Qualcomm Grew its Chip and Licensing Businesses on the Basis of its FRAND Commitments

Irwin Jacobs, founder and CEO:

Q. But Qualcomm determined that there was a commercial benefit in going through a standard setting organization, such as the TIA; right?
A. Well, a number of the operators also urged us to go through the standards process, and so yes...

Q. And in order to develop a standard certified by TIA, Qualcomm knew that it had to make a FRAND commitment; right?
A. That's correct.

Q. And Qualcomm wanted to sell as many chips as it could; Right?
A. We certainly did want to build our chip business, yes.

I. Jacobs Tr. 1280:12-1281:25
Qualcomm Has Historically Maintained Modem Chip Lead

Backup: TTM advantage strongest at onset of standard

Significant TTM advantage in the early stage of new standard
Qualcomm’s Declining SEP Share

See also Donaldson Tr. 971:7-972:6; CX1785 (Mark Davis: “The strength of [Qualcomm’s] patent position does not justify their royalties, and it has not for a long time.”); CX6528 (“As to term, it makes sense to keep it short for c2k since half your [i.e., Qualcomm’s] patents have expired or will expire in 3-5 years.”); Grubbs Dep. 234:22-235:15.
Diminishing Value of Standard-Essential Technology to Smartphones

Michael Lasinski (FTC Expert)
First, when you look at what the, the way the industry was developed...there's a lot more applications going on on smartphones than at that time. For example, they not only have modem chip, now they have application processors on them. Also, at that time there were estimates on how much data would be offloaded to Wi-Fi networks, and it turns out that significantly more data is being offloaded to Wi-Fi networks.

Lasinski Tr. 1015:21-1016:3

Richard Donaldson (FTC Expert)
When rates were first established back when CDMA was used in telephones ... it was just a cell phone. No other capabilities. And those products have changed dramatically over the life since then and we now have smartphones with many, many features that do not infringe the cellular patents, the SEPs. So I would expect that to drive a lower royalty rate.

Donaldson Tr. 971:7-14

Aviv Nevo (Qualcomm Expert)
Q. The product in which the I.P. was going to be used changed dramatically over that time, correct?
A. Cell phones did, yeah, they clearly changed.

Nevo Tr. 1944:14-16

Jeff Andrews (Qualcomm Expert)
Q. And users that have LTE enabled phones that also have Wi-Fi can use the Wi-Fi for data transmission; is that correct?
A. Assuming they're connected to a Wi-Fi access point that works, yes.

Andrews Tr. 1615:5-8
Prof. Shapiro applied the HMT to test the existence of markets for CDMA modem chips and Premium LTE modem chips. Shapiro Tr. 1153:8-1154:21, 1159:14-1160:9.

Dr. Chipty agrees the HMT is the correct test, but made no attempt to implement it to test the existence of either relevant market. Chipty Tr. 1740:6-1742:17
Market Definition: Brown Shoe Factors

Industry recognition of distinct competitors and products. E.g., CX8191-089 (Qualcomm only merchant supplier of premium tier SOCs in 2017); Moynihan Tr. 365: 1-4 (Mediatek has "not closed the gap" in premium tier and high tier modem chips); Madderom Dep. 140:13-18 (use of non-premium-tier cellular modem in a premium-tier handset is not a "viable approach").

Distinct Pricing and Margins:
- **CDMA**: CX5294-002, Amon Tr. 484:17-485:7 ("[T]here is an overall $4.50-7.00 delta between the chipset price of CDMA and its equivalent UMTS."); JX0107-013 (CDMA adder); Amon Tr. 483:13-15 (Qualcomm has "historically priced CDMA based on value rather than cost"); CX 5393 ("Our price is not based on cost but on value."); Chipty Tr. 1745:20-1748:25.
- **Premium LTE**: Blevins Tr. 673:18-22 ("A premium chip would cost roughly double what we determine a non-premium chip would cost."); CX5551-013, Wyatt Tr. 433:12-434:7, 434:25-435:13 (QCT projects higher margins for premium tier as compared to mid and low tiers); CX6837-039, CX8299, Wise Tr. 89:5-25, 90:20-91:2 (QCT depends on higher prices and margins higher in premium tier).

Monopoly and Market Power

Premium LTE

“[I]n the 2011 time frame, [there] would not have been any other viable sources for LTE targeting the early 2013 time frame for release.”

Grubbs Dep. 215:12-216:1

“Motorola continues to believe that the only viable path to a high-end phone is a Qualcomm chipset.”

Blumberg Dep. 155:12-156:11

See also Madderom Dep. 235:3-10 ("I've been working for almost six years trying to bring up a competitor to Qualcomm in premium tier, and I've never been successful"); Amon Tr. 479:10-14 (Qualcomm “first to market with every transition of LTE”); Shapiro Tr. 1158:1-12; Blevins Tr. 674:3-8; Chippy Tr. 1740:1-5 (Qualcomm had “earned market power” in LTE chips at various points in time); Moynihan Tr. 324:25-325:2 (Mediatek has not “really penetrated ever what I would call the premium tiers in the market…”); CX7251-004 ("MediaTek not an alternative chip provider for QCT customers").

CDMA

“Qualcomm has not really had significant competition in CDMA.”

Madderom Dep. 206:4-18

“[A]t certain points we had high percentages of the market for cdma2000 chips…”

Jacobs Dep. 157:21-158:5

See also Blevins Tr. 684:1-4 ("[W]e rapidly came to the conclusion that our only [CDMA] alternative was Qualcomm."); CX5393-001 (Qualcomm CDMA price “is not based on cost but on value”); Amon Tr. 483:13-15 (Qualcomm has “historically priced CDMA based on value rather than cost”); Jacobs Dep. 157:21-158:05 ("[A]t certain points we had high percentages of the market for cdma2000 chips….."); CX5402-003 ("[W]ithout us they would lose big parts of North America, Japan, and China."); Thompson Tr. 1384:9-14; Shapiro Tr. 1157:7-10; Chippy Tr. 1759:16-22, 1744:13-1745:5.
Monopoly and Market Power: High Market Shares

Handset TAM / Share / QCT Units

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<tr>
<th>OEM</th>
<th>HS Price</th>
<th>Act FY14</th>
<th>Apr OL FY15</th>
<th>Strat FY16</th>
<th>Strat FY17</th>
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<td>105</td>
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<td>47%</td>
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QCT CDMA ASIC Market Share

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<td>98%</td>
<td>98%</td>
<td>97%</td>
<td>94%</td>
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See also CX8190-067-068; CX6837-039; CX7629-026. (Qualcomm ordinary course share/margin calculations); CDX0201-012-015, Shapiro Tr. 1154:22-1157:6 (CDMA), 1160:10-1162:15 (Premium LTE). (Dr. Shapiro’s market share calculations).
Monopoly Power and Exclusionary Conduct Establish Monopolization

Elements of Monopolization:
(1) “monopoly power in the relevant market” and (2) “willful acquisition or maintenance of that power” through exclusionary conduct


In light of direct evidence of Qualcomm’s market power, market shares more than sufficient to establish monopoly power

E.g., Syufy Enters. v. Am. Multicinema, Inc., 793 F.2d 990, 995–1000 (9th Cir.1986) (60–69% market share sufficient for finding of monopoly power); Oahu Gas Serv., Inc. v. Pac. Res., Inc., 838 F.2d 360, 366 (9th Cir. 1988) (“[M]arket share is just the starting point for assessing market power. . . . A declining market share . . . does not foreclose a finding of [market] power.”); Pac. Coast Agr. Exp. Ass’n v. Sunkist Growers, Inc., 526 F.2d 1196, 1204 (9th Cir. 1975) (“Sunkist's control of the Hong Kong export market ranged from 45 to 70%...it is now well settled that market share, while being perhaps the most important factor, does not alone determine the presence or absence of monopoly power... These facts adequately support the jury's finding that defendants possessed monopoly power in the relevant market.”).
No License-No Chips: A Long-Standing, Developed Policy

From: Jeff Altman
Sent: Wednesday, April 27, 2005 10:55 PM
To: bcorlett
Subject: QUALCOMM licensing program

http://www.qualcomm.com/technology/licensing.html

There are 3 primary considerations of any license agreement we would enter into,

1) **Up-front fee.** This is dependent upon the air interface and the type of product to be developed. Since I don't know what Apple is contemplating I can't really say what this up-front fee would be. A typical handset agreement for one CDMA air interface is $5mil while the up-front fee to include both cdma2000 and WCDMA/TDS-CDMA is $10mil.

2) **Royalty rates** are based on the net selling price of your product sold to an unaffiliated 3rd party on a quarterly. Again, presuming your interest is more in the line of a typical handset, the royalty rate is based on quarterly volume and ranges between 6.5% to 5%.

3) **Required cross license** of your company's intellectual property back to QUALCOMM. This is to protect our ASIC group so that they have design flexibility in enhancing their product without infringing upon a licensee's intellectual property.

Once this patent license has been completed, licensee would then have the rights to purchase chips, software, reference designs from our ASIC group (called QCT) or one of our other ASIC licensed suppliers. Licensee could also develop its own CDMA baseband for use in its licensed product.
Qualcomm’s Component Supply Agreements generally prohibit use of chips in unlicensed handsets. Aberle Tr. 254:4-7.

11. **INTELLECTUAL PROPERTY.** The sale of Products to Buyer does not convey to Buyer (or its Affiliates) any intellectual property rights in such Products, including but not limited to any rights under any patent, trademark, copyright, or trade secret. Except as expressly provided in Paragraph 8 of this Agreement, Buyer (and its Affiliates) may not use or sell any Product, alone or in combination with other software or components, without a separate license from QUALCOMM Incorporated under all applicable patents.

13. **TERM AND TERMINATION.**

within sixty (60) days after written notice of such failure. In addition, QUALCOMM may terminate this Agreement if “Buyer is in default under the License and such default is not cured within the cure period specified therein.

CX6803-006,-007

“To my knowledge, we have never shipped commercial quantities of chips to a company without a license.”

Aberle, CX6522-005

See also Mollenkopf Tr. 756:9-19; CX8287-001 (“Isn’t that part of every CSA?”); CX1006 (Huawei); JX0093 (Blackberry); Cho Tr. 923:1-924:2. Qualcomm will only sell chips to licensees. Gonell Tr. 1417:7-10; Aberle Tr. 250:5-17; Mollenkopf Tr. 755:18-21, 842:25-843:11; Reifschneider Dep. 26:17-25. NLNC policy is well known among Qualcomm’s customers. Mollenkopf Tr. 803:8-10; Reifschneider Dep. 33:17-34:2; Yu Dep. 54:22-24.
From: Aberle, Derek
Sent: Thursday, April 14, 2011 4:14 AM
To: Wang, Jing; Hartogs, Mike; Cobb, Greg; Dwight, Deborah; An, Xiaopeng (Robert An)
Subject: Fwd: ZTE conf call - Legal Privilege

They should also consider the impact on their business in the US (e.g., with VZW) if we are forced to sue them for patent infringement. Finally, they should be reminded that we do not supply chips to companies that are not licensed.

See also CX1000 (Huawei); CX6522 (Sony); Reifschneider Dep. 34:3-5; 50:17-51:9.
Qualcomm Claims It Gave “Reminders”—OEMs Heard Threats

Finally—I am sure that in raising the imminent delivery of Q chipsets that you are not threatening to withdraw or delay chipsets supplies. Sony Mobile is Qualcomm’s 3rd largest customer for chipsets and such an action would bring this company to a virtual standstill. In the present circumstances this would seem to be a highly questionable tactic and would unlikely be considered as fair, or reasonable. But I would be grateful if you would kindly confirm.

“From Huawei's perspective, based on all the e-mails that has been exchanged at that time period and what the Qualcomm team has expressed orally, we considered that as a strong threat of stopping the chipset supply . . . .”

Yu Dep. 68:14-23; see also CX5231-001 & -003.
we discontinue chip supply for the small handful of customers/licensees who have stopped reporting and paying royalties altogether (BBK, Gionee, OPPO, perhaps one or two other small customers) – and make sure they understand why.

(Actually for BBK, Gionee, and OPPO, as a result of our meeting with NDRC last week [think we are now in a position to cut off, or threaten to cut off, all chip supply] if they don’t immediately report the royalties owed for sales of CDMA and WCDMA devices in the March quarter, and I think we should consider doing this.)

From: Steve Altman [mailto:saltman@qualcomm.com]
Sent: Wednesday, October 06, 2004 9:59 PM
To: Thornley, Tony; Jacobs, Jeff; Jacobs, Paul; Jha, Sanjay; Johnson, Peggy; Keitel, Bill
Cc: Blecker, Mary

Peggy has some terminals that she is counting on being delivered in October. We have made the threat. Hopefully, they will respond positively. If they don’t respond, I will try to hold off any termination until after we receive the terminals.

At 08:04 PM 10/6/2004, Tony Thornley wrote:

A situation we should work hard to fix rather than terminate. However, the threat may be what is needed.
“Again, none of this has ever happened, but if a company would have materially breached their agreement requiring us to enforce and terminate, so they weren't honoring our IP, then we would not ship our chips to them and that would be the case if they just decided they were going to breach with respect to CDMA 2000 or CDMA 1x or IS 95.”

Altman Tr. 187:23-189:8 (discussing CX6729)

Q There wasn't a disruption in Huawei’s supply of CDMA chips, was there?

A There wasn't, because we extended the license agreement.

Yu Dep. 69:24-70:2

When faced with license termination threat, Samsung quickly capitulated:

Qualcomm Threatens

agreement. Thus, if Samsung persists in taking the position that its license agreement does not cover 1X and does not pay QUALCOMM the 1X royalties due under the agreement, we will have no choice but to take all action necessary to enforce the terms of our license agreement, including possible termination. Under our agreements, we do not ship ASICs to non-licensees or to licensees who are not performing their obligations.

8/24/01 Email from Steve Altman, President, Qualcomm (CX6729-002)

Samsung Gives In

>Regarding the 1X royalty issue, please be assured that I will put forth >my personal efforts in proceeding forward. I will remit the 1X royalty >payment immediately upon completion of the necessary calculations. I

8/31/01 Email from K.T. Lee, President, Information & Communications Business, Samsung (JX0014-001)
Plan of “Communication” but “Cease Supply when Necessary”

Sales to Unlicensed Entities or Customers Claiming Exhaustion

Issue: Sales of chipsets to unlicensed entities, licensed entities not paying royalties under their agreements (e.g., Chinese licensees re TD-SCDMA), or those claiming exhaustion despite the terms of our supply and license agreements present significant risks to the licensing program

- Such sales present the risk of a finding of patent exhaustion in the event of a dispute over royalties
- If we cease supply of chips to current customers they may assert antitrust claims seeking damages/finances and continued supply

Strategy

- Develop a plan of communication/action that maximizes our ability to defend against the above claims while ceasing supply when necessary

See also CX6548-002 (May 4, 2012 Gonell draft sent by Reifschneider to Aberle and others); CX6998-011 (July 2, 2012 Aberle suggested slides, sent to P. Jacobs, Mollenkopf, and Altman).
“We were afraid that if we pushed too hard, they would shut off our supply of chipsets -- of CDMA chipsets.” Grubbs Dep. 237:17-238:4

“Qualcomm has a much easier time of negotiating very high royalties because they have this extralegal remedy.” Blumberg Dep. 229:15-230:7

“Without a license from Qualcomm, there is no supply as to chipsets. …Qualcomm enjoyed a much stronger position, a much stronger leverage over Samsung.” Lee Dep. 235:20-236:1

Qualcomm “said if we do not extend CDMA license agreement, they would stop supplying the chipset to us, and it would be a disruption of Huawei’s business.” Yu Dep. 54:18-24.

“We needed their chip supply, and if we tried to pursue them legally, then we wouldn’t have access to the chips.” Williams Tr. 888:19-889:13

See also Chong Dep. 245:24-246:4; Yang Dep. 226:19-20, 226:4-227:5; Donaldson Tr. 962:19-963:3.
Project Berlin (2007-2008)

Risk identified by Qualcomm:

Q. Qualcomm also recognized at this time a separate concern that a spin would make it more difficult to sign new license agreements with companies that were not currently licensed; is that fair?
A. I think – I think it’s – I think it’s reasonably fair, yeah.

Altman Tr. 205:6-11

“Without chip business, more licensees/potential licensees might fight QTL license demands”

See also CX7035-001 (consider the fact that the only companies that have attacked us today are companies that essentially purchase little or no ASICs from us…’); CX7279 (Spin “[c]an hurt QTL’s leverage to negotiate 3G renewals and 4G(OFDMA) licensing deals (ie. LG”).

Project Phoenix (2015):

“Separation could weaken [QTL] in rate negotiations with major customers”

See also Wise Tr. 95:15-96:8; CX5417-001 (“[A]s long as QCT has a very high share, they are beneficial to QTL’); CX5953-005 (“[W]here QCT remains strong, it should continue to provide the ‘give/get’ necessary to support the licensing business”).
Qualcomm’s “Partners” Have a Dim View of No License-No Chips

**CEO Steve Mollenkopf:**

“We only sell . . . to companies with a license because not all of the I.P. is actually covered in the chip. And so what we want to make sure is that the OEMs are covered.”

“We tend to have a fairly close relationship at a senior level with our customers. We actually call them partners.”

(Tr. 803:25–804:19; 807:15–808:21)

“I believe Qualcomm's licensing results are so thoroughly tainted by its improper behavior, threatening supply, it has established a very good track record of excessive royalty rates…”

Blumberg (Lenovo) Dep. 272:25–273:17

“BlackBerry was afraid that Qualcomm would shut off the supply”

Grubbs (Blackberry) Dep. 237:17–238:4

“We thought Qualcomm would use whatever leverage it had because Qualcomm often mentioned termination of the supply agreement. As threatened in the letter, we thought Qualcomm would do something about LGE’s baseband chipset supply.”

Cho (LG Electronics) Tr. 930:18–931:3

“Companies that do not have a license from Qualcomm do not get to be provided with chips by Qualcomm. And Qualcomm happens to enjoy a monopolistic position within the chipset market. And in order to obtain chips from Qualcomm, one needs a license.”

Lee (Samsung) Dep. 215:21–216:7

“We believe that the millions of dollars that we pay to [Qualcomm] royalty could be better—could be invested to perhaps develop our own technological advances.”

Qualcomm’s No License-No Chips Policy is Unique

Unique to Qualcomm in the Industry

Qualcomm is the only component supplier not to include IP in the price of the component.

Evans Tr. 554:15-555:4; 555:12-14; 556:18-21

Qualcomm is the only supplier to condition use or sale on existence of IP license.

Blevins Tr. 677:12-678:10

See also Samsung (Lee Dep. 132:23-25, 133:1-2); Huawei (Yu Dep. 121:6-11, 20-25); Blackberry (Grubbs Dep. 267:16-20; 268:15-269:5); Qualcomm (S. Altman Tr. 178:1-4); Motorola (Madderom Dep. at 163:04-10); LG (Cho Tr. 924:3-6); Donaldson Tr. 968:1-12.

Unique within Qualcomm

“Q. Do device manufacturers purchasing Wi-Fi components from Qualcomm have to first take a license to Qualcomm’s Wi-Fi standard essential patents?
A. No.”

Gonell Tr. 1483:18-21

Authorized Purchaser

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<tr>
<th>QCT Products</th>
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<tbody>
<tr>
<td><strong>Maverick</strong></td>
</tr>
<tr>
<td><em>WAN</em> • Must be a licensee in good standing OR • See Slide #5</td>
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<tr>
<td><strong>Non WAN</strong></td>
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<tr>
<td><em>WAN</em> • No separate license • Sold on an exhaustive basis • Rep/warranty regarding use</td>
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</tr>
</tbody>
</table>

CX8261-004; see also Blevins Tr. 688:2-15
Q. And you believe that Qualcomm's cellular standard essential patent portfolio has been valued based on the license agreements that Qualcomm has; right?
A. That's fair, yeah.

Gonell Tr. 1481:11-14; see also Tr. 1480:18-1481:10 (no other valuations conducted)

Q. You testified that simply knowing an agreement was reached would not necessarily mean that an agreement was FRAND; right?
A. The mere fact of an agreement does not necessarily mean an agreement is FRAND.

…

Q. So I take it that you would agree that a negotiated agreement may not be fair if enough economic pressure is brought to bear; correct?
A. It is possible that a negotiated agreement is not fair. That's possible. You have to look at the circumstances and the terms.

Gonell Tr. 1482:4-7; 1483:6-11
Q: So to be clear: Huawei was asking Qualcomm to reduce its rates. Qualcomm was responding: We can't reduce our rates, but we'll consider other ways to exchange value. Is that correct?

A: I think that's generally right.

Reifschneider Dep. 126:20-24

From: Reifschneider, Eric [mailto:EREifschneider@deweyleboeuf.com]
Sent: 20 February 2012 02:03
To: Pearl, Jonathan
Cc: Derek Aberle, Hill, Lee
Subject: RE: Draft license agreement

“[W]e do not understand why Sony Mobile would expect to pay anything other than a 5% royalty under the new agreement”

CX7650-002

“Qualcomm’s strategy [is] to keep the headline rate the same and negotiate on other, largely on other terms and conditions… to keep the effect of the real royalties paid by OEM’s from falling and they’ve used chip leverage and other tactics to do that.”

Shapiro Tr. 2048:25-2049:7

See also CX5211 (“We explained why we have little flexibility with the royalty rates, given the established value of our patent portfolio”); Yu Dep. 149:2-25 (Qualcomm did not show any flexibility on royalty rates); Blumberg Dep. 158:21-159:14 (“we were unable to get any movement on pricing [the running royalty rate]”); Donaldson Tr. 969:19-970:10 (consistency of Qualcomm’s rates “a real anomaly”); CX6983.
Qualcomm Uses Incentive Funds with No License-No Chips to Keep Royalties High

Carrots and Sticks

<table>
<thead>
<tr>
<th>Carrots</th>
<th>Sticks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waive 4G upfront license fee</td>
<td>Open Audit findings</td>
</tr>
<tr>
<td>Offer Strategic Fund</td>
<td>$1.4M late fees as of 2/20/13</td>
</tr>
<tr>
<td>Offer MDF</td>
<td>Product held on Chip shipments</td>
</tr>
<tr>
<td>Offer Chip rebate</td>
<td>QMC has 378.5K MSMs on backlog scheduled to ship by 4/8/13.</td>
</tr>
<tr>
<td>Use Qualcomm marketing relationships to assist Lenovo internationally particularly for Windows Mobile 8.0.</td>
<td>QCT incentives owed $11.2M</td>
</tr>
<tr>
<td>Select Lenovo as the lead customer on the MSM8226 (QMC decision).</td>
<td>CX5210-011</td>
</tr>
</tbody>
</table>

Q. ...Do you understand what “Carrot and Sticks” means in this context?  
A. Seems to me the carrots were a series of things we could possibly offer to them that would be some benefit to them, potentially. And sticks were, sort of, things we could sort of – I don’t know how to put it. I don’t know how I would describe the terms sticks.….  
Q. The goal of all of these suggestions would be to get Lenovo to sign a 4G license. Is that how you understand this slide?  
A. Presumably, as I look at the overall slide deck presentation.

Q. In many of the discussions that you’ve had over the years with Qualcomm, Qualcomm has proposed strategic funds to help close the gap between Lenovo on the one hand and Qualcomm on the other with respect to royalty rate?  
A. Yes. In – in general, the way that Christian, who is typically the negotiator on the financial terms, would discuss it with Qualcomm was effectively a total cost of using Qualcomm: Cost of chips, cost of royalty, and so. And so Qualcomm was basically saying, “Well, we can address the total cost through this strategic fund by doing things that will make it effectively less expensive.”

Incentive Fund Examples

LG
CX7556-004; Aberle Tr. 278:11-20, 279:5-9; 280:20-281:18; CX1075-003 ("main exchange items"); Reifschneider Dep. 177:20-178:13; CX5179

BlackBerry

LG

Apple
CX5363; Williams Tr. 878:14-879:5; CX5391; CX5425

Huawei

Sony
CX5376-001; Mollenkopf Tr. 757:21-758:5; JX0063; JX0072; Aberle Tr. 254:17-255:10; 256:2-24

ZTE
P. Jacobs Dep. 233:11-21; 233:22-234:13; CX6658

See also CX6491-003; CX6500; CX6516; CX7571; Reifschneider Dep. at 178:14-22; 180:25-181:8; 188:4-189:20; Wyatt Tr. 438:9-15; Rogers Tr. 2003:4-2004:16 (Chinese OEMs, e.g., Oppo, Yulong, Xiaomi)
Qualcomm Uses Incentive Funds to Evade FRAND & Regulatory Scrutiny

How a co-marketing program can support QTL business model

Objectives

- Improve perception of QTL model through re-investment of part of the royalties in direct OEM support
- Provide access to better reporting and direct incentive compliance among non-compliant OEMs

Benefits to Qualcomm

- QTL increases size of China profit pool
- QTL reduces perceived TCO disadvantage vs. competitors due to QTL royalties

Key constraints

- Must comply with FRAND and any other relevant regulations – not an obstacle if program is kept separate from licensing agreement
- Cannot be directly limited to QCT customers – although is expected to support demand generation for QCT chips
- "Self-funding" – Aim to "pay for itself" through improved compliance and/or reduced risk of Government action

Must comply with FRAND and any other relevant regulations – not an obstacle if program is kept separate from licensing agreement

High-level design of a co-marketing program structure

- By carving out from agreement, gives much more flexibility around FRAND compliance
QUALCOMM Incorporated
Accounting Memo

To: Corporate Accounting File
Prepared by: Angela Williamson
Date: May 17, 2007
Subject: LG Electronics Inc. (LGE) Agreements

Although (a) LGE is also a direct customer of QCT, and (b) the indemnity amounts and the Strategic and Digital Media Fund amounts are calculated as a percentage of the Chipset Purchase Price, QTL is deemed to be the primary beneficiary of the elements of these agreements, including the expected royalty stream resulting from QC’s first OFDM subscriber device license with a major handset manufacturer. Therefore, the amounts under these agreements will be recorded in the QTL business unit.

QUALCOMM Incorporated
Accounting Memo

To: Corporate Accounting File
Prepared by: Roel Dill
Date: June 22, 2016
Subject: Yulong Q3FY16 Revenues
Business Unit: QTL

The SFA was entered into by QCTAP but was negotiated primarily by QTL in connection with the execution of the CPLA and the transactions will therefore ultimately be reflected in the QTL segment.

See also Wyatt Tr. 437:22-438:21.
Samsung 2018: A Package Deal

- $$$ under the Settlement Agreement (JX0122-054) (Sec. 2.1 Payment by Qualcomm to Samsung)

- $$$ from Qualcomm to Samsung under SULA Amendment (JX0122-008) (Sec. 2.1 2018 Amendment Fee)

- $$$ for “technical collaboration” (JX0122-081) (Sec. 2.1 QUALCOMM’s Payment)

- $$$ rebates for using Qualcomm modem chips under the Strategic Relationship Agreement (JX0122-037) (Sec. 2. Rebates: (a) Monthly Rebate; (b) Premium Tier Core Chipsets…(i) Galaxy S10 and Note10)

- ? Proposed Foundry Arrangement (Rogers Tr. 2007:2-2008:6)
Qualcomm Refused Rivals’ Licensing Requests in Breach of SSO Commitments

To: Aberle, Derek[daberle@qualcomm.com]; Gonell, Fabian[fgonell@qualcomm.com]; Hermele, Dan[dhermele@qualcomm.com]
Cc: Reifschneider, Eric[ereif@qualcomm.com]; Lupin, Lou[l lupin@qualcomm.com]
From: Marv Blecker
Sent: Wed 6/6/2012 7:30:11 PM
Importance: Normal
Subject: Re: Two further contributions - Intel and Cisco
Received: Wed 6/6/2012 7:30:10 PM

we were also asked for licenses by Intel and TI at a minimum, probably others (e.g., Samsung, Mediatek) as well, and we refused to enter into anything other than a non-exhaustive covenant (or covenant to sue last in the case of SS and MT).

Q. HAS QUALCOMM EVER GRANTED AN EXHAUSTIVE LICENSE FOR CELLULAR SEPS TO A MODEM CHIP SUPPLIER?
A. WE'VE NEVER ENTERED INTO AN AGREEMENT, TO MY KNOWLEDGE, FOR CELLULAR SEPS THAT WAS INTENDED TO BE EXHAUSTIVE.
License Refusals Supported Elevated Royalties from No License-No Chips

• **Qualcomm refuses to license rivals to support its supra-FRAND royalties**
  - Reifschneider: “[W]e will concentrate our licensing program and our licensing negotiations on the guys who make the cell phones … because **that's where the real money is**…” CX6786R at Tr. 32.
  - Gonell: Licensing “**the handset is humongously more lucrative**…” CX6786R at Tr. 71.

• **Qualcomm knows it cannot extract a supra-FRAND royalty from chip makers**
  - Blecker: “**[I]t would be hard to convince a court that that was a fair royalty** also.” CX6786R at Tr. 73.

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13 Q. Do you see in the center of the email in the red text where it appears that you write, "Keep in mind that we absolutely cannot give a chip supplier a full license to our IP with pass-through rights to its customers as that would have the potential of severely impacting our subscriber licensing program"?
14 A. Yes, I see that.

Blecker Dep. 307:13-19

See also: “If you sell to a non-licensee, … the problem that arises is that by virtue of having sold them the chip, they now have arguments that arise under patent law and principles of patent exhaustion that they don't have to pay you any more for the fair value of the I.P. because you've sold them the chip, even though they haven't paid anything for that yet.” Gonell Tr. 1420:3-12; CX6786R Tr. 108:17-25 (Blecker: “Well, my suggestion -- it's just a minor suggestion -- but each third-party CDMA ASIC supplier infringes -- all of Qualcomm U.S. standard essential patents -- and may infringe other Qualcomm U.S. patents.”).
Restrictions on VIA, MTK Extended Reach of No License-No Chips

For example, MediaTek sales were restricted to Qualcomm licensees.

A “good number of [Qualcomm ASIC] agreements do require that the ASIC supplier sell to a Qualcomm licensee, only sell to a Qualcomm licensee.” Blecker, CX6786R Tr. 47:6-8; see also Hong Dep. 216:3-216:24 (Reifschneider sought unusual terms intended to slow Samsung’s modem chip development).

Qualcomm threatened Lenovo with loss of MediaTek supply. Blumberg Dep. 176:13-177:7; CX2079. See also Davis Dep. 79:19-80:7; CX6552 (Actual Via cut-off).
Did having pass-through rights from other patent holders help QCT gain market share?

A. Yeah. I said earlier, to the extent we had the ability to do that and other chip competitors didn't do that, then we were in a stronger competitive position. No question.

P. Jacobs Dep. 171:19-24

See also Mollenkopf Tr. 842:5-8, Gonell Tr. 1395:16-18, Tr. 1494; Change to Petersson Dep. 26:5-10 (Qualcomm has exhaustive license from Ericsson); CX7799 (Altman complaining that Moto should license QC's chips under FRAND); CX6786R Tr. 105:7-15.
Rivals were Deterred by Qualcomm’s Refusal to License

**Dragonfly Modem Chip JV Failed Without a License from Qualcomm**

22 Q. And is this the source of the obligation you discussed earlier for NTT DoCoMo to negotiate with Qualcomm for a license that would apply to the joint ventures activities?

173:01 A. It appears to refer to an obligation to obtain some kind of a license from Qualcomm.

Q. Okay. And I believe you testified earlier that NTT DoCoMo was unable to obtain such a license; is that correct?

A. Yes.

Q. And as you mentioned, that failure to obtain a license was one of the reasons the joint venture did not proceed; is that correct, as well?

A. Yes.

**Customers Desired Modem Chips that were Licensed by Qualcomm**

12 A. IN GENERAL, DURING THAT PERIOD, 2008 INTO 2009, AND EVEN INTO 2009, THE KIND OF PREVAILING MESSAGE FROM ALL OF THE CUSTOMERS I ENGAGED WITH WAS THAT THEY EXPECTED US TO HAVE A LICENSE AGREEMENT WITH QUALCOMM BEFORE THEY WOULD CONSIDER PURCHASING 3G CHIPSETS FROM MEDIATEK.

17 Q. AND HOW DID THIS IMPACT THE TIMING OF SALES OF 6268?

A. WELL, AT THE TIME WE DIDN'T HAVE A LICENSE AGREEMENT WITH QUALCOMM. WE DIDN'T HAVE ANY AGREEMENT WITH QUALCOMM. SO IT SORT OF STALLED THE PROGRESS I WOULD SAY.

Q. DID MEDIATEK DO ANYTHING TO ALLEVIATE THESE CUSTOMER CONCERNS?

A. I DON'T -- I PERSONALLY DIDN'T, BUT I KNOW SOMEBODY IN THE COMPANY REACHED OUT AT SOME POINT TO SEEK A LICENSE AGREEMENT FROM QUALCOMM.

Moynihan Tr. 336:12-25

See also Moynihan Tr. 336:7-20, 337:1-10, 341:23-342:11, 388:15-339:13; Moynihan Tr. 337:1-10 (license negotiations with Qualcomm proceeded slowly), 338:4-339:3, 354:4-13 (MediaTek’s 3G modem late to market due to license negotiation delay); Hong Dep. 162:1-14 (risks identified by Samsung via indemnification if it sold chips without a license), 162:15-24 (IP indemnification a key issue in chip sales negotiations).
Qualcomm’s Anticompetitive Apple Contracts

● **2007 Marketing Incentive Agreement** (JX0040)
  - Royalty rebates in exchange for “kill[ing]” WiMAX. Williams Tr. 873:6-23; Blevins Tr. 714:14-715:1.

● **2011 Transition Agreement** (JX0057-001)
  - CDMA and iPad royalty rebates in exchange for UMTS business and exclusivity. Williams Tr. 876:12-20, 879:6-8.

● **2013 Amended Transition Agreement and BCPA** (JX0057; JX0078)

**Objectives:**

**Apple** (Williams Tr. 871:7-12, 875:2-19):
- Relief from exorbitant Qualcomm royalties under Contract Manufacturers' licenses
- Prevent injunction (2007)
- Supply of must-have chips (2011, 2013)

**Qualcomm:**
- Strategic benefits for chip business, including exclusivity (CX5360, CX5348, CX0617)
- Prevent IP fight (CX5527-027)

**Outcome:**

- **Apple disclaims WiMAX** (Williams Tr. 873:7-24)
- **Apple exclusively uses Qualcomm modem chips in new models, 2011-Spring 2016** (Blevins Tr. 733:18-21; Williams Tr. 888:13-18)
- **Two-year delay in Apple bringing up Intel as a second supplier.** (Evans Tr. 570:23-572:5)
- **Apple refrains from challenging Qualcomm’s licensing model, 2007-2016** (Williams Tr. 889:4-13; Blevins Tr. 711:3-17 (discussing CX0534))
Qualcomm Leveraged its Royalty Rates to Extract Chip Exclusivity

Qualcomm repeatedly obtained chip exclusivity in exchange for royalty relief.

**Paul Jacobs, 2011**
Offered Apple expanded iPad rebates “as part of a larger business relationship between the companies, including Apple’s use of Qualcomm chips in its iPhones and devices like the iPad.”

CX0599; Williams Tr. 876:12-24

**Steve Mollenkopf, 2011**
“We are unwilling to have the [$7.50] Marketing Agreement apply to CDMA iPhones as part of this deal, but we are willing to provide a separate, significant sum of money as part of the chip deal.”

CX5363-017; Williams Tr. 878:14-879:1

**Derek Aberle, 2014 (per Blevins)**
“Derek’s argument is that today’s actual royalty is $10.00 and the chipset price is Cristiano’s business. Only if we bring to them some ‘additional value’ (e.g. chipset exclusivity), would he consider a reduction of the $10.00”

CX0856; Blevins Tr. 703:1-25

Apple viewed Qualcomm chip supply as “**hopelessly entangled**” with licensing, and considered its rebates from Qualcomm to be partial relief from Qualcomm’s high royalties.

CX0578; Blevins Tr. 701:4-702:15, 705:4-706:7, 711:3-17, 714:11-715:2; 733:22-734:4.
Qualcomm Bought Exclusivity to Weaken Competitors

Qualcomm Saw Competitive Threat ... and Pursued Exclusivity

- "There are significant strategic benefits as it is unlikely that there will be enough standalone modem volume to sustain a viable competitor without [Apple]." CX5348; Mollenkopf Tr. 775:4-10.
- "thinking a lot about how hard we should push to de-risk this account in an environment [of likely competitive threats]. . . ." JX0055-006 (Mollenkopf).
- Absent exclusivity, Apple might use a competitor (like IFX and Samsung) and make the rival "more competitive in the market." CX5357.

- "Why not try to maximize profit instead of keeping 100% share. That last bit of share is expensive." CX5378-002; Mollenkopf Tr. 787:24-789:8.
- "Economically, our best outcome is that they second SKU.... Strategically, we are better off keeping them on our stuff...." CX5381-001; Mollenkopf Tr. 787:24-789:8.
- "[G]oal of design-ins and exclusivity." CX5360-003.
- Number 1 Qualcomm “Ask” in return for rebate funds was “exclusivity.” CX5360-010.

Qualcomm considered the competitive threat of Intel (starting in an iPad) in negotiating the 2013 agreements. CX5739; Mollenkopf Tr. 788:11-17, 797:7-14.

Incentives to “[b]uy exclusivity as done in the original deal” CX8276 (Amon Tr. 493:1-11)

See also Williams Tr. 879:6-881:22 (Qualcomm, not Apple, sought exclusivity in 2011), 886:16-887:2 (Qualcomm, not Apple, sought exclusivity in 2013); Mollenkopf Tr. 843:25-844:3 ("[I]t was either me or Jeff. I can't remember which one"); CX 5425-002 (Qualcomm accounting memo) (A "primary benefit" is the “exclusivity provision.”); CX0526-002-003 (Mollenkopf to Williams: Clawback provisions “are important to us”).
Exclusive Deals Foreclosed Rivals and Protected Royalties

**2011 and 2013 deals provided a “very strong disincentive” to use Intel . . .** (Blevins Tr. 689:10-24)

- Apple pursued an Intel engineering engagement for a 2014 iPad, to prepare for an iPhone. JX0074; CX0853 (“In net, there is no way that we would forego otherwise earned incentive in favor of launching iPad only in ‘15’); Blevins Tr. 689:25-690:10, 691:16-692:17, 699:18-700:16; see also id. 670:18-671:5 (Apple was interested in having multiple modem chip suppliers).
- 2013 Agreements caused Apple to abandon Intel for 2014 and 2015. Blevins Tr. 689:10-24; see also Williams Tr. 888:4-12 (“prohibitively expensive to work with someone else”); CX0531; CX0853; Blevins Tr. 692:24-693:20, 694:24-696:23, 699:18-700:16; Williams Tr. 888:10-12; Evans Tr. 571:15-572:13, 569:17-571:8 (Intel was technically acceptable).

**slowed Intel’s development . . .**

**Aicha Evans:**
- If Intel won the Apple business for 2014 models it would have been a stronger competitor two years earlier. Evans Tr. 579:7-11, 597:8-14.
- Substantial benefits to working with Apple. CX1599; Evans Tr. 569:3-16, 573:12-580:1 (“engineering support,” “experience and exposure,” “halo effect,” “better presence in the standards . . . [and] with operators”).

**Cristiano Amon:**
Q: if Intel had won [a]n Apple socket two years previously, they would have had a commercial track record on LTE; right? A: They would have had a commercial track record and scale.” Amon Tr. 546:15-18.

**and protected Qualcomm royalties from an Apple challenge**

- Chip power = royalty leverage: A second supplier would have enhanced Apple’s royalty negotiating leverage. CX0534-002; Blevins Tr. 711:3-17; CX7910-001; CX5381-001.
- Gag clause: As part of the 2013 “package deal” with Apple, Qualcomm also required that Apple agree not to challenge Qualcomm’s royalty rates. JX0078-005-006, -007 (BCPA Sec. 7, 10); Williams Tr. 887:13-888:3

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E-mail:

From: Mollenkopf, Steven
To: Ledere, Jim
CC: Amon, Cristiano; Reneuchtela, Marthy; Melha, Sanjay; Mollenkopf, Steven
Sent: 3/2/2013 9:59:32 PM
Subject: Re: maverick deals are done

I understand it but the scenario is really that there would have been a license fight as well and a push for alternative source.

CX7910-001
Apple Exclusivity Unjustified

- Qualcomm thin modem R&D is spread across product lines, and waterfalls into lower tiers. Thompson Tr. 1385:8-20.
  - Most Intel R&D spend for Apple modems re-used for other customers. Evans Tr. 586:6-21.

- “Payback ratios” show exclusivity not needed
  - Qualcomm’s before-the-fact approval of the MDM9x25 predicted more non-handset sales than handset (Apple) sales. CX6334-024; Thompson Tr. 1385:8-20; Chipty Tr. 1771:20-1773:16.
  - Thin modems have a high payback ratio. CX6334-021 (ratio of 6.5 for thin modems exceeds SOC (“MSM”) ratios of 2.2 and 4.1).
  - Dr. Chipty’s after-the-fact payback ratios show exclusivity not needed to hit targets for MDM9x25 (Elan) or MDM9x35 (Torino). Chipty Tr. 1752:4-1753:22.

- Rebate payments to Apple cannot justify exclusivity
  - Makes no economic sense to make large payment to Apple to justify relationship-specific R&D investments.
  - Payments accrued only as Apple purchased chips and/or were subject to volume thresholds: if Apple hadn’t bought chips, no rebates. JX0057-002-003, 008; Williams Tr. 915:15-916:1.

- Intel supplies Apple with no exclusivity or volume commitments. Evans Tr. 586:22-24; Williams Tr. 889:21-25.
Q. And do you have an opinion as to whether Qualcomm’s licensing rates are consistent with its FRAND obligations?
A. Yes. In my opinion, they’re far too high to be consistent with their FRAND obligations.

Lasinski Tr. 1011:9-12

See also Lasinski Tr. 1026:25-1027:13, 1037:22-1038:16 [SEALED]; Gonell Tr. 1475:16-1476:14 [SEALED]; Donaldson Tr. 969:5-970:10.
“Qualcomm was charging us more than everyone else put together.”
Jeff Williams (Apple), Tr. 888:24-25.

“There's no other agreement that BlackBerry has that . . . is not FRAND.”
John Grubbs (BlackBerry), Dep. 187:17-20, 234:5-7

“This structure of high royalties is only possible because Qualcomm has a monopoly position in the chipset market and does not supply chips to manufacturers without licenses to Qualcomm essential patents, giving manufacturers no choice but to accept.”
CX2642A-003 (Samsung)

“Q. Why did you sign . . . the CDMA license agreement, if you had concerns about the high . . . level of the rate? A. . . . Because we had no choice.”
Nanfen Yu (Huawei), Dep. 143:13-16

See also Blumberg (Lenovo), Dep. 148:25-149 (“Based on the negotiations I’ve had with companies like Nokia, Ericsson, InterDigital, and other significant patent holders, Qualcomm’s rate are substantially higher.”), 150:13-19, 271:23-272:4 (Lenovo agreed to higher rates than it otherwise would have because of chip supply threat); Lee (Samsung), Dep. 144:6-8 (“[W]e believed that the existing royalty rate was excessively high[,]”); Grubbs (BlackBerry), Dep. 234:22-235:15, 280:18-281:02; Yu (Huawei) Dep. 180:11-20, 185:5-186:4 (1/4/19 Trial Day 1 & 1/7/19 Trial Day 2); Donaldson Tr. 967:8-25; 968:18-969:4.
Qualcomm Fails to Justify Its Industry-Dominating Royalty Revenues

Durga Malladi
Q. And it's not part of your job to determine a financial value of the Qualcomm intellectual property that has been contributed a standard; right?
A. That's correct.
Q. If you could take a look at your deposition transcript, Dr. Malladi, Page 402, Lines 9 through 15. So you were asked, “Do you know what makes one patent more valuable than another?” And your testimony at your deposition was, “No.” Do you see that?
A. Yeah, I see that.

Andrews Tr. 1615:15-24
Malladi Tr. 1336:2-5, 16-22

Jeff Andrews
Q. And you're not ascribing a dollar value to those patents. Is that correct?
A. Yes.
Q. You're not offering any opinion about what a reasonable royalty would be for those patents?
A. No, sir.
Q. And you're also not offering an opinion about what a reasonable royalty would be for Qualcomm's portfolio as a whole; is that correct?
A. That's correct.

Casaccia Tr. 1651:7-15

Lorenzo Casaccia
Q. And you're not offering any opinion about the proper method of valuing a standard essential patent portfolio; correct?
A. Correct.

QX0121-009 (Bain)
CX7122-026
Richard Donaldson (FTC Expert)

In the “negotiations that Qualcomm had where they supplied chips that were commercially necessary for the licensee to continue in business, for those situations, Qualcomm essentially took the risk of litigation off the table. It was not an alternative to the licensee.”

The removal of the alternative “put the licensee at a severe disadvantage . . . as the testimony reflects, he’s basically in the position, I agree to the license or basically go out of business.”

This “results in a disproportionately high royalty rate.”

Donaldson Tr. 967:11-25
Qualcomm’s Royalty Surcharge Harms Rivals

Carl Shapiro (FTC Expert)

“The effect of the royalty surcharge is to reduce the gains from trade on this transaction, cause the OEM’s cost to go up, cause the rival to get a lower margin, and some of this cost increase will be passed on to final consumers.”

Shapiro Tr. 1137:3-6

“When Qualcomm collects this royalty surcharge on a transaction where an OEM purchases a chip from a rival, that’s -- that raises the cost there, burdens that transaction, and weakens the rival as a competitor. …

[T]he impact is not at all the same on a transaction between Qualcomm and the OEM because, yes, sure, the OEM pays the royalty surcharge to Qualcomm, but That's – Qualcomm’s the recipient of that. It’s in one pocket and out the other. So the gains from trade between the OEM and Qualcomm are not reduced in the same way by the surcharge. It's not going out to third parties.”

Shapiro Tr. 2057:25-2058:12
“Qualcomm charges for its chip X plus Y…

When [an OEM is] considering somebody else's chip, okay, they have to pay X, the price of the chip, okay, and if they have a license agreement, they have to pay [Qualcomm’s royalty] Y and it’s the same and everything is fine.”

Gonell Tr. 1422:7-10

Gains From Trade ($15)
Royalty Surcharge ($10)
FRAND Royalty ($10)
Rival’s Cost ($5)

Gains From Trade ($25)
FRAND Royalty ($10)
Rival’s Cost ($5)

“The court or arbitrator is not going to give us more than Y. The court, if we win everything, then they're going to give us Y.”

“[T]he Qualcomm offering is X plus , and the competing offering is X plus Y later, or maybe less than Y later, then all other things being equal, the other offering is going to be more attractive. So Qualcomm's going to have to adjust its price . . . ”

Gonell Tr. 1423:2-14

See also Wise Tr. 86:23-87:4 (QCT provides QTL with a “give/get”); 101:22-102:12 (NLNC motivates OEMs to take QTL royalty demands); CX5248-013 (5G Consortium); S. Altman Tr. 203:10-204:1 (Chip supply enforces compliance), 205:6-206:5 (Chip supply allows Qualcomm to sign new licensees and avoid litigation), 204:11-205:2, 207:25-209:14; CX7886; CX7035.
Rivals Feel the Effects of Qualcomm’s Conduct

**Aicha Evans (Intel)**

“So now there is this chip price, and on top of it there’s this royalty price. For them, Qualcomm, it doesn’t really matter because both monies are the all-in price and go to them and they can shift the price from chipset to royalty, which then undercuts me as the competitor.”

Evans (Intel) Tr. 558:15-19; see also Evans Tr. 557:4-25

**Finbarr Moynihan (MediaTek)**

A. Well, we all know that, you know, Qualcomm has this licensing business that sort of tends to give them a large financial transaction between the same company that they’re supplying chips to. You know, we sometimes feel, in the competition environment, it’s a little bit like competing with one hand tied behind your back. There are sort of other financial considerations, other incentives that when the OEM looks at the picture, the total cost of ownership is something that’s very hard for us to compete with sometimes.

Moynihan (MediaTek) Tr. 341:23-342:11

**Scott McGregor (Broadcom)**

“Basically, Broadcom has a challenge making money on chips. If our competitor makes money on the patent IP and uses it to subsidize the development of the chips or the pricing of the chips. So that’s something that’s very dangerous to – from a business model point of view to Broadcom.”

McGregor (Broadcom) Dep. 239:18-25

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**QCT Strategy Recommendation**

- Make sure MTK can only go after customers with WCDMA SULA
- Reduce # of MTK’s 3G customers to ~50
- Formulate and execute a GSM/GPRS strategy to destroy MTK’s 2G margin & profit
- Take away the $$ that MTK can invest in 3G

CX5809-041
Rivals Have Suffered

CX8292-024; see also Moynihan Tr. 324:5-12 (listing modem chip supplier exits from market)

Q. “So has Intel’s supply of modem chips to Apple been profitable up to this point?
A. No.”
Evans (Intel) Tr. 586:25-588:16

Q. “Why did Broadcom shut down that business?
A. Broadcom shut down that business because we believed it was not economically viable…The revenue ... was not sufficient to cover the R&D and other costs required to create those chips.”
McGregor (Broadcom) Dep. 12:5-12:17

Aicha Evans (Intel)
Finbarr Moynihan (MediaTek)

MediaTek paused development of its premium tier chip program.
Moynihan (MediaTek) Tr. 374:25-375:6

See also CX3551-004; Moynihan Tr. 377:4-20
Avoiding Exhaustion Is Not a Procompetitive Justification

“We don’t collect license fees or royalty at – for chip sets…And the reasons for that include the risk under patent exhaustion law as it has evolved and as it currently standards, that if we attempted to license and collect royalties on chip sets it would undermine the ability to collect license fees and royalties for the products they go into…and we don’t want to take that risk.”

CX6786-R, 15:7-15

Q: Why does Qualcomm practice ‘no license, no chip’? Is this just a way to pressure companies into signing license agreements?

- We have legitimate reasons for this practice and the recent Lexmark decision on exhaustion validates that this practice is necessary

CX8195-007

See also: Gonell Tr. 1420:3-12 (“If you sell to a non-licensee, . . . the problem that arises is that by virtue of having sold them the chip, they now have arguments that arise under patent law and principles of patent exhaustion that they don't have to pay you any more for the fair value of the I.P. because you've sold them the chip, even though they haven't paid anything for that yet.”); Donaldson Tr. 974:14-975:18.
Qualcomm’s R&D in Context

- **Attractive financial returns** – The combined model has an efficient capital structure and drives strong cash flow from Qualcomm’s technology investments, enabling Qualcomm to invest in profitable growth opportunities alongside its significant stockholder capital return program.
  - In fiscal 2015, we returned over 300% percent of free cash flow to our stockholders. This included share repurchases of $11.2 billion dollars, which reduced our share count by 9%, and dividends of $2.9 billion dollars.
  - For the last three fiscal years, our cumulative capital return was 140% of FCF, exceeding that of each of our proxy and semiconductor peers.

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Figures from CX7257 Qualcomm 2017 10-K at -0044 (R&D), -052 (Buybacks & Dividends)

See also Donaldson Tr. 974:14-975:8.
Avoiding Multi-Level Licensing Does Not Justify Qualcomm’s Policies

Qualcomm would be able to continue downstream licensing if that were actually more efficient. See Shapiro Tr. 1126:19-1127:8 (“There’s nothing preventing that from happening. But in that situation… [w]hen Qualcomm is negotiating with an OEM, they would not be able to threaten withholding chips as part of that licensing negotiation.”).

Richard Donaldson (FTC Expert)

Q. Mr. Donaldson, what is your opinion on the viability of chip level licensing in the cellular industry?
A. Well, I think it is a viable approach. I think it’s very comparable to the type of program that TI and I think other companies also have, and I think it could have been used, or could be used.

Q. And when TI used this type of licensing program, how did you account for any exhaustion concerns that were raised?
A. They were not a real problem. … we had very carefully segregated our chip patents from system level patents, and I think reasonable people were able to sit down and work out the issues and we were able to work out all of those issues to both parties’ satisfaction.

Ericsson has granted Qualcomm a license at the component level (Petersson Dep. 26:5-26:10), but generally licenses everyone else at the device level (see JX0120-004). See also JX0120-019 (explaining that Ericsson granted Qualcomm a chip-level license “[n]otwithstanding the various complications with chipset level licensing”).

See also Petersson Dep. at 164:20-166:17 (“The licensing of patent in that separate [patent] agreement however only covered the use of the product that was acquired from us,” not competitors’ chips); see also JX0120-22.

Donaldson Tr. 976:7-23
Despite Regulatory Scrutiny, Conduct Ongoing

NDRC settlement - **Wrong penalties were avoided** - e.g. caps on non-SEP royalties, more aggressive rate cuts, **forced** selling of chips to non-licensed, etc. - primarily because of what CalTech offered NDRC (agreement with SMIC (Semiconductor Manufacturing International Corporation) to collaborate on production technology + Voluntarily contributing ~$150M to Chinese R&D investment fund)

CX3755-004; see also CX6594-014

Steve Mollenkopf (Qualcomm)

Q. “And you would agree, sir, that it is Qualcomm’s policy not to sell chips to companies that are unlicensed or not complying with their licenses; correct?”
A. “We have that policy, yes.”
Mollenkopf Tr. 842:25-843:3

Alex Rogers (Qualcomm)

“So we don’t license at the component level…”
Rogers Tr. 1978:7

Qualcomm-Samsung Feb. 2018 agreements included multiple payments to Samsung

JX0122; Rogers Tr. 2008:10-2010:2
“Qualcomm is 12-24 months ahead of our merchant competitors in the transition to 5G.”

“The main point on 5G is that we are in a stronger position to extend QTL licensing model together than separate.”