement and Objections as though fully set forth
17 herein. LG objects to this Request to the extent the phrase "Accused Product" seeks information
18 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
19 vague, overbroad, and unduly burdensome. Plaintiffs' Initial Infringement Contentions include
20 products that were released after the expiration of asserted U.S. Patents No. 5,440,749 and
21 5,530,890, have not been sold in the United States, and/or for which Plaintiffs have not provided
22 infringement claim charts required by Patent Local Rule 3-1.

23 LG objects to this Request to the extent the term "microprocessor" and phrase "the number
24 and identity" are vague, overbroad, unduly burdensome, and seek information that is irrelevant or
25 is not reasonably calculated to lead to the discovery of admissible evidence.

26 LG objects to this Request to the extent it seeks a non-factual opinion, including a legal
27 conclusion or premature expert opinion.

28

1 LG objects to this Request to the extent it seeks to elicit information subject to and
2 protected by the attorney-client privilege, the attorney work product doctrine, joint defense or
3 common interest privilege, and/or any other applicable privileges, protections, or immunities.

4 LG objects to this Request to the extent it calls for LG to prepare documents and/or things
5 that do not already exist, or calls for information in a format other than that in which it is ordinarily
6 kept by LG.

7 LG objects to this Request to the extent it seeks information that LG is under an obligation
8 to any third party not to disclose, including documents that, if produced, would require LG to
9 breach a confidentiality agreement, protective order, settlement, or other duty to a third party to
10 maintain confidentiality. LG will not disclose or produce such information except in conformity
11 with its obligations to such third parties.

12 LG objects to this Request to the extent it contains multiple subparts and attempts to
13 circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33
14 and 36 and this Court's November 20, 2014 Case Management Order (D.I. 40).

15 LG additionally objects to this Request on the grounds that it is premature, inconsistent
16 with, and seeks to impose obligations on LG beyond those imposed by the Patent Local Rules and
17 the orders of the Court, because it seeks information and documents prior to the deadline for their
18 disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to
19 Modify Case Schedule (D.I. 47) and Patent Local Rule 3-4. Any appropriate production would be
20 made pursuant to the deadlines in the Court's February 11, 2015 Order and Patent Local Rule 3-4.

21 LG further objects to this Request to the extent it is unduly burdensome because it is
22 duplicative of the requests in the ITC Proceedings, the responsive materials were produced in the
23 ITC Proceedings, and the parties have executed a cross-use agreement as to those materials.

24 Subject to and without waiving its foregoing general and specific objections, LG responds
25 that it is willing to meet and confer with Plaintiffs on the scope of the Accused Products and this
26 Request.

27
28

1 REQUEST FOR PRODUCTION NO. 7:

2 For each Accused Product, documents sufficient to show the performance corner values
3 and associated nominal voltages for each microprocessor chip in the Accused Product. By way of
4 example and not limitation, the Qualcomm MSM8974 for PMIC PM8841 supports the following
5 performance corners and nominal voltages: “0 = None [n/a]; 1 = Retention (0.5000 V); 2 = SVS
6 Krait (0.7250 V); 3 = SVS SOC (0.8125 V); 4 = Normal (0.9000 V); 5 = Turbo (0.9875 V); 6 =
7 Super Turbo (1.0500 V).” *See, e.g.*, Ex. A - “rpm-regulator-smd” (description of “qcom,init-
8 voltage-corner” variable).

9 RESPONSE TO REQUEST FOR PRODUCTION NO. 7:

10 LG incorporates by reference its General Statement and Objections as though fully set forth
11 herein. LG objects to this Request to the extent the phrase “Accused Product” seeks information
12 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
13 vague, overbroad, and unduly burdensome. Plaintiffs’ Initial Infringement Contentions include
14 products that were released after the expiration of asserted U.S. Patents No. 5,440,749 and
15 5,530,890, have not been sold in the United States, and/or for which Plaintiffs have not provided
16 infringement claim charts required by Patent Local Rule 3-1.

17 LG objects to this Request to the extent the terms and phrases in “performance corner
18 values,” “associated nominal voltages,” and “microprocessor chip” and the provided example are
19 vague, overbroad, unduly burdensome, and seek information that is irrelevant or is not reasonably
20 calculated to lead to the discovery of admissible evidence. LG objects to this Request to the extent
21 it seeks a non-factual opinion, including a legal conclusion or premature expert opinion.

22 LG objects to this Request to the extent it seeks to elicit information subject to and
23 protected by the attorney-client privilege, the attorney work product doctrine, joint defense or
24 common interest privilege, and/or any other applicable privileges, protections, or immunities.

25 LG objects to this Request to the extent it calls for LG to prepare documents and/or things
26 that do not already exist, or calls for information in a format other than that in which it is ordinarily
27 kept by LG.

28

1 LG objects to this Request to the extent it seeks information that LG is under an obligation
2 to any third party not to disclose, including documents that, if produced, would require LG to
3 breach a confidentiality agreement, protective order, settlement, or other duty to a third party to
4 maintain confidentiality. LG will not disclose or produce such information except in conformity
5 with its obligations to such third parties.

6 LG objects to this Request to the extent it contains multiple subparts and attempts to
7 circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33
8 and 36 and this Court's November 20, 2014 Case Management Order (D.I. 40).

9 LG additionally objects to this Request on the grounds that it is premature, inconsistent
10 with, and seeks to impose obligations on LG beyond those imposed by the Patent Local Rules and
11 the orders of the Court, because it seeks information and documents prior to the deadline for their
12 disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to
13 Modify Case Schedule (D.I. 47) and Patent Local Rule 3-4. Any appropriate production would be
14 made pursuant to the deadlines in the Court's February 11, 2015 Order and Patent Local Rule 3-4.

15 LG further objects to this Request to the extent it is unduly burdensome because it is
16 duplicative of the requests in the ITC Proceedings, the responsive materials were produced in the
17 ITC Proceedings, and the parties have executed a cross-use agreement as to those materials.

18 Subject to and without waiving its foregoing general and specific objections, LG responds
19 that it is willing to meet and confer with Plaintiffs on the scope of the Accused Products and this
20 Request.

21 REQUEST FOR PRODUCTION NO. 8:

22 For each microprocessor in each Accused Product, documents sufficient to identify any
23 software or hardware that controls, modulates, or changes voltage and/or current level for each
24 microprocessor chip based on semiconductor process variation and/or temperature variation. By
25 way of example and not limitation, the Qualcomm RBCPR (Rapid Bridge Core Power Reduction)
26 is a module "that controls the voltage level on the chip based on feedback received through various
27 sensors on the chip that allow compensation of the chip process variation, temperature etc." *See,*
28 *e.g., Ex. B -- "rpm-rbcpr-stats"*

1 RESPONSE TO REQUEST FOR PRODUCTION NO. 8:

2 LG incorporates by reference its General Statement and Objections as though fully set forth
3 herein. LG objects to this Request to the extent the phrase “Accused Product” seeks information
4 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
5 vague, overbroad, and unduly burdensome. Plaintiffs’ Initial Infringement Contentions include
6 products that were released after the expiration of asserted U.S. Patents No. 5,440,749 and
7 5,530,890, have not been sold in the United States, and/or for which Plaintiffs have not provided
8 infringement claim charts required by Patent Local Rule 3-1.

9 LG objects to this Request to the extent the terms and phrases in “controls, modulates, or
10 changes voltage and/or current level,” “microprocessor chip,” “semiconductor process variation,”
11 and “temperature variation” and the provided example are vague, overbroad, unduly burdensome,
12 and seek information that is irrelevant or is not reasonably calculated to lead to the discovery of
13 admissible evidence. LG objects to this Request to the extent it seeks a non-factual opinion,
14 including a legal conclusion or premature expert opinion.

15 LG objects to this Request to the extent it seeks to elicit information subject to and
16 protected by the attorney-client privilege, the attorney work product doctrine, joint defense or
17 common interest privilege, and/or any other applicable privileges, protections, or immunities.

18 LG objects to this Request to the extent it calls for LG to prepare documents and/or things
19 that do not already exist, or calls for information in a format other than that in which it is ordinarily
20 kept by LG.

21 LG objects to this Request to the extent it seeks information that LG is under an obligation
22 to any third party not to disclose, including documents that, if produced, would require LG to
23 breach a confidentiality agreement, protective order, settlement, or other duty to a third party to
24 maintain confidentiality. LG will not disclose or produce such information except in conformity
25 with its obligations to such third parties.

26 LG objects to this Request to the extent it contains multiple subparts and attempts to
27 circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33
28 and 36 and this Court’s November 20, 2014 Case Management Order (D.I. 40).

1 LG additionally objects to this Request on the grounds that it is premature, inconsistent
2 with, and seeks to impose obligations on LG beyond those imposed by the Patent Local Rules and
3 the orders of the Court, because it seeks information and documents prior to the deadline for their
4 disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to
5 Modify Case Schedule (D.I. 47) and Patent Local Rule 3-4. Any appropriate production would be
6 made pursuant to the deadlines in the Court's February 11, 2015 Order and Patent Local Rule 3-4.

7 LG further objects to this Request to the extent it is unduly burdensome because it is
8 duplicative of the requests in the ITC Proceedings, the responsive materials were produced in the
9 ITC Proceedings, and the parties have executed a cross-use agreement as to those materials.

10 Subject to and without waiving its foregoing general and specific objections, LG responds
11 that it is willing to meet and confer with Plaintiffs on the scope of the Accused Products and this
12 Request.

13 REQUEST FOR PRODUCTION NO. 9:

14 For each microprocessor in each Accused Product, documents sufficient to show any
15 information provided by the microprocessor chip manufacturer indicating the bin(s) to which each
16 microprocessor chip is assigned with respect to speed, frequency, and/or voltage. By way of
17 example and not limitation, the assigned speed, frequency, and/or voltage bin(s) may be recorded
18 within or on a chip (e.g., by using a printed barcode or embedded non-volatile memory devices) for
19 reference when setting up power supplies in a system using a particular chip.

20 RESPONSE TO REQUEST FOR PRODUCTION NO. 9:

21 LG incorporates by reference its General Statement and Objections as though fully set forth
22 herein. LG objects to this Request to the extent the phrase "Accused Product" seeks information
23 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
24 vague, overbroad, and unduly burdensome. Plaintiffs' Initial Infringement Contentions include
25 products that were released after the expiration of asserted U.S. Patents No. 5,440,749 and
26 5,530,890, have not been sold in the United States, and/or for which Plaintiffs have not provided
27 infringement claim charts required by Patent Local Rule 3-1.

28

1 LG objects to this Request to the extent the terms and phrases “microprocessor chip,”
2 “bin(s),” “assigned with respect to speed, frequency, and/or voltage,” “recorded within or on a
3 chip,” “printed barcode,” “embedded non-volatile memory devices,” “setting up power supplies”
4 are vague, overbroad, unduly burdensome, and seek information that is irrelevant or is not
5 reasonably calculated to lead to the discovery of admissible evidence. LG objects to this Request
6 to the extent it seeks a non-factual opinion, including a legal conclusion or premature expert
7 opinion.

8 LG objects to this Request to the extent it seeks to elicit information subject to and
9 protected by the attorney-client privilege, the attorney work product doctrine, joint defense or
10 common interest privilege, and/or any other applicable privileges, protections, or immunities.

11 LG objects to this Request to the extent it calls for LG to prepare documents and/or things
12 that do not already exist, or calls for information in a format other than that in which it is ordinarily
13 kept by LG.

14 LG objects to this Request to the extent it seeks information that LG is under an obligation
15 to any third party not to disclose, including documents that, if produced, would require LG to
16 breach a confidentiality agreement, protective order, settlement, or other duty to a third party to
17 maintain confidentiality. LG will not disclose or produce such information except in conformity
18 with its obligations to such third parties.

19 LG objects to this Request to the extent it contains multiple subparts and attempts to
20 circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33
21 and 36 and this Court’s November 20, 2014 Case Management Order (D.I. 40).

22 LG additionally objects to this Request on the grounds that it is premature, inconsistent
23 with, and seeks to impose obligations on LG beyond those imposed by the Patent Local Rules and
24 the orders of the Court, because it seeks information and documents prior to the deadline for their
25 disclosure set by the Court’s February 11, 2015 Order Granting Defendants’ Unopposed Motion to
26 Modify Case Schedule (D.I. 47) and Patent Local Rule 3-4. Any appropriate production would be
27 made pursuant to the deadlines in the Court’s February 11, 2015 Order and Patent Local Rule 3-4.
28

1 LG further objects to this Request to the extent it is unduly burdensome because it is
2 duplicative of the requests in the ITC Proceedings, the responsive materials were produced in the
3 ITC Proceedings, and the parties have executed a cross-use agreement as to those materials.

4 Subject to and without waiving its foregoing general and specific objections, LG responds
5 that it is willing to meet and confer with Plaintiffs on the scope of the Accused Products and this
6 Request.

7 REQUEST FOR PRODUCTION NO. 10:

8 For each Accused Product that received a Federal Communications Commission (“FCC”)
9 Grant of Equipment Authorization and FCC Identifier, a copy of the exhibits submitted to the FCC
10 (in the file type, format, resolution, and color as submitted to the FCC, preserving all internal
11 document links and/or external hyperlinks) for which YOU requested temporary or permanent
12 confidential treatment, including but not limited to block diagrams, schematics, parts lists and/or
13 bill of materials, tune up information, operational descriptions, and/or user manuals, as those terms
14 are defined for purposes of FCC submissions. A sample “Request for Confidentiality” and
15 exemplary FCC exhibits are attached as Exhibit C.

16 RESPONSE TO REQUEST FOR PRODUCTION NO. 10:

17 LG incorporates by reference its General Statement and Objections as though fully set forth
18 herein. LG objects to this Request to the extent the phrase “Accused Product” seeks information
19 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
20 vague, overbroad, and unduly burdensome. Plaintiffs’ Initial Infringement Contentions include
21 products that were released after the expiration of asserted U.S. Patents No. 5,440,749 and
22 5,530,890, have not been sold in the United States, and/or for which Plaintiffs have not provided
23 infringement claim charts required by Patent Local Rule 3-1.

24 LG objects to this Request to the extent the terms and phrases “Federal Communications
25 Commission (“FCC”) Grant of Equipment Authorization and FCC Identifier” and “block
26 diagrams, schematics, parts lists and/or bill of materials, tune up information, operational
27 descriptions, and/or user manuals” and Plaintiffs’ Exhibit C are vague, overbroad, unduly
28

1 burdensome, and seek information that is irrelevant or is not reasonably calculated to lead to the
2 discovery of admissible evidence.

3 LG objects to this Request to the extent it seeks to elicit information subject to and
4 protected by the attorney-client privilege, the attorney work product doctrine, joint defense or
5 common interest privilege, and/or any other applicable privileges, protections, or immunities.

6 LG objects to this Request to the extent it calls for LG to prepare documents and/or things
7 that do not already exist, or calls for information in a format other than that in which it is ordinarily
8 kept by LG.

9 LG objects to this Request to the extent it seeks information that LG is under an obligation
10 to any third party not to disclose, including documents that, if produced, would require LG to
11 breach a confidentiality agreement, protective order, settlement, or other duty to a third party to
12 maintain confidentiality. LG will not disclose or produce such information except in conformity
13 with its obligations to such third parties.

14 LG objects to this Request to the extent it contains multiple subparts and attempts to
15 circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33
16 and 36 and this Court's November 20, 2014 Case Management Order (D.I. 40).

17 LG additionally objects to this Request on the grounds that it is premature, inconsistent
18 with, and seeks to impose obligations on LG beyond those imposed by the Patent Local Rules and
19 the orders of the Court, because it seeks information and documents prior to the deadline for their
20 disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to
21 Modify Case Schedule (D.I. 47) and Patent Local Rule 3-4. Any appropriate production would be
22 made pursuant to the deadlines in the Court's February 11, 2015 Order and Patent Local Rule 3-4.

23 LG further objects to this Request to the extent it is unduly burdensome because it is
24 duplicative of the requests in the ITC Proceedings, the responsive materials were produced in the
25 ITC Proceedings, and the parties have executed a cross-use agreement as to those materials.

26 Subject to and without waiving its foregoing general and specific objections, LG responds
27 that it is willing to meet and confer with Plaintiffs on the scope of the Accused Products and this
28 Request.

1 REQUEST FOR PRODUCTION NO. 11:

2 For each Accused Product that has an EC Declaration of Conformity and/or bear CE
3 markings, a copy of the technical documentation or file kept pursuant to the applicable European
4 Directive(s). By way of example and not limitation, the “Low Voltage” and “Radio and
5 telecommunications terminal equipment” directives require manufacturers to retain for 10 years:
6 (1) a general description of the electrical equipment; (2) conceptual design and manufacturing
7 drawings and schemes of components, sub-assemblies, circuits, etc.; and (3) descriptions and
8 explanations necessary for the understanding of said drawings and schemes and the operation of
9 the electrical equipment. See Directive 2006/95/EC, Annex IV, Nr. 3; Directive 1999/5/EC, Annex
10 II, Point 4; [http://ec.europa.eu/enterprise/policies/single-market-goods/cemarking/aboutce-](http://ec.europa.eu/enterprise/policies/single-market-goods/cemarking/aboutce-marking/index_en.htm)
11 [marking/index_en.htm](http://ec.europa.eu/enterprise/policies/single-market-goods/cemarking/aboutce-marking/index_en.htm); <https://www.gov.uk/ce-marking>. A sample “Declaration of Conformity” is
12 attached as Exhibit D.

13 RESPONSE TO REQUEST FOR PRODUCTION NO. 11:

14 LG incorporates by reference its General Statement and Objections as though fully set forth
15 herein. LG objects to this Request to the extent the phrase “Accused Product” seeks information
16 that is irrelevant or is not reasonably calculated to lead to the discovery of admissible evidence, is
17 vague, overbroad, and unduly burdensome. Plaintiffs’ Initial Infringement Contentions include
18 products that were released after the expiration of asserted U.S. Patents No. 5,440,749 and
19 5,530,890, have not been sold in the United States, and/or for which Plaintiffs have not provided
20 infringement claim charts required by Patent Local Rule 3-1.

21 LG objects to this Request to the extent the terms and phrases “EC Declaration of
22 Conformity,” “CE markings,” “European Directive(s),” Plaintiffs’ provided examples and
23 description of the “directives” and Exhibit D are vague, overbroad, unduly burdensome, and seek
24 information that is irrelevant or is not reasonably calculated to lead to the discovery of admissible
25 evidence.

26 LG objects to this Request to the extent it seeks to elicit information subject to and
27 protected by the attorney-client privilege, the attorney work product doctrine, joint defense or
28 common interest privilege, and/or any other applicable privileges, protections, or immunities.

1 LG objects to this Request to the extent it calls for LG to prepare documents and/or things
2 that do not already exist, or calls for information in a format other than that in which it is ordinarily
3 kept by LG.

4 LG objects to this Request to the extent it seeks information that LG is under an obligation
5 to any third party not to disclose, including documents that, if produced, would require LG to
6 breach a confidentiality agreement, protective order, settlement, or other duty to a third party to
7 maintain confidentiality. LG will not disclose or produce such information except in conformity
8 with its obligations to such third parties.

9 LG objects to this Request to the extent it contains multiple subparts and attempts to
10 circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33
11 and 36 and this Court's November 20, 2014 Case Management Order (D.I. 40).

12 LG additionally objects to this Request on the grounds that it is premature, inconsistent
13 with, and seeks to impose obligations on LG beyond those imposed by the Patent Local Rules and
14 the orders of the Court, because it seeks information and documents prior to the deadline for their
15 disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to
16 Modify Case Schedule (D.I. 47) and Patent Local Rule 3-4. Any appropriate production would be
17 made pursuant to the deadlines in the Court's February 11, 2015 Order and Patent Local Rule 3-4.

18 LG further objects to this Request to the extent it is unduly burdensome because it is
19 duplicative of the requests in the ITC Proceedings, the responsive materials were produced in the
20 ITC Proceedings, and the parties have executed a cross-use agreement as to those materials.

21 Subject to and without waiving its foregoing general and specific objections, LG responds
22 that it is willing to meet and confer with Plaintiffs on the scope of the Accused Products and this
23 Request.

1 Dated: April 13, 2015

FISH & RICHARDSON P.C.

2

3

By: /s/ Olga I. May

4

Olga I. May

5

Attorneys for Defendants Attorneys for Defendants
LG ELECTRONICS, INC. and
LG ELECTRONICS USA, INC.

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PROOF OF SERVICE

I am employed in the County of San Diego. My business address is Fish & Richardson P.C., 12390 El Camino Real, San Diego, California 92130. I am over the age of 18 and not a party to the foregoing action. I am readily familiar with the business practice at my place of business for sending email messages, for collection and processing of correspondence for personal delivery, for mailing with United States Postal Service, for facsimile, and for overnight delivery by Federal Express, Express Mail, or other overnight service.

On April 13, 2015, I caused a copy of the foregoing document(s) to be served on the interested parties in this action by attaching a PDF version of the document to an email message addressed as follows:

James Carl Otteson
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ELECTRONIC MAIL: The document was transmitted by electronic mail to the addressees' email addresses.

I declare that I am employed in the office of a member of the bar of this Court at whose direction the service was made. I declare under penalty of perjury that the above is true and correct. Executed on April 13, 2015, at San Diego, California.

/s/ Olga May
Olga May

Exhibit 5

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1855-1930

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February 28, 2015

James C. Otteson
Vinh Pham
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Kirby Noonan Lance & Hoge
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**RE: *Technology Properties Limited LLC, et al. v. LG Electronics, Inc., et al.*:
Deficiencies in Plaintiffs' Infringement Contentions**

ATLANTA

AUSTIN

BOSTON

DALLAS

DELAWARE

HOUSTON

MUNICH

NEW YORK

SILICON VALLEY

SOUTHERN CALIFORNIA

TWIN CITIES

WASHINGTON, DC

Dear Counsel:

On January 20, 2015, Plaintiffs Technology Properties Limited LLC, Phoenix Digital Solutions LLC, and Patriot Scientific Corporation (collectively "TPL") served Disclosures of Asserted Claims and Infringement Contentions ("Infringement Contentions") on Defendants LG Electronics, Inc. and LG Electronics U.S.A., Inc. (collectively, "LG"). In its Infringement Contentions, TPL purports to accuse four hundred and thirty seven (437) different LG products (collectively, the "Accused Products") of infringing U.S. Patents No. 5,809,336 ("the '336 Patent"), 5,440,749 ("the '749 Patent"), and 5,530,890 ("the '890 Patent").

We are still in the process of reviewing TPL's Infringement Contentions. Based on our review to date, however, TPL's Infringement Contentions are deficient in several respects, as detailed below, and fail to satisfy the requirements of Northern District of California Patent Local Rule 3-1.

1. TPL Asserts Cancelled Claims and Accuses Products Released After the Expiration of the '890 and '749 Patents

TPL's Infringement Contentions appear to assert cancelled claims, such as claim 1 of the '890 Patent. Please confirm that TPL is not asserting claim 1 of the '890 Patent, or any other claims of the asserted patents that have been cancelled.

In addition, as shown in the chart below, the '890 and '749 patents expired before LG released certain Accused Products:

Patent	Expiration Date	Accused Product and Release Date
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5,530,890	June 25, 2013	LG G3 (Sprint model): on or about July 11, 2014 ¹
5,530,890	June 25, 2013	LG G3 (AT&T model): on or about July 11, 2014 ²
5,530,890	June 25, 2013	LG G3 (Verizon model): on or about July 17, 2014 ³
5,530,890	June 25, 2013	LG G3 (T-Mobile model): on or about July 16, 2014 ⁴
5,440,749	August 8, 2012	LG G Flex (Sprint model): on or about January 31, 2014 ⁵
5,440,749	August 8, 2012	LG G Flex (AT&T model): on or about January 24, 2014 ⁶
5,440,749	August 8, 2012	LG G Flex (T-Mobile model): on or about February 5, 2014 ⁷

Because TPL purports to accuse four hundred and thirty seven (437) different LG products, and because nearly a quarter of those products have been insufficiently identified, this list is not exhaustive and the products above are identified only as exemplars. In light of its obligation to perform a thorough Rule 11 investigation before commencing suit against LG, in addition to well-settled law governing patent misuse, TPL is not entitled to accuse hundreds of LG products *en masse* without so much as confirming that those products were sold in the United States before the expiration dates of two of the patents-in-suit. It should therefore be incumbent upon TPL, not LG, to identify any other LG accused products first sold in the United States after the '749 and/or '890 patents expired, and to promptly withdraw its infringement allegations directed to those products.

¹ See, e.g., <http://www.cnet.com/news/sprints-lg-g3-on-sale-july-11/>.

² See, e.g., <http://www.ibtimes.com/lg-g3-will-launch-att-first-us-1621888>.

³ See, e.g., *id.*

⁴ See, e.g., *id.*

⁵ See, e.g., <http://newsroom.sprint.com/news-releases/sprint-customers-among-first-in-the-us-to-get-their-hands-on-the-worlds-first-curved-flexible-smartphone-lg-g-flex.htm>.

⁶ See, e.g., <http://bgr.com/2014/01/20/g-flex-release-date-att-price/>.

⁷ See, e.g., <http://www.theverge.com/2014/1/27/5350550/lg-g-flex-t-mobile-release-date-february-5>.

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Please confirm that TPL will immediately withdraw its '890 and '749 patent infringement allegations as to the products listed above, along with its '890 and '749 patent infringement allegations against any other LG products first released in the United States after the expiration of the '749 and/or '890 patents.

2. Claim Chart Deficiencies

Each of TPL's claim charts suffer from at least the following deficiencies.

a. TPL Fails to Sufficiently Identify Nearly a Quarter of the LG Products It Purports to Accuse

First, LG notes that roughly a quarter of the LG products TPL purports to accuse are insufficiently identified. Of the four hundred and thirty seven (437) different LG products accused by TPL, one hundred and sixteen (116) of them are identified simply by what appears to be a part or product number, with no associated product name. Furthermore, for one hundred and eighteen (118) of the LG products TPL purports to accuse, TPL's infringement contentions fail to disclose the identity of any microprocessor chips those products contain. *See* Infringement Contentions, Ex. A at 56-68. TPL's apparent failure to even identify the microprocessor included in nearly a quarter of the LG products it purports to accuse is inconsistent with its Rule 11 obligations. Please confirm that, as to all purportedly accused LG products identified only by part number and not a product name, along with all purportedly accused LG products for which no included microprocessor is identified, TPL will withdraw its infringement allegations. To the extent TPL will not agree to do so, LG intends to move to strike this portion of TPL's infringement contentions.

b. TPL Fails to Chart the Asserted Claims on Each LG Accused Product

TPL accuses a total of four hundred and thirty seven (437) different LG products of infringement. Throughout its Infringement Contentions, however, TPL refers generically to "each Accused Product" and "each Accused Microprocessor" rather than addressing the Accused Products individually. For each and every asserted claim, TPL fails to chart the elements against any one LG Accused Product. Moreover, although a staggering total of 437 separate LG products are accused, TPL's infringement contentions refer to just two (2) LG accused products – the LG Escape and the LG Optimus L9 – in connection with a grand total of three (3) of the elements of three (3) of the seventeen (17) asserted claims. The other 435 LG products TPL purports to accuse are not even mentioned in its infringement claim charts.

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For example, asserted claim 6 of the '336 patent has eight (8) elements. For six (6) of those elements, TPL generically refers only to "Accused Microprocessors," with no supporting documentation or explanation about any individual LG accused products. For the other two (2) claim elements, TPL only identifies one (1) LG accused product (the Escape), without any reference to the other four hundred and thirty six (436) accused LG products. For all but one element of one asserted claim of the '749 and '890 patents, TPL makes no reference to any specific LG accused product at all. Instead of providing details as to why each specific accused device infringes each of the asserted claims, TPL simply refers generically to "all Accused Microprocessors" or "all Accused Products." TPL's Infringement Contentions plainly do not satisfy Local Rule 3-1(c)'s requirement to identify *each* claim limitation in *each* accused product. *See Bender v. Freescale Semiconductor, Inc.*, No. C 09-1156 PHJ (MEJ), slip op. at 6 (N.D. Cal. Apr. 26, 2010). TPL's Infringement Contentions likewise insufficiently disclose how the microprocessors contained in LG's 437 accused products satisfy the limitations of each element of each asserted claim, since for approximately a quarter of those accused products -- more than 100 of them -- TPL fails to identify any associated microprocessor or CPU core. *See Infr. Cont.*, Ex. A at 56-59, 64-65, 68.

At best, TPL's Infringement Contentions vaguely accuse isolated groups of processors allegedly incorporated in LG's accused products, but do not provide the required analysis of similar critical characteristics to justify using representative claim charts for these groups of processors. TPL therefore cannot rely on representative claim charts. *See Network Prot. Scis. LLC v. Fortinet, Inc.*, No. C 12-01106 WHA at 5 (N.D. Cal. Sept. 26, 2013). As an example, the Infringement Contentions refer to ARM processors as a single undifferentiated group.⁸ ARM processors are a large family of processing cores developed over the last thirty years.⁹ The subset of ARM processing cores allegedly found in the Accused Products contains several different design generations and different members within those generations. TPL does not provide a comparative analysis of any of the relevant characteristics of these different ARM processors. TPL affords the same undifferentiated treatment to TI processors and Qualcomm processors throughout its Infringement Contentions, and those summary allegations are similarly deficient.¹⁰

⁸ *See, e.g.*, *Infr. Cont.*, Exs. G-2 at 1, 5-6, 10-11, 16, 20-22, 27, 63, 67-68, 72, 78, 82-84, 89, 94-95, 115 ('890 elements 1.b, 1.c, 1.d, 1.e, 1.f, 1.g, 1.h, 1.i, 11.b, 11.c, 11.d, 11.e, 11.f, 11.g, 11.h, 11.i, 11.j and 13.b); and G-3 at 1-2, 4-8, 10-11, 15-16, 24, 46-47, 54-55, 71-72, 74, 89, ('749 elements 1 (preamble), 1.a, 1.b, 1.c, 1.d, 1.e, 1.f, 1.g, 1.i, 1.k, and 9.d). For those claim charts without element labels, the elements are referred to in alphabetical order, starting with "X.a" for the preamble.

⁹ *See generally* <http://www.arm.com/about/company-profile/milestones.php>.

¹⁰ *See, e.g.*, *Infr. Cont.*, Exs. G-1 at 12-15, 20, 22 ('336 elements 6.d and 9.b); G-2 at 51, 117 ('890 elements 7.b and 17.b); and G-3 at 2-11, 15-16, 24, 45-47, 54, 70 ('749 elements 1.a, 1.b, 1.c, 1.d, 1.e, 1.f, 1.g, and 1.i).

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TPL's Infringement Contentions contain no analysis to support the assertion that the microprocessors contained in all 437 accused LG products are implemented similarly and operate similarly with respect to the features relevant to the asserted claims, and instead cite generally to several Wikipedia articles and a book excerpt with no accompanying analysis or explanation. These underlying sources do not identify the microprocessors used in the 437 LG products TPL has accused, provide no support for the proposition that the microprocessors in those 437 products operate similarly for purposes of the asserted claims, and are plainly insufficient to discharge TPL's burden to either provide claim charts indicating where each limitation of each asserted claim can be found in each accused instrumentality. P.L.R. 3-1(c). TPL's provision of infringement claim charts only for what it conclusorily purports to be "representative" microprocessors fails to comply with the requirements of Patent Local Rule 3-1(c), since TPL's Infringement Contentions lack "adequate analysis showing that the accused products share the same critical characteristics." *Network Prot. Sciences, LLC v. Fortinet, Inc.*, No. C 12-01106 WHA, 2013 WL 5402089, at *3 (N.D. Cal. Sept. 26, 2013).

In addition, while TPL purports to accuse all 437 LG accused products of infringing the 749 patent based on their inclusion of a microprocessor containing and ARM core or similar core, TPL has not even identified the CPU core contained in roughly a quarter – more than 100 – of the LG products it accuses. *See* Infr. Cont., Ex. A at 56-59, 64-65, 68. Without such identification, TPL has no basis for alleging the presence of an ARM or similar core in those 100+ LG products, has not satisfied its P.L.R. 3-1(c) obligation to identify where each limitation of each asserted claim can be found in those products, and arguably has not even satisfied its basic Rule 11 obligations as to those products. Moreover, TPL's Infringement Contentions supply no evidence or analysis to support the conclusion that all ARM cores are implemented or operate similarly for purposes of each limitation of each asserted claim.

c. TPL's Assertions Based on "Information and Belief," Alleged Knowledge of One Skilled in the Art, and/or Unsupported Conclusory Statements Are Insufficient

In its claim charts, TPL frequently states that claim elements are present based on "information and belief."¹¹ TPL also relies on "information and belief" to allege

¹¹ *See, e.g.*, Infr. Cont., Exs. G-1 at 1, 4-5, 17-20, 23 ('336 elements 6.a, 6.b, 6.c, 6.f, 6.g and 9.b); G-2 at 1, 11, 20, 23-24, 27, 32, 35, 41-43, 47, 50, 53-54, 56, 59-60, 63, 65, 67-68, 72-73, 82, 85-86, 89, 95, 98, 104-106, 109, 112, 115, 117, 119-120, 122-123, 126-127 ('890 elements 1.a, 1.b, 1.c, 1.f, 1.g, 1.i, 1.j, 1.k, 1.l, 1.m, 1.n, 1.o, 7.b, 9.b, 9.c, 9.d, 9.e, 11.a, 11.b, 11.c, 11.d, 11.e, 11.f, 11.g, 11.i, 11.k, 11.l, 11.m, 11.n, 11.o, 11.p, 12.b, 13.b, 17.b, 19.b, 19.c, 19.d, and 9.e); and G-3 at 1, 3, 8, 15, 24, 45, 54, 63,

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disparate products are similar.¹² For other claim elements, TPL simply makes conclusory allegations that such elements are present or that the accused products are similar without relying on supporting evidence, “information and belief,” or anything else.¹³ Such unsupported allegations do not comply with Patent Local Rule 3–1. *See, e.g., CSR Tech. Inc. v. Freescale Semiconductor, Inc.*, No. C–12–02619 RS (JSC) at 6 (N.D. Cal. Feb. 8, 2013). Similarly, TPL concludes that certain claim elements are present based on the understanding of one of ordinary skill in the art.¹⁴ TPL also cites to generic articles and Wikipedia for conclusory statements, instead of pointing to allegedly infringing features of LG’s accused products.¹⁵ Simply concluding that a person of ordinary skill in the art could locate the element does not comply with the Local Patent Rules. *See, e.g., Bender v. Freescale Semiconductor, Inc.*, at 6 (“[m]erely alluding to the fact that any electrical engineer would understand the infringement contentions is not sufficient.”). TPL cannot wait for discovery or rely on confidential documents or evidence produced in the ITC case. Rather, TPL must perform an analysis of public information available to it, such as reverse engineering, and disclose what instrumentality in each individual accused product allegedly practices each limitation of every asserted claim. *See Bender v. Maxim Integrated Products, Inc.*, C 09-01152 SI (N.D. Cal. July 29, 2010). TPL has failed to do so.

In light of these deficiencies, TPL has not provided adequate notice of its infringement theories, which is prejudicial to LG. LG believes TPL’s infringement contentions should be struck in their entirety, and reserves the right to seek additional time for its upcoming Patent L.R. 3–3 and 3–4 disclosures and/or a protective order in light of these deficiencies. LG further reserves the right to refuse to provide any technical discovery pertaining to the Accused Products until TPL has fully complied with its obligation to fully and fairly disclose its infringement contentions against those products. *See, e.g., Bender v. Maxim* at 6 (“The Court will not require Maxim to produce its schematics at this time, however, because plaintiff’s infringement contentions continue to be deficient.”).

65, 70, 74, 84, 88-89, 92, 96, 99, 104, 106 (’749 elements 1 (preamble), 1.a, 1.b, 1.c, 1.d, 1.e, 1.f, 1.g, 1.h, 1.i, 1.j, 1.k, 1.l, 9.d, 9.e, 43 (preamble), 43.a, 43.b and 59 (preamble)).

¹² *See, e.g., Infr. Cont.*, Exs. G-1 at 1, 4-5, 17-19 (’336 elements 6.a, 6.b, 6.c, 6.f, 6.g and 6.h); Exs. G-2 at 1, 50, 63, 78, 112 (’890 elements 1.a, 1.b, 7.b, 11.a, 11.b, 11.g and 12.b); and G-3 at 1-2, 99 (’749 elements 1 (preamble), 1.a, 43 (preamble), 43.a). For most claim elements, TPL simply does not address whether or why the specifically cited microprocessors in its infringement charts should be considered “representative” of the operation and/or implementation of other microprocessors incorporated in LG’s hundreds of accused products.

¹³ *See, e.g., Infr. Cont.*, Exs. G-1 at 19 (’336 element 6.h); G-2 at 53, 72-73 (’890 elements 7.b and 11.f)

¹⁴ *See, e.g., Infr. Cont.*, Exs. G-1 at 10-11, 16-17 (’336 elements 6.d and 6.e); G-2 at 112 (’890 element 12.b).

¹⁵ *See, e.g., Infr. Cont.*, Ex. G-1 at 10-11, 16-20 (’336 elements 6.d, 6.e, 6.g and 9.b); G-2 at 1, 5, 50, 67, 113, 117 (’890 elements 1.b, 1.c, 7.b, 11.c, 12.b and 17.b)

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James C. Otteson
February 28, 2015
Page 7

Please let us know by March 4 when you are available to discuss.

Sincerely,

A handwritten signature in cursive script that reads "Shelley K. Mack".

Shelley K. Mack

Exhibit 6



Vinh H. Pham
vpham@agilityiplaw.com
Bus: 650-318-6342
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March 18, 2015

Via E-Mail
Shelley K Mack
650 839-5010
mack@fr.com

**Re: Technology Properties Limited LLC, et al. v. LG Electronics, Inc., et al.:
Plaintiffs' Infringement Contentions**

Counsel,

I am responding to your February 28, 2015 letter regarding Plaintiffs (collectively "PDS")'s Infringement Contentions (the "Contentions"). Contrary to your assertions, the Contentions satisfy the notice requirements under the patent local rules.

1. Claim 1 of the '890 patent is not asserted.

We confirm that PDS does not assert canceled claim 1 of the '890 Patent. However, we include claim 1 in the claim chart because asserted claim 7 depends on claim 1.

2. Defendants are in the best position to verify the earliest possible date of infringement associated with Accused Products.

You assert that certain LG products were not "released" until after the expiration of the '890 and '749 patents. However, you only cite to third party websites, not even LG's own records, for what you admit to be only approximate release dates. Even assuming that the products had first become available to end users on those dates, we believe that the products would have been offered for sale to carriers such as Sprint, or at trade shows before then. Therefore, selling to end users is not necessarily the earliest act of infringement. LG is in the best position to verify the earliest possible date of infringement associated with the Accused Products. If you give us a verified statement listing accused products that were not made, used, sold, offered for sale within the United States, including but not limited to offering for sale to carriers, or displaying at trade shows to solicit orders, or imported into the United States, including but not limited to importing for sale or for FCC submissions, before the expiration of the relevant patents, PDS will agree to no longer assert those patents against those products.

3. The infringement contentions sufficiently identify Accused Products.

You contend that some accused products were insufficiently identified because they were identified only by "what appears to be a part or product number," and not by "product names." It is unclear how you distinguish a part or product number from a product name. You cite to no authority requiring infringement contentions to identify accused products using only one method



Page 2

and not the other. In any event, PDS has sufficiently identified the accused products in the same manner that LG itself or a retailer identifies the products publicly.

4. The claim charts are sufficient.

Contrary to your assertion, PDS does not need to produce one claim chart for each accused product. PDS stated in its claim charts that infringement by the Accused Products is largely based on the operation and implementation of the microprocessors they contain. *See* footnote 1 in each chart. PDS identified the microprocessors in a large number of the Accused Products (*see* Ex. A to the claim charts). PDS therefore provided the basis to contend that each remaining accused electronic device also contains at least one microprocessor.

PDS also provided the analysis and basis for its belief that these microprocessors were implemented similarly and would operate similarly with respect to the features relevant to the asserted claims. *E.g.*, http://en.wikipedia.org/wiki/Phase-locked_loop, *Design of High-Performance Microprocessor Circuits* pp. 98, 101 (Anatha Chandrakasan et al. eds., IEEE Press, 2001) [Models of Process Variations in Device and Interconnect (Duane Boning and Sani Nassif)] (TPL853_02927444 – TPL853_02927464), <http://en.wikipedia.org/wiki/USB>, <http://www.usb.org/developers/docs/>, http://en.wikipedia.org/wiki/Ring_oscillator. For the ‘749 patent, PDS also stated that infringement by the Accused Products is based on the operation and implementation of the ARM core or a similar core, *regardless of the processor manufacturer*. *See, e.g.*, http://en.wikipedia.org/wiki/Comparison_of_ARMv7-A_cores and sources cited on that page. Your letter alleges that the ARM processing cores found in the Accused Products contain several different design generations. But you do not explain how such differences are relevant to the patent claims at issue. On the other hand, each PDS claim chart provided examples of *relevant* operations that are representative of the operations of the processors in each of the Accused Products. That is sufficient to satisfy the notice requirements under the patent local rules.

You cite to *Network Prot. Sciences, LLC v. Fortinet, Inc.*, No. C 12-01106 WHA, 2013 WL 5402089 (N.D. Cal. Sept. 26, 2013). But that case actually supports PDS’s position that representative infringement contentions suffice where, as here, there is “adequate analysis showing that the accused products share the same critical characteristics.” *Id.* at *3. There, the court held that “[the plaintiff’s] typicality showing was sufficient under our local rules subject to proof at trial.” *Id.* As shown above, PDS’s typicality showing in this case is also sufficient under the local rules subject to proof at trial.

You accuse PDS of making unsupported allegations regarding the Accused Products. Not true. Unlike the plaintiff in *CSR Tech. Inc. v. Freescale Semiconductor, Inc.*, No. C-12-02619 RS (JSC) (N.D. Cal. Feb. 8, 2013), PDS has provided “reasonable notice” to LG why PDS believes that it has a “reasonable chance of proving infringement.” For example, PDS provided numerous citations to public ARM documents to support its contentions. *See France Telecom, S.A. v. Marvell Semiconductor, Inc.*, No. 12-cv-04967-WHA at 4 (N.D. Cal. May 3, 2013)



Page 3

(France Telecom may rely on industry standards to disclose its theory of infringement) (citing *Fujitsu v. Netgear*, 620 F.3d 1321 (Fed. Cir. 2010)).

Your citation to *Bender v. Freescale Semiconductor, Inc.*, No. C 09-1156 PHJ MEJ, 2010 WL 1689465 (N.D. Cal. Apr. 26, 2010) is also inapposite. Unlike the plaintiff in that case, PDS has identified “with the required precision where the infringing component is located.” PDS did not “merely [allude] to the fact that any electrical engineer would understand the infringement contentions.” *Id.* at 4. In addition, you do not cite to any authority that prohibits citing to Wikipedia pages in infringement contentions. The time to challenge the admissibility of such evidence is at trial.

In short, we disagree with your characterizations of the Contentions. PDS has provided adequate notice of its infringement theories. We believe that any further delay of LG’s Patent L.R. 3-3, and 3-4 disclosure or discovery responses is unwarranted.

We are open to meet and confer on the phone this week. Please let us know your availability.

Sincerely,

AGILITY IP LAW, LLC

/s/ Vinh Pham

Exhibit 7

From: Barry Bumgardner
Sent: Monday, May 11, 2015 5:27 PM
To: mack@fr.com; sterba@fr.com; chu@fr.com; mckeon@fr.com; qureshi@fr.com; omay@fr.com
Cc: PDS
Subject: meet and confer request
Attachments: 2015-4-13 - LG Resp to PDS 2nd RFPs (4-11).pdf; 2015-03-12 - LG Resp to PDS 1st RFP (1-3).pdf

All,

In LG's RFP responses, you stated several times that "[LG] is willing to meet and confer with PDS to discuss LG's objections and to understand the scope of [the] request" or words to that effect (see attached). We would like to start this meet and confer process. Please let us know when you are available.

Thanks,
Barry

Barry Bumgardner
Nelson Bumgardner, P.C.
3131 West 7th Street, Suite 300
Fort Worth, Texas 76107
Desk: (817) 377-3494
Mobile: (512) 228-8562

Exhibit 8

From: Barry Bumgardner
Sent: Thursday, May 14, 2015 3:25 PM
To: mack@fr.com; sterba@fr.com; chu@fr.com; mckeon@fr.com; qureshi@fr.com; omay@fr.com
Cc: PDS
Subject: RE: meet and confer request

All,
We would appreciate a response so that we can put a time/date on the calendar.

Thanks,
Barry

From: Barry Bumgardner
Sent: Monday, May 11, 2015 5:27 PM
To: 'mack@fr.com'; 'sterba@fr.com'; 'chu@fr.com'; 'mckeon@fr.com'; 'qureshi@fr.com'; 'omay@fr.com'
Cc: PDS
Subject: meet and confer request

All,
In LG's RFP responses, you stated several times that "[LG] is willing to meet and confer with PDS to discuss LG's objections and to understand the scope of [the] request" or words to that effect (see attached). We would like to start this meet and confer process. Please let us know when you are available.

Thanks,
Barry

Barry Bumgardner
Nelson Bumgardner, P.C.
3131 West 7th Street, Suite 300
Fort Worth, Texas 76107
Desk: (817) 377-3494
Mobile: (512) 228-8562

Exhibit 9

From: Barry Bumgardner
Sent: Thursday, May 14, 2015 4:04 PM
To: Olga May; Shelley K. Mack; Richard Sterba; Christian A. Chu; Michael McKeon; Wasif Qureshi
Cc: PDS
Subject: RE: meet and confer request

Here is the dial in number:

Conference Call info:
Dial In Number - (866) 910-4857
Int'l Number - (719) 387-5500
Guest Conference Pass Code - 912522
Security Code - 36

From: Olga May [<mailto:OMay@fr.com>]
Sent: Thursday, May 14, 2015 4:03 PM
To: Barry Bumgardner; Shelley K. Mack; Richard Sterba; Christian A. Chu; Michael McKeon; Wasif Qureshi
Cc: PDS
Subject: RE: meet and confer request

Barry,

Thursday at 1 p.m. CDT will work for us.

Thanks,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Thursday, May 14, 2015 1:57 PM
To: Olga May; Shelley K. Mack; Richard Sterba; Christian A. Chu; Michael McKeon; Wasif Qureshi
Cc: PDS
Subject: RE: meet and confer request

Olga,

Wednesday doesn't work for us. We are available Thursday except 11:30-1 PM, CDT. Does that work for you? If so, just let us know a time that works for you.

Barry

From: Olga May [<mailto:OMay@fr.com>]
Sent: Thursday, May 14, 2015 3:34 PM

To: Barry Bumgardner; Shelley K. Mack; Richard Sterba; Christian A. Chu; Michael McKeon; Wasif Qureshi
Cc: PDS
Subject: RE: meet and confer request

Barry,

We'd like to schedule this call for after May 18, the deadline for Plaintiffs' responses to LG's RFPs. Then we will be able to discuss both sides' responses as necessary.

Will Wed at 1 CT/11 PT work for you and will you be sending a dial-in?

Thanks,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Thursday, May 14, 2015 1:25 PM
To: Shelley K. Mack; Richard Sterba; Christian A. Chu; Michael McKeon; Wasif Qureshi; Olga May
Cc: PDS
Subject: RE: meet and confer request

All,
We would appreciate a response so that we can put a time/date on the calendar.

Thanks,
Barry

From: Barry Bumgardner
Sent: Monday, May 11, 2015 5:27 PM
To: 'mack@fr.com'; 'sterba@fr.com'; 'chu@fr.com'; 'mckeon@fr.com'; 'qureshi@fr.com'; 'omay@fr.com'
Cc: PDS
Subject: meet and confer request

All,
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Thanks,
Barry

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Exhibit 10

From: Barry Bumgardner
Sent: Thursday, May 21, 2015 2:26 PM
To: Olga May
Cc: LG-TPL ITC (Service); PDS
Subject: Accused Product briefing
Attachments: 2013-09-06 TPL882 563 Order Denying Mtn to Exclude Prowse Report.pdf; HTC Mot to Exclude Prowse.pdf; TPL Response to Mot to Exclude Prowse.pdf

Olga,

Here is the briefing regarding Judge Grewal's rejection of HTC Daubert challenge of TPL's damages expert. Please let us know by next Friday if LG is going to produce the requested financial documents. Without arguing too much, I think you are picking the wrong time to fight about this issue. These documents are clearly discoverable regardless of our ultimate damages model. I think you would be better served producing this information and challenging our expert's ultimate use of it than opposing the discovery in the first place, but that is obviously your call.

Barry

Barry Bumgardner
Nelson Bumgardner, P.C.
3131 West 7th Street, Suite 300
Fort Worth, Texas 76107
Desk: (817) 377-3494
Mobile: (512) 228-8562

Exhibit 11

From: Barry Bumgardner
Sent: Friday, May 29, 2015 11:27 AM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Here is a dial in number for today's call:

Conference Call info:
Dial In Number - (866) 910-4857
Int'l Number - (719) 387-5500
Guest Conference Pass Code - 912522
Security Code - 63

From: Olga May [<mailto:OMay@fr.com>]
Sent: Thursday, May 28, 2015 4:42 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

As I recall, during the call you said you have the reports and declarations on which your interrogatory responses relied, without any investigation, and would send those to us this week. If you do not have these materials, please explain how the interrogatory responses were able to rely on them.

Plaintiffs' interrogatory responses do not appear to contain any confidential information and we ask that you de-designate them.

On the SSPPU issue, LG has reviewed the materials you sent from the *HTC* case. We are considering our position and should be able to respond next week.

We are available tomorrow for a call at 2 CT/noon PT. Please circulate a dial-in.

Thanks,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Thursday, May 28, 2015 1:40 PM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga – First, I didn't make any promises other than to investigate, which I have. I suggest a call tomorrow morning to discuss matters further. On another note, where is LG on figuring out the SSPPU issue? I am generally available tomorrow except for the lunch hour.

Barry

From: Olga May [<mailto:OMay@fr.com>]
Sent: Wednesday, May 27, 2015 10:52 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

I am following up on two things we discussed on the 5/21 call. You promised to send us this week the expert reports and declarations on which Plaintiffs' responses to LG's interrogatories No. 6 and 7 relied, and to either let us know which parts of Plaintiffs' interrogatory responses were confidential, or to de-designate the responses. We need to share a copy of the responses with the client. Please confirm we will get both items by the end of this week.

Also, in response to my email below, please confirm whether Plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

From: Olga May
Sent: Thursday, May 21, 2015 10:32 PM
To: 'Barry Bumgardner'
Cc: 'Stacie McNulty'; Christian A. Chu; Wasif Qureshi
Subject: TPL v. LG: productions

Barry,

As discussed, I am sending the Bates range for the documents LG produced in the ITC investigation: LGE800ITC1-445764. On April 21, LG already produced a complete copy of the prior art previously produced in the ITC investigation: 337_853_RESPONDENTS_0000001-0006519.

With respect to LG's RFPs served on April 13, please confirm whether plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

Olga I. May :: Principal

Fish & Richardson P.C. :: 12390 El Camino Real, San Diego, CA 92130
(direct) 858-678-4745 :: (fax) 858-678-5099 :: omay@fr.com

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Exhibit 12

From: Tom Cecil
Sent: Thursday, June 04, 2015 11:33 AM
To: tplv.zte-ndcalbrinksgilson@brinksgilson.com; nintendo-tpl@cooley.com; Samsung-TPL-NDCA@dlapiper.com; garmin-adv-tpl@turnerboyd.com; huawei_tpl_ndcal@steptoe.com; lg-tplitservice@fr.com; grp-garmin-tpl@paulweiss.com; bn-853@quinnemanuel.com
Cc: Charles T. Hoge (PTSC) (choge@knlh.com); wlb@svlg.com; 'Chris Banys'; 'Jennifer Lu Gilbert'; 'csl@banyspc.com'; 'Christopher Judge'; 'Richard Lin'; PDS; amt@svlg.com; mws@svlg.com
Subject: TPL et al. v. B&N et al.
Attachments: 2013 08 14 Dkt. 115 - ORDER Regarding Procedure for Resolution of Disput....pdf

Counsel,

In order to efficiently handle any discovery disputes that may arise in the next few months, Plaintiffs intend to propose to the Court next week a streamlined method for handling disputes. We envision proposing the system used in the *Adaptix* cases that Judge Grewal presided over recently. I have attached Judge Grewal's letter briefing order from the *Adaptix* cases.

We think this will lead to more efficient handling of disputes. We'd be happy to make this request jointly with Defendants. If Defendants agree, would you please let us know of your agreement by noon Pacific time on Tuesday, 6/9? If opposed, please let us know the basis for your opposition by that time.

Thanks,

Tom

Tom Cecil
NELSON BUMGARDNER P.C.
3131 W. 7th Street, Suite 300 • Fort Worth, Texas 76107
T: 817 806 3812 • F: 817 377 3485 • tom@nelbum.com

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Exhibit 13

From: Olga May <OMay@fr.com>
Sent: Monday, June 08, 2015 12:53 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

As discussed, LG is not “withholding” any documents. On the SSPPU issue, subject to LG’s objections, including on relevance, admissibility, and being an improper basis to calculate damages in this case, LG will provide unit sales and revenue information for the accused LG products with processors charted in plaintiffs’ infringement contentions.

Best,
Olga

From: Barry Bumgardner [mailto:Barry@nelbum.com]
Sent: Monday, June 08, 2015 10:30 AM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga – next week has come and gone. Is LG going to produce the documents it has been withholding?

Barry

From: Olga May [mailto:OMay@fr.com]
Sent: Thursday, May 28, 2015 4:42 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

As I recall, during the call you said you have the reports and declarations on which your interrogatory responses relied, without any investigation, and would send those to us this week. If you do not have these materials, please explain how the interrogatory responses were able to rely on them.

Plaintiffs’ interrogatory responses do not appear to contain any confidential information and we ask that you designate them.

On the SSPPU issue, LG has reviewed the materials you sent from the *HTC* case. We are considering our position and should be able to respond next week.

We are available tomorrow for a call at 2 CT/noon PT. Please circulate a dial-in.

Thanks,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Thursday, May 28, 2015 1:40 PM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga – First, I didn't make any promises other than to investigate, which I have. I suggest a call tomorrow morning to discuss matters further. On another note, where is LG on figuring out the SSPPU issue? I am generally available tomorrow except for the lunch hour.

Barry

From: Olga May [<mailto:OMay@fr.com>]
Sent: Wednesday, May 27, 2015 10:52 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

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Also, in response to my email below, please confirm whether Plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

From: Olga May
Sent: Thursday, May 21, 2015 10:32 PM
To: 'Barry Bumgardner'
Cc: 'Stacie McNulty'; Christian A. Chu; Wasif Qureshi
Subject: TPL v. LG: productions

Barry,

As discussed, I am sending the Bates range for the documents LG produced in the ITC investigation: LGE800ITC1-445764. On April 21, LG already produced a complete copy of the prior art previously produced in the ITC investigation: 337_853_RESPONDENTS_0000001-0006519.

With respect to LG’s RFPs served on April 13, please confirm whether plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

Olga I. May :: Principal

Fish & Richardson P.C. :: 12390 El Camino Real, San Diego, CA 92130
(direct) 858-678-4745 :: (fax) 858-678-5099 :: omay@fr.com

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Exhibit 14

From: Barry Bumgardner
Sent: Monday, June 08, 2015 1:01 PM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga,

I specifically asked on our meet and confer if there was any other basis for withholding responsive documents beside the SSPU issue. You said no. Now you are playing the deficient claim chart game and are only offering to produce documents for products you deem that we have sufficiently charted. Do we need to speak again now about the claim chart issue, or do you believe we have satisfied all of the local rule meet and confer procedures so that we can proceed to file a motion to compel?

Barry

From: Olga May [<mailto:OMay@fr.com>]
Sent: Monday, June 8, 2015 12:53 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

As discussed, LG is not "withholding" any documents. On the SSPPU issue, subject to LG's objections, including on relevance, admissibility, and being an improper basis to calculate damages in this case, LG will provide unit sales and revenue information for the accused LG products with processors charted in plaintiffs' infringement contentions.

Best,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Monday, June 08, 2015 10:30 AM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga – next week has come and gone. Is LG going to produce the documents it has been withholding?

Barry

From: Olga May [<mailto:OMay@fr.com>]
Sent: Thursday, May 28, 2015 4:42 PM
To: Barry Bumgardner

Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi

Subject: RE: TPL v. LG: productions

Barry,

As I recall, during the call you said you have the reports and declarations on which your interrogatory responses relied, without any investigation, and would send those to us this week. If you do not have these materials, please explain how the interrogatory responses were able to rely on them.

Plaintiffs' interrogatory responses do not appear to contain any confidential information and we ask that you de-designate them.

On the SSPPU issue, LG has reviewed the materials you sent from the *HTC* case. We are considering our position and should be able to respond next week.

We are available tomorrow for a call at 2 CT/noon PT. Please circulate a dial-in.

Thanks,

Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]

Sent: Thursday, May 28, 2015 1:40 PM

To: Olga May

Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi

Subject: RE: TPL v. LG: productions

Olga – First, I didn't make any promises other than to investigate, which I have. I suggest a call tomorrow morning to discuss matters further. On another note, where is LG on figuring out the SSPPU issue? I am generally available tomorrow except for the lunch hour.

Barry

From: Olga May [<mailto:OMay@fr.com>]

Sent: Wednesday, May 27, 2015 10:52 PM

To: Barry Bumgardner

Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi

Subject: RE: TPL v. LG: productions

Barry,

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Also, in response to my email below, please confirm whether Plaintiffs can produce the requested documents by June 5.

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Olga

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Cc: 'Stacie McNulty'; Christian A. Chu; Wasif Qureshi
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Barry,

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With respect to LG's RFPs served on April 13, please confirm whether plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

Olga I. May :: Principal

Fish & Richardson P.C. :: 12390 El Camino Real, San Diego, CA 92130
(direct) 858-678-4745 :: (fax) 858-678-5099 :: omay@fr.com

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message.

Exhibit 15

From: Olga May <OMay@fr.com>
Sent: Monday, June 08, 2015 3:44 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

Let's not be so quick to accuse us of games. We are happy to clarify as it appears you may have misunderstood our prior discussions.

On the 5/29 call, in response to your question whether LG was withholding any technical documents, we said that LG produced its technical documents on 4/21 for U.S.-sold products (LG_TPL_00000001—LG_TPL_00073164). Those are responsive to plaintiffs' applicable document requests.

Regarding the broad scope of sales discovery you requested, that was an open issue and one that we told you we would need to get back to you on. After further consideration, LG is willing to provide unit sales and revenue information for the accused U.S.-sold LG products with processors charted in plaintiffs' infringement contentions. To the extent you have an issue with this, please let us know if you want to further discuss.

Thanks,
Olga

From: Barry Bumgardner [mailto:Barry@nelbum.com]
Sent: Monday, June 08, 2015 11:01 AM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga,

I specifically asked on our meet and confer if there was any other basis for withholding responsive documents beside the SSPU issue. You said no. Now you are playing the deficient claim chart game and are only offering to produce documents for products you deem that we have sufficiently charted. Do we need to speak again now about the claim chart issue, or do you believe we have satisfied all of the local rule meet and confer procedures so that we can proceed to file a motion to compel?

Barry

From: Olga May [mailto:OMay@fr.com]
Sent: Monday, June 8, 2015 12:53 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

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Best,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Monday, June 08, 2015 10:30 AM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga – next week has come and gone. Is LG going to produce the documents it has been withholding?

Barry

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Sent: Thursday, May 28, 2015 4:42 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

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Plaintiffs’ interrogatory responses do not appear to contain any confidential information and we ask that you de-designate them.

On the SSPPU issue, LG has reviewed the materials you sent from the *HTC* case. We are considering our position and should be able to respond next week.

We are available tomorrow for a call at 2 CT/noon PT. Please circulate a dial-in.

Thanks,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Thursday, May 28, 2015 1:40 PM
To: Olga May

Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi

Subject: RE: TPL v. LG: productions

Olga – First, I didn't make any promises other than to investigate, which I have. I suggest a call tomorrow morning to discuss matters further. On another note, where is LG on figuring out the SSPPU issue? I am generally available tomorrow except for the lunch hour.

Barry

From: Olga May [<mailto:OMay@fr.com>]

Sent: Wednesday, May 27, 2015 10:52 PM

To: Barry Bumgardner

Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi

Subject: RE: TPL v. LG: productions

Barry,

I am following up on two things we discussed on the 5/21 call. You promised to send us this week the expert reports and declarations on which Plaintiffs' responses to LG's interrogatories No. 6 and 7 relied, and to either let us know which parts of Plaintiffs' interrogatory responses were confidential, or to de-designate the responses. We need to share a copy of the responses with the client. Please confirm we will get both items by the end of this week.

Also, in response to my email below, please confirm whether Plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

From: Olga May

Sent: Thursday, May 21, 2015 10:32 PM

To: 'Barry Bumgardner'

Cc: 'Stacie McNulty'; Christian A. Chu; Wasif Qureshi

Subject: TPL v. LG: productions

Barry,

As discussed, I am sending the Bates range for the documents LG produced in the ITC investigation: LGE800ITC1-445764. On April 21, LG already produced a complete copy of the prior art previously produced in the ITC investigation: 337_853_RESPONDENTS_0000001-0006519.

With respect to LG's RFPs served on April 13, please confirm whether plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

Olga I. May :: Principal

Fish & Richardson P.C. :: 12390 El Camino Real, San Diego, CA 92130
(direct) 858-678-4745 :: (fax) 858-678-5099 :: omay@fr.com

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Exhibit 16

From: Barry Bumgardner
Sent: Tuesday, June 09, 2015 6:05 PM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga,

As we discussed, I have an issue with LG providing data for just the products you indicate below. We want data for all LG products listed in Exhibit A. My understanding is that LG does not plan on producing information for all of the products (i.e., just the ones you deem “charted”). That is what we discussed. If I am wrong, please let me know.

Barry

From: Olga May [mailto:OMay@fr.com]
Sent: Monday, June 8, 2015 3:44 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

Let’s not be so quick to accuse us of games. We are happy to clarify as it appears you may have misunderstood our prior discussions.

On the 5/29 call, in response to your question whether LG was withholding any technical documents, we said that LG produced its technical documents on 4/21 for U.S.-sold products (LG_TPL_00000001—LG_TPL_00073164). Those are responsive to plaintiffs’ applicable document requests.

Regarding the broad scope of sales discovery you requested, that was an open issue and one that we told you we would need to get back to you on. After further consideration, LG is willing to provide unit sales and revenue information for the accused U.S.-sold LG products with processors charted in plaintiffs’ infringement contentions. To the extent you have an issue with this, please let us know if you want to further discuss.

Thanks,
Olga

From: Barry Bumgardner [mailto:Barry@nelbum.com]
Sent: Monday, June 08, 2015 11:01 AM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga,

I specifically asked on our meet and confer if there was any other basis for withholding responsive documents beside the SSPU issue. You said no. Now you are playing the deficient claim chart game and are only offering to produce documents for products you deem that we have sufficiently charted. Do we need to speak again now about the claim chart issue, or do you believe we have satisfied all of the local rule meet and confer procedures so that we can proceed to file a motion to compel?

Barry

From: Olga May [<mailto:OMay@fr.com>]
Sent: Monday, June 8, 2015 12:53 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

As discussed, LG is not “withholding” any documents. On the SSPPU issue, subject to LG’s objections, including on relevance, admissibility, and being an improper basis to calculate damages in this case, LG will provide unit sales and revenue information for the accused LG products with processors charted in plaintiffs’ infringement contentions.

Best,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Monday, June 08, 2015 10:30 AM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga – next week has come and gone. Is LG going to produce the documents it has been withholding?

Barry

From: Olga May [<mailto:OMay@fr.com>]
Sent: Thursday, May 28, 2015 4:42 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

As I recall, during the call you said you have the reports and declarations on which your interrogatory responses relied, without any investigation, and would send those to us this week. If you do not have these materials, please explain how the interrogatory responses were able to rely on them.

Plaintiffs' interrogatory responses do not appear to contain any confidential information and we ask that you de-designate them.

On the SSPPU issue, LG has reviewed the materials you sent from the *HTC* case. We are considering our position and should be able to respond next week.

We are available tomorrow for a call at 2 CT/noon PT. Please circulate a dial-in.

Thanks,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Thursday, May 28, 2015 1:40 PM
To: Olga May
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Olga – First, I didn't make any promises other than to investigate, which I have. I suggest a call tomorrow morning to discuss matters further. On another note, where is LG on figuring out the SSPPU issue? I am generally available tomorrow except for the lunch hour.

Barry

From: Olga May [<mailto:OMay@fr.com>]
Sent: Wednesday, May 27, 2015 10:52 PM
To: Barry Bumgardner
Cc: Stacie McNulty; Christian A. Chu; Wasif Qureshi
Subject: RE: TPL v. LG: productions

Barry,

I am following up on two things we discussed on the 5/21 call. You promised to send us this week the expert reports and declarations on which Plaintiffs' responses to LG's interrogatories No. 6 and 7 relied, and to either let us know which parts of Plaintiffs' interrogatory responses were confidential, or to de-designate the responses. We need to share a copy of the responses with the client. Please confirm we will get both items by the end of this week.

Also, in response to my email below, please confirm whether Plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

From: Olga May
Sent: Thursday, May 21, 2015 10:32 PM
To: 'Barry Bumgardner'
Cc: 'Stacie McNulty'; Christian A. Chu; Wasif Qureshi
Subject: TPL v. LG: productions

Barry,

As discussed, I am sending the Bates range for the documents LG produced in the ITC investigation: LGE800ITC1-445764. On April 21, LG already produced a complete copy of the prior art previously produced in the ITC investigation: 337_853_RESPONDENTS_0000001-0006519.

With respect to LG's RFPs served on April 13, please confirm whether plaintiffs can produce the requested documents by June 5.

Thanks,
Olga

Olga I. May :: Principal

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(direct) 858-678-4745 :: (fax) 858-678-5099 :: omay@fr.com

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Exhibit 17

From: Barry Bumgardner
Sent: Friday, June 12, 2015 5:56 PM
To: Olga May; Wasif Qureshi; Christian A. Chu
Cc: PDS
Subject: meet & confer request

All,

PDS requests a meet and confer for Monday before 4 PM, CDT. PDS will be filing a motion to compel against LG for its withholding of documents responsive to PDS's RFPs 1-4 & 6-11 (as well as the Patent L.R. 3-4(a) production). We would like to discuss the following on the meet and confer call:

- Does a hearing date of August 11, 2015, present "undue prejudice" for LG? This is the earliest date for a hearing on the normal briefing schedule.
- We are also going to be asking the Court for an expedited hearing date of June 30. Does LG oppose this motion?
- We have spoken a few times about these RFPs (and the corresponding 3-4 production) and I believe we have satisfied the meet and confer requirements. But, if you do not, we are happy to discuss any outstanding issues on our call.

Please let us know a time that works for you on Monday.

Barry

Barry Bumgardner
Nelson Bumgardner, P.C.
3131 West 7th Street, Suite 300
Fort Worth, Texas 76107
Desk: (817) 377-3494
Mobile: (512) 228-8562

Exhibit 18

From: Olga May <OMay@fr.com>
Sent: Monday, June 15, 2015 10:34 AM
To: Barry Bumgardner; Wasif Qureshi; Christian A. Chu
Cc: PDS
Subject: RE: meet & confer request

Barry,

The wholesale inclusion of Plaintiffs' RFP Nos. 1-4 and 6-11 as the scope of TPL's contemplated motion to compel is premature and improper given LG's production, commitments to produce documents, and prior correspondence. A motion to compel should not be used as a substitute to review for and identify documents that are believed to exist and be missing from a party's production.

As to RFP Nos. 1-3, seeking materials from the ITC investigation, during our prior discussion you agreed that you would review what you characterized as "millions of files" received from the Plaintiffs' previous counsel, that discovery issues resulting from Plaintiffs' change in counsel was "not [LG's] problem," and that you would let us know which documents you cannot locate and want from us. Despite our requests and your commitment, you have not to date identified any such documents.

As to RFP Nos. 6-11, you agreed you would review LG's 75K page April 21, 2015 Patent L.R. 3-4(a) technical document production (LG_TPL_00000001—LG_TPL_00073164) and identify any relevant information you believe is missing. Again, to date, despite our requests and your commitment, you have not given us any such identification. Indeed, TPL has never up until your e-mail below raised an issue of deficiencies in LG's Patent L.R. 3-4(a) production under that rule during any prior correspondence, and we do not know what the now-alleged deficiencies are.

As to RFP No. 4, we agreed to produce units and revenue information for the accused U.S. products containing processors charted in Plaintiffs' infringement contentions. If Plaintiffs have an issue with the scope of LG's response to RFP 4, then Plaintiffs' contemplated motion to compel on RFP 4 should be limited to information outside of the scope of what LG has agreed to produce.

We are available to discuss on the day you requested, today at 2:30 p.m. PT.

On the same call, please be prepared to discuss:

- LG's motion to strike TPL's infringement contentions based on the deficiencies raised as early as February 2015, and the July 21 hearing date for that motion.
- Plaintiffs' failure to produce documents in response to LG RFP Nos. 5, 7-35.
- Plaintiffs' responses to LG RFP ROG Nos. 1-2.

Best,
Olga

From: Barry Bumgardner [<mailto:Barry@nelbum.com>]
Sent: Friday, June 12, 2015 3:56 PM
To: Olga May; Wasif Qureshi; Christian A. Chu

Cc: PDS

Subject: meet & confer request

All,

PDS requests a meet and confer for Monday before 4 PM, CDT. PDS will be filing a motion to compel against LG for its withholding of documents responsive to PDS's RFPs 1-4 & 6-11 (as well as the Patent L.R. 3-4(a) production). We would like to discuss the following on the meet and confer call:

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- We have spoken a few times about these RFPs (and the corresponding 3-4 production) and I believe we have satisfied the meet and confer requirements. But, if you do not, we are happy to discuss any outstanding issues on our call.

Please let us know a time that works for you on Monday.

Barry

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 Nelson Bumgardner, P.C.
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 Fort Worth, Texas 76107
 Desk: (817) 377-3494
 Mobile: (512) 228-8562

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Exhibit 19

From: Olga May <OMay@fr.com>
Sent: Monday, June 15, 2015 5:41 PM
To: Barry Bumgardner; Wasif Qureshi; Christian A. Chu
Cc: PDS
Subject: RE: meet & confer request

Barry,

Below is the list of processors LG has identified as charted in Plaintiffs' infringement contentions (although LG disputes the charts compiled with Patent L.R. 3-1):

- Qualcomm MSM8960
- Qualcomm MSM8660
- Qualcomm MSM8260
- Qualcomm MSM7227
- TI OMAP4430
- TI OMAP4460
- TI OMAP4470

Best,
Olga

From: Barry Bumgardner [mailto:Barry@nelbum.com]
Sent: Monday, June 15, 2015 8:38 AM
To: Olga May; Wasif Qureshi; Christian A. Chu
Cc: PDS
Subject: RE: meet & confer request

Olga – For the record, I disagree with almost all of your points and factual statements in this email. Talk to you at 2:30 PDT. Here is a dial in no.:

Conference Call info:
Dial In Number - (866) 910-4857
Int'l Number - (719) 387-5500
Guest Conference Pass Code - 912522
Security Code - 34

Barry

From: Olga May [mailto:OMay@fr.com]
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To: Barry Bumgardner; Wasif Qureshi; Christian A. Chu

Cc: PDS

Subject: RE: meet & confer request

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- Plaintiffs' responses to LG RFP ROG Nos. 1-2.

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Olga

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Sent: Friday, June 12, 2015 3:56 PM

To: Olga May; Wasif Qureshi; Christian A. Chu

Cc: PDS

Subject: meet & confer request

All,

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- We are also going to be asking the Court for an expedited hearing date of June 30. Does LG oppose this motion?
- We have spoken a few times about these RFPs (and the corresponding 3-4 production) and I believe we have satisfied the meet and confer requirements. But, if you do not, we are happy to discuss any outstanding issues on our call.

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Barry

Barry Bumgardner
 Nelson Bumgardner, P.C.
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**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

TECHNOLOGY PROPERTIES LIMITED
LLC, PHOENIX DIGITAL SOLUTIONS
LLC and PATRIOT SCIENTIFIC
CORPORATION,

Plaintiffs,

v.

LG ELECTRONICS, INC. and LG
ELECTRONICS U.S.A., INC.,
Defendants.

Case No. 3:12-CV-03880-VC (PSG)

JURY TRIAL DEMANDED

**[PROPOSED] ORDER ON PDS'S
MOTION TO COMPEL DISCOVERY
FROM LG**

Hearing:

Date: August 11, 2015

Time: 10:00 a.m.

Place: Courtroom 5, 4th Floor

Judge: Hon. Paul S. Grewal

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Before the Court is PDS’s Motion to Compel Discovery from LG. Having considered PDS’s Motion, the Court finds that it is well taken and should be GRANTED.

As such, IT IS HEREBY ORDERED that Defendants LG Electronics, Inc. and LG Electronics U.S.A., Inc. produce complete financial and damages-related documents in response to PDS’s Request for Production No. 4 for the full scope of LG Accused Products identified in Plaintiffs’ Infringement Contentions within five (5) business days of this Order.

SO ORDERED.

Dated: _____

Hon. Paul S. Grewal
United States Magistrate Judge