

1 COOLEY LLP  
 HEIDI L. KEEFE (178960) (hkeefe@cooley.com)  
 2 MARK R. WEINSTEIN (193043) (mweinstein@cooley.com)  
 RONALD S. LEMIEUX (120822) (rlemieux@cooley.com)  
 3 KYLE D. CHEN (239501) (kyle.chen@cooley.com)  
 Five Palo Alto Square, 4th Floor  
 4 3000 El Camino Real  
 Palo Alto, California 94306-2155  
 5 Telephone: (650) 843-5000  
 Facsimile: (650) 857-0663

6 Attorneys for Plaintiffs  
 7 HTC CORPORATION and  
 HTC AMERICA, INC.

9 UNITED STATES DISTRICT COURT  
 10 NORTHERN DISTRICT OF CALIFORNIA  
 11 SAN JOSE DIVISION

13 HTC CORPORATION and HTC  
 AMERICA, INC.,

14 Plaintiffs,

15 v.

16 TECHNOLOGY PROPERTIES  
 17 LIMITED, PATRIOT SCIENTIFIC  
 CORPORATION and ALLIACENSE  
 18 LIMITED,

19 Defendants.

Case No. 5:08-cv-00882 PSG

[Related to Case No. 5:08-cv-00877 PSG]

**CORRECTED EXHIBIT D TO  
 DECLARATION OF MARK L.  
 WEINSTEIN IN SUPPORT OF HTC  
 CORPORATION AND HTC AMERICA,  
 INC.'S DAUBERT MOTION TO  
 EXCLUDE THE OPINIONS AND  
 TESTIMONY OF DR. STEPHEN D.  
 PROWSE**

Complaint Filed: February 8, 2008  
 Trial Date: September 23, 2013

**EXHIBIT D**

CONFIDENTIAL: ATTORNEYS' EYES ONLY

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

ACER, INC.,  
ACER AMERICA CORPORATION, and  
GATEWAY, INC.

Plaintiff,

v.

TECHNOLOGY PROPERTIES LIMITED,  
PATRIOT SCIENTIFIC CORPORATION,  
and ALLIACENSE LIMITED,

Defendant.

Case No. 5:08-cv-00877-PSG

---

HTC CORPORATION and  
HTC AMERICA, INC.,

Plaintiff,

v.

TECHNOLOGY PROPERTIES LIMITED,  
PATRIOT SCIENTIFIC CORPORATION,  
and ALLIACENSE LIMITED,

Defendant.

Case No. 5:08-cv-00822-PSG

EXPERT REPORT OF DR. STEPHEN D. PROWSE



---

Stephen D. Prowse, Ph.D, CFA

June 4, 2013

---

Date

## I. INTRODUCTION

### A. Assignment

1. I have been retained by Agility IP Law on behalf of Technology Properties Limited (“TPL”) to conduct analyses and to provide expert testimony, if necessary, regarding the damages claimed by TECHNOLOGY PROPERTIES LIMITED, PATRIOT SCIENTIFIC CORPORATION, and ALLIACENSE LIMITED (collectively “TPL”) regarding alleged infringement of the following U.S. Patents: 5,809,336 (“the ’336 patent) and 5,530,890 (“the ’890 patent”) by Acer, Inc., Acer America Corporation and Gateway, Inc. (collectively referred to as “Acer”) and HTC Corporation and HTC America, Inc. (collectively referred to as “HTC”). This report sets forth my opinions in this matter based on the information available and the analyses I have performed through the date of this report. This report, and my opinions contained herein, are subject to change or modification should additional relevant information become available that bears on my analyses.

2. Acer and HTC contend they have not infringed and are not infringing the patents-in-suit.<sup>1</sup> In order to perform the analyses requested, it is necessary for me to assume that the trier of fact has not found the patent-in-suit to be either invalid or unenforceable, and has found the patents-in-suit to be infringed with respect to Acer and HTC’s products that TPL accuses of infringement. I do not offer an opinion on these issues. Under these assumptions, I have estimated the damages relating to Acer and HTC’s alleged infringement. I have evaluated this claim according to 35 U.S.C. § 284 as well as the *Georgia-Pacific* line of authority, assuming that Acer or HTC, or both, is found liable.

---

<sup>1</sup> Defendant’s Answer and Counter Complaint for Declaratory Judgment; Demand for Trial by Jury, dated November 21, 2008.

processors. Microprocessors have millions of individual electrical components (e.g., transistors) whose operation requires coordination, both internally and with external components, for the chip to function properly.<sup>7</sup>

13. Microprocessors are complex machines with millions of individual parts whose operation requires coordination – both internally and with external components – for the chip to function properly. I understand this coordination is enabled by clock signals. The '336 patent, entitled “High Performance Microprocessor Having Variable Speed System Clock,” teaches the use of two independent clocks in a microprocessor system: (1) an on-chip first clock to time the CPU; and (2) a second independent clock to time the input/output (I/O) interface. This innovation was widely adopted by the industry and became fundamental to the increased speed and efficiency of modern microprocessors. Decoupling the system clock from the I/O clock allowed the clocks to run independently (or “asynchronously”), which permitted the CPU to run faster when needed.<sup>8</sup>

14. The '890 patent, entitled “High Performance, Low Cost Microprocessor Architecture,” teaches a dual stack architecture and the use of stack pointers that can reference memory in any location to provide more architectural flexibility and faster access to data elements. I understand that combining this with other features, such as a memory controller and direct memory access feature, allows the '890 patent's CPU to off-load memory transfer of data to achieve further efficiencies and higher performance.<sup>9</sup>

15. I further understand the patents-in-suit are part of the Moore Microprocessor Portfolio (“MMP”). I understand this portfolio contains a number of patents that have been licensed extensively across many diverse industries. I discuss this further in my report. I also discuss the specific benefits afforded by the patents-in-suit as they relate to Acer and HTC in my analysis of the *Georgia-Pacific* factors below.

---

<sup>7</sup> Oklobdzija report, ¶ 40.

<sup>8</sup> Defendants' Opening Claim Construction Brief for the “Top Ten Terms”, Dkt. No. 339 (Dec. 23, 2011), at 2.

<sup>9</sup> Defendants' Opening Claim Construction Brief for the “Top Ten Terms”, Dkt. No. 339 (Dec. 23, 2011), at 3.

*Acer, Inc. et al. & HTC Corp. et al. v. Technology Properties Limited et al.*  
 CONFIDENTIAL: ATTORNEYS' EYES ONLY

## **B. The Accused Products**

16. I understand TPL asserts various Acer and HTC's products infringe one or more claims of the '336 patent and/or the '890 patent.<sup>10</sup> Based on the Oklobdzija report, various mobile phones, smartphones and PDA phones sold by HTC; desktop, notebook, tablet, USB and server products for Acer; and desktop, notebook and server products for Gateway are accused under the patents-in-suit. These products are listed in the Oklobdzija report at Appendices D-G.<sup>11</sup>

## **C. The Parties**

### **i. Acer, Inc.**

17. Acer, Inc. is a Taiwanese based company that consists of three brands, which includes Acer, Gateway, and Packard Bell.<sup>12</sup> Through these companies, Acer, Inc. sells notebook and desktop PCs, LCD monitors, and projectors.<sup>13</sup> The company is the fourth largest PC and third largest notebook seller by shipments.<sup>14</sup> Acer, Inc. is publicly traded on the Taiwan Stock Exchange and maintains a global workforce of 8,000 employees.<sup>15</sup> In 2011, the company reported revenues of \$15.7 billion.<sup>16</sup>

### **ii. HTC Corporation**

18. HTC Corporation was established in 1997 and is a Taiwanese designer and manufacturer of mobile devices.<sup>17</sup> Since 2006, the company has released many well-known mobile devices powered by Android and Windows Phone operating systems.<sup>18</sup> The company consists of many affiliates and includes HTC America, Inc., which is based in Bellevue, Washington.<sup>19</sup>

<sup>10</sup> Regarding the '336 patent I understand claims 1, 6, 7, 9, 10, 11, 13, 14, 15 and 16 are asserted and regarding the '890 patent I understand claims 11, 12, 13, 17 and 19 are asserted (Oklobdzija report, ¶ 1).

<sup>11</sup> Oklobdzija report, Appendices D-G.

<sup>12</sup> [http://www.acer-group.com/public/The\\_Group/overview.htm](http://www.acer-group.com/public/The_Group/overview.htm);

<http://us.acer.com/ac/en/US/content/contacts>; February 11, 2013 Deposition of Mr. Leckrone, p. 22.

<sup>13</sup> <http://us.acer.com/ac/en/US/content/products>

<sup>14</sup> [http://www.acer-group.com/public/The\\_Group/overview.htm](http://www.acer-group.com/public/The_Group/overview.htm).

<sup>15</sup> [http://www.acer-group.com/public/The\\_Group/overview.htm](http://www.acer-group.com/public/The_Group/overview.htm) ;[http://www.acer-group.com/public/Investor\\_Relations/overview.htm](http://www.acer-group.com/public/Investor_Relations/overview.htm)

<sup>16</sup> [http://www.acer-group.com/public/The\\_Group/overview.htm](http://www.acer-group.com/public/The_Group/overview.htm)

<sup>17</sup> <http://investors.htc.com/phoenix.zhtml?c=148697&p=irol-homeprofile>

<sup>18</sup> <http://investors.htc.com/phoenix.zhtml?c=148697&p=irol-homeprofile>

<sup>19</sup> HTC Corporation, 2011 Annual Report, p. 119;

<http://investing.businessweek.com/research/stocks/private/snapshot.asp?privcapId=36871395>; February 11, 2013 Deposition of Mr. Leckrone, p. 23.

### C. The *Georgia-Pacific* Factors

31. *Georgia-Pacific* established 15 factors that may be considered when determining an appropriate royalty in a patent infringement case. These 15 factors provide a framework of analysis when calculating a reasonable royalty. Each of the factors can have an effect on the potential royalty; however, all factors do not necessarily apply in each case, and the importance of each factor can vary depending on the case facts. The factors are not necessarily mutually exclusive, as certain issues discussed below under one factor may also relate to other factors. In addition, there may be factors outside of those delineated in *Georgia-Pacific* that would also be relevant to the determination of a royalty rate. Below I present information in the framework of the *Georgia-Pacific* factors and discuss how this information supports my determination of the royalty payment to which Acer and TPL, and HTC and TPL would have agreed during the hypothetical negotiations.

***GP Factor #1: The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.***

32. I understand that recent Federal Circuit decisions caution that any evidence involving *Georgia-Pacific* factors, specifically Factor 1 “must be tied to the relevant facts and circumstances of the particular case at issue and the hypothetical negotiations that would have taken place in light of those facts and circumstances at the relevant time.”<sup>46</sup> Additionally, it is my understanding that licenses considered in a *Georgia-Pacific* analysis must be found comparable to the license considered in the hypothetical negotiation.<sup>47</sup> In this case, TPL has entered into approximately 100 licenses for the patents-in-suit.<sup>48</sup> As such, *Georgia-Pacific* factor #1 is particularly relevant to my analysis.

### TPL License Summary Document

---

<sup>46</sup> *Uniloc USA Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011).

<sup>47</sup> *Lucent Technologies, Inc., et al. v. Gateway, Inc., et al.*, 580 F.3d 1301, 1325-32 (Fed. Cir. 2009); *ResQNet.com v. Lansa, Inc.*, 594 F.3d 860, 868-73 (Fed. Cir. 2010); and *Wordtech Systems, Inc. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1319-22 (Fed. Cir. 2010).

<sup>48</sup> TPL-NDH2257602.

*Acer, Inc. et al. & HTC Corp. et al. v. Technology Properties Limited et al.*  
CONFIDENTIAL: ATTORNEYS' EYES ONLY

33. I have relied on a summary level document prepared by TPL which includes, for TPL licensees to the MMP portfolio,<sup>49</sup> the licensee name, industry segment, tiered pricing round, relevant revenue, license fee paid, “effective” royalty rate and “rbase” or royalty base.<sup>50</sup> According to this summary level document, TPL has licensed its MMP portfolio to close to 100 companies in approximately 20 different industry segments, which range from aerospace & defense to gaming.<sup>51</sup>

34. The royalty amounts received by TPL are in the form of a lump sum, either at one time or over multiple payments. Using the lump sum payment amount and the total relevant revenue, TPL has calculated an “effective” royalty rate related to each licensee. Based on the TPL briefings, the lump sum amounts agreed to in each license were almost always arrived at by applying a running royalty to estimated relevant revenue.

35. The majority of the TPL’s licenses are based on the market value of the end product sold by the licensee. In fact, only three licenses are at the chip level and those are to Intel Corporation, Advanced Micro Devices and NEC Electronics Corporation who sell chips, and two licenses are based on a module value (Extreme Networks<sup>52</sup> and Pentair<sup>53</sup>). A number of licenses were based on a royalty base cap (“RBC”).<sup>54</sup> I have reviewed a number of the briefings associated with these RBC categorized agreements and discussed them with TPL representatives and understand the products at issue in the RBC licenses were products with market values of thousands or even hundreds of thousands of dollars. For example, a briefing to Rolls Royce and Cymer suggests a “max per-unit royalty base” of \$50,000.<sup>55</sup> Another briefing with General Dynamics Corporation has a “max per-unit royalty base” of \$100,000.<sup>56</sup>

---

<sup>49</sup> With the exception of Apple, Hyundai and Brocade.

<sup>50</sup> TPL-NDH2257602.

<sup>51</sup> TPL-NDH2257602. I have cross checked this license summary back to the original license agreements and note only one discrepancy in the payment terms, this is with respect to Motorola.

<sup>52</sup> A TPL briefing indicates Extreme Networks was selling a switch and the module value for that switch was \$270, *see* TPL853\_02110939-02110945.

<sup>53</sup> A TPL briefing indicates Pentair (which sells a variety of filtration, flow management, equipment protection and thermal management solutions to a variety of industries including oil and gas and building and construction, *see* <http://www.pentair.com/>) had a module value based on 7.5% of revenue (no per unit value is included in the briefing), *see* TPL-NDH2244201- 2244213 at 2244210.

<sup>54</sup> TPL-NDH2257602.

<sup>55</sup> TPL853\_02043035-02043048 at 0204043.

<sup>56</sup> TPL-NDH1982694-1982704 at 1982703.



*Acer, Inc. et al. & HTC Corp. et al. v. Technology Properties Limited et al.*  
CONFIDENTIAL: ATTORNEYS' EYES ONLY

39. I have prepared an analysis of TPL's tier or "sought for" rates based on a review TPL's briefings to prospective and actual licenses in the computer and mobile communication space.<sup>61</sup> Based on my review of these tier rates, there is an approximate 769% increase in tier rates, overall, when moving from Tier 1 to Tier 6 (I note TPL has tiers up to 8, however I have not seen any briefings that include Tier 7 or 8 rates for the computer and mobile communication markets). As discussed above, this is a methodology which would at least partially quantify validity and infringement as it relates to the patents-in-suit.

40. Using the TPL license summary spreadsheet and the "sought for" tier rates discussed above, I have prepared a number of different views/analyses of the TPL licensing data.<sup>62</sup> As I discussed previously, TPL assigns its licensees to a tier based on the order in which they entered into a license agreement with TPL. These tier rates, at least in part, can be used to represent the impact of validity and infringement since the patents-in-suit have been through several rounds of re-examination.<sup>63</sup> As such, I have analyzed the effective rates paid by the TPL licensees, and adjusted them to reflect the impact of validity and infringement as measured by the actual tier effective rate increases observed in the TPL licensing data as well as the "sought for" tier rates found in the TPL briefings for the computer and mobile communication industries.

41. I have calculated average effective royalty rates (adjusted upward for actual and "sought for" tiers) from the TPL licensing data in the following four ways: 1) using all licensees where the tier was available, 2) using only the time frame around the hypothetical negotiation (from 2003 to 2007), 3) using the amount of total relevant revenue near the respective base amounts (+/- 33%), and 4) using the given industry classifications.<sup>64</sup> I have looked at each of these various views of the data as relevant to consider in my analysis of a reasonable royalty rate for the patents-in-suit.

### **Disparity Between Effective Rates and Tier Rates**

---

States Patent and Trademark Office ("PTO"), leading to the issuance of two reexamination certificates, the first on December 15, 2009 and the second on November 23, 2010. Oklobdzija report, ¶ 38-39.

<sup>61</sup> Exhibit 26.

<sup>62</sup> TPL-NDH2257602.

<sup>63</sup> Oklobdzija report, ¶ 38-39.

<sup>64</sup> See Exhibit 18 to 26.

*Acer, Inc. et al. & HTC Corp. et al. v. Technology Properties Limited et al.*  
CONFIDENTIAL: ATTORNEYS' EYES ONLY

analyzed the TPL license data in a number of different ways as shown in Exhibits 18 to 26.

48. In addition the vast majority of the licenses to the patents-in-suit are specifically based on the end product (the licensed product), and in fact all of the computer and mobile communication companies TPL entered into a license with are based on the entire market value of the product.<sup>74</sup> As such the TPL licenses to the patents-in-suit are already and necessarily apportioned to reflect the contribution of the patented inventions to the end product.

***GP Factor #2: The rates paid by the licensee for the use of other patents comparable to the patent in suit***

49. Acer produced, and I reviewed, approximately 80 license agreements, the vast majority of which I determined, from my non-technical perspective, were licenses for technology that was different from that of the patents-in-suit.<sup>75</sup> However, as there were a number of agreements where I was unsure as to their comparability, I consulted with Dr. Oklobdzija regarding their comparability. Specifically, I asked Dr. Oklobdzija to review the following Acer licenses to determine whether the subject matter of the technology was comparable to the patented inventions in this case:<sup>76</sup> *Cascades and Acer Settlement Agreement, Loehner Technologies and Acer Settlement and License Agreement, Forgent Networks/Compression Labs and Acer Patent License and Settlement Agreement, IBM and Acer License Agreement, Lucent Technologies and Acer Patent License Agreement and Unova and Acer Technology License Agreement.* I understand Dr. Oklobdzija concluded that it was not evident from agreement that the patented technology in these Acer agreements was similar to the patented inventions in this case.

50. Similarly, for HTC, I reviewed the 78 license agreements produced and determined, from my non-technical perspective; the vast majority were licenses for

---

<sup>74</sup> TPL-NDH2257602.

<sup>75</sup> ACER012382-012498, ACER012500-012657, ACER012672-12755, ACER012806-13066, ACER1254656-1254663, ACER1254674-1254704, ACER125707-1254712, ACER1254737, ACER1254743-1254766, ACER1254769-1254790, ACER1254799-1254835, ACER1254849-1254884, ACER1254944-1254952, ACER1309756-1310569, ACER0012826-0012843, ACER0012857-0012870, ACER0012991-0012995.

<sup>76</sup> ACER1309809-1309820, ACER1309965-1309974, ACER012595-012657, ACER012741-012755, ACER0012826-0012843, ACER013020-013066.

on the same chip; those cores can execute their own DMA transfers. The elimination of this “DMA independence” of the various cores of a multi-core microprocessor would result in chips that are slower and less efficient. Thus, any attempt to “design-around” the ’890 patent for multi-core microprocessors would only come at a significant cost. A design-around would defeat the purpose (and waste the advantages) of having multiple cores on the same chip.<sup>122</sup>

80. I understand one possible design alternative for Acer and HTC would be to use licensed chips such as those made by Intel, AMD or NEC, for example. I understand from discussions with Dr. Oklobdzija that this would not be a feasible alternative for Acer or HTC. First, the chips Acer and HTC currently use have been designed into the product in an early engineering phase. To re-design based on a different microprocessor/chip would be time consuming and result in a delay to market, which Dr. Oklobdzija estimates would take several months. In addition, it may add additional cost to the Acer and HTC products, decreasing their profitability, as Intel and other “brand name” chips can be more expensive than other available microprocessors. Lastly I understand to design around all the chips in the Acer or HTC devices which may be utilizing ’336 or ’890 technology would be very difficult as there may not be licensed substitutes for all of them.<sup>123</sup>

#### **MMP Portfolio and the Patents-in-Suit**

81. The patents-in-suit are 2 of 7 US patents included in the MMP portfolio around the time of the hypothetical negotiation.<sup>124</sup> I understand Dr. Oklobdzija reviewed the other 5 (non-asserted) patents in the MMP portfolio and concluded that the ’336 and ’890 patents comprise the “bulk of the value of the MMP Portfolio; probably at least 80-85%”.<sup>125</sup> I understand the reasons for this are delineated above under the Design Alternatives section of my report.

82. I note this is consistent with deposition testimony from TPL’s Mr. Leckrone who testified the ’336 patent, in particular, was an important part of the MMP portfolio:

---

<sup>122</sup> Oklobdzija report, ¶ 53.

<sup>123</sup> Oklobdzija report, ¶ 54.

<sup>124</sup> See for example TPL - HP license agreement (TPL853\_02927508-7530).

<sup>125</sup> Oklobdzija report, ¶ 51.

105. Based on the accused products list included in in the Oklobdzija report, HTC's royalty base over the damages period totals approximately \$8.0 billion.<sup>161</sup>

### **B. Royalty Rate**

106. As discussed under *Georgia-Pacific* factor 1 and Exhibits 18 to 26 of my report, there are a number of datapoints that can be determined using various cuts of the data from TPL's licensing history. Based on my analysis of this data, and my experience in valuing patents, I believe these rates are relevant to the consideration of a reasonable royalty that the parties would have agreed to in this matter.

107. I note that the rates above would reflect an MMP portfolio rate or value. As discussed in the expert report of Dr. Oklobdzija, and discussed above under *Georgia-Pacific* factors 9 and 10, the vast majority of the value of the MMP portfolio rate is represented by the '890 and '336 patents. Therefore I have used these MMP portfolio rates as a baseline or indication of the value of the '890 and '336 patents.

108. Because not all products are accused of infringing both patents-in-suit (though I understand all are accused of infringing the '336 patent), I looked at the relative value of the '890 and '336 patents to the accused products. I understand that the relative value of the '336 patent is significantly higher than the '890 patent in terms of both Acer and HTC's use of the patents. I have discussed this issue with Dr. Oklobdzija and he is of the opinion that one reasonable way to analyze the relative value of the patents-in-suit is to look at the asserted claims of the patents and the amount of revenue derived from the accused products. I understand he has considered the number of independent claims asserted in both of the patents-in-suit. Where both patents-in-suit are alleged to infringe, Dr. Oklobdzija determined that approximately 1/6 (or 17%) was related to the '890 patent, while 5/6 (83%) related to the '336 patent. For each of Acer and HTC, I determined which of the accused products were alleged to infringe each of the patents-in-suit and the amount of revenue derived from each of these accused products.<sup>162</sup> For products that were alleged to infringe both of the patents, I divided the revenue between the patents, based on the split determined by Dr. Oklobdzija discussed above.

---

<sup>161</sup> See Exhibit 15.

<sup>162</sup> Oklobdzija report, Appendix D-G; *see also* Exhibit 6 & 14.

*Acer, Inc. et al. & HTC Corp. et al. v. Technology Properties Limited et al.*  
CONFIDENTIAL: ATTORNEYS' EYES ONLY

accused products amounts to a fully paid up lump sum of \$1.2 million.<sup>166</sup> These amounts are the same through trial as well as through the patent expiration as Acer and Gateway accused product sales for 2010-2012, based on the information provided, were negligible.

115. For HTC the amount of the lump sum payment the parties would agree to based on the above royalty rate and royalty base is \$10 million.<sup>167</sup> A small portion of that amount, or \$30,000, would relate to sales post-trial.<sup>168</sup>

## **VI. PREJUDGMENT INTEREST**

116. I understand that prejudgment interest is largely a legal issue. I will however calculate interest based on the Court's ruling should that information become available and/or provide guidance to the Court as to an appropriate prejudgment interest rate.

---

<sup>166</sup> See Exhibit 3.

<sup>167</sup> See Exhibit 3.

<sup>168</sup> See Exhibit 3.

**Exhibit 18 - Summary of Rates**  
***TPL v. Acer, Inc. et al & HTC Corp. et al.***

	All	Time	Relative Size Licensees			Industry	
	All TPL Licensees <sup>1</sup>	All Licensees - Prior to 1/1/2008 <sup>2</sup>	Acer / Gateway Accused Products Base 1 <sup>3</sup>	Acer / Gateway Accused Products Base 2 <sup>4</sup>	HTC Accused Products Base <sup>5</sup>	Computer Industry Licensees <sup>6</sup>	Mobile Communications Licensees <sup>7</sup>
<b>Average - Sought For Rates</b>	<b>0.191%</b>	<b>0.212%</b>	<b>0.205%</b>	<b>0.241%</b>	<b>0.205%</b>	<b>0.144%</b>	<b>0.066%</b>
<b>Average - Actual Effective Rates</b>	<b>0.109%</b>	<b>0.106%</b>	<b>0.099%</b>	<b>0.136%</b>	<b>0.099%</b>	<b>0.074%</b>	<b>0.042%</b>

**Notes/Sources:**<sup>1</sup> See Exhibits 19a and 19b.<sup>2</sup> See Exhibits 20a and 20b.<sup>3</sup> See Exhibits 21a and 21b.<sup>4</sup> See Exhibits 22a and 22b.<sup>5</sup> See Exhibits 23a and 23b.<sup>6</sup> See Exhibits 24a and 24b.<sup>7</sup> See Exhibits 25a and 25b.

Exhibit 19a - All TPL Licensees  
 TPL v. Acer, Inc. et al & HTC Corp. et al.

Licensee	Industry Segment - MMP Tiered Pricing	Tier	Date of Agreement	\$ in Million	\$ in Million	%	Tier Multiplier <sup>2</sup>	%
				Total Relevant Revenue	License Fee Paid	WW Effective Royalty Rate		Calculated Effective Royalty Rate <sup>3</sup>
Hewlett-Packard Company <sup>4</sup>	Computers	1	16-Jan-06	\$				
Casio Computer Co., Ltd.	Consumer Electronics	1	21-Feb-06	\$				
Sony Corporation	Gaming	1	1-Jun-06	\$				
Nikon Corporation	Photography Equipment	1	12-Jun-06	\$				
Seiko Epson Corporation	Computer Peripherals	1	23-Jun-06	\$				
PENTAX Corporation	Photography Equipment	1	6-Jul-06	\$				
Olympus Corporation	Medical Equipment	1	4-Sep-06	\$				
Kenwood Corporation	Auto & Truck Parts	1	20-Sep-06	\$				
Agilent Technologies, Inc.	ETMC	1	22-Nov-06	\$				
Schneider Electric SA	Industrial Product	1	18-Dec-06	\$				
NEC Corporation	Networking & Communications	1	6-Feb-07	\$				
Funai Electric Co. Ltd.	Audio/Visual	1	14-Feb-07	\$				
SanDisk Corporation	Computer Storage	1	8-Mar-07	\$				
Sharp Corporation	Audio/Visual	1	9-Apr-07	\$				
Nokia Corporation	Mobile Communications	1	4-May-07	\$				
Bull	Servers	1	29-Jun-07	\$				
Denso Wave Incorporated	Specialized Computers	1	7-Sep-07	\$				
APC (American Power Conversion Corporation)	Industrial Product	1	19-Sep-07	\$				
Roland Corporation	Appliance & Tool	1	20-Aug-08	\$				
Roper Industries, Inc.	Scientific Instruments	1	9-Mar-09	\$				
Textron Inc.	Aerospace & Defense	1	2-Oct-09	\$				
Caterpillar Inc	Heavy Equipment & Machinery	1	29-Jan-10	\$				
Ford Motor Company	Auto & Truck Manufacturers	1	22-May-12	\$				
Fujitsu Limited	Computers	2	24-Feb-06	\$				
Lexmark International, Inc.	Computer Peripherals	2	8-Dec-06	\$				
Lego Holding AS	Gaming	2	24-Aug-07	\$				
Royal Philips Electronics N.V.	Audio/Visual	2	23-Oct-07	\$				
Lite-On IT Corporation	Computer Storage	2	6-Dec-07	\$				
Alpine Electronics, Inc.	Auto & Truck Parts	2	7-Dec-07	\$				
Verigy Ltd.	ETMC	2	19-Dec-07	\$				
Pision PLC	Specialized Computers	2	16-Jan-08	\$				
Advanced Medical Optics, Inc.	Medical Equipment	2	22-Feb-08	\$				
Citizen Holdings Co., Ltd.	Consumer Electronics	2	27-Feb-08	\$				
Gerber Scientific, Inc.	Industrial Product	2	4-Mar-08	\$				
Research In Motion Ltd. (RIM)	Mobile Communications	2	7-Apr-08	\$				
Unisys Corporation	Servers	2	6-Feb-09	\$				
ADC Telecommunications, Inc.	Networking & Communications	2	1-May-09	\$				
Leica Camera AG	Photography Equipment	2	26-Feb-10	\$				
Deere & Company	Heavy Equipment & Machinery	2	21-Sep-10	\$				
General Dynamics	Aerospace & Defense	2	30-Jun-11	\$				
TEAC Corporation	Audio/Visual	3	16-Nov-07	\$				
WMS Gaming Inc.	Gaming	3	3-Dec-07	\$				
Daewoo Electronics Corporation	Audio/Visual	3	3-Dec-07	\$				
Tokyo Electron Limited	ETMC	3	1-Feb-08	\$				
Emerson Radio Corp.	Consumer Electronics	3	14-Mar-08	\$				
Robert Bosch GmbH	Auto & Truck Parts	3	4-Jul-08	\$				
Rockwell Automation	Industrial Product	3	2-Oct-08	\$				
F. Hoffman - La Roche Ltd.	Medical Equipment	3	6-Mar-09	\$				
Varian Medical Systems, Inc.	Medical Equipment	3	6-Apr-09	\$				
Pantech Co., Ltd.	Mobile Communications	3	27-Apr-09	\$				
Abbott Laboratories	Medical Equipment	3	18-Jun-09	\$				
Smith & Nephew plc	Medical Equipment	3	25-Jun-09	\$				
Melco Group	Computer Storage	3	3-Aug-09	\$				
TPV Technology	Computer Peripherals	3	21-Sep-09	\$				
Force10 Networks, Inc.	Networking & Communications	3	16-Oct-09	\$				
Silicon Graphics International	Servers	3	29-Mar-10	\$				
Dresser, Inc.	Specialized Computers	3	13-Sep-10	\$				
AGCO Corporation	Heavy Equipment & Machinery	3	14-Jan-11	\$				
Rolls-Royce	Aerospace & Defense	3	30-Jun-11	\$				
ASUSTeK Computer, Inc. (US Only) <sup>5</sup>	Computers	3	19-Dec-08	\$				
HUMAX Co., Ltd	Audio/Visual	4	23-Dec-07	\$				
DIRECTV Group, Inc., The	Audio/Visual	4	6-Feb-08	\$				
Mattel, Inc.	Gaming	4	21-Feb-08	\$				
Audiovox Corporation	Auto & Truck Parts	4	29-Jul-08	\$				
Cardiac Science Corporation	Medical Equipment	4	29-Jul-09	\$				
VTech Holdings Limited	Networking & Communications	4	18-Nov-09	\$				
Optoma Technology Inc.	Computer Peripherals	4	9-Feb-10	\$				
Cummins, Inc.	Industrial Product	4	18-Oct-10	\$				
Motorola, Inc.	Mobile Communications	4	3-Jan-11	\$				
Cyber, Inc.	ETMC	4	3-Nov-11	\$				
TE Connectivity, Ltd.	Specialized Computers	4	23-Dec-11	\$				
United Technologies Corporation	Aerospace & Defense	4	17-Oct-12	\$				
Oracle Corporation	Servers	4	26-Oct-12	\$				
Onkyo Corporation	Audio/Visual	5	25-Apr-08	\$				
Alcon, Inc.	Medical Equipment	5	4-Sep-09	\$				
Harman International Industries Inc	Auto & Truck Parts	5	8-Sep-09	\$				
Blue Coat Systems, Inc.	Networking & Communications	5	28-Jan-10	\$				
General Electric Co.	Industrial Product	5	16-Dec-10	\$				
Lottomatica S.p.A.	Gaming	5	23-Dec-11	\$				
Sierra Wireless, Inc.	Mobile Communications	5	26-Nov-12	\$				
SANYO Electric Co., Ltd.	Audio/Visual	6	19-May-09	\$				
Ascom	Networking & Communications	6	6-May-10	\$				
Stryker Corporation	Medical Equipment	6	8-May-11	\$				
Tyco International Ltd.	Industrial Product	6	3-Feb-12	\$				
Walt Disney Company, The	Gaming	6	9-Mar-12	\$				
ArceLIK A.S.	Audio/Visual	7	23-Mar-10	\$				
IXIA	Networking & Communications	7	16-Dec-10	\$				
Pentair, Inc.	Industrial Product	7	9-Jul-12	\$				

REDACTED

Average

Exhibit 19a - All TPL Licensees  
 TPL v. Acer, Inc. et al & HTC Corp. et al.

				\$ in Million	\$ in Million	%		%
Licensee	Industry Segment - MMP Tiered Pricing	Tier	Date of Agreement	Total Relevant Revenue	License Fee Paid	WW Effective Royalty Rate	Tier Multiplier <sup>2</sup>	Calculated Effective Royalty Rate <sup>3</sup>

Notes/Sources:

<sup>1</sup> Data is from TPL-NDH2257602. I have excluded all companies with a Tier label of "N/A" and have excluded the one company labeled as "Tier 8"

<sup>2</sup> See Exhibit 26

<sup>3</sup> The Calculated Effective Royalty Rate is the "WW Effective Royalty Rate" multiplied by the "Tier Multiplier"

<sup>4</sup> I understand that, as one of the earliest licensees, Hewlett-Packard Company was given a discount on the license amount paid of \$40 million. The discount was given in order to build the credibility of TPL's licensing program. Adding this additional non-monetary compensation to the license fee paid by HP results in an adjusted effective royalty rate of 0.022%.

<sup>5</sup> In order to better compare companies within the computer industry, I have assigned ASUSTeK Computer, Inc. as a "Tier 3" company based on the date of their agreement and their place in the computer industry licensee ordering.



Exhibit 19b - All TPL Licensees  
 TPL v. Acer, Inc. et al & HTC Corp. et al.

Licensee	Industry Segment - MMP Tiered Pricing	Tier	Date of Agreement	\$ in Million	\$ in Million	%	Tier Multiplier <sup>2</sup>	%
				Total Relevant Revenue	License Fee Paid	WW Effective Royalty Rate		Calculated Effective Royalty Rate <sup>3</sup>
Hewlett-Packard Company <sup>4</sup>	Computers	1	16-Jan-06	\$				
Casio Computer Co., Ltd.	Consumer Electronics	1	21-Feb-06	\$				
Sony Corporation	Gaming	1	1-Jun-06	\$				
Nikon Corporation	Photography Equipment	1	12-Jun-06	\$				
Seiko Epson Corporation	Computer Peripherals	1	23-Jun-06	\$				
PENTAX Corporation	Photography Equipment	1	6-Jul-06	\$				
Olympus Corporation	Medical Equipment	1	4-Sep-06	\$				
Kenwood Corporation	Auto & Truck Parts	1	20-Sep-06	\$				
Agilent Technologies, Inc.	ETMC	1	22-Nov-06	\$				
Schneider Electric SA	Industrial Product	1	18-Dec-06	\$				
NEC Corporation	Networking & Communications	1	6-Feb-07	\$				
Funai Electric Co. Ltd.	Audio/Visual	1	14-Feb-07	\$				
SanDisk Corporation	Computer Storage	1	8-Mar-07	\$				
Sharp Corporation	Audio/Visual	1	9-Apr-07	\$				
Nokia Corporation	Mobile Communications	1	4-May-07	\$				
Bull	Servers	1	29-Jun-07	\$				
Denso Wave Incorporated	Specialized Computers	1	7-Sep-07	\$				
APC (American Power Conversion Corporation)	Industrial Product	1	19-Sep-07	\$				
Roland Corporation	Appliance & Tool	1	20-Aug-08	\$				
Roper Industries, Inc.	Scientific Instruments	1	9-Mar-09	\$				
Textron Inc.	Aerospace & Defense	1	2-Oct-09	\$				
Caterpillar Inc	Heavy Equipment & Machinery	1	29-Jan-10	\$				
Ford Motor Company	Auto & Truck Manufacturers	1	22-May-12	\$				
Fujitsu Limited	Computers	2	24-Feb-06	\$				
Lexmark International, Inc.	Computer Peripherals	2	8-Dec-06	\$				
Lego Holding AS	Gaming	2	24-Aug-07	\$				
Royal Philips Electronics N.V.	Audio/Visual	2	23-Oct-07	\$				
Lite-On IT Corporation	Computer Storage	2	6-Dec-07	\$				
Alpine Electronics, Inc.	Auto & Truck Parts	2	7-Dec-07	\$				
Verigy Ltd.	ETMC	2	19-Dec-07	\$				
Pision PLC	Specialized Computers	2	16-Jan-08	\$				
Advanced Medical Optics, Inc.	Medical Equipment	2	22-Feb-08	\$				
Citizen Holdings Co., Ltd.	Consumer Electronics	2	27-Feb-08	\$				
Gerber Scientific, Inc.	Industrial Product	2	4-Mar-08	\$				
Research In Motion Ltd. (RIM)	Mobile Communications	2	7-Apr-08	\$				
Unisys Corporation	Servers	2	6-Feb-09	\$				
ADC Telecommunications, Inc.	Networking & Communications	2	1-May-09	\$				
Leica Camera AG	Photography Equipment	2	26-Feb-10	\$				
Deere & Company	Heavy Equipment & Machinery	2	21-Sep-10	\$				
General Dynamics	Aerospace & Defense	2	30-Jun-11	\$				
TEAC Corporation	Audio/Visual	3	16-Nov-07	\$				
WMS Gaming Inc.	Gaming	3	3-Dec-07	\$				
Daewoo Electronics Corporation	Audio/Visual	3	3-Dec-07	\$				
Tokyo Electron Limited	ETMC	3	1-Feb-08	\$				
Emerson Radio Corp.	Consumer Electronics	3	14-Mar-08	\$				
Robert Bosch GmbH	Auto & Truck Parts	3	4-Jul-08	\$				
Rockwell Automation	Industrial Product	3	2-Oct-08	\$				
F. Hoffman - La Roche Ltd.	Medical Equipment	3	6-Mar-09	\$				
Varian Medical Systems, Inc.	Medical Equipment	3	6-Apr-09	\$				
Pantech Co., Ltd.	Mobile Communications	3	27-Apr-09	\$				
Abbott Laboratories	Medical Equipment	3	18-Jun-09	\$				
Smith & Nephew plc	Medical Equipment	3	25-Jun-09	\$				
Melco Group	Computer Storage	3	3-Aug-09	\$				
TPV Technology	Computer Peripherals	3	21-Sep-09	\$				
Force10 Networks, Inc.	Networking & Communications	3	16-Oct-09	\$				
Silicon Graphics International	Servers	3	29-Mar-10	\$				
Dresser, Inc.	Specialized Computers	3	13-Sep-10	\$				
AGCO Corporation	Heavy Equipment & Machinery	3	14-Jan-11	\$				
Rolls-Royce	Aerospace & Defense	3	30-Jun-11	\$				
ASUSTeK Computer, Inc. (US Only) <sup>5</sup>	Computers	3	19-Dec-08	\$				
HUMAX Co., Ltd	Audio/Visual	4	23-Dec-07	\$				
DIRECTV Group, Inc., The	Audio/Visual	4	6-Feb-08	\$				
Mattel, Inc.	Gaming	4	21-Feb-08	\$				
Audiovox Corporation	Auto & Truck Parts	4	29-Jul-08	\$				
Cardiac Science Corporation	Medical Equipment	4	29-Jul-09	\$				
VTech Holdings Limited	Networking & Communications	4	18-Nov-09	\$				
Optoma Technology Inc.	Computer Peripherals	4	9-Feb-10	\$				
Cummins, Inc.	Industrial Product	4	18-Oct-10	\$				
Motorola, Inc.	Mobile Communications	4	3-Jan-11	\$				
Cymer, Inc.	ETMC	4	3-Nov-11	\$				
TE Connectivity, Ltd.	Specialized Computers	4	23-Dec-11	\$				
United Technologies Corporation	Aerospace & Defense	4	17-Oct-12	\$				
Oracle Corporation	Servers	4	26-Oct-12	\$				
Onkyo Corporation	Audio/Visual	5	25-Apr-08	\$				
Alcon, Inc.	Medical Equipment	5	4-Sep-09	\$				
Harman International Industries Inc	Auto & Truck Parts	5	8-Sep-09	\$				
Blue Coat Systems, Inc.	Networking & Communications	5	28-Jan-10	\$				
General Electric Co.	Industrial Product	5	16-Dec-10	\$				
Lottomatica S.p.A.	Gaming	5	23-Dec-11	\$				
Sierra Wireless, Inc.	Mobile Communications	5	26-Nov-12	\$				
SANYO Electric Co., Ltd.	Audio/Visual	6	19-May-09	\$				
Ascom	Networking & Communications	6	6-May-10	\$				
Stryker Corporation	Medical Equipment	6	8-May-11	\$				
Tyco International Ltd.	Industrial Product	6	3-Feb-12	\$				
Walt Disney Company, The	Gaming	6	9-Mar-12	\$				
Arcelik A.S.	Audio/Visual	7	23-Mar-10	\$				
IXIA	Networking & Communications	7	16-Dec-10	\$				
Pentair, Inc.	Industrial Product	7	9-Jul-12	\$				

REDACTED

Average

**Exhibit 19b - All TPL Licensees**  
*TPL v. Acer, Inc. et al & HTC Corp. et al.*

				\$ in Million	\$ in Million	%		%
Licensee	Industry Segment - MMP Tiered Pricing	Tier	Date of Agreement	Total Relevant Revenue	License Fee Paid	WW Effective Royalty Rate	Tier Multiplier <sup>2</sup>	Calculated Effective Royalty Rate <sup>3</sup>

**Notes/Sources:**

<sup>1</sup> Data is from TPL-NDH2257602. I have excluded all companies with a Tier label of "N/A" and have excluded the one company labeled as "Tier 8"

<sup>2</sup> Tier Multiplier is calculated using the Effective Rates in the following manner: Tier 6 average rates are divided by Tier 1 average rates to obtain a 4.11 multiplier. Multipliers for Tiers 2 - 5 are calculated on a pro rata basis from Tier 6 to Tier 1.

<sup>3</sup> The Calculated Effective Royalty Rate is the "WW Effective Royalty Rate" multiplied by the "Tier Multiplier"

<sup>4</sup> I understand that, as one of the earliest licensees, Hewlett-Packard Company was given a discount on the license amount paid of \$40 million. The discount was given in order to build the credibility of TPL's licensing program. Adding this additional non-monetary compensation to the license fee paid by HP results in an adjusted effective royalty rate of 0.022%.

<sup>5</sup> In order to better compare companies within the computer industry, I have assigned ASUSTeK Computer, Inc. as a "Tier 3" company based on the date of their agreement and their place in the computer industry licensee ordering.

**Exhibit 26 - "Sought For" Royalty Rates Per Round**  
**TPL v. Acer, Inc. et al & HTC Corp. et al.**

Company Name	Industry Segment	Presentation Date	Round/ Tier Rates						Source <sup>1</sup>
			1st Round Rate	2nd Round Rate	3rd Round Rate	4th Round Rate	5th Round Rate	6th Round Rate	
Research in Motion Ltd.	Mobile Communications	8/30/2006	0.022%	0.055%					TPL-NDH2244392 - TPL-NDH2244460.pdf
Research in Motion Ltd.	Mobile Communications	8/2/2007		0.063%	0.125%				TPL-NDH2244461 - TPL-NDH2244496.pdf
Research in Motion Ltd.	Mobile Communications	11/12/2007		0.063%	0.125%				TPL-NDH2244497 - TPL-NDH2244533.pdf
Research in Motion Ltd.	Mobile Communications	1/4/2008		0.063%	0.125%				TPL-NDH2244534 - TPL-NDH2244570.pdf
Samsung Electronics Co., Ltd.	Mobile Communications	7/28/2006	0.022%	0.055%					TPL-NDH2245513 - TPL-NDH2245594.pdf
Samsung Electronics Co., Ltd.	Mobile Communications	9/22/2006	0.022%	0.055%					TPL-NDH2245595 - TPL-NDH2245643.pdf
Samsung Electronics Co., Ltd.	Mobile Communications	2/26/2007	0.025%	0.063%					TPL-NDH2236233 - TPL-NDH2236287.pdf
Samsung Electronics Co., Ltd.	Mobile Communications	10/9/2012					0.234%		TPL-NDH2236372 - TPL-NDH2236401.pdf
Samsung Electronics Co., Ltd.	Mobile Communications	10/9/2012					0.234%		TPL-NDH2245728 - TPL-NDH2245757.pdf
Sierra Wireless, Inc.	Mobile Communications	9/8/2008			0.125%	0.188%			TPL-NDH2249576 - TPL-NDH2249646.pdf
Sierra Wireless, Inc.	Mobile Communications	11/20/2008			0.125%	0.188%			TPL-NDH2249647 - TPL-NDH2249679.pdf
Sierra Wireless, Inc.	Mobile Communications	7/20/2009			0.125%	0.188%			TPL-NDH2249680 - TPL-NDH2249685.pdf
Sierra Wireless, Inc.	Mobile Communications	12/11/2009				0.188%			TPL-NDH2246874 - TPL-NDH2246878.pdf
Sierra Wireless, Inc.	Mobile Communications	9/18/2012				0.188%			TPL-NDH2246879 - TPL-NDH2246905.pdf
Sierra Wireless, Inc.	Mobile Communications	9/21/2012				0.188%			TPL-NDH2246906 - TPL-NDH2246910.pdf
Sierra Wireless, Inc.	Mobile Communications	9/25/2012				0.188%			TPL-NDH2249686 - TPL-NDH2249688.pdf

All	1st Round Rate	2nd Round Rate	3rd Round Rate	4th Round Rate	5th Round Rate	6th Round Rate
<b>Average Rate</b>	<b>0.034%</b>	<b>0.058%</b>	<b>0.090%</b>	<b>0.140%</b>	<b>0.234%</b>	<b>0.293%</b>
<b>Tier Multiplier</b>	8.69	5.06	3.25	2.10	1.25	1.00

**Notes/Sources:**

<sup>1</sup> I have included royalty rate and round information when both pieces of information were clearly available in the MMP Portfolio Briefings.