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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

TECHNOLOGY PROPERTIES LIMITED LLC, *et al*,
Plaintiffs,

v.

SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC.,
Defendants.

Case No. 3:12-cv-03877-VC (PSG)

PDS'S MOTION TO COMPEL DISCOVERY

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

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NOTICE OF MOTION AND MOTION

TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE that on August 11, 2015, at 10:00 a.m., or as soon as the matter may be heard by the Honorable Paul S. Grewal, in Courtroom 5, United States District Court for the Northern District of California, Robert F. Peckham Federal Building, 280 South 1st Street, San Jose, CA 95113, Phoenix Digital Solutions LLC ("PDS") shall and hereby does move the Court for an order compelling Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Samsung") to produce certain documents in response to PDS's First Set of Request For Production Nos. 1-3 and PDS's Second Set of Request For Production Nos. 4, 6-12.

PDS has filed concurrently a Motion to Shorten Time for Briefing and Hearing on PDS's Motion to Compel Discovery. As detailed in that motion, PDS requests that the Court consider this motion on an expedited basis to allow PDS time to analyze the compelled discovery so that it can properly depose Samsung witness before the end of fact discovery on September 8, 2015.

RELIEF REQUESTED

PDS seeks an order pursuant to Fed. R. Civ. P. 37(a) compelling Samsung to complete the following discovery within five (5) business days of the Court's Order: (1) discovery related to technical issues in response to PDS's Second Set of Request for Production ("Second Set of RFP") Nos. 6-12; (2) discovery related to damages in response to PDS's Second Set of RFP No. 4; and (3) discovery from the ITC proceeding in response to PDS's First Set of Request for Production Nos. 1-3.

MEMORANDUM OF POINTS AND AUTHORITIES

I. INTRODUCTION

PDS seeks relief from Samsung's deliberate refusal to timely and properly engage in fair discovery. More specifically, PDS seeks an order to compel Samsung to produce discovery in good faith in two main categories of information commonly sought in patent infringement litigation (and indeed in most instances specifically required by the local patent rules), namely technical documents for PDS's infringement claims and financial information for PDS's damages claims. Further, PDS seeks production of relevant documents from International Trade

Commission Investigation No. 337-TA-853. Samsung should be compelled to produce such highly relevant information because this information is responsive to PDS's long-outstanding discovery requests, and this information is necessary to establish the merits of PDS's claims.

Samsung's refusal to produce technical and damages related discovery is highly prejudicial to PDS, particularly at this stage in the litigation when fact discovery ends in approximately three months. Due to Samsung's failure to provide adequate discovery, PDS finds it difficult to proceed with any depositions of Samsung witnesses in this action due to the lack of documents. Because fact discovery closes in a few months, PDS cannot afford any further delay by Samsung in producing the technical and damages related discovery. As presented below, Samsung's discovery conduct has caused and will continue to cause PDS prejudice and unnecessary litigation expense. Importantly, Samsung's position has resulted in protracted and unproductive discovery in this matter and otherwise unnecessary use of judicial resources. Accordingly, PDS respectfully requests the Court's Order compelling Samsung to cooperate and produce PDS's requested discovery forthwith.

II. FACTUAL BACKGROUND

PDS filed its Complaint ("the Complaint") in this action on July 24, 2012, alleging infringement of U.S. Patent Nos. 5,440,749 ("the '749 Patent"), 5,530,890 ("the '890 Patent"), and 5,809,336 ("the '336 Patent"). Dkt. No. 1.

On September 27, 2012, the Court stayed this action until a final determination was entered in International Trade Commission Investigation No. 337-TA-853 ("the ITC Investigation"). Dkt. No. 12. In the ITC Investigation, certain Samsung products were accused of infringing the '336 Patent, including Samsung products accused of infringement in this action. Declaration of Barry J. Bumgardner in Support of PDS's Motion to Compel Discovery ("Bumgardner Decl."), ¶ 2.

The Initial Case Management Conference was held on November 18, 2014. Dkt. No. 22. Samsung filed its Answer to the Complaint on December 18, 2014. Dkt. No. 24.

PDS served its Infringement Contentions to Samsung on January 20, 2015. Bumgardner Decl., ¶ 3; Ex. 1. PDS's Infringement Contentions specifically identify Samsung's Accused

Instrumentalities, as disclosed in Table A.4 of Exhibit A of the Infringement Contentions. Bumgardner Decl., ¶ 4; Ex. 2 at 31-54.

Patent L.R. 3-4(a) requires Samsung to produce "[s]ource code, specifications, schematics, flow charts, artwork, formulas, or other documentation sufficient to show the operation of any aspects or elements of an Accused Instrumentality identified by the patent claimant in its Patent L.R. 3-1(c) chart." Samsung failed to produce these technical documents sufficient to show the operation of all of the Accused Instrumentalities that were specifically identified in PDS's Infringement Contentions. Bumgardner Decl., ¶ 5.

On March 10, 2015, Samsung sent a letter in which it unilaterally declared PDS's Infringement Contentions deficient, and stated that it had no obligation to provide technical discovery pertaining to the Accused Instrumentalities identified in PDS's Infringement Contentions. Bumgardner Decl., ¶ 6; Ex. 3 at 3-4. On March 19, 2015, PDS replied with a response letter indicating that the Infringement Contentions were sufficient and requesting Samsung's production pursuant to Patent L.R. 3-4 and PDS's discovery requests. Bumgardner Decl., ¶ 7; Ex. 4.

PDS served its First Set of Request for Production ("First Set of RFP") to Samsung on January 26, 2015. Bumgardner Decl., ¶ 8; Ex. 5. Samsung's Response to PDS's First Set of RFP were served to PDS on March 12, 2015. Bumgardner Decl., ¶ 9; Ex. 6.

PDS served its Second Set of Request for Production ("Second Set of RFP") on March 9, 2015. Bumgardner Decl., ¶ 10; Ex. 7. Samsung's Response to PDS's Second Set of RFP were served to PDS on April 13, 2015. Bumgardner Decl., ¶ 11; Ex. 8.

Nelson Bumgardner became counsel of record for PDS on April 15, 2015. After Nelson Bumgardner took over the representation of PDS in this matter, attorneys from Nelson Bumgardner began reviewing Samsung's Responses to PDS's discovery requests. Bumgardner Decl., ¶ 12. It became apparent that Samsung had failed to produce technical and damages related documents under the cover of its objection to PDS's definition of "Accused Products." Bumgardner Decl., ¶ 12.

On several occasions, PDS has attempted to resolve the discovery issues with Samsung. While the parties discussed potential solutions, there was ultimately no agreement reached. Bumgardner Decl., ¶ 13. On May 11, 2015, PDS requested a meet and confer with Samsung on these discovery issues. Bumgardner Decl., ¶ 14; Ex. 9. PDS's original request to meet and confer was followed by two more requests to meet and confer on May 14 and May 20 of 2015. Bumgardner Decl., ¶¶ 15-16; Exs. 10 and 11. In response to PDS's third request, the parties met and conferred on May 22, 2015. Bumgardner Decl., ¶ 17. A follow-up meet and confer was held on May 28, 2015 and June 10, 2015. Bumgardner Decl., ¶ 17. While the parties discussed potential solutions, there was ultimately no agreement reached. Bumgardner Decl., ¶ 17.

Regarding PDS's RFP Nos. 4 and 6-12, Samsung has stated that it will not produce responsive documents until the Court has determined the scope of the Accused Products. Bumgardner Decl., ¶ 18. The parties will work in good faith to resolve Samsung's objections to RFP Nos. 4 and 6-12 after the Court has decided the issue regarding the scope of the Accused Products. *Id*. With respect to Patent L.R. 3-4(a), counsel for Samsung indicated that it has produced technical documents for the accused products that have one of the eight microprocessors identified in Samsung's Motion to Strike PDS's Infringement Contentions. *Id*. However, Samsung will not produce technical documents for the vast majority of accused products outside the very limited scope that Samsung has itself defined. *Id*. Samsung will not produce documents relevant to the same products accused in both the ITC Investigation and this action, unless the products include one of the particular microprocessors identified in Samsung's Motion to Strike PDS's Infringement Contentions. *Id*.

On June 4, 2015, PDS sent Samsung (and the other defendants in related matters) an e-mail asking if they would agree to entry of a letter briefing procedure entered by the Court in similar patent-infringement cases to handle discovery disputes, and PDS indicated that it would ask the Court to adopt such a procedure. Bumgardner Decl., ¶ 19; Ex. 12. PDS asked that Samsung and the other defendants respond by June 9, 2015. *Id*. On June 8, 2015, Samsung informed PDS that it intended to file a motion to strike Plaintiffs' Infringement Contentions. Bumgardner Decl., ¶ 20; Ex. 13.

To date, Samsung has failed to produce technical and damages related documents for most of the accused products responsive to aforementioned discovery requests. Bumgardner Decl., ¶ 21. The deadline to complete fact discovery is September 8, 2015. Dkt. No. 28.

III. ARGUMENT

A. The Court Should Compel Samsung To Produce Technical and Damages Discovery

PDS's Second Set of Request for Production ("RFP") No. 4 seek information directly relevant to PDS's damages claims. PDS's RFP Nos. 6-12 seek information relating to the accused products directly relevant to PDS's infringement claims. Further, Patent L.R. 3-4(a) requires Samsung to produce "[s]ource code, specifications, schematics, flow charts, artwork, formulas, or other documentation sufficient to show the operation of any aspects or elements of an Accused Instrumentality identified by the patent claimant in its Patent L.R. 3-1(c) chart."

1. PDS'S RFP Nos. 4, 6-12 and Samsung's Objections and/or Answers

Pursuant to Civil L.R. 37-2, PDS's RFP Nos. 4, and 6-12 are set forth in full below, with Samsung's corresponding objections and/or answers following immediately after each.

> **REQUEST FOR PRODUCTION NO. 4:**
>
> Documents sufficient to show sales, sales price, revenues, gross margin, net margin, cost and profit information for each of the Accused Products, broken down by quarter, including all Documents sufficient to explain any acronyms or terminologies employed by Your accounting systems.
>
> **RESPONSE TO REQUEST FOR PRODUCTION NO. 4:**
>
> Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products" and "Your" as vague and ambiguous. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.
>
> Subject to and without waiving the foregoing general and specific

objections, Samsung will produce non-privileged, responsive documents sufficient to show the requested information within its possession, custody or control to the extent they exist, after a reasonable search.

REQUEST FOR PRODUCTION NO. 6:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 6:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products" and "identity of the microprocessors" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

REQUEST FOR PRODUCTION NO. 7:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 7:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products" and "performance corner values and associated nominal voltages" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to the term "performance corner values and associated nominal voltages" as vague and ambiguous. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this

request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

REQUEST FOR PRODUCTION NO. 8:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 8:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the term "Accused Products" as vague and ambiguous. Samsung objects to the entirety of this request as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

REQUEST FOR PRODUCTION NO. 9:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 9:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the term "Accused Products" as vague and ambiguous. Samsung objects to the entirety of this request as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung will produce non-privileged, responsive documents sufficient to show the requested information within its possession, custody or control to the extent they exist, after a reasonable search.

REQUEST FOR PRODUCTION NO. 10:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 10:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "tune up information," "operational descriptions," "Accused Products" and "YOU" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

REQUEST FOR PRODUCTION NO. 11:

For each Accused Product that has an EC Declaration of Conformity and/or bear CE markings, a copy of the technical documentation or file kept

pursuant to the applicable European Directive(s). By way of example and not limitation, the "Low Voltage" and "Radio and telecommunications terminal equipment" directives require manufacturers to retain for 10 years: (1) a general description of the electrical equipment; (2) conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.; and (3) descriptions and explanations necessary for the understanding of said drawings and schemes and the operation of the electrical equipment. See Directive 2006/95/EC, Annex IV, Nr. 3; Directive 1999/5/EC, Annex II, Point 4; http://ec.europa.eu/enterprise/policies/single-market-goods/cemarking/aboutcemarking/index_en.htm; https://www.gov.uk/ce-marking. A sample "Declaration of Conformity" is attached as Exhibit D.

RESPONSE TO REQUEST FOR PRODUCTION NO. 11:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "technical documentation" "Accused Products" and "YOU" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

REQUEST FOR PRODUCTION NO. 12:

For each Accused Product, final product characterization, qualification, margining and/or binning plans for each processor included in the Accused Product.

RESPONSE TO REQUEST FOR PRODUCTION NO. 12:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products," "final product characterization," "qualification" and "margining and/or binning plans" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit

> information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.
>
> Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

2. Samsung Has Failed To Produce Technical or Damages Discovery

Samsung's justification for its lack of production is that it believes that PDS's infringement contentions are defective and therefore it is not obligated to produce broad categories of documents related to the products PDS has accused of infringement. As discussed above, PDS served its infringement contentions on Samsung almost six months ago. Until PDS threatened to file this motion, Samsung never sought to address with the Court alleged deficiencies with the contentions, or sought protection from PDS's discovery requests or the requirements of Patent L.R. 3-4. Instead, Samsung did nothing and simply ignored its obligations under the Federal Rules of Civil Procedure and the Patent Local Rules. This unilateral refusal to participate in the discovery phase of a lawsuit until being forced to act should not be condoned.

Specifically, Samsung failed to produce relevant technical and damages documents in response to PDS's RFP Nos. 4 and 6-12. As required by Patent L.R. 3-4(a), Samsung has also failed to produce "[s]ource code, specifications, schematics, flow charts, artwork, formulas, or other documentation sufficient to show the operation of any aspects or elements of an Accused Instrumentality identified by the patent claimant in its Patent L.R. 3-1(c) chart." With respect to Patent L.R. 3-4(a), counsel for Samsung indicated that it has produced technical documents for the accused products have certain microprocessors identified in Samsung's Motion to Strike PDS's Infringement Contentions. However, Samsung will not produce technical documents for the accused products outside the limited scope that Samsung has defined.

The Federal Rules of Civil Procedure afford both parties in 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). To obtain this discovery "[a] party may serve on any other party a request within the scope of Rule 26(b): to

produce and permit the requesting party or its representative to inspect, copy, test, or sample . . . any designated documents or electronically stored information." Fed. R. Civ. P. 34(a)-(a)(1)(A).

PDS's RFP Nos. 4 and 6-12 are directed to non-privileged discovery that is highly relevant to PDS's infringement and damages claims. Samsung's primary reason for failing to produce these documents is based on Samsung's unilateral declaration that it has no obligations to produce these highly relevant documents because it believes that PDS's Infringement Contentions are deficient. PDS's Infringement Contentions specifically identify Samsung's Accused Products, as disclosed in Table A.4 of Exhibit A of the Infringement Contentions. Thus, it is disingenuous of Samsung to object to its understanding of what PDS is alleging as the "Accused Products." Ex. 2 at 31-54.

Samsung's objection that it will not produce confidential documents of third parties is also improper. Under the Court's Interim Model Patent Protective Order ("Protective Order"), Samsung must be proactive in producing confidential information of third parties. Section 11 of the Protective requires Samsung to promptly notify PDS and the third party that information requested is subject to a confidentiality agreement with a third party. Further, if the third party fails to seek a protective order from this Court within 14 days of receiving the notice and accompanying information, Samsung should produce the third party's confidential information responsive to the discovery request. More than 14 days have elapsed since Samsung was served with these discovery requests. To PDS's knowledge, Samsung has not even begun to take the proactive steps required by the Protective Order.

Regarding PDS's RFP Nos. 4 and 6-12, Samsung will not produce any responsive documents until the Court has determined the scope of the Accused Products. The parties will work in good faith to resolve Samsung's objections to RFP Nos. 4 and 6-12 after the Court has decided the issue regarding the scope of the Accused Products.

Samsung's delay in providing these documents is prejudicial to PDS. Fact discovery is scheduled to end on September 8, 2015. However, PDS is hampered in its ability to proceed with depositions and other preparations for trial until Samsung produces the technical and damages related documents responsive to PDS's discovery requests and Patent L.R. 3-4(a). Thus,

Samsung should be required to produce this information immediately so that depositions and additional discovery are not further delayed.

B. Samsung Should Be Compelled To Produce Discovery From The ITC Investigation

PDS's First Set of RFP Nos. 1-3 seek highly relevant non-privileged documents from the ITC Investigation.

1. PDS'S RFP Nos. 1-3 and Samsung's Objections and/or Answers

Pursuant to Civil L.R. 37-2, PDS's RFP Nos. 1-3 are set forth in full below, with Samsung's corresponding objections and/or answers following immediately after each.

REQUEST FOR PRODUCTION NO. 1:

All DOCUMENTS that YOU produced in the ITC Investigation, carrying the bates stamps that they carried when they were produced in that Investigation.

RESPONSE TO REQUEST FOR PRODUCTION NO. 1:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to this request on the grounds that it is premature, inconsistent with, and seeks to impose obligations on Samsung beyond those imposed by the Patent Local Rules and the orders of the Court, in that it seeks information and documents prior to the deadline for their disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to Modify Case Schedule (D.I. 47) and Patent Local Rules 3-3 and 3-4. Samsung objects to this request as unclear, ambiguous, overbroad and unduly burdensome in its use of the terms "[a]ll DOCUMENTS," including documents that are not relevant to any of the issues in this litigation. Samsung objects to the term "YOU" as vague and ambiguous. Samsung objects to this request neither relevant to the subject matter of this action, nor reasonably calculated to lead to the discovery of relevant, admissible evidence. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent that it seeks the production of documents which are already within the possession, custody or control of PDS. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities. Samsung further notes that the parties are in the process of negotiating a cross-use agreement that would permit the parties to use in this action certain documents and materials from the ITC Proceedings, and that the execution of that cross-use agreement will obviate this request.

Subject to and without waiving its foregoing general and specific objections, Samsung responds that the parties are in the process of finalizing an

agreement regarding the cross-use of documents and discovery produced in the ITC Proceedings. After the Court issues an order granting the transfer of the complete record of proceedings in the ITC Proceedings for use in the present action, and subject to the terms of the parties' final cross-use agreement, non-privileged, responsive documents will be deemed produced (or produced if necessary) in this action to the extent that they exist and can be located after a reasonable search.

REQUEST FOR PRODUCTION NO. 2:

All of YOUR responses to any interrogatories or requests for admission in the ITC Investigation.

RESPONSE TO REQUEST FOR PRODUCTION NO. 2:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to this request on the grounds that it is premature, inconsistent with, and seeks to impose obligations on Samsung beyond those imposed by the Patent Local Rules and the orders of the Court, in that it seeks information and documents prior to the deadline for their disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to Modify Case Schedule (D.I. 47) and Patent Local Rules 3-3 and 3-4. Samsung objects to the term "YOUR" as vague and ambiguous. Samsung objects to this request as unclear, ambiguous, overbroad and unduly burdensome in its use of the terms "all of YOUR responses to any interrogatories or requests for admission," including documents that are not relevant to any of the issues in this litigation. Samsung objects to this request neither relevant to the subject matter of this action, nor reasonably calculated to lead to the discovery of relevant, admissible evidence. Samsung objects to this Request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such information except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities. Samsung objects to this request on the grounds that it attempts to circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33 and 36 and this Court's November 20, 2014 Case Management Order (D.I. 40). Samsung further notes that the parties are in the process of negotiating a cross-use agreement that would permit the parties to use in this action certain documents and materials from the ITC Proceedings, and that the execution of that cross-use agreement will obviate this request.

Subject to and without waiving its foregoing general and specific objections, Samsung responds that the parties are in the process of finalizing an agreement regarding the cross-use of documents and discovery produced in the ITC Proceedings. After the Court issues an order granting the transfer of the complete record of proceedings in the ITC Proceedings for use in the present action, and subject to the terms of the parties' final cross-use agreement, non-privileged, responsive documents will be deemed produced (or produced if necessary) in this action to the extent that they exist and can be located after a reasonable search.

REQUEST FOR PRODUCTION NO. 3:

All deposition transcripts in the ITC Investigation.

RESPONSE TO REQUEST FOR PRODUCTION NO. 3:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to this request on the grounds that it is premature, inconsistent with, and seeks to impose obligations on Samsung beyond those imposed by the Patent Local Rules and the orders of the Court, in that it seeks information and documents prior to the deadline for their disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to Modify Case Schedule (D.I. 47) and Patent Local Rules 3-3 and 3-4. Samsung objects to this request as unclear, ambiguous, overbroad and unduly burdensome in its use of the terms "all deposition transcripts," including documents that are not relevant to any of the issues in this litigation. Samsung objects to this request neither relevant to the subject matter of this action, nor reasonably calculated to lead to the discovery of relevant, admissible evidence. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities. Samsung objects to this request to the extent that it seeks documents not within Samsung's possession, custody or control, seeks the production of documents which are already within the possession, custody or control of PDS, and/or seeks the production of documents from third parties or sources which are equally accessible to PDS. Samsung objects to this requests on the grounds that it improperly and prematurely seeks discovery of expert opinions. Samsung will disclose such documents and information within the timeframe specified by the Court's Scheduling Order and the applicable local rules. Samsung objects to this request on the grounds that it attempts to circumvent the applicable limits on deposition discovery set by Federal Rule of Civil Procedure 30. Samsung further notes that the parties are in the process of negotiating a cross-use agreement that would permit the parties to use in this action certain documents and materials from the ITC Proceedings, and that the execution of that cross-use agreement will obviate this request.

Subject to and without waiving its foregoing general and specific objections, Samsung responds that it is prepared to meet and confer with PDS regarding a narrower, more reasonable, more appropriate, and less objectionable scope for this request.

2. Samsung Has Failed To Produce Documents from the ITC Investigation

Samsung has failed to produce the ITC documents requested in response to PDS's RFP Nos. 1-3. However, Samsung has unilaterally determined to produce certain ITC documents only with respect to the accused products having certain microprocessors identified in Samsung's Motion to Strike PDS's Infringement Contentions.

PDS's RFP Nos. 1-3 are directed to non-privileged discovery that was previously produced to PDS in the ITC Investigation. PDS no longer has the information requested in RFP Nos. 1-3 because PDS had to destroy this information pursuant to the various protective orders and agreements governing the ITC Investigation.

In response to RFP Nos. 1-3, PDS is seeking at least the following exemplary Samsung related information from the ITC Investigation: documents produced in the ITC Investigation having the bates stamp from the ITC Investigation, deposition transcripts and corresponding exhibits, Samsung's interrogatory responses, and Samsung's responses to requests for admission.

Samsung's objection that it will not produce confidential documents of third parties is also improper. As stated earlier, Samsung must be proactive in producing confidential information of third parties pursuant to the Court's Protective Order. To PDS's knowledge, Samsung has not even begun to take the proactive steps required by the Protective Order.

Samsung's delay in producing these highly relevant documents is prejudicial to PDS. Fact discovery is scheduled to end on September 8, 2015. However, PDS is unable to effectively proceed with depositions until Samsung produces these highly relevant documents responsive to PDS's discovery requests. Thus, Samsung should be required to produce this information immediately so that depositions and additional discovery are not further delayed.

IV. CONCLUSION

For the foregoing reasons, PDS requests that the Court compel Samsung to provide the following within five (5) business days of the Court's Order.

A. Complete technical discovery in response to PDS's RFP Nos. 6-12 and Patent L.R. 3-4(a).

B. Complete damages discovery in response to PDS's RFP No. 4.

C. Complete discovery of documents from the ITC Investigation in response to PDS's RFP Nos. 1-3.

Dated: June 11, 2015

Respectfully Submitted,

/s/ Barry J. Bumgardner
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Attorneys for Plaintiff
PHOENIX DIGITAL SOLUTIONS LLC

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

PDS hereby certifies that it has in good faith conferred with Samsung 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 this Motion to Compel Discovery.

Dated: June 11, 2015

NELSON BUMGARNDER, 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 by forwarding the document(s) by electronic transmission on this date to the electronic mail addresses for counsel of record for SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC., as identified below:

Aaron Wainscoat	aaron.wainscoat@dlapiper.com
Andrew Valentine	andrew.valentine@dlapiper.com
Carrie Williamson	carrie.williamson@dlapiper.com
Erik Fuehrer	erik.fuehrer@dlapiper.com
James Heintz	jim.heintz@dlapiper.com
Mark Fowler	mark.fowler@dlapiper.com

Dated: June 11, 2015

By: /s/ *Barry J. Bumgardner*
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, *et al*,

Plaintiffs,

v.

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

Defendants.

Case No. 3:12-cv-03877-VC (PSG)

DECLARATION OF BARRY J. BUMGARDNER IN SUPPORT OF PDS'S MOTION TO COMPEL DISOVERY

Hearing:
Date: August 11, 2015
Time: 10:00 a.m.
Place: Courtroom 5, 4th Floor
Judge: Hon. Paul S. Grewal

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

1. I am a partner at the law firm of Nelson Bumgardner, P.C., attorneys of record for PDS. If called as a witness, I could and would testify competently to the information set forth in this declaration.

2. In the ITC Investigation, certain Samsung products were accused of infringing U.S. Patent No. 5,809,336, including Samsung products accused of infringement in this action.

3. Attached as **Exhibit 1** hereto is a true and correct copy of the Cover Pleading of Plaintiffs Phoenix Digital Solutions LLC ("PDS"), Technology Properties Limited LLC, and Patriot Scientific Corporation's (collectively "Plaintiffs") Patent L.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions, served to Samsung on January 20, 2015.

4. Attached as **Exhibit 2** hereto is a true and correct copy of Plaintiffs' Exhibit A to the Infringement Contentions. Exhibit A consists of seven separate tables, with each table specifically listing the "Accused Products" in the corresponding claim charts for the different defendants. The "Accused Products" for Samsung are specifically identified in Table A.4, on pages 31 through 54 of Exhibit A (attached hereto as Exhibit 2).

5. Patent L.R. 3-4(a) states that "[s]ource code, specifications, schematics, flow charts, artwork, formulas, or other documentation sufficient to show the operation of any aspects or elements of an Accused Instrumentality identified by the patent claimant in its Patent L.R. 3-1(c) chart" are to be produced. Samsung failed to produce these technical documents sufficient to show the operation of all of the Accused Instrumentalities that were specifically identified in PDS's Infringement Contentions.

6. Attached as **Exhibit 3** hereto is a true and correct copy of a March 10, 2015, letter that Samsung's counsel sent to Plaintiffs' counsel. In this letter, Samsung declared PDS's Infringement Contentions deficient, and stated that it would not provide technical discovery pertaining to the Accused Instrumentalities identified in PDS's Infringement Contentions

7. Attached as **Exhibit 4** hereto is a true and correct copy of a March 19, 2015, letter from Plaintiffs' counsel to Samsung's counsel in response to the March 10 letter. In this letter,

PDS indicated that the Infringement Contentions were sufficient and requested Samsung's production pursuant to Patent L.R. 3-4 and PDS's discovery requests.

8. Attached as **Exhibit 5** hereto is a true and correct copy of PDS's First Set of Request for Production ("First Set of RFP") to Samsung served on January 26, 2015

9. Attached as **Exhibit 6** hereto is a true and correct copy of Samsung's Response to PDS's First Set of RFP served to PDS served on March 12, 2015.

10. Attached as **Exhibit 7** hereto is a true and correct copy of PDS's Second Set of Request for Production ("Second Set of RFP") to Samsung served on March 9, 2015.

11. Attached as **Exhibit 8** hereto is a true and correct copy of Samsung's Response to PDS's Second Set of RFP served to PDS on April 13, 2015.

12. Nelson Bumgardner became counsel of record for PDS on April 15, 2015. After Nelson Bumgardner took over the representation of PDS in this matter, attorneys from Nelson Bumgardner began reviewing Samsung's Responses to PDS's discovery requests. It became apparent that Samsung was objecting to producing technical and damages related documents under the cover of its objection to PDS's definition of "Accused Products."

13. PDS has attempted on several occasions to resolve the discovery issues with Samsung. While the parties discussed potential solutions, there was ultimately no agreement reached.

14. Attached as **Exhibit 9** hereto is a true and correct copy of a May 11, 2015 email where PDS requested a meet and confer with Samsung on these discovery issues.

15. Attached as **Exhibit 10** hereto is a true and correct copy of a May 14, 2015 email where PDS followed up on its original request to meet and confer with Samsung.

16. Attached as **Exhibit 11** hereto is a true and correct copy of a May 20, 2015 email where PDS again followed up on its original request to meet and confer with Samsung.

17. In response to PDS's third request, the parties met and conferred on May 22, 2015. A follow-up meet and confer was held on May 28, 2015 and June 10, 2015. While the parties discussed potential solutions, there was ultimately no agreement reached.

18. Regarding PDS's RFP Nos. 4 and 6-12, Samsung has stated that it will not produce responsive documents until the Court determines the scope of the Accused Products. The parties will work in good faith to resolve Samsung's objections to RFP Nos. 4 and 6-12 after the Court has decided the issue regarding the scope of the Accused Products. With respect to Patent L.R. 3-4(a), counsel for Samsung indicated that it has produced technical documents for the accused products that have one of the eight microprocessors identified in Samsung's Motion to Strike PDS's Infringement Contentions. However, Samsung will not produce technical documents for the vast majority of accused products outside the very limited scope that Samsung has itself defined. Samsung will not produce documents relevant to the same products accused in both the ITC Investigation and this action, unless the products include one of the particular microprocessors identified in Samsung's Motion to Strike PDS's Infringement Contentions.

19. Attached as **Exhibit 12** hereto is a true and correct copy of a June 4, 2015, email where PDS sent Samsung (and the other defendants in related matters) an email asking if they would agree to entry of a letter briefing procedure entered by the Court in similar patent-infringement cases to handle discovery disputes, and PDS indicated that it would ask the Court to adopt such a procedure. PDS asked that Samsung and other defendants respond by June 9, 2015.

20. Attached as **Exhibit 13** hereto is a true and correct copy of a June 8, 2015, email where Samsung informed PDS that it intended to file a motion to strike Plaintiffs' Infringement Contentions.

21. To date, Samsung has failed to produce technical and damages related documents for most of the accused products responsive to aforementioned discovery requests.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. This declaration is executed on June 11, 2015 in Fort Worth, Texas.

Dated: June 11, 2015

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

Exhibit 1

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Attorneys for Plaintiff
PATRIOT SCIENTIFIC CORPORATION

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

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

Plaintiffs,

vs.

BARNES & NOBLE, INC.,

Defendants.

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

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

TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, *vs.* HUAWEI TECHNOLOGIES CO., LTD. and HUAWEI NORTH AMERICA, Defendants.	Case No. 2:12-cv-03865-VC
TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, *vs.* GARMIN LTD., GARMIN INTERNATIONAL, INC., AND GARMIN USA, INC., Defendants.	Case No. 3:12-cv-03870-VC
TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, *vs.* ZTE CORPORATION and ZTE (USA) INC., Defendants.	Case No. 3:12-cv-03876-VC

TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, *vs.* SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC., Defendants.	Case No. 3:12-cv-03877-VC
TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, *vs.* NOVATEL WIRELESS, INC., Defendant.	Case No. 3:12-cv-03879-VC
TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, *vs.* LG ELECTRONICS, INC. and LG ELECTRONICS U.S.A., INC., Defendants.	Case No. CV 12-03880-VC

TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, v. NINTENDO CO., LTD. and NINTENDO OF AMERICA INC., Defendants.	Case No. 3:12-cv-03881-VC

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

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

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

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

In particular, these contentions are based on information presently available to PDS. Accordingly, PDS reserves its right to supplement, amend, and augment the disclosures made herein as new, additional, or different information is learned and discovered.

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

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

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

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

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

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

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

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

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

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

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

Claim Charts:

1. Huawei:

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

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

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

2. Garmin:

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

Attached hereto as Exhibit C-2 are charts identifying where each element of each asserted

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

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

3. ZTE:

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

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

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

4. Samsung:

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

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

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

5. Novatel:

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

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

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

6. LG:

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

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

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

7. Nintendo:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

technology, including the asserted claims. These products include:

- **'336 Patent**

Product Line	**Model #**	**'336 Asserted Claims Incorporated**
Intellasys	Seaforth 24A	6, 7, 9, 13, 14, and 15
Intellasys	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

- **'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

- **'749 Patent**

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

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

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

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

Dated: January 20, 2015

Respectfully submitted,

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PATRIOT SCIENTIFIC CORPORATION

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	32bit Huawei HiSilicon KIRIN925 Hi3830	4x ARM Cortex-A15 MPcore + 4x ARM	ARMv7

EXHIBIT A
PLAINTIFFS' INFRINGEMENT CONTENTIONS

PRODUCT	MEMORY	PROCESSOR	CPU CORE	INSTRUCTION SET
	ROM		Cortex-A7 Mpcore	
Honor 6 Extreme Edition dual SIM	3072MiB RAM/30518MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	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	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 7D-503LT	2048MiB RAM/15259MiB 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		
ProXpress M337x/M387x/407x series		600 MHz		
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 SII 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 SII 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)
				A64)
SM-A7000 Galaxy A7 Duos TD-LTE	2048MiB RAM/ 15258MiB ROM	64bit Qualcomm Snapdragon 615 MSM8939	8x ARM Cortex-A53 Mpcore	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	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)
			Mpcore	
SM-P600 Galaxy Note 10.1 2014 WiFi 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-P601 Galaxy Note 10.1 2014 3G 16GB	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-P601 Galaxy Note 10.1 2014 3G 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-P601 Galaxy Note 10.1 2014 3G 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-P602 Galaxy Note 10.1 2014 Edition 3G	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	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 Mpcore	ARMv7
SM-P900 Galaxy NotePRO 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-P901 Galaxy NotePRO 12.2 3G 32GB	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-P901 Galaxy NotePRO 12.2 3G 64GB	3072MiB RAM/ 61035MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-P902 Galaxy NotePRO 12.2 3G	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	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 (Picasso)	2048MiB RAM/ 15258MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-T525 Galaxy TabPRO 10.1 LTE-A 32GB (Picasso)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
SM-T527P Galaxy TabPRO 10.1 TD-LTE (Picasso)	2048MiB RAM/ 30518MiB ROM	32bit Qualcomm Snapdragon 800 MSM8974AA v2	4x Qualcomm Krait 400	ARMv7
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 (Klimt)	2048MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T700 Galaxy Tab S 8.4-inch WiFi 32GB (Klimt)	2048MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T705 Galaxy Tab S 8.4-inch LTE-A 16GB (Klimt)	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T705 Galaxy Tab S 8.4-inch LTE-A 32GB (Klimt)	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
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 Mpcore	ARMv7
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 Mpcore	ARMv7
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 Mpcore	ARMv7
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 Mpcore	ARMv7
SM-T800 Galaxy Tab S 10.5-inch WiFi 16GB (Chagall)	3072MiB RAM/ 15258MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T800 Galaxy Tab S 10.5-inch WiFi 32GB (Chagall)	3072MiB RAM/ 30518MiB ROM	32bit Samsung Exynos 5 Octa 5420	4x ARM Cortex-A15 MPcore + 4x ARM Cortex-A7 Mpcore	ARMv7
SM-T805 Galaxy Tab S 10.5-inch LTE-A 16GB (Chagall)	3072MiB RAM/ 15258MiB 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)
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 Mondi	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
PKRNVWGSM0508	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 Eclypse 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)
			Mpcore	
LG F60S TD-LTE 402LG/YS1401	1024MiB RAM/ 3814MiB ROM	64bit Qualcomm Snapdragon 410 MSM8916	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 transflective 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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March 10, 2015
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Re: ***Technology Properties Limited LLC, et al v. Samsung Electronics Co., Ltd., et al***
Case No. 3:12-cv-03877

Dear Jim and Charles:

On January 20, 2015, Plaintiffs served "Plaintiffs' Patent L.R. 3-1 Disclosure of Asserted Claims and Infringement Contentions" ("infringement contentions"), in which Plaintiffs accuse approximately 800 Samsung products ("the accused products") of infringing U.S. Patent Nos. 5,809,336 ("the '336 patent"), 5,440,749 ("the '749 patent"), and 5,530,890 ("the '890 patent"). Plaintiffs' infringement contentions are deficient and fail to satisfy the requirements of Northern District of California Patent Local Rule 3-1 for at least the following reasons.

1. The infringement contentions assert at least one cancelled claim.

Plaintiffs' infringement contentions state that Plaintiffs are asserting cancelled claim 1 of the '890 patent. Please confirm that Plaintiffs are not asserting claim 1 of the '890 patent or any other claim that has been cancelled.

2. The infringement contentions assert indefinite claims.

Plaintiffs' infringement contentions assert claims 1, 43, and 59 of the '749 patent. Those claims are invalid as indefinite under governing law for the reasons set forth in Defendants' February 20, 2015 letter. Please confirm that Plaintiffs will withdraw their infringement contentions based on the '749 patent.

3. The infringement contentions accuse products released after expiration of the '890 and '749 patents.

The '749 patent expired on August 8, 2012, and the '890 patent expired on June 25, 2013. Nevertheless, Plaintiffs assert the '749 patent against numerous products released after August 8, 2012 and assert the '890 patent against numerous products released after June 25, 2013. Samsung's analysis of these products is ongoing, but, by way of example only, Plaintiffs have accused the Samsung SM-N910A Galaxy Note 4 LTE-A (Muscat), which publicly available information demonstrates was not released until October 2014, long after the expiration of both the '890 and '749 patents. *See* http://pdadb.net/index.php?m=specs&id=6716&c=samsung_sm-n910a_galaxy_note_4_lte-a_samsung_muscat. Had Plaintiffs conducted a good faith investigation, they would have (and should

have) easily learned this fact. Please confirm that Plaintiffs will withdraw their '890 and '749 patent infringement contentions as to any Samsung product first released in the United States after the expiration of the '749 or '890 patents. If Plaintiffs will not withdraw their infringement contentions against such products, please explain in detail for each accused Samsung product Plaintiffs' Rule 11 basis for asserting that such product was made, used, sold or offered for sale in the United States prior to the expiration of each of the '749 and '890 patents.

4. The infringement contentions fail to sufficiently identify accused products.

The infringement contentions fail to identify which microprocessor chip, CPU core or ARM Instruction Set is used in over 100 accused products. Even more egregious, Plaintiffs' infringement contentions actually indicate "?? ??" for information regarding the processor for the SF-6800 accused product. Accusing products without identifying their product name or microprocessor chip is inconsistent with Plaintiffs' Rule 11 obligations. Please confirm that Plaintiffs will withdraw their infringement contentions for any product for which Plaintiffs failed to identify a product name, specific microprocessor chip, CPU core or ARM Instruction Set.

5. The claim charts are deficient.

a. Plaintiffs failed to chart the asserted claims on each accused product.

Although Plaintiffs accuse approximately 800 different products, their infringement contentions fail to address any of the products individually. Instead, the infringement contentions refer generically to "each Accused Product" and "each Accused Microprocessor." Plaintiffs have not charted the claim elements against any one accused product. In fact, the claim charts of the infringement contentions only mention one of the 800 accused products.

For example, asserted claim 6 of the '336 patent has eight elements. For all but one element, Plaintiffs do not identify any accused product but instead generically refer to "Accused Microprocessors" without providing any supporting documentation or explanation. For the remaining claim element, Plaintiffs identify one accused product (GT-i5500 Galaxy 5 / Corby Smartphone) without any reference to the other 800 accused products. Plaintiffs also fail to identify any accused product in the claim charts of the '749 and '890 patent.

Plaintiffs' infringement contentions plainly do not satisfy the Local Rule 3-1(c) 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). At best, the infringement contentions vaguely accuse isolated groups of processors allegedly incorporated in the accused products. But Plaintiffs cannot rely on representative claim charts because they have not provided the required analysis of similar critical characteristics to justify using representative claim charts for these groups of processors. *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.[1] ARM processors are a large family of processing cores developed over the last thirty years.[2] The subset of ARM processing cores allegedly found in the accused products contains several different design generations and different members within those generations. Plaintiffs do not provide a comparative analysis of any of the relevant characteristics of these different ARM processors. Plaintiffs' infringement contentions afford the same undifferentiated treatment to Samsung, Zoran, Motorola, Marvell, STMicroelectronics, Texas Instruments, ST-Ericsson Nova, NVIDIA, and Qualcomm processors allegedly used in the accused products. Those summary allegations are deficient.

b. Plaintiffs' assertions based on "information and belief," alleged knowledge of one skilled in the art, and unsupported conclusory statements are insufficient.

Plaintiffs' claim charts state that several claim elements are present in all accused products based on "information and belief."[3] Plaintiffs also rely on "information and belief" to allege disparate products are similar.[4] 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, Plaintiffs conclude that certain claim elements are present based on the understanding of one of ordinary skill in the art.[5] Plaintiffs also cite to generic articles and Wikipedia for conclusory statements, instead of pointing to allegedly infringing features of the accused products.[6] 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."). Plaintiffs cannot wait for discovery or rely on confidential documents or evidence produced in the ITC case. Rather, Plaintiffs 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 Prods., Inc.*, C 09-01152 SI (N.D. Cal. July 29, 2010). Plaintiffs have failed to do so.

* * * *

These deficiencies prejudice Samsung. Until Plaintiffs have complied with their obligation to fully disclose their infringement contentions of the accused products, Defendants have no obligation to provide

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1 *See*, *e.g.*, Infr. Cont., Exs. E-2 at 1, 72 ('890 Claims 1 and 11); and E-3 at 1, 187 ('749 claims 1 and 43).

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

3 *See, e.g.*, Infr. Cont., Ex. E-1 at 1, 7, 26 and 30 ('336 elements 6.b, 6.c, 6.f and 6.g).

4 *See, e.g.*, Infr. Cont., Exs. E-2 at 1 ('890 element 1.a); E-3 at 1 ('749 Claim 1).

5 *See, e.g.*, Infr. Cont., Exs. E-1 at 20 ('336 element 6.d); E-2 at 128 ('890 element 12.b).

6 *See, e.g.*, Infr. Cont., Ex. E-1 at 31 ('336 Claim 6g).

technical discovery pertaining to 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."). Please confirm that Plaintiffs will agree to immediately correct these deficiencies. Should Plaintiffs fail to do so, Samsung will move the Court for appropriate relief, including seeking to strike the infringement contentions in their entirety, seeking additional time for their upcoming Patent L.R. 3–3 and 3–4 disclosures, and seeking a protective order.

Samsung is available to meet and confer on these issues. Please let us know when you are available to discuss. Thank you.

Very truly yours,

DLA Piper LLP (US)

/s/ Aaron Wainscoat

Aaron Wainscoat
Partner

Admitted to practice in California

AW

Exhibit 4

AGILITY IP LAW
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March 19, 2015

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Re: ***Technology Properties Limited LLC, et al. v. Samsung Electronics Co., Ltd., et al.: Plaintiffs' Infringement Contentions***

Counsel,

I am responding to your March 10, 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. Claims 1, 43, and 59 of the '749 patent are not indefinite.

As explained in our March 13, 2015 response to Defendants' February 20, 2015 letter, claims 1, 43, and 59 of the '749 patent are not indefinite. Therefore, PDS will not withdraw the infringement contentions based on the '749 patent.

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

You assert that certain Samsung products were not "released" until after the expiration of the '890 and '749 patents. However, you only cite to a third party website, not even Samsung's own records for a release date." Even assuming that the products had become available to end users on that date, we believe that the products would have been offered for sale to carriers such as AT&T, or at trade shows before then. Therefore, selling to end users is not necessarily the earliest act of infringement. Samsung 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 that certain accused products 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.

4. The infringement contentions sufficiently identify Accused Products.

You contend that certain accused products were insufficiently identified because they were were not identified 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 and not the other. In any event, PDS has sufficiently identified the accused products in the same manner that Samsung itself or a retailer identifies the products publicly.

5. 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 Samsung 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) (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 Samsung'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 next week. Please let us know your availability.

Sincerely,

AGILITY IP LAW, LLC

/s/ Vinh Pham

Exhibit 5

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Attorneys for Plaintiff
PATRIOT SCIENTIFIC CORPORATION

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, *vs.* SAMSUNG ELECTRONICS CO., LTD, SAMSUNG ELECTRONICS AMERICA INC., Defendants.	Case No. 12-cv-03877-VC **PDS'S FIRST SET OF REQUESTS FOR PRODUCTION**

Pursuant to Rule 34 of the Federal Rules of Civil Procedure, Plaintiff Phoenix Digital Solutions LLC ("PDS") requests that Samsung Electronics Co., LTD, Samsung Electronics America Inc. ("Defendants") serve PDS with written responses to these requests for production and produce copies of the documents and things requested at the law offices of Agility IP Law, 149 Commonwealth Drive, Suite 1033, Menlo Park, California 94025 within 30 days after

service hereof.

DEFINITIONS

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

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

3. "ITC Investigation" means ITC Investigation No. 337-TA-853.

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

INSTRUCTIONS

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

2. If YOU contend that a portion of a DOCUMENT is subject to being withheld under a claim of privilege or immunity from production or that a portion of a DOCUMENT is

non-responsive to the requests below, produce the entire document with any necessary redactions.

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

4. These requests are continuing, so that if after responding and producing DOCUMENTS for inspection and copying, YOU acquire or locate any additional DOCUMENTS falling within the scope of any of the requests herein, YOU are to produce such additional DOCUMENTS promptly for inspection and copying.

REQUESTS FOR PRODUCTION

REQUEST FOR PRODUCTION NO. 1:

All DOCUMENTS that YOU produced in the ITC Investigation, carrying the bates stamps that they carried when they were produced in that Investigation.

REQUEST FOR PRODUCTION NO. 2:

All of YOUR responses to any interrogatories or requests for admission in the ITC Investigation.

REQUEST FOR PRODUCTION NO. 3:

All deposition transcripts in the ITC Investigation.

Dated: 1/26/2015

Respectfully submitted,

AGILITY IP LAW, LLP

/s/ *Vinh Pham*

Vinh Pham
149 Commonwealth Drive
Menlo Park, CA 94025
Telephone: (650) 227-4800

Attorneys for Plaintiffs
TECHNOLOGY PROPERTIES LIMITED LLC and PHOENIX DIGITAL SOLUTIONS LLC

CERTIFICATE OF SERVICE

I, Ana Villanueva, 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 FIRST SET OF REQUESTS FOR PRODUCTION

☐ By placing the document(s) in a sealed envelope for collection and mailing with the United States Postal Service on this date to the following:

☒ By forwarding the document(s) by electronic transmission on this date to the following electronic mail addresses: Samsung-TPL-NDCA@dlapiper.com; aaron.wainscoat@dlapiper.com; andrew.valentine@dlapiper.com; Carrie.williamson@dlapiper.com; Erik.fuehrer@dlapiper.com; Mark.fowler@dlapiper.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 January 26, 2015.

/s/ *Ana Villanueva*
Ana Villanueva

Exhibit 6

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Attorneys for Defendants,
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and SAMSUNG ELECTRONICS AMERICA, INC.

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

TECHNOLOGY PROPERTIES LIMITED LLC, PHOENIX DIGITAL SOLUTIONS LLC, and PATRIOT SCIENTIFIC CORPORATION, Plaintiffs, v. SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC., Defendants.	CASE NO. 3:CV-12-03877 JCS **DEFENDANTS SAMSUNG ELECTRONICS CO., LTD.'s AND SAMSUNG ELECTRONICS AMERICA, INC.'S RESPONSE TO PHOENIX DIGITAL SOLUTIONS LLC'S FIRST SET OF REQUEST FOR PRODUCTION OF DOCUMENTS**

Pursuant to Rule 34 of the Federal Rules of Civil Procedure ("F.R.C.P."), Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, "Samsung"), respond to Plaintiff Phoenix Digital Solutions LLC's ("PDS" or "Plaintiff") First Set of Requests for Production as follows:

GENERAL STATEMENT AND OBJECTIONS

1. Samsung objects to each request, definition and instruction to the extent that it seeks to impose duties or obligations on Samsung beyond those set forth in the Federal Rules of

Evidence, F.R.C.P. and/or the Civil Local Rules, the Local Patent Rules of the District Court for the Northern District of California, or any other agreement that the parties have or may enter into in this case.

2. The following responses are based on information available as of the date of these responses. Discovery is not yet complete, and these responses are therefore subject to revision. It is anticipated that further discovery, investigation, and analysis may supply additional facts and add meaning to known facts, as well as establish entirely new factual conclusions and legal contentions, all of which may lead to substantial changes, additions, or variations to the information set forth herein.

3. The following responses are given without prejudice to Samsung's right to produce evidence of any subsequently discovered document or documents that Samsung may later recall or produce. Samsung accordingly reserves the right to change the responses herein as additional facts are ascertained, analysis is made, legal research is completed, and contentions are made. The responses contained herein are made in a good faith effort to comply with the provisions of F.R.C.P. 34, and to supply as much factual information as is presently known, but nothing in these responses shall limit Samsung's ability to conduct further investigation, research, or analysis, or to amend the responses as necessary at or before trial.

4. In addition to any specific objections that may be made on an individual basis in the separate responses set forth below, Samsung objects generally to each request to the extent that it seeks disclosure of information that is protected by the attorney-client privilege, the attorney work product doctrine, joint defense, common interest and/or any other applicable privilege, protection or doctrine. Nothing contained herein is intended to be or should be construed as a waiver of the attorney-client privilege, the attorney work-product doctrine, joint defense, common interest privilege or other applicable privileges or doctrines.

5. Samsung objects to each and every definition, instruction, and request to the extent that it is vague, ambiguous, overly broad, unduly burdensome, or oppressive, including to the extent it is unlimited in temporal scope or otherwise not limited to a time frame that is relevant to this litigation.

6. Samsung objects to the Definitions of "YOU," "YOUR" and "YOURS" as vague and ambiguous to the extent that the scope of the terms "predecessors," "successors," "parents," "divisions," "subsidiaries," "affiliates," "related companies," "agents" and "consultants" is unclear. Samsung further objects to the Definitions of "YOU," "YOUR" and "YOURS" as overly broad and unduly burdensome to the extent that they (in combination with the individual requests): (i) seeks to encompass information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence; (ii) are not reasonably limited in time or scope; (iii) seek to encompass information not within Samsung's possession, custody or control; (iv) seek to encompass information protected from disclosure by the attorney-client privilege, the work product doctrine, the common interest privilege, Fed. R. Civ. P. 26(b)(4)(A), or any other applicable privilege or immunity; and/or (v) include persons or entities that are separate and distinct from Samsung, over whom Samsung exercises no control, and/or are defunct or no longer in existence. Samsung also objects to these Definitions to the extent that they presume that Samsung has knowledge of each of the persons or entities within the scope of these Definitions. Samsung will construe these terms to mean Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc., in responding to each request.

7. Samsung objects to each and every definition, instruction, and request to the extent it uses terms that are not defined or understood. Samsung will not speculate as to the meaning ascribed to these terms, and will respond to the extent it understands such requests. Further, nothing in Samsung's responses shall be taken as an admission or acquiescence of any characterizations, whether explicit or implied, in the definitions, instructions, and requests.

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

9. Samsung objects to each and every definition, instruction, and request to the extent that it seeks confidential or proprietary information pertaining to Samsung's business, trade

secrets and/or economic relationships, or to the extent that it seeks confidential information which would impinge upon any protected right to privacy.

10. Samsung objects to each and every definition, instruction, and request to the extent it is compound, duplicative, or cumulative of one or more other requests.

11. Samsung further objects to each and every definition, instruction, and request to the extent that it seeks information that contains confidential, proprietary or trade secret information of third parties. Samsung will not produce documents in response to such requests until the entry of an appropriate protective order in this case, and all such production will be subject to any consent required by third parties.

12. Samsung objects to each and every definition, instruction, and request to the extent that it seeks the production of any software or source code from Samsung prior to the entry of an appropriate protective order in this case.

13. Samsung objects to each and every definition, instruction, and request to the extent that it seeks information that is neither relevant to the subject matter of this action nor reasonably calculated to lead to the discovery of admissible evidence herein.

14. Samsung objects generally to each and every definition, instruction, and request to the extent that it seeks information already in PDS's possession or that is equally available to PDS from public sources.

15. Samsung objects to each and every definition, instruction, and request to the extent that it improperly and prematurely seeks discovery of expert opinions. Samsung will disclose such documents and information within the timeframe specified by the Court's Scheduling Order and the applicable local rules.

16. Samsung objects to each and every definition, instruction, and request to the extent it is premature, for example, by seeking information or materials prior to the deadline(s) for their disclosure in the Court's scheduling order or local rule(s). Samsung objects to each and every definition, instruction, and request as unfairly prejudicial and premature to the extent that it would require Samsung to formulate its full contentions on various topics in order to answer at this stage in the litigation. Samsung's investigation, discovery, and analysis are ongoing, and its responses

are based on its present investigation and information presently available to Samsung. Samsung reserves the right to produce evidence of subsequently discovered facts, and to modify, supplement, or otherwise change or amend its responses to these requests as necessary.

17. Samsung objects to each and every definition, instruction, and request to the extent that it requires Samsung to search for and reveal privileged information or communications from its or its attorneys' litigation files pertaining to the case.

18. Samsung objects to each and every definition, instruction, and request to the extent that it seeks to impose an obligation to identify or search for documents or information at any location other than that at which they would be stored in the ordinary course of business.

19. Samsung objects generally to these requests to the extent that they request production of "all" documents relating to a particular subject matter on the grounds that such a request is overly broad and unduly burdensome. Unless otherwise indicated Samsung will produce documents sufficient to show or disclose the requested information.

20. Samsung objects generally to the temporal scope of the requests as overly broad, unduly burdensome, and neither relevant nor reasonably calculated to lead to the discovery of admissible evidence to the extent that it does not contain any reasonable or appropriate temporal limitation.

21. These responses are made solely for the purpose of discovery in this action. Nothing herein is intended to waive the following objections, which are expressly reserved: all objections as to competency, relevancy, authenticity, propriety, materiality and admissibility of the subject matter of the requests; all objections as to vagueness, ambiguity, or undue burden; all objections on any ground as to the use of any information provided in response to these requests; all objections on any ground to any request for further responses to these or other requests; and any and all other objections and ground that would or could require or permit the exclusion of any document or statement therein from evidence, all of which objections and ground are reserved and may be interposed at the time of trial.

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/ / /

RESPONSES TO REQUESTS

REQUEST FOR PRODUCTION NO. 1:

All DOCUMENTS that YOU produced in the ITC Investigation, carrying the bates stamps that they carried when they were produced in that Investigation.

RESPONSE TO REQUEST FOR PRODUCTION NO. 1:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to this request on the grounds that it is premature, inconsistent with, and seeks to impose obligations on Samsung beyond those imposed by the Patent Local Rules and the orders of the Court, in that it seeks information and documents prior to the deadline for their disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to Modify Case Schedule (D.I. 47) and Patent Local Rules 3-3 and 3-4. Samsung objects to this request as unclear, ambiguous, overbroad and unduly burdensome in its use of the terms "[a]ll DOCUMENTS," including documents that are not relevant to any of the issues in this litigation. Samsung objects to the term "YOU" as vague and ambiguous. Samsung objects to this request neither relevant to the subject matter of this action, nor reasonably calculated to lead to the discovery of relevant, admissible evidence. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent that it seeks the production of documents which are already within the possession, custody or control of PDS. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities. Samsung further notes that the parties are in the process of negotiating a cross-use agreement that would permit the parties to use in this action certain documents and materials from the ITC Proceedings, and that the execution of that cross-use agreement will obviate this request.

Subject to and without waiving its foregoing general and specific objections, Samsung

responds that the parties are in the process of finalizing an agreement regarding the cross-use of documents and discovery produced in the ITC Proceedings. After the Court issues an order granting the transfer of the complete record of proceedings in the ITC Proceedings for use in the present action, and subject to the terms of the parties' final cross-use agreement, non-privileged, responsive documents will be deemed produced (or produced if necessary) in this action to the extent that they exist and can be located after a reasonable search.

REQUEST FOR PRODUCTION NO. 2:

All of YOUR responses to any interrogatories or requests for admission in the ITC Investigation.

RESPONSE TO REQUEST FOR PRODUCTION NO. 2:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to this request on the grounds that it is premature, inconsistent with, and seeks to impose obligations on Samsung beyond those imposed by the Patent Local Rules and the orders of the Court, in that it seeks information and documents prior to the deadline for their disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to Modify Case Schedule (D.I. 47) and Patent Local Rules 3-3 and 3-4. Samsung objects to the term "YOUR" as vague and ambiguous. Samsung objects to this request as unclear, ambiguous, overbroad and unduly burdensome in its use of the terms "all of YOUR responses to any interrogatories or requests for admission," including documents that are not relevant to any of the issues in this litigation. Samsung objects to this request neither relevant to the subject matter of this action, nor reasonably calculated to lead to the discovery of relevant, admissible evidence. Samsung objects to this Request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such information except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities. Samsung

objects to this request on the grounds that it attempts to circumvent the applicable limits on written discovery set by Federal Rules of Civil Procedure 33 and 36 and this Court's November 20, 2014 Case Management Order (D.I. 40). Samsung further notes that the parties are in the process of negotiating a cross-use agreement that would permit the parties to use in this action certain documents and materials from the ITC Proceedings, and that the execution of that cross-use agreement will obviate this request.

Subject to and without waiving its foregoing general and specific objections, Samsung responds that the parties are in the process of finalizing an agreement regarding the cross-use of documents and discovery produced in the ITC Proceedings. After the Court issues an order granting the transfer of the complete record of proceedings in the ITC Proceedings for use in the present action, and subject to the terms of the parties' final cross-use agreement, non-privileged, responsive documents will be deemed produced (or produced if necessary) in this action to the extent that they exist and can be located after a reasonable search.

REQUEST FOR PRODUCTION NO. 3:

All deposition transcripts in the ITC Investigation.

RESPONSE TO REQUEST FOR PRODUCTION NO. 3:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to this request on the grounds that it is premature, inconsistent with, and seeks to impose obligations on Samsung beyond those imposed by the Patent Local Rules and the orders of the Court, in that it seeks information and documents prior to the deadline for their disclosure set by the Court's February 11, 2015 Order Granting Defendants' Unopposed Motion to Modify Case Schedule (D.I. 47) and Patent Local Rules 3-3 and 3-4. Samsung objects to this request as unclear, ambiguous, overbroad and unduly burdensome in its use of the terms "all deposition transcripts," including documents that are not relevant to any of the issues in this litigation. Samsung objects to this request neither relevant to the subject matter of this action, nor reasonably calculated to lead to the discovery of relevant, admissible evidence. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such

documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities. Samsung objects to this request to the extent that it seeks documents not within Samsung's possession, custody or control, seeks the production of documents which are already within the possession, custody or control of PDS, and/or seeks the production of documents from third parties or sources which are equally accessible to PDS. Samsung objects to this requests on the grounds that it improperly and prematurely seeks discovery of expert opinions. Samsung will disclose such documents and information within the timeframe specified by the Court's Scheduling Order and the applicable local rules. Samsung objects to this request on the grounds that it attempts to circumvent the applicable limits on deposition discovery set by Federal Rule of Civil Procedure 30. Samsung further notes that the parties are in the process of negotiating a cross-use agreement that would permit the parties to use in this action certain documents and materials from the ITC Proceedings, and that the execution of that cross-use agreement will obviate this request.

Subject to and without waiving its foregoing general and specific objections, Samsung responds that it is prepared to meet and confer with PDS regarding a narrower, more reasonable, more appropriate, and less objectionable scope for this request.

Dated: March 12, 2015

DLA PIPER LLP (US)

By: */s/ Aaron Wainscoat*
MARK D. FOWLER
AARON WAINSCOAT
CARRIE WILLIAMSON
ERIK FUERER

Attorneys for Defendants
SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC.

PROOF OF SERVICE

I, Christine Kunis, declare:

I am a citizen of the United States and employed in San Mateo County, California. I am over the age of eighteen years and not a party to the within-entitled action. My business address is DLA Piper LLP (US), 2000 University Avenue, East Palo Alto, California 94303-2214. On March 12, 2015, I served a copy of the within document(s):

DEFENDANTS SAMSUNG ELECTRONICS CO., LTD.'s AND SAMSUNG ELECTRONICS AMERICA, INC.'S RESPONSE TO PHOENIX DIGITAL SOLUTIONS LLC'S FIRST SET OF REQUEST FOR PRODUCTION OF DOCUMENTS

☐ by placing the document(s) listed above in a sealed envelope with postage thereon fully prepaid, the United States mail at East Palo Alto, California addressed as set forth below.

☐ by causing to be picked up for overnight hand-delivery to the office of the person at the address set forth below, via United Parcel Service (U.P.S.)

☐ by personally delivering the document(s) listed above to the person(s) at the address(es) set forth below.

☒ **by transmitting via e-mail or electronic transmission the document listed above to the persons at the e-mail addresses set forth below.**

Attorneys for Plaintiffs,
TECHNOLOGY PROPERTIES LIMITED LLC
and PHOENIX DIGITAL SOLUTIONS LLC

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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.

Executed on March 12, 2015, at East Palo Alto, California.

/s/ Christine Kunis
Christine Kunis

Exhibit 7

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Attorneys for Plaintiff
PATRIOT SCIENTIFIC CORPORATION

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

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

Plaintiffs,

vs.

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

Defendants.

Case No. 12-cv-03877-VC

PDS'S SECOND SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS TO SAMSUNG DEFENDANTS (NOS. 4 -12)

Pursuant to Rule 34 of the Federal Rules of Civil Procedure, Plaintiff Phoenix Digital Solutions LLC ("PDS") requests that Samsung Electronics Co., LTD, Samsung Electronics America, Inc. ("Defendants") serve PDS with written responses to these requests for production and produce copies of the documents and things requested at the law offices of Agility IP Law, 149 Commonwealth Drive, Suite 1033, Menlo Park, California 94025 within 30 days after service hereof.

DEFINITIONS

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

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

3. "Accused Products" means those products identified in Plaintiffs' Initial Infringement Contentions and any subsequent or Amended Infringement Contentions.

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

INSTRUCTIONS

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

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

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

REQUESTS FOR PRODUCTION

Request For Production No. 4

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

Request For Production No. 5

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

Request For Production No. 6

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

Request For Production No. 7

For each Accused Product, documents sufficient to show the performance corner values and associated nominal voltages for each microprocessor chip in the Accused Product. By way of example and not limitation, the Qualcomm MSM8974 for PMIC PM8841 supports the following performance corners and nominal voltages: "0 = None [n/a]; 1 = Retention (0.5000

V); 2 = SVS Krait (0.7250 V); 3 = SVS SOC (0.8125 V); 4 = Normal (0.9000 V); 5 = Turbo (0.9875 V); 6 = Super Turbo (1.0500 V)." *See, e.g.*, Ex. A - "rpm-regulator-smd" (description of "qcom,init-voltage-corner" variable).

Request For Production No. 8

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

Request For Production No. 9

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

Request For Production No. 10

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

Request For Production No. 11

For each Accused Product that has an EC Declaration of Conformity and/or bear CE markings, a copy of the technical documentation or file kept pursuant to the applicable European Directive(s). By way of example and not limitation, the "Low Voltage" and "Radio and telecommunications terminal equipment" directives require manufacturers to retain for 10 years: (1) a general description of the electrical equipment; (2) conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.; and (3) descriptions and explanations necessary for the understanding of said drawings and schemes and the operation of the electrical equipment. *See* Directive 2006/95/EC, Annex IV, Nr. 3; Directive 1999/5/EC, Annex II, Point 4; 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 Conformity" is attached as Exhibit D.

Request For Production No. 12

For each Accused Product, final product characterization, qualification, margining and/or binning plans for each processor included in the Accused Product.

Dated: March 9, 2015

Respectfully submitted,

AGILITY IP LAW, LLP

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

Attorneys for Plaintiffs
Phoenix Digital Solutions LLC and
Technology Properties Limited LLC

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 SAMSUNG DEFENDANTS (NOS. 4 -12)**

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

PARTY	COUNSEL	EMAIL ADDRESS
Samsung	DLA Piper	Samsung-TPL-NDCA@dlapiper.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 8

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Attorneys for Defendants,
SAMSUNG ELECTRONICS CO., LTD.
and SAMSUNG ELECTRONICS AMERICA, INC.

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

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

Plaintiffs,

v.

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

Defendants.

CASE NO. 3:CV-12-03877 VC (PSG)

DEFENDANTS SAMSUNG ELECTRONICS CO., LTD.'S AND SAMSUNG ELECTRONICS AMERICA, INC.'S RESPONSE TO PHOENIX DIGITAL SOLUTIONS LLC'S SECOND SET OF REQUEST FOR PRODUCTION OF DOCUMENTS

Pursuant to Rule 34 of the Federal Rules of Civil Procedure ("F.R.C.P."), Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, "Samsung"), respond to Plaintiff Phoenix Digital Solutions LLC's ("PDS" or "Plaintiff") Second Set of Requests for Production as follows:

GENERAL STATEMENT AND OBJECTIONS

1. Samsung objects to each request, definition and instruction to the extent that it seeks to impose duties or obligations on Samsung beyond those set forth in the Federal Rules of

Evidence, F.R.C.P., the Civil Local Rules or the Local Patent Rules of the District Court for the Northern District of California, or any other applicable rules or agreements that the parties have or may enter into in this case.

2. Samsung objects generally to the requests to the extent that they prematurely call for discovery concerning, among other things, Samsung products and facts and contentions relating to non-infringement, invalidity and other claims and defenses before Samsung has had sufficient time to review PDS' infringement contentions in this case and resolve any deficiencies therein with PDS.

3. The following responses are based on information available as of the date of these responses. Discovery is not yet complete, and these responses are therefore subject to revision. It is anticipated that further discovery, investigation, and analysis may supply additional facts and add meaning to known facts, as well as establish entirely new factual conclusions and legal contentions, all of which may lead to substantial changes, additions, or variations to the information set forth herein.

4. The following responses are given without prejudice to Samsung's right to produce evidence of any subsequently discovered document or documents that Samsung may later recall or produce. Samsung accordingly reserves the right to change the responses herein as additional facts are ascertained, analysis is made, legal research is completed, and contentions are made. The responses contained herein are made in a good faith effort to comply with the provisions of F.R.C.P. 34, and to supply as much factual information as is presently known, but nothing in these responses shall limit Samsung's ability to conduct further investigation, research, or analysis, or to amend the responses as necessary at or before trial.

5. In addition to any specific objections that may be made on an individual basis in the separate responses set forth below, Samsung objects generally to each request to the extent that it seeks disclosure of information that is protected by the attorney-client privilege, the attorney work product doctrine, joint defense, common interest and/or any other applicable privilege, protection or doctrine. Nothing contained herein is intended to be or should be construed as a waiver of the attorney-client privilege, the attorney work-product doctrine, joint

defense, common interest privilege or other applicable privileges or doctrines.

6. Samsung objects to each and every definition, instruction, and request to the extent that it is vague, ambiguous, overly broad, unduly burdensome, or oppressive, including to the extent it is unlimited in temporal scope or otherwise not limited to a time frame that is relevant to this litigation.

7. Samsung objects to the Definitions of "YOU," "YOUR" and "YOURS" as vague and ambiguous to the extent that the scope of the terms "predecessors," "successors," "parents," "divisions," "subsidiaries," "affiliates," "related companies," "agents," "consultants," "attorneys" and "others purporting to act on their behalf" is unclear. Samsung further objects to the Definitions of "YOU," "YOUR" and "YOURS" as overly broad and unduly burdensome to the extent that each such term (in combination with the individual requests): (i) seeks to encompass information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence; (ii) is not reasonably limited in time or scope; (iii) seeks to encompass information not within Samsung's possession, custody or control; (iv) seeks to encompass information protected from disclosure by the attorney-client privilege, the work product doctrine, the common interest privilege, Fed. R. Civ. P. 26(b)(4)(A), or any other applicable privilege or immunity; and/or (v) includes persons or entities that are separate and distinct from Samsung, over whom Samsung exercises no control, and/or are defunct or no longer in existence. Samsung also objects to these Definitions to the extent that they presume that Samsung has knowledge of each of the persons or entities within the scope of these Definitions. Samsung will construe these terms to mean Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc., in responding to each request.

8. Samsung objects to the definition of the term "Document" to the extent that it purports to impose burdens on Samsung greater than, inconsistent with, or not authorized by, the F.R.C.P., the Civil Local Rules and the Patent Local Rules of the District Court for the Northern District of California, this Court's discovery order, or any agreement regarding electronically stored information ("ESI") reached between the parties and/or endorsed by the Court.

9. Samsung objects to the definition of "Accused Products" as overly broad, unduly

burdensome and vague and ambiguous to the extent that it encompasses irrelevant or unreleased products, or products that were not made, used or sold by Samsung prior to the expiration of any patent-in-suit. Samsung further objects to this definition to the extent that PDS's Infringement Contentions fail to comply with the Patent Local Rules, and thus PDS, as the party with the burden of proof, has failed to adequately put Samsung on notice of which products infringe which asserted claims of the Patents-in-Suit.

10. Samsung objects to each and every definition, instruction, and request to the extent it uses terms that are not defined or understood. Samsung will not speculate as to the meaning ascribed to these terms, and will respond to the extent it understands such requests. Further, nothing in Samsung's responses shall be taken as an admission or acquiescence of any characterizations, whether explicit or implied, in the definitions, instructions, and requests.

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

12. Samsung objects to each and every definition, instruction, and request to the extent that it seeks confidential or proprietary information pertaining to Samsung's business, trade secrets and/or economic relationships, or to the extent that it seeks confidential information which would impinge upon any protected right to privacy.

13. Samsung further objects to each and every definition, instruction, and request to the extent that it seeks information that contains confidential, proprietary or trade secret information of third parties. Samsung will not produce documents in response to such requests until the entry of an appropriate protective order in this case, and all such production will be subject to any consent required by third parties.

14. Samsung objects to each and every definition, instruction, and request to the extent it is compound, duplicative, or cumulative of one or more other requests.

15. Samsung objects to each and every definition, instruction, and request to the extent

that it seeks the production of any software or source code from Samsung prior to the entry of an appropriate protective order in this case.

16. Samsung objects to each and every definition, instruction, and request to the extent that it seeks information concerning products that are not imported into or made, used, offered for sale, or sold in the United States.

17. Samsung objects to each and every definition, instruction, and request to the extent that it seeks information that is neither relevant to the subject matter of this action nor reasonably calculated to lead to the discovery of admissible evidence herein.

18. Samsung objects generally to each and every definition, instruction, and request to the extent that it seeks information already in PDS's possession or that is equally available to PDS from public sources.

19. Samsung objects to each and every definition, instruction, and request to the extent that it improperly and prematurely seeks discovery of expert opinions. Samsung will disclose such documents and information within the timeframe specified by the Court's Scheduling Order and the applicable local rules.

20. Samsung objects to each and every definition, instruction, and request to the extent it is premature, for example, by seeking information or materials prior to the deadline(s) for their disclosure in the Court's scheduling order or local rule(s). Samsung objects to each and every definition, instruction, and request as unfairly prejudicial and premature to the extent that it would require Samsung to formulate its full contentions on various topics in order to answer at this stage in the litigation. Samsung's investigation, discovery, and analysis are ongoing, and its responses are based on its present investigation and information presently available to Samsung. Samsung reserves the right to produce evidence of subsequently discovered facts, and to modify, supplement, or otherwise change or amend its responses to these requests as necessary.

21. Samsung objects to each and every definition, instruction, and request to the extent that it requires Samsung to search for and reveal privileged information or communications from its or its attorneys' litigation files pertaining to the case.

22. Samsung objects to each and every definition, instruction, and request to the extent

that it seeks to impose an obligation to identify or search for documents or information at any location other than that at which they would be stored in the ordinary course of business.

23. Samsung objects generally to these requests to the extent that they request production of "all" documents relating to a particular subject matter on the grounds that such a request is overly broad and unduly burdensome. Unless otherwise indicated Samsung will produce documents sufficient to show or disclose the requested information.

24. Samsung objects generally to the temporal scope of the requests as overly broad, unduly burdensome, and neither relevant nor reasonably calculated to lead to the discovery of admissible evidence to the extent that it does not contain any reasonable or appropriate temporal limitation.

25. These responses are made solely for the purpose of discovery in this action. Nothing herein is intended to waive the following objections, which are expressly reserved: all objections as to competency, relevancy, authenticity, propriety, materiality and admissibility of the subject matter of the requests; all objections as to vagueness, ambiguity, or undue burden; all objections on any ground as to the use of any information provided in response to these requests; all objections on any ground to any request for further responses to these or other requests; and any and all other objections and ground that would or could require or permit the exclusion of any document or statement therein from evidence, all of which objections and ground are reserved and may be interposed at the time of trial.

26. The General Statement and Objections shall be deemed to be incorporated in full into each response set forth below, and any statement of intent to produce information contained in any such response is subject to the limitations, objections and exceptions set forth herein.

Subject to the foregoing General Statement and Objections, Samsung responds as follows:

RESPONSES TO REQUESTS

REQUEST FOR PRODUCTION NO. 4:

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

systems.

RESPONSE TO REQUEST FOR PRODUCTION NO. 4:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products" and "Your" as vague and ambiguous. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung will produce non-privileged, responsive documents sufficient to show the requested information within its possession, custody or control to the extent they exist, after a reasonable search.

REQUEST FOR PRODUCTION NO. 5:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 5:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products," "You," "technology transfer," and "authorization to use" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with

reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

REQUEST FOR PRODUCTION NO. 6:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 6:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products" and "identity of the microprocessors" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this

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

Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

REQUEST FOR PRODUCTION NO. 7:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 7:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products" and "performance corner values and associated nominal voltages" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to the term "performance corner values and associated nominal voltages" as vague and ambiguous. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third

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

Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

REQUEST FOR PRODUCTION NO. 8:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 8:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the term "Accused Products" as vague and ambiguous. Samsung objects to the entirety of this request as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client

privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

REQUEST FOR PRODUCTION NO. 9:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 9:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the term "Accused Products" as vague and ambiguous. Samsung objects to the entirety of this request as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung will produce non-privileged, responsive documents sufficient to show the requested information within its possession, custody or control to the extent they exist, after a reasonable search.

REQUEST FOR PRODUCTION NO. 10:

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

RESPONSE TO REQUEST FOR PRODUCTION NO. 10:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "tune up information," "operational descriptions," "Accused Products" and "YOU" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

REQUEST FOR PRODUCTION NO. 11:

For each Accused Product that has an EC Declaration of Conformity and/or bear CE markings, a copy of the technical documentation or file kept pursuant to the applicable European Directive(s). By way of example and not limitation, the "Low Voltage" and "Radio and

telecommunications terminal equipment" directives require manufacturers to retain for 10 years: (1) a general description of the electrical equipment; (2) conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.; and (3) descriptions and explanations necessary for the understanding of said drawings and schemes and the operation of the electrical equipment. See Directive 2006/95/EC, Annex IV, Nr. 3; Directive 1999/5/EC, Annex II, Point 4; 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 attached as Exhibit D.

RESPONSE TO REQUEST FOR PRODUCTION NO. 11:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "technical documentation" "Accused Products" and "YOU" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

REQUEST FOR PRODUCTION NO. 12:

For each Accused Product, final product characterization, qualification, margining and/or binning plans for each processor included in the Accused Product.

RESPONSE TO REQUEST FOR PRODUCTION NO. 12:

Samsung incorporates by reference its General Statement and Objections as though fully set forth herein. Samsung objects to the terms "Accused Products," "final product characterization," "qualification" and "margining and/or binning plans" as vague and ambiguous. Samsung objects to this request to the extent it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Samsung objects to this request as overly broad as to subject matter, premature, unduly burdensome, and harassing on the ground that it fails to describe with reasonable particularity the information requested, as it seeks discovery before PDS has served sufficient infringement contentions in this case and seeks information regarding Samsung products for which PDS has not met its burden to accuse in this case. Samsung objects to this request to the extent that it seeks disclosure of confidential information from third parties that Samsung is under an obligation not to disclose. Samsung will not disclose or produce such documents except in conformity with its obligations to such third parties. Samsung objects to this request to the extent it seeks to elicit information subject to and protected by the attorney-client privilege, the attorney work product doctrine, joint defense or common interest privilege and/or any other applicable privileges, protections, or immunities.

Subject to and without waiving the foregoing general and specific objections, Samsung responds that it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of this request.

Dated: April 13, 2015

DLA PIPER LLP (US)

By: */s/ Aaron Wainscoat*
MARK D. FOWLER
AARON WAINSCOAT
ERIK FUEHRER
RYAN COBB
2000 University Circle
East Palo Alto, CA 94303
Telephone: (650) 833-2001

Attorneys for Defendants
SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC.

PROOF OF SERVICE

I, Christine Kunis, declare:

I am a citizen of the United States and employed in San Mateo County, California. I am over the age of eighteen years and not a party to the within-entitled action. My business address is DLA Piper LLP (US), 2000 University Avenue, East Palo Alto, California 94303-2214. On April 13, 2015, I served a copy of the within document(s):

DEFENDANTS SAMSUNG ELECTRONICS CO., LTD.'S AND SAMSUNG ELECTRONICS AMERICA, INC.'S RESPONSE TO PHOENIX DIGITAL SOLUTIONS LLC'S SECOND SET OF REQUEST FOR PRODUCTION OF DOCUMENTS

☐ by placing the document(s) listed above in a sealed envelope with postage thereon fully prepaid, the United States mail at East Palo Alto, California addressed as set forth below.

☐ by causing to be picked up for overnight hand-delivery to the office of the person at the address set forth below, via United Parcel Service (U.P.S.)

☐ by personally delivering the document(s) listed above to the person(s) at the address(es) set forth below.

☒ **by transmitting via e-mail or electronic transmission the document listed above to the persons at the e-mail addresses set forth below.**

Attorneys for Plaintiffs,
TECHNOLOGY PROPERTIES LIMITED LLC
and PHOENIX DIGITAL SOLUTIONS LLC

Plaintiffs' Team Email: TPL-MMP-CAND@agilityiplaw.com

James C. Otteson
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650.318.3483 Fax

Attorneys for Plaintiff,
PATRIOT SCIENTIFIC CORPORATION

Charles T. Hoge
choge@knlh.com
KIRBY NOONAN LANCE & HOGE LLP
350 Tenth Avenue, Suite 1300
San Diego, CA 92101
619.231.8666

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.

Executed on April 13, 2015, at East Palo Alto, California.

/s/ Carmen R. Manzano
Carmen R. Manzano

Exhibit 9

From: Barry Bumgardner
Sent: Monday, May 11, 2015 5:21 PM
To: mark.fowler@dlapiper.com; aaron.wainscoat@dlapiper.com; erik.fuehrer@dlapiper.com
Cc: PDS
Subject: meet and confer request
Attachments: 2015-03-12 Samsung Resps to PDS 1st RFPs (1-3).pdf; 2015-04-13 Samsungs Resps to 2nd RFPs (4-12).pdf

All,

In Samsung's RFP responses, it stated several times that "it is willing to meet and confer with PDS to discuss Samsung's objections and to understand the scope of [the] request" (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 10

From: Barry Bumgardner
Sent: Thursday, May 14, 2015 3:25 PM
To: mark.fowler@dlapiper.com; aaron.wainscoat@dlapiper.com; erik.fuehrer@dlapiper.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
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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: Wednesday, May 20, 2015 6:14 PM
To: mark.fowler@dlapiper.com; aaron.wainscoat@dlapiper.com; erik.fuehrer@dlapiper.com; Samsung-TPL-NDCA@dlapiper.com
Cc: PDS
Subject: RE: meet and confer request

Adding the Samsung-TPL-NDCA@dlapiper.com to this email.

Third request for a time to discuss Samsung's discovery responses.

From: Barry Bumgardner
Sent: Thursday, May 14, 2015 3:25 PM
To: 'mark.fowler@dlapiper.com'; 'aaron.wainscoat@dlapiper.com'; 'erik.fuehrer@dlapiper.com'
Cc: PDS
Subject: RE: meet and confer request

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Barry

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To: 'mark.fowler@dlapiper.com'; 'aaron.wainscoat@dlapiper.com'; 'erik.fuehrer@dlapiper.com'
Cc: PDS
Subject: meet and confer request

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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 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-tplitcservice@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

Exhibit 13

From: Barry Bumgardner
Sent: Tuesday, June 09, 2015 10:12 AM
To: Wainscoat, Aaron
Cc: PDS; Samsung-TPL-NDCA; Fowler, Mark; Fuehrer, Erik; Chris Banys; 'Jennifer Lu Gilbert'; 'rcl@banyspc.com'; 'cjj@banyspc.com'; csl@banyspc.com; 'choge@knlh.com'; 'wlb@svlg.com'; Bill Bretschneider; Charie Hoge
Subject: RE: meet and confer request

Aaron,

The selected hearing date will cause Plaintiffs undue prejudice. Samsung has sat on its objections to Plaintiffs' infringement contentions for almost 6 months now. Given that Samsung refuses to participate in significant aspects of the discovery phase of this lawsuit until its motion is ruled upon, I believe it incumbent on Samsung to ask for an expedited hearing under Judge Grewal's Standing Order (II.A) and Civil Local Rule 6.3. I am happy to speak with you about an expedited briefing schedule for your motion to strike and our motion to compel.

Barry

From: Wainscoat, Aaron [mailto:Aaron.Wainscoat@dlapiper.com]
Sent: Monday, June 8, 2015 2:40 PM
To: Barry Bumgardner
Cc: PDS; Samsung-TPL-NDCA; Fowler, Mark; Fuehrer, Erik; Chris Banys; 'Jennifer Lu Gilbert'; 'rcl@banyspc.com'; 'cjj@banyspc.com'; csl@banyspc.com; 'choge@knlh.com'; 'wlb@svlg.com'
Subject: RE: meet and confer request

Barry,

In furtherance of our May 22 and May 28 teleconferences, our written discovery responses, as well as our written correspondence (both before and after our teleconferences), we have not been able to timely resolve our outstanding dispute regarding Plaintiffs' deficient Infringement Contentions and the proper scope of accused products. As noted previously, Samsung therefore will proceed with filing our motion to strike Plaintiffs' Infringement Contentions.

Per the applicable Standing Order, please note that Judge Grewal is unavailable on the first possible hearing date of July 14, and therefore we will be noticing the hearing for Tuesday, July 21 instead (the next available date). If this date presents any "undue prejudice" please let us know the details of the purported prejudice before tomorrow (Tuesday) at noon PST.

Best regards,

-Aaron

From: Barry Bumgardner [mailto:Barry@nelbum.com]
Sent: Thursday, May 28, 2015 2:45 PM
To: Wainscoat, Aaron
Cc: PDS; Samsung-TPL-NDCA; Fowler, Mark; Fuehrer, Erik
Subject: RE: meet and confer request

Dial in information. Same as yesterday.

Conference Call info:
Dial In Number - (866) 910-4857
Int'l Number - (719) 387-5500
Guest Conference Pass Code - 912522
Security Code - 99

From: Barry Bumgardner
Sent: Thursday, May 28, 2015 10:27 AM
To: Wainscoat, Aaron
Cc: PDS; Samsung-TPL-NDCA; Fowler, Mark; Fuehrer, Erik
Subject: Re: meet and confer request

OK. Will recirculate dial in later today. Will be the same one I sent around yesterday.
On May 28, 2015 10:26 AM, "Wainscoat, Aaron" <Aaron.Wainscoat@dlapiper.com> wrote:
Hi Barry, how is 5 PM CT/6 PM ET today?

Best,

Aaron

On May 27, 2015, at 6:33 PM, Barry Bumgardner <Barry@nelbum.com> wrote:

> Aaron,
> That is fine. I am busy tomorrow AM but should be good after 1 PM, CDT. If you can give me a 30 minute heads up as to when you are going to call, that would be helpful.
>
> Barry
>
> ---
>
> **From:** Wainscoat, Aaron [mailto:Aaron.Wainscoat@dlapiper.com]
> **Sent:** Wednesday, May 27, 2015 5:31 PM
> **To:** Barry Bumgardner
> **Cc:** Fowler, Mark; Fuehrer, Erik; Samsung-TPL-NDCA; PDS
> **Subject:** Re: meet and confer request
>
> Hi Barry, my flight ran a little late and I just touched down in Florida, and headed to baggage and my car, and now I'm running late for my dinner. Can we try to reschedule something for tomorrow during one of my breaks in the conference?
>
> Aaron
>
> On May 27, 2015, at 6:15 PM, Barry Bumgardner <Barry@nelbum.com> wrote:
>
> > Aaron,
> > Here is a dial in number to use for the call in 15 minutes.

Barry

Conference Call info:
Dial In Number - (866) 910-4857
Int'l Number - (719) 387-5500
Guest Conference Pass Code - 912522
Security Code - 99

From: Wainscoat, Aaron [mailto:Aaron.Wainscoat@dlapiper.com]
Sent: Tuesday, May 26, 2015 2:12 PM
To: Barry Bumgardner; Fowler, Mark; Fuehrer, Erik; Samsung-TPL-NDCA
Cc: PDS
Subject: RE: meet and confer request

Barry, following up on our call on Friday, please find attached the letter we discussed, sent on March 10.

Best,

Aaron

From: Barry Bumgardner [mailto:Barry@nelbum.com]
Sent: Thursday, May 21, 2015 12:16 PM
To: Wainscoat, Aaron; Fowler, Mark; Fuehrer, Erik; Samsung-TPL-NDCA
Cc: PDS
Subject: RE: meet and confer request

That time is fine. Please use the bridge below:

Conference Call info:
Dial In Number - (866) 910-4857
Int'l Number - (719) 387-5500
Guest Conference Pass Code - 912522
Security Code - 38

From: Wainscoat, Aaron [mailto:Aaron.Wainscoat@dlapiper.com]
Sent: Wednesday, May 20, 2015 6:49 PM
To: Barry Bumgardner; Fowler, Mark; Fuehrer, Erik; Samsung-TPL-NDCA
Cc: PDS
Subject: RE: meet and confer request

Hi Barry,

How does Friday afternoon at 1pm PST work?

Best,

-Aaron

From: Barry Bumgardner [mailto:Barry@nelbum.com]
Sent: Wednesday, May 20, 2015 4:14 PM
To: Fowler, Mark; Wainscoat, Aaron; Fuehrer, Erik; Samsung-TPL-NDCA
Cc: PDS
Subject: RE: meet and confer request

Adding the Samsung-TPL-NDCA@dlapiper.com to this email.

Third request for a time to discuss Samsung's discovery responses.

From: Barry Bumgardner
Sent: Thursday, May 14, 2015 3:25 PM
To: 'mark.fowler@dlapiper.com'; 'aaron.wainscoat@dlapiper.com'; 'erik.fuehrer@dlapiper.com'
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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,

vs.

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

Defendants.

Case No. 12-cv-03877-VC

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

Hearing:
Date: August 11, 2015
Time: 10:00 a.m.
Place: Courtroom 5, 4th Floor
Judge: Hon. Paul S. Grewal

After consideration of PDS's Motion to Compel Discovery, the Court rules as follows:

IT IS ORDERED that Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc., complete the following discovery within five (5) business days of this Order:

1. Technical-related discovery in response to PDS's Second Set of Request for Production ("Second Set of RFP") Nos. 6-12;
2. Damages-related discovery in response to PDS's Second Set of RFP No. 4; and
3. ITC discovery in response to PDS's First Set of Request for Production Nos. 1-3.

SO ORDERED.

Dated: _____

_____
Hon. Paul S. Grewal
United States Magistrate Judge