Long – Qualcomm (NASDAQ: QCOM) - $68.42

Event-Driven Value - +25 – 65%% Upside

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Chips on the Table

Market-leading firm with misunderstood 'hidden' business model, trading at below-market levels, with a potential catalyst in the form of activist investor JANA Partners agitating for change

I recommend a LONG in Qualcomm (QCOM) equity with a base case price target of $85 (25% upside). The investment thesis rests on three main points:

- High quality business with substantial competitive advantages and misunderstood business model (highly likely to be mispriced)
- Catalysts for enhanced shareholder value and continuing value return to shareholders
- Substantially undervalued despite market leadership

Valuation	
($ in millions, except per share figures)	
Share Price (5/1/15)	$ 68.42
FDS	1,667
Market Capitalization	$ 114,056
Plus: Net Debt (Adjusted for Taxes)	(20,430)
Enterprise Value	$ 93,626
LTM EBITDA	9,866
TEV / EBITDA	**9.5x**
Earnings Power Value	$ 140,223
Discounted Future Share Price	180,396
Average Market Capitalization	**$ 160,309**
Implied Price / Share	$ 96.17
Implied Upside	**41%**

	FY2012	FY2013	FY2014	LTM	NTM	NTM+1	NTM+2	NTM+3
				Actual	Estimated			
Revenue	$ 19,121	$ 24,866	$ 26,487	$ 27,563	$ 24,639	$ 27,877	$ 30,960	$ 34,715
% Growth	*131.3%*	*30.0%*	*6.5%*		*(10.6)%*	*(1.1)%*	*7.2%*	*17.3%*
EBIT	$ 5,840	$ 7,561	$ 8,036	$ 8,774	$ 7,686	$ 9,337	$ 10,301	$ 11,519
% Margin	*30.5%*	*30.4%*	*30.3%*	*31.8%*	*31.2%*	*33.5%*	*33.3%*	*33.2%*
EBITDA	$ 6,267	$ 8,076	$ 9,186	$ 9,866	$ 8,807	$ 10,720	$ 12,004	$ 13,522
% Margin	*32.8%*	*32.5%*	*34.7%*	*35.8%*	*35.7%*	*38.5%*	*38.8%*	*39.0%*
CapEx	$ 1,248	$ 1,048	$ 1,185	$ 837	$ 1,295	$ 1,246	$ 1,397	$ 1,477
% Margin	*6.5%*	*4.2%*	*4.5%*	*3.0%*	*5.3%*	*4.5%*	*4.5%*	*4.3%*
EBITDA - MTC CapEx	$ 5,019	$ 7,028	$ 8,001	$ 9,029	$ 7,512	$ 9,475	$ 10,607	$ 12,045
Unlevered FCF	$ 3,740	$ 5,679	$ 6,756	$ 7,597	$ 6,327	$ 7,937	$ 8,954	$ 10,221

Investment Thesis Summary

Qualcomm is an extremely high-quality business, is misunderstood by the market, and has competitive advantages that "the market" is yet to realize: *Why does this opportunity exist?*

- QCOM's business model is not widely understood, and the long-term ***necessary*** *outcome is that they remain a niche-monopoly in smartphone technologies*
  - Qualcomm's Intellectual Property is what makes "smartphones" possible; there are *many misconceptions* that this intellectual property is becoming increasingly obsolescent, which is empirically not possible
- Whether lucky or good, Qualcomm developed the mission-critical technologies which mobile telecommunications are built upon
  - This first-mover advantage in conjunction with a drastic leap forward on the learning curve positions Qualcomm to develop compounding income streams over the medium and long-term

Investment Thesis

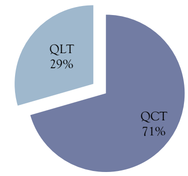
[What first attracted me to this investment was increased activist interest, particularly in the form of JANA partners and their capacity to cut costs. I originally believed their proposed split-off would realize value; however, after 'digging in' and recognizing the company's competitive advantages, regognized how synergistic the businesses were and their true long-term competitive advantages.]

1) **Qualcomm is an extremely high-quality business, is misunderstood by the market, and has competitive advantages that "the market" is yet to realize:**

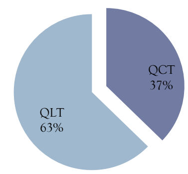
General Overview:

- Qualcomm is a developer and manufacturer of digital communications products and solutions. They are a significant force in the semiconductor industry. They operate principally through two segments:
  - **Qualcomm CDMA Technologies ("QCT")**: A 'true' semiconductor firm, largely comparable to other large fabless semiconductor manufacturers. They manufacture integrated circuits and chipsets with principal applications in smartphones, in which they have an implied market share of ~70%
    - QCOM receives approximately $20 per chip that they sell
  - **Qualcomm Technology Licensing ("QTL")**: QCOM's licensing arm, which licenses their intellectual property to nearly every smartphone manufacturer. QTL's patent portfolio includes many "mission critical" solutions which are required for smartphones to meet international 3G / 4G / LTE standards, so they earn licensing revenue from effectively every smartphone that is sold
    - QCOM receives approximately 3% of each device's sales price
    - These licensing revenues are a function of both total smartphones sold and the device price; smartphone purchases are expected to increase at over 20% per annum through 2018, however, much of this growth will come from emerging markets, which have lower device prices
  - QCOM's management believes they will continue net gains in licensing revenue, as the increase in global device sales will continue to outweigh decreases in price
  - ***Qualcomm's replacement value is less than 50% of their earnings power value, implying they have a substantial competitive advantage***

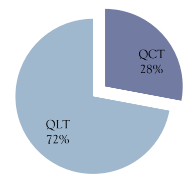
LTM Revenue by Segment



LTM EBT by Segment



LTM FCF by Segment



High Quality Business: *[Exhibit 1]*

- Quantitatively, QCOM's performance indicates that they have a long-term competitive advantage, as evidenced by:
  - High EBIT Margins (>20%): A long-term average EBIT margin of over 33%, only dropping below 30% in three out of sixteen periods (the periods were 2000-2002)
  - High (and increasing) Return on Tangible Capital: An indicator that the business has profitable re-investment opportunities, QCOM has a long-term ROTC of 291%; which has increased more than 3x, from an average of 137% in the first half of the periods evaluated to an average of 445% in the second half of all periods

Competitive Advantages: *[Exhibit 2]*

- **Scale:** QCOM benefits from their high revenue (relative to competitors) allowing them to out-spend every peer (ex Intel) on R&D
  - Once QCOM develops a new technology, they take action to develop multiple variances of this technology
  - And provide additional functionality which allows their chipsets to be integrated with multiple types of technology

"Here's our evaluation of the efforts to go internal [for smartphone manufacturers to develop their own chipsets]. They actually tend to be more expensive than if you had bought them externally, particularly when you amortize the R&D investment across all of the many different technologies that are required to produce and integrate it or a mobile smartphone offering. In fact, I would say, particularly, given the fact that in some cases people are launching very early in the node, you really pay a penalty for yield. And our estimate is that it would be quite expensive right now to be launching without good yield."

-Steve Mollenkopf, CEO of Qualcomm, 4/22/15 earnings conference call

- **Incumbency:** QCOM has 65-75% market share in the smartphone chipset industry. They are protected by **high switching costs,** as developers creating newer models prefer to work with system architectures with which they are familiar
- And as discussed above, their technology integrates with many additional communications components; technologies which would have to be developed on a product-by-product basis depending on which components are used

<u>The Real Secret Sauce:</u>

- 'Hidden' Business Model:
  - **Semiconductor Company?** Qualcomm is widely known as a semiconductor developer and producer, selling chips and related components to OEMs globally
  - This business has been consistently growing (until recently), and has operated at a ~20% EBIT margin (which has been steadily declining for the prior 15 years)
  - BUT the truth is that Qualcomm is more than just a semiconductor supplier; in fact, I would consider their model most comparable to that of Best Buy (the consumer electronics retailer), in which the 'face' business and majority of revenue come from one segment (retail sales), but this segment effectively exists as an engine to drive warranty sales (which account for 2/3 of their profit)

- QCT, the actual chipset supplier, contributes over 2/3 of revenue at a modest profit; however, they truly exist as an engine which creates mission-critical intellectual property, subsequently licensed out at extremely high margins by QTL (which accounts for over 2/3 of the profit)

The Magic Cycle: *[Exhibit 3]*

- QCT develops new technology through R&D activities, concurrently patenting this intellectual property, which QLT then licenses out to customers
- The true end game is to invest R&D in chipsets and related software, create these chipsets in scale (as they are the market leader in these specialized smartphone (and tablet) components), become integrated into the foundational technology which powers these (and new) devices, and ultimately become the standard for said devices – licensing the right to use the IP related to the technology in perpetuity

This is a truly long-term business model, with continuous compounding of earnings for long-term multi-bagger potential

- **Synergies across QCT and QLT Segments:** *[Exhibit 3]*
  - **Development:** QCT, which develops new technology through R&D activities, concurrently patenting this intellectual property, which QLT then licenses out to customers
  - **Integration:** QCOM owns nearly the entire smartphone chipset platform, allowing them to integrate innovations into multiple variants across market segments
  - **Integration (again):** QCOM owns (and has created) the foundational technology for CDMA and 3G / 4G technology. This first-mover advantage has blossomed into a broad competitive advantage, and their technology is generally superior, but also significantly more versatile – for example, custom (or in-house) chipsets are generally produced with the intention of integrating with specific technologies or components – QCOM's technologies are consistently refreshed to integrate with multiple types of related technology, making them more competitive and preferable to customers – with the added benefit of creating additional IP to license
  - **Collection:** Qualcomm's status as both a chipset and IP vendor provides them with unparalleled leverage to collect licensing fees at a lower cost, simply by denying physical delivery of the chipsets until all fees are paid. This allows their licensing segment to operate at much higher margins than companies which solely license IP or which provide products un-related to their IP

For these reasons, I do not believe the proposed split by JANA partners is either economically viable or feasible

Segment Overview: Two disparate, but highly synergistic, segments with drastically different profiles *[Exhibit 4], [Exhibit 5]*

QTL (Licensing Segment): The "Crown Jewel" which drives significant value for the firm:

- Licensing revenue is stable and growing:
  - An 18.5% CAGR over the prior 15 years
  - Grown every year, with the exception of 2009 –
    - *During the worst economic recession in modern history, revenue declined by under 0.5%*
  - Over the prior 15 years, EBT margins have remained remarkably consistent at an average of 88%
    - Even during the great recession, profit margins for this segment dropped by only 1.5%, rebounding to average levels within two years

Wide Competitive Moat and Structurally Misunderstood Business:

- Many of QCOM's patents are mission-critical to the use of smartphones, including those necessary for 3G and 4G connectivity
  - There is a **widespread misunderstanding** about the critical nature of these technologies, and a **common misconception** (even among research analysts) that QCOM's IP will become irrelevant with the rise of LTE technology (in which they have a proportionately smaller share of critical IP)
  - Due to the dynamics of the mobile phone industry, this is simply incorrect
  - As a result of various regulatory standards, inter-device communication requirements, and reliability / roaming connectivity issues, **all smartphones must be backwards compatible with respect to connectivity technology**
    - Anecdotally, notice how your smartphone is marketed as an LTE device, it also includes functionality for 2G and 3G connectivity – would smartphone manufacturers really want to pay royalties for this technology if its inclusion was not absolutely necessary?
  - **Conclusion:** Qualcomm's intellectual property will remain relevant (and necessary) for decades, effectively positioning this segment as a long-term perpetuity, even without growth (which has been steady and is expected to continue. *QCOM will continue to receive royalties from every smartphone that is sold for the foreseeable future*

Additional QTL Misconceptions:

Misconception	Reality
QTL's revenue, which is driven by sales price and unit volume, will necessarily fall as the majority of new growth will come from emerging markets, with much lower ASPs	The growth in emerging markets outweighs even the most draconian forecasts for decrease in ASP - under these circumstances, Licensing revenue will grow at a 4% CAGR (minimum) through 2018 QTL's customer base tends to be at the higher and middle end of the market, as QCOM's licensing customers have higher ASPs than the market average
QTL only has 100 trillion patents, while major competitors such as Intel have 200 gazillion patents [Numbers are 'approximate' and solely given for dramatic effect]	"It's not the size, its how you use it" QTL has about 40,000 active patents, approximately the same amount as competitor Ericsson, yet they generate over 7x the revenue from their portfolio I've conducted a detailed analysis of QTL's patent portfolio (see appendix). In truth, they have 2,117 'unique' patents - the rest are effectively the same intellectual property which have been patented across local markets globally
QTL can continue operating with the same growth and margins as an independent entity	Please see above for rationale as to why this is not true In my analysis of QTL's patents, I've calculated a 'run-off' value of $35.3Bn should they simply license the same portfolio of patents through their expiration, a fraction of the value as a going concern
Patents can (and do) expire, gradually eroding any competitive advantages or protections which QTL may have over the long term	"Rules are made to be broken" Much like pharmaceutical firms, which add (effectively useless) ancillary features onto existing IP which faces patent expiry in order to retain protection of the original IP, QCOM can make tiny adjustments to IP and retain patent protection over the long-term [If I were to look into this further, I would want to understand how this exact legal mechanism works - this was related to me by QCOM's Director of IR, Amy Berguson, who would be incentivized to make this claim and I very much doubt has a background in international patent law]

QCT (Chipset Segment): The "Ugly Sister" which provides some value to the firm, but principally exists to drive licensing revenue:

- Much like "Best Buy", whose retail sales drive their true profit engine (warranties), QCT's R&D activities create the opportunity for QLT to exist
- However, as a standalone entity, QCT's profile is less than ideal
  - Prior to FY15, QCT had grown nearly every year, at a 21.4% CAGR
  - However, margins for this segment have steadily declined over that period
  - Overall, EBT has grown, as the rate of growth exceeded the decline in margins
  - However, due to the loss of major customer share (Samsung) and mid-term headwinds in the Chipset business (OEMs pushing back release of new products), management has reduced guidance for this segment
  - They are now projecting a 6% YoY revenue decline and a decline in EBT margins to 15.5% - The first YoY decline since 2009, and the lowest EBT margin of all time

Chipset Challenges:

- Qualcomm is facing increasing pressure in their chipset segment
  - Primarily, there is an increasing trend of communications customers bringing their designs in-house – Apple did so several years ago, and Samsung recently did the same
    - Samsung contribute(d) 28% of QCT's revenue for FY2014. QCOM's management estimates that this is a $900mm revenue hit, or 17% of their business from Samsung
    - This leaves Samsung with approximately 60% market share in the MSM category
    - Management believes that their next generation of chips will be significantly more advanced, and therefore competitive, and are likely to be included in Samsung's next product cycle; however, the 'high switching costs' cut both ways, so I discount this possibility
  - Additionally, Intel has been making significant investments into the communications semiconductor space, burning $4+ billion of cash in the LTM in order to compete with QCOM
    - Not only is this a difficult competitive position, but QCOM must now continue investing in R&D (at higher-than-otherwise-necessary levels) in order to keep up with Intel and retain share Anecdotally, notice how your smartphone is marketed as an LTE device, it also includes functionality for 2G and 3G connectivity – would smartphone manufacturers really want to pay royalties for this technology if its inclusion was not absolutely necessary?
    - Other competitors, such as Marvell and MediaTek, have been closing in on QCOM's share as well, particularly in emerging markets such as China

The Great Debate: Is Qualcomm's chipset division structurally challenged or facing a temporary setback?

Structural	Temporary
Trend of major OEMs (Apple, Samsung) insourcing their chip production for mobile devices is the biggest competitive threat that Qualcomm faces (per Amy Berguson, Director of Investor Relations, Qualcomm)	Chipset demand fluctuates by launch cycle Samsung elected not to use QCOM's Snapdragon 810 chip in their newest smartphones and tablets BUT: There is a reason for doing this, and QCOM believes they have learned from the experience: In order to accelerate the launch for their newest chip (Snapdragon 810), Qualcomm licensed the 64-bit core from a third-party firm This resulted in a lack of differentiation of QCOM's newest chip from their competitors (and from Samsung's internal capabilities)
Qualcomm has (and has recognized) that they have a "premium-tier" issue, in that their chipset customer base is highly concentrated among premium smartphone and tablet manufacturers	HOWEVER: Other major customers, including Xiaomi and LG, have continued to use the Snapdragon 810 in their products
This presents multiple challenges for QCOM: Apple and Samsung are gaining share and have more frequent customer refresh cycles; although QCOM does sell certain components to them (such as modems within the Apple iPhone) and will continue to receive royalties from them, for every unit sold by these majors, that is one less unit being sold with a Snapdragon chipset	AND: Qualcomm's management has learned from the experience, and now produces their own 64-bit cores They are highly optimistic regarding the prospects for the next Snapdragon model, which will be released at EOY 2015 And believe they are in contention to 'win back' all or part of this business at Samsung's next product launch, anticipated Summer 2016 Qualcomm's chips are generally considered to be 'cutting-edge' technology, and they are leaders in innovation, particularly with respect to smartphone components
In order to reduce 'premium-tier' concentration, Qualcomm will eventually need to move 'down-market', with much lower ASPs and a significantly more fragmented customer base (higher selling cost)	*But the question remains, can they execute on this plan and regain lost share?*

Although this particular loss of share was due to what Qualcomm's management believes was a blunder (in licensing from a third party), it is important to remember that losing this business has negative implications for multiple periods (sometimes years) - their chipsets will only be considered once there has been a product refresh on QCOM's end and a new product launch on the OEMs' end

Ultimately, forecasting demand for chipsets is extremely difficult, and one-time misses (such as the Snapdragon 810) can result in lowered revenue and margins for many periods

- Although I am under the impression that this setback was only temporary, the chipset business remains highly variable, is extremely difficult to forecast, and continues to face competitive pressure

2) **Catalysts for Value:** Activist investors may accelerate the accretion of value to shareholders. While I believe this is ultimately a long-term buy, due to their competitive advantages across both the hardware and software of connectivity technology, I believe these activists may catalyze management to actively pursue strategies to more immediately drive value.

- That being said, Qualcomm management has a history of returning value to shareholders:
  - Committed to return 75% of free cash flow to shareholders through either dividends or share repurchases during the first quarter of fiscal 2014
  - Announced that, incremental to those returns, the Board of Directors had authorized a $15bn share repurchase program, of which $850mm has already been deployed, repurchasing over 12mm shares
  - Additionally committing to return $10bn within the 12-month period ending March 2016
- There has been a massive shift in 'true capital allocation policy, and the timing speaks for itself:
  - As of March 4, 2014, Steve Mollenkopf ("SM") earned the title of CEO at Qualcomm – He immediately implemented a policy of true value return to shareholders, additional to notable changes which have also **not been recognized by the investment community**
- Primarily, SM has drastically altered the firm's 'true' shareholder value return; but this has gone largely unnoticed
- Wall Street, Investors, and others see the chart on the left – a significant **(gross)** return of capital to shareholders; while in fact, the net return to shareholders was negative
  - IE, the firm was issuing more new shares than they were repurchasing – but only highlighting their repurchases. As is evident, following SM's transition to CEO, value return to shareholders increased on both a gross and net basis [Exhibit 6]
- SM has additionally made capital allocation decisions which are not widely trumpeted, but are nonetheless more fiscally responsible than those of his predecessor
  - In particular, SM put an end to the firm's policy of selling put options in addition to repurchasing shares (in order to 'juice' returns)
  - This policy works in a 'rising tide' situation (ie in a bull market); however, the risks far outweigh the benefits (Dell lost over $2bn in 2000 from this policy, since that time it has become largely out of favor
- In spite of these improvements, on April 13, 2015, JANA Partners publicly disclosed their stake (of approximately $2Bn), and their prior discussions with management, in which they urged Qualcomm's management to increase shareholder value by exploring multiple options:
  - A spin-off of the chipset business (QCT); acceleration of share buybacks; improvement of executive compensation structure, cost cuts, and strategic Mergers & Acquisitions
- JANA described the conversations with Qualcomm's management as "constructive"
  - However, on that same day, QCOM issued a response, stating that they believe the benefits from synergies outweigh any incremental value from a split, and that they are "always exploring options to enhance shareholder value"
- JANA has a track record of successfully creating value through shareholder activism
  - Of the 23 comparable campaigns they have launched within the last decade, only 3 (13%) have been unsuccessful
  - This is also JANA's largest position by far, representing over 16% of their total invested capital
  - Their next largest investment, Walgreens, is only 50% of this amount
- However, of the suggestions made:
  - A split of the business is not possible; QCOM has already accelerated share repurchases; and has implemented measures to cut costs
  - Executive compensation can be improved, as the current compensation model is based entirely on short-term gains in share pricing
  - Ideally, changes to the executive compensation structure would include meeting long-term goals, improving actual business fundamentals (such as a high ROIC or increases in free cash flow

<u>Why isn't the proposed split possible?</u>

- Primarily due to the synergies discussed previously, plus supporting commentary [Exhibit 8]
- I believe another strategy may be more compelling:
  - With minimal amounts of net leverage, QCOM can drastically increase share repurchases and value to shareholders (analysis below)

3) **Valuation and Methodology:** I utilized multiple valuation methodologies to evaluate Qualcomm, and have concluded that they are undervalued in multiple scenarios:

- An earnings power valuation implies 25% upside *[Exhibit 7]*
- A discounted future share price (under run-rate capital allocation, minimal leverage, and heavy leverage) implies 65% upside
- I believe that this methodology is may most accurately reflect the true value of the business to shareholders, as Qualcomm's capital structure retains significantly more cash than is necessary for operations
- I additionally included further methodologies in order to 'back up' my response. These have not been accounted for in the valuation.

Exhibit 1:

Exhibit 1 – Business Quality

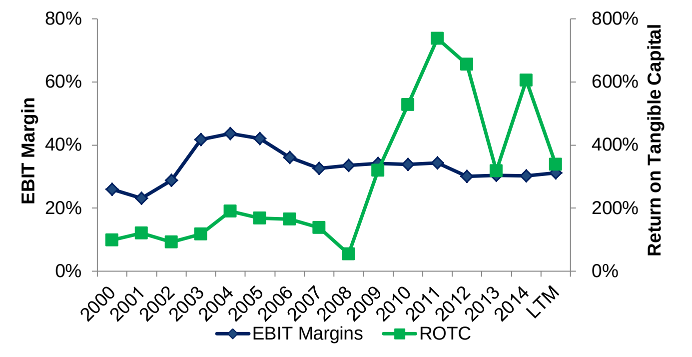


Exhibit 2 – LTM R&D Spend by Company

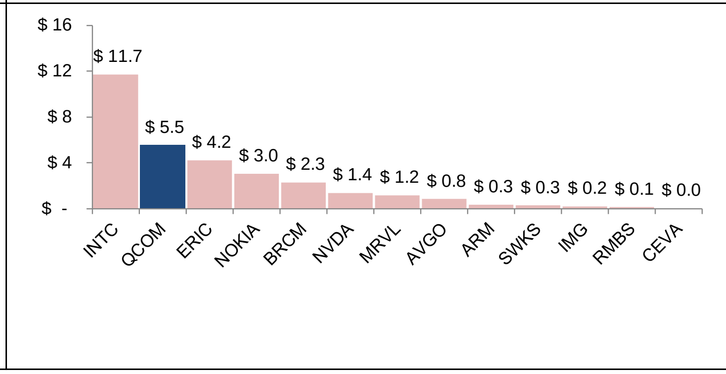
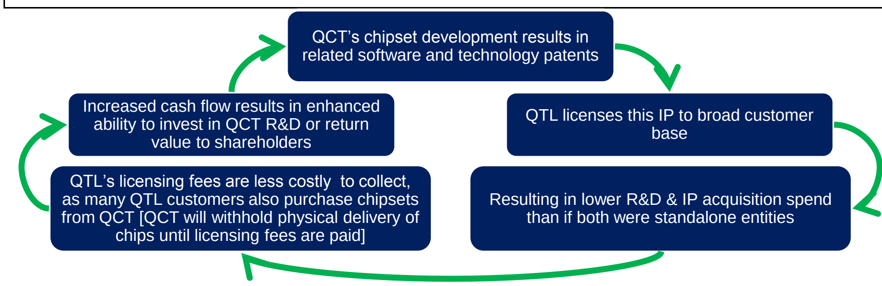
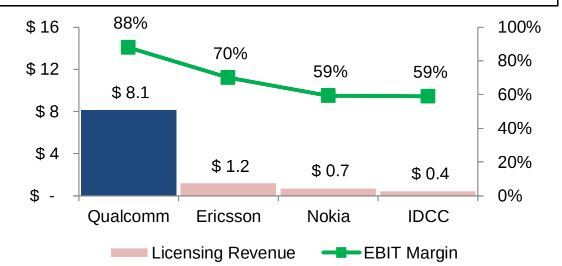


Exhibit 3 – “Magic Cycle”, Segment Synergies, and Margins relative to competitors





Advantage Relative to Others

Due to the nature of our business, we could be involved in a number of costly litigation, arbitration and administrative proceedings to enforce our intellectual property rights.

While some companies seek licenses before they commence manufacturing and/or selling devices that use our patented inventions, most do not. Consequently, we approach companies and seek to establish license agreements for using our inventions. We expend significant time and effort identifying users and potential users of our inventions and negotiating license agreements with companies that may be reluctant to take licenses. However, if we believe that a third party is required to take a license to our patents in order to manufacture, sell, offer for sale, import or use products, we may commence legal or administrative action against the third party if they refuse to enter into a license agreement with us. In turn, we could face counterclaims that challenge the essential nature of our patents, that our patents are invalid, unenforceable or not infringed or that we have not complied with certain commitments to standards-setting organizations (for example, that our royalty rates or other licensing terms and conditions are allegedly other than fair, reasonable and nondiscriminatory). As a result of enforcing our patents, we could be subject to significant legal fees and costs, including the costs and fees of opposing counsel in certain jurisdictions if we are unsuccessful. In addition, litigation, arbitration and administrative proceedings require significant key employee involvement for significant periods of time, which could divert these employees from other business activities.

In addition, the cost of enforcing and defending our intellectual property has been and may continue to be significant. Litigation may be required to enforce our intellectual property rights, protect our trade secrets, enforce patent license and confidentiality agreements or determine the validity, enforceability and scope of proprietary rights of others. In addition, third parties could commence litigation against us seeking to invalidate our patents or obtain a determination that our patents are not infringed, are not essential, are invalid or are unenforceable. As a result of any such litigation, we could lose our proprietary rights or incur substantial unexpected operating costs. Any action we take to protect our intellectual property rights could be costly and could require significant amounts of time by key members of executive management and other personnel.

(IDCC CY2014 10-K)

General trends in IPR licensing

In general, there has been increased focus on IPR protection and licensing, and this trend is expected to continue. As such, new agreements are generally a product of lengthy negotiations and potential litigation or arbitration, and therefore the timing and outcome may be difficult to forecast. Due to the structure of the patent license agreements, the payments may be very infrequent, at times retrospective in part, and the lengths of license agreements can vary.

Additionally, there are clear regional differences in the ease of protecting and licensing patented innovations. We have seen some licensees actively avoiding license payments, and some licensors using aggressive methods to collect them, both behaviors attracting regulatory attention. We expect the discussion on the regulation of licensing to continue on both a global and regional level. Some of those regulatory developments may be adverse to the interests of technology developers and patent owners, including Nokia.

(Nokia CY2014 10-K)

Exhibit 4 – QTL Segment Performance

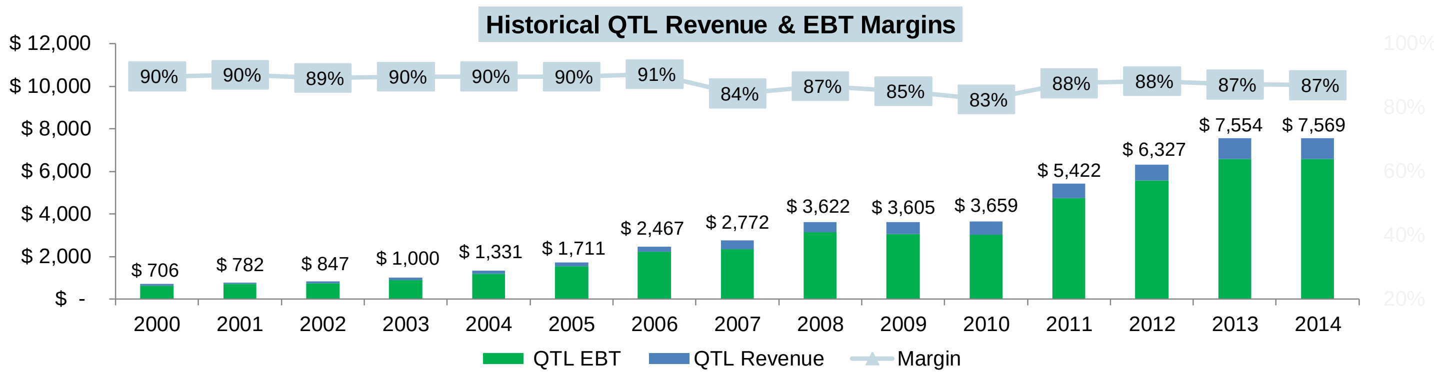


Exhibit 5 – QCT Segment Performance

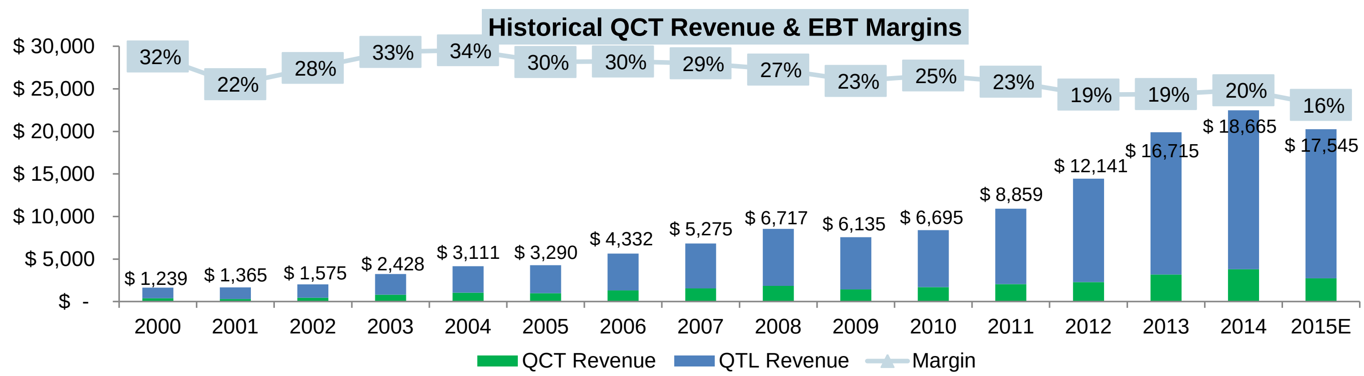
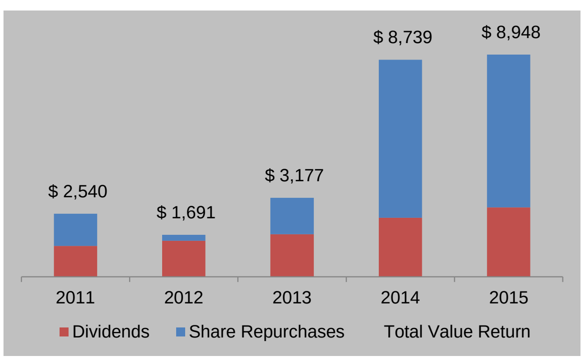


Exhibit 6 – 'True' value return to shareholders

Investors See This:



Qualcomm is Doing This:

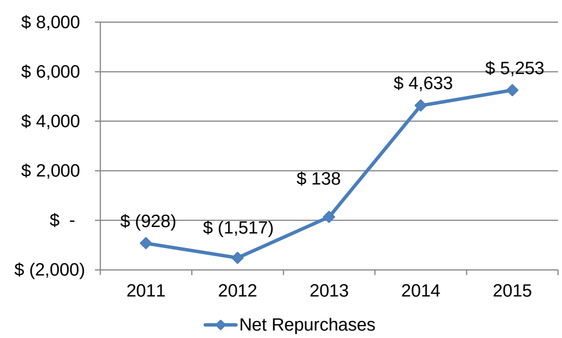


Exhibit 7 – Reproduction Value and Earnings Power Value

Adjusted Balance Sheet	BS Value	Adjustment	Adjusted Value
Cash and cash equivalents	$ 5,492		$ 5,492
Marketable securities	10,063		10,063
Accounts receivable, net	2,058	85%	1,749
Inventories	1,861	60%	1,117
Deferred tax assets	533		
Other current assets	733	60%	440
Total current assets	$ 20,740		$ 18,861
Marketable securities	14,055		14,055
Deferred tax assets	1,049		1,049
Property, plant and equipment, net	2,523		2,523
Goodwill	4,388	50%	2,194
Other intangible assets, net	2,482	50%	1,241
Other assets	1,936	50%	968
Total assets	**$ 47,173**		**$ 40,891**

Marketing / Brand / Sales Value	
L3Y SG&A Margin	10.2%
Current Revenue	$ 27,563
Implied Value	$ 2,815
R&D Value	
L3Y R&D	$14,359
Asset Value	**$ 58,065**
Cash Needed for Business	
Sales	$ 27,563
% of Sales	1%
Cash Needed for Business	$ 276
Debt	$ 1,096
Cash & Securities	29,610
Excess Cash	$ 28,238
Final Asset Value	**$ 29,826**
/ FDS	1,667
Implied Value / Share	**$ 17.9**

EPV

Earnings Power Value		
Normalized Revenue		$ 25,092
Normalized EBIT Margins		30.0%
Normalized EBIT		$ 7,528
Plus: SG&A Add-Back		$ -
Plus: R&D Add-Back	50%	2,767
Adjusted EBIT		$ 10,294
Normalized Tax Rate		18.4%
Adjusted Earnings after Tax		$ 8,399
D&A		1,150
CapEx		(1,185)
[D&A and CapEx approximately equal, implies D&A = MTC CapEx		
Plus: D&A		$ 1,150
Normalized Adjusted Income		$ 9,549
Less: Maintenance CapEx		(1,150)
Earnings Power		**$ 8,399**
Discount Rate		7.50%
Implied TEV		**$ 111,984**
Plus: Excess Cash		28,238
Implied Market Cap		**$ 140,223**
/ FDS		1,667
Implied Price / Share		**$ 84.1**
Earnings Power Value		**$ 84.1**
Asset Reproduction Value		$ 17.9
Difference		$ 66.2

Exhibit 8 – Supporting Commentary Regarding Split

"JANA believes that legal structures exist that would allow the newly independent companies to retain their synergies; However, both possible alternatives to a clean split (a shared pool or an OpCo / IPCo relationship) are highly complex and open to significant legal and regulatory challenges"

-Conversation with James Faucette, Morgan Stanley Equity Research, 4/24/15

"A spin or split is not even remotely feasible. You're right that the dissynergies from this proposed transaction would far outweigh any potential benefits; but almost as compelling is that management revisits this strategy every several years for more than a decade, and on each occassion they determine it is not viable"

-Conversation with David Wong, Wells Fargo Equity Research, 4/24/15

"Our Board of Directors and management periodically review our corporate structure. Prior reviews have concluded that the synergies provided by our business model create more value for stockholders than could be created through alternative

corporate structures. We will continue to evaluate opportunities to enhance stockholder value and are committed to pursuing the right course of action for all of our stockholders."

-Qualcomm Management, Response to JANA Partners' letter to management, 4/13/2015

Additional Exhibits:

Base / Downside / Upside Valuation utilizing Different Methodologies

QCOM Consolidated Valuation - Base

Valuation Summary	Value	Weight
DCF	$ 120,282	25%
Multiples	131,409	25%
DFSPx	180,396	40%
SOTP	138,601	10%
Weighted Average Equity Value		**$ 148,941**

DCF	
Perpetual Growth	$ 137,722
EBITDA Exit	107,739
P/E Exit	115,384
Average	$ 120,282

	Multiple	Metric	Plus Cash	Valuation
P/E				
LTM	20.4x	$ 7,342		$ 149,734
NTM	16.2x	6,500		105,214
Historical	16.6x	7,342		122,032
Average				$ 125,660
P / FCF				
LTM	23.7x	$ 7,597		$ 180,048
NTM	20.0x	6,327		126,468
Historical	18.7x	7,597		142,252
Average				$ 149,590
TEV / EBITDA				
LTM	13.8x	$ 9,866	$ 20,430	$ 136,431
NTM	12.0x	8,807	20,430	105,873
Historical	12.6x	9,866	20,430	124,009
Average				$ 122,104
TEV / EBIT				
LTM	17.5x	$ 8,774	$ 20,430	$ 153,787
NTM	13.3x	7,686	20,430	102,514
Historical	14.7x	8,774	20,430	128,551
Average				$ 128,284
Discounted Future Share Price				
Base Case				$ 165,763
Some Leverage				178,441
Heavy Leverage				196,985
Average				$ 180,396
Sum-Of-The-Parts				
Chipset Business				
DCF			$ 10,215	$ 39,635
NTM P/E Multiple	16.2x	7,396		119,708
TEV / EBIT Multiple	17.5x	2,303	$ 10,215	40,369
Average				$ 66,571
Licensing Business				
Runoff Value			$ 10,215	$ 45,541
DCF				78,082
NTM P/E Multiple	17.7x	5,814		102,862
TEV / Revenue Mul	6.3x	8,121	$ 10,215	61,637
Average				$ 72,030
SOTP Total				$ 138,601

QCOM Consolidated Valuation - Downside

Valuation Summary	Value	Weight
DCF	$ 75,706	25%
Multiples	111,861	25%
DFSPx	138,795	40%
SOTP	112,204	10%
Weighted Average Equity Value		**$ 113,630**

DCF	
Perpetual Growth	$ 72,789
EBITDA Exit	80,431
P/E Exit	73,898
Average	$ 75,706

	Multiple	Metric	Plus Cash	Valuation
P/E				
LTM	17.6x	$ 7,342		$ 129,500
NTM	14.0x	6,083		85,152
Historical	14.4x	7,342		105,541
Average				$ 106,731
P / FCF				
LTM	20.5x	$ 7,597		$ 155,717
NTM	17.3x	5,969		103,186
Historical	16.2x	7,597		123,029
Average				$ 127,311
TEV / EBITDA				
LTM	12.0x	$ 9,866	$ 20,430	$ 117,995
NTM	10.4x	8,394	20,430	87,270
Historical	10.9x	9,866	20,430	107,251
Average				$ 104,172
TEV / EBIT				
LTM	15.2x	$ 8,774	$ 20,430	$ 133,005
NTM	11.5x	7,239	20,430	83,504
Historical	12.7x	8,774	20,430	111,179
Average				$ 109,229
Discounted Future Share Price				
Base Case				$ 113,016
Some Leverage				143,977
Heavy Leverage				159,392
Average				$ 138,795
Sum-Of-The-Parts				
Chipset Business				
DCF			$ 10,215	$ 19,900
NTM P/E Multiple	14.0x	7,396		103,531
TEV / EBIT Multiple	15.2x	2,303	$ 10,215	34,914
Average				$ 52,782
Licensing Business				
Runoff Value			$ 10,215	$ 45,541
DCF				48,500
NTM P/E Multiple	15.6x	5,696		88,961
TEV / Revenue Mul	5.5x	8,121	$ 10,215	54,688
Average				$ 59,423
SOTP Total				$ 112,204

QCOM Consolidated Valuation - Upside

Valuation Summary	Value	Weight
DCF	$ 213,931	25%
Multiples	154,541	25%
DFSPx	291,940	40%
SOTP	179,303	10%
Weighted Average Equity Value		**$ 226,824**

DCF	
Perpetual Growth	$ 291,153
EBITDA Exit	153,158
P/E Exit	197,483
Average	$ 213,931

	Multiple	Metric	Plus Cash	Valuation
P/E				
LTM	23.2x	$ 7,342		$ 169,969
NTM	18.4x	7,434		136,576
Historical	18.9x	7,342		138,523
Average				$ 148,356
P / FCF				
LTM	26.9x	$ 7,597		$ 204,379
NTM	22.7x	7,157		162,392
Historical	21.3x	7,597		161,475
Average				$ 176,082
TEV / EBITDA				
LTM	15.7x	$ 9,866	$ 20,430	$ 154,868
NTM	13.6x	9,806	20,430	133,811
Historical	14.3x	9,866	20,430	140,767
Average				$ 143,149
TEV / EBIT				
LTM	19.9x	$ 8,774	$ 20,430	$ 174,569
NTM	15.1x	8,667	20,430	131,235
Historical	16.6x	8,774	20,430	145,922
Average				$ 150,575
Discounted Future Share Price				
Base Case				$ 282,860
Some Leverage				281,338
Heavy Leverage				311,621
Average				$ 291,940
Sum-Of-The-Parts				
Chipset Business				
DCF			$ 10,215	$ 78,296
NTM P/E Multiple	18.4x	7,396		135,885
TEV / EBIT Multiple	19.9x	2,303	$ 10,215	45,824
Average				$ 86,668
Licensing Business				
Runoff Value			$ 10,215	$ 45,541
DCF				139,649
NTM P/E Multiple	19.4x	6,009		116,762
TEV / Revenue Mul	7.2x	8,121	$ 10,215	68,586
Average				$ 92,634
SOTP Total				$ 179,303

Comparable Firm Metrics

QUALCOMM Incorporated Valuation Metrics															
	Stock Price		Market Cap					Enterprise Value						Effective	Return on
Name	Close	52-Wk Hi / Low	Current	/ LTM NI	/ NTM NI	/ LTM FCF	/ NTM FCF	Current	/ LTM EBITDA	/ NTM EBITDA	/ LTM EBIT	/ NTM EBIT		Tax Rate	Tang. Cap.
Avago Technologies Limited	$ 119.50	$ 136.28 / $ 60.01	$ 30,662	NA	12.1x	28.7x	19.0x	$ 33,593	17.6x	11.3x	30.2x	11.9x		7.4%	77.4%
Broadcom Corp.	44.46	$ 46.81 / $ 29.30	26,587	38.2x	14.0x	25.5x	12.1x	25,229	14.1x	12.1x	17.1x	13.1x		2.9%	151.0%
Ericsson	11.41	$ 13.90 / $ 8.98	36,889	29.6x	15.8x	NA	NA	32,424	8.9x	9.0x	12.4x	12.2x		29.5%	46.4%
Intel Corporation	32.08	$ 37.90 / $ 25.74	152,129	12.9x	13.7x	14.8x	11.0x	151,244	6.2x	6.3x	9.6x	10.8x		25.6%	76.9%
Marvell Technology Group Ltd.	14.31	$ 16.78 / $ 11.65	7,311	16.8x	14.2x	9.5x	8.5x	4,782	4.9x	4.3x	6.3x	6.1x		NA	175.5%
Nokia Corporation	7.77	$ 8.55 / $ 5.57	28,140	20.0x	22.3x	35.1x	41.6x	22,548	26.7x	17.8x	32.0x	20.6x		NA	-68.1%
NVIDIA Corporation	22.03	$ 23.61 / $ 16.77	12,186	19.3x	14.9x	15.8x	14.1x	8,961	9.2x	8.1x	11.8x	11.4x		16.5%	112.7%
Skyworks Solutions Inc.	93.39	$ 102.77 / $ 39.95	17,840	31.9x	18.0x	22.3x	26.4x	16,790	19.9x	13.2x	23.8x	15.3x		19.9%	79.3%
ARM Holdings plc	17.99	$ 18.71 / $ 11.81	25,397	NA	35.9x	50.7x	36.3x	24,348	43.8x	30.1x	47.9x	31.6x		18.7%	1090.7%
CEVA Inc.	21.63	$ 23.47 / $ 12.56	446	NA	NA	55.5x	62.1x	344	NA	38.2x	NA	46.6x		140.3%	-57.1%
Imagination Technologies Group Plc	3.19	$ 4.05 / $ 2.52	860	NA	28.8x	13.0x	12.1x	901	8.8x	8.0x	14.3x	7.6x		NA	48.2%
Rambus Inc.	13.99	$ 14.82 / $ 9.87	1,615	NA	21.1x	24.4x	22.8x	1,453	14.1x	12.9x	23.0x	12.2x		46.3%	182.0%
Average	$ 33.48		$ 28,339	24.1x	19.2x	26.8x	24.2x	$ 26,885	15.8x	14.3x	20.8x	16.6x		34.1%	159.6%
Median	$ 19.81		$ 21,618	20.0x	15.8x	24.4x	19.0x	$ 19,669	14.1x	11.7x	17.1x	12.2x		19.9%	78.4%
QUALCOMM Incorporated	**$ 68.24**	**$ 81.97 / $ 62.26**	**$ 111,202**	**15.1x**	**17.1x**	**14.6x**	**17.6x**	**$ 96,738**	**9.8x**	**11.0x**	**11.0x**	**11.0x**		**16.7%**	**358.5%**
Percentile	*86.2%*		*96.7%*	*9.5%*	*55.8%*	*19.3%*	*47.0%*	*95.7%*	*41.3%*	*44.1%*	*16.4%*	*20.5%*		*26.2%*	*92.6%*

QUALCOMM Incorporated Operating Metrics															
	Revenue			Gross Profit		EBITDA			EBIT			Net Income		CFO - MTC CapEx (FCF)	
Name	LTM	Growth	NTM Growth	LTM	Margin	LTM	Margin	NTM Margin	LTM	Margin	NTM Margin	LTM	NTM	LTM	NTM
Avago Technologies Limited	$ 5,195	95.8%	34.5%	$ 2,944	56.7%	$ 1,907	36.7%	42.4%	$ 1,113	21.4%	40.3%	$ 513	$ 2,525	$ 1,067	$ 1,611
Broadcom Corp.	$ 8,502	2.1%	1.7%	$ 4,463	52.5%	$ 1,793	21.1%	24.1%	$ 1,473	17.3%	22.3%	$ 696	$ 1,895	$ 1,042	$ 2,192
Ericsson	$ 27,127	(21.1)%	3.6%	$ 9,912	36.5%	$ 3,651	13.5%	12.9%	$ 2,612	9.6%	9.4%	$ 1,248	$ 2,332	$ (242)	$ 4,358
Intel Corporation	$ 55,887	5.7%	1.2%	$ 35,726	63.9%	$ 24,394	43.6%	42.2%	$ 15,715	28.1%	24.7%	$ 11,766	$ 11,125	$ 10,313	$ 13,808
Marvell Technology Group Ltd.	$ 3,707	8.9%	(3.5)%	$ 1,863	50.3%	$ 551	14.9%	17.8%	$ 430	11.6%	16.3%	$ 435	$ 514	$ 658	$ 499
Nokia Corporation	$ 15,411	(11.9)%	(4.2)%	$ 6,824	44.3%	$ 2,106	13.7%	14.7%	$ 1,747	11.3%	12.5%	$ 1,408	$ 1,261	$ 1,235	$ 1,414
NVIDIA Corporation	$ 4,682	13.3%	4.7%	$ 2,599	55.5%	$ 979	20.9%	22.7%	$ 759	16.2%	16.1%	$ 631	$ 819	$ 773	$ 863
Skyworks Solutions Inc.	$ 2,592	40.6%	26.1%	$ 1,174	45.3%	$ 845	32.6%	38.8%	$ 705	27.2%	33.6%	$ 558	$ 990	$ 801	$ 676
ARM Holdings plc	$ 1,242	1.9%	24.3%	$ 1,183	95.3%	$ 556	44.8%	52.4%	$ 508	40.9%	49.9%	$ 413	$ 707	$ 501	$ 700
CEVA Inc.	$ 51	3.9%	11.1%	$ 46	90.2%	$ 3	6.2%	15.9%	$ 2	3.5%	13.1%	$ (1)	$ 8	$ 8	$ 7
Imagination Technologies Group Plc	$ 268	1.1%	6.1%	$ 240	89.5%	$ 2	0.8%	18.2%	$ (9)	(3.4)%	12.0%	$ (13)	$ 30	$ 1	$ 14
Rambus Inc.	291	2.9%	9.1%	249	85.3%	103	35.3%	35.4%	63	21.7%	37.5%	$ 28	$ 77	66	71
Average	$ 10,413	11.9%	9.6%	$ 5,602	63.8%	$ 3,074	23.7%	23.7%	$ 2,093	17.1%	24.0%	$ 1,474	$ 1,857	$ 1,352	$ 2,185
Median	$ 4,194	3.4%	5.4%	$ 2,231	56.1%	$ 912	21.0%	21.0%	$ 732	16.8%	19.3%	$ 536	$ 905	$ 716	$ 782
QUALCOMM Incorporated	**$ 27,491**	**6.9%**	**(10.4)%**	**$ 16,324**	**59.4%**	**$ 9,866**	**35.9%**	**35.7%**	**$ 8,774**	**31.9%**	**35.8%**	**$ 7,342**	**$ 6,500**	**$ 7,597**	**$ 6,327**
Percentile	*91.0%*	*67.1%*	*NA*	*93.1%*	*57.9%*	*93.6%*	*76.6%*	*64.5%*	*95.1%*	*93.6%*	*77.8%*	*96.1%*	*95.1%*	*97.2%*	*92.8%*

Model Assumptions

Model Assumptions						
Base Case	**Metric**	**Downside Case**	**Metric**	**Upside Case**	**Metric**	
Market Share:	60.0%	Market Share:	60.0%	Market Share:	75.0%	
Share Increase (q/q)	0.5%	Share Increase (q/q)	(1.0)%	Share Increase (q/q)	0.50%	Quarterly
Smartphone ASP:	(10.0)%	Smartphone ASP:	(15.0)%	Smartphone ASP:	0.0%	Annual
MSM ASP:	(7.5)%	MSM ASP:	(15.0)%	MSM ASP:	(5.0)%	Annual
Licensing Fee	(0.1)%	Licensing Fee	(0.1)%	Licensing Fee	0.0%	Annual
SG&A	(0.2)%	SG&A	0.1%	SG&A	(1.0)%	Annual
COGS	(0.1)%	COGS	0.1%	COGS	(0.3)%	Quarterly
R&D	0.0%	R&D	2.0%	R&D	(2.0)%	% of Revenue
Multiples	(7.5)%	Multiples	(20.0)%	Multiples	5.0%	
Buyback P/E	16.0x	Buyback P/E	18.0x	Buyback P/E	14.0x	
Discount Rate	10.0%	Discount Rate	15.0%	Discount Rate	7.5%	

Summary Financial Model (Base Case)

	FY2012 9/30/2012	FY2013 9/30/2013	FY2014 9/30/2014	LTM 3/31/2015	LTM 3/31/2016	LTM 3/31/2017	LTM 3/31/2018	LTM 3/31/2019
Summary								
Total Revenue	$ 19,121	$ 24,866	$ 26,487	$ 27,563	$ 24,639	$ 27,877	$ 30,960	$ 34,715
Growth		*30.0%*	*6.5%*		*(10.6)%*	*13.1%*	*11.1%*	*12.1%*
Less: Total COGS	(7,096)	(9,820)	(10,686)	(11,042)	(9,410)	(10,730)	(12,035)	(13,521)
% of QCT Revenue	*56.9%*	*57.8%*	*57.4%*	*56.8%*	*56.8%*	*56.1%*	*55.9%*	*56.0%*
Less: Total R&D	(3,915)	(4,967)	(5,476)	(5,533)	(5,224)	(5,399)	(5,996)	(6,751)
% of Revenue	*20.5%*	*20.0%*	*20.7%*	*20.1%*	*21.2%*	*19.4%*	*19.4%*	*19.4%*
Less: Total SG&A	(2,270)	(2,518)	(2,289)	(2,214)	(2,320)	(2,410)	(2,628)	(2,924)
% of Revenue	*11.9%*	*10.1%*	*8.6%*	*8.0%*	*9.4%*	*8.6%*	*8.5%*	*8.4%*
EBIT	$ 5,840	$ 7,561	$ 8,036	$ 8,774	$ 7,686	$ 9,337	$ 10,301	$ 11,519
% of Revenue	*30.5%*	*30.4%*	*30.3%*	*31.8%*	*31.2%*	*33.5%*	*33.3%*	*33.2%*
Less: Taxes	(1,279)	(1,349)	(1,245)	(1,432)	(1,185)	(1,538)	(1,654)	(1,824)
% of Revenue	*21.9%*	*17.8%*	*15.5%*	*16.3%*	*15.4%*	*16.5%*	*16.1%*	*15.8%*
Net Income	**$ 4,561**	**$ 6,212**	**$ 6,791**	**$ 7,342**	**$ 6,500**	**$ 7,799**	**$ 8,647**	**$ 9,694**
EBITDA	**$ 6,267**	**$ 8,076**	**$ 9,186**	**$ 9,866**	**$ 8,807**	**$ 10,720**	**$ 12,004**	**$ 13,522**
Less: CapEx	(1,248)	(1,048)	(1,185)	(837)	(1,295)	(1,246)	(1,397)	(1,477)
% of Revenue	*6.5%*	*4.2%*	*4.5%*	*3.0%*	*5.3%*	*4.5%*	*4.5%*	*4.3%*
Less: Interest	-	-	-	-	-	-	-	-
Less: Taxes	(1,279)	(1,349)	(1,245)	(1,432)	(1,185)	(1,538)	(1,654)	(1,824)
Free Cash Flow	**$ 3,740**	**$ 5,679**	**$ 6,756**	**$ 7,597**	**$ 6,327**	**$ 7,937**	**$ 8,954**	**$ 10,221**

Segment Financial Model – Base Case

Qualcomm Financial Model

	FY2012 9/30/2012	FY2013 9/30/2013	FY2014 9/30/2014	LTM 3/31/2015	LTM 3/31/2016	LTM 3/31/2017	LTM 3/31/2018	LTM 3/31/2019
Global Smartphone Shipments	700	1,000	1,130	1,227	1,587	1,860	2,227	2,620
x QCOM Market Share		71.6%	76.2%	75.0%	58%	61%	63%	63%
QCOM Shipments	NM	716	861	920	922	1,142	1,393	1,638
x MSM ASP		$23.7	$21.6	$ 21.1	$ 18.0	$ 16.7	$ 15.5	$ 14.7
QCT Revenue	$ 12,465	$ 16,988	$ 18,625	19,442	$ 16,564	$ 19,117	$ 21,540	$ 24,156
Global Smartphone Shipments	700	1,000	1,130	1,138	1,560	1,776	2,124	2,619.56
x ASP		$ 231	$ 216	$ 213	$ 172	$ 159	$ 144	$ 156
Total Reported Device Sales		$ 231,200	$ 243,600	$ 242,615	$ 267,824	$ 283,039	$ 306,790	$ 407,843
x Royalty Fee		3.4%	3.2%	3.4%	3.0%	3.1%	3.1%	3.0%
QLT Revenue	$ 6,656	$ 7,878	$ 7,862	$ 8,132	$ 8,075	$ 8,759	$ 9,420	$ 12,418
QCT Revenue	$ 12,465	$ 16,988	$ 18,625	$ 19,442	$ 16,564	$ 19,117	$ 21,540	$ 24,156
QCT COGS	(7,096)	(9,820)	(10,686)	(11,042)	(9,410)	(10,730)	(12,035)	(13,521)
QCT R&D	(2,895)	(3,752)	(4,374)	(4,411)	(4,245)	(4,316)	(4,793)	(5,396)
QCT SG&A	(1,678)	(1,902)	(1,825)	(1,764)	(1,884)	(1,927)	(2,101)	(2,337)
Plus: Corporate	850	947	777	859	1,075	1,312	1,421	1,478
Plus: Interest Income	651	728	983	895	51	(703)	(805)	(920)
QCT EBT	**$ 2,296**	**$ 3,189**	**$ 3,807**	**$ 4,057**	**$ 1,904**	**$ 2,437**	**$ 2,832**	**$ 3,267**
Less: Corporate & Other	(850)	(947)	(777)	(859)	(766)	(609)	(616)	(558)
Less: Net Interest Income	(651)	(728)	(983)	(895)	(360)	-	-	-
QCT EBIT	**$ 796**	**$ 1,513**	**$ 2,048**	**$ 2,303**	**$ 778**	**$ 1,828**	**$ 2,216**	**$ 2,709**
Plus: D&A	342	412	920	944	1,088	1,248	1,524	1,674
QCT EBITDA	**$ 1,137**	**$ 1,925**	**$ 2,968**	**$ 3,247**	**$ 1,866**	**$ 3,076**	**$ 3,740**	**$ 4,383**
Less: Taxes	-	-	-	-	-	-	-	-
Less: CapEx	(998)	(838)	(948)	(670)	(1,036)	(997)	(1,117)	(1,182)
QCT FCF	**$ 139**	**$ 1,087**	**$ 2,020**	**$ 2,578**	**$ 830**	**$ 2,079**	**$ 2,622**	**$ 3,201**
QCT Net Income	**$ 2,296**	**$ 3,189**	**$ 3,807**	**$ 4,057**	**$ 1,904**	**$ 2,437**	**$ 2,832**	**$ 3,267**
QTL Revenue	$ 6,656	$ 7,878	$ 7,862	$ 8,121	$ 8,075	$ 8,759	$ 9,420	$ 10,559
QTL COGS	-	-	-	-	-	-	-	-
QTL R&D	(1,020)	(1,215)	(1,102)	(1,122)	(979)	(1,083)	(1,203)	(1,354)
QTL SG&A	(592)	(616)	(464)	(450)	(436)	(484)	(527)	(587)
Plus: Corporate	299	307	198	220	253	329	357	371
Plus: Interest Income	229	236	245	224	(0)	-	-	-
QTL EBT (Segment)	**$ 5,585**	**$ 6,590**	**$ 6,590**	**$ 6,827**	**$ 6,999**	**$ 7,662**	**$ 8,240**	**$ 9,092**
Less: Corporate	(299)	(307)	(198)	(220)	(253)	(329)	(357)	(371)
Less: Interest Income	(229)	(236)	(245)	(224)	(77)	-	-	-
QTL EBIT	**$ 5,056**	**$ 6,048**	**$ 6,146**	**$ 6,383**	**$ 6,669**	**$ 7,333**	**$ 7,883**	**$ 8,721**
Plus: D&A	85	103	230	236	272	312	381	418
QTL EBITDA	**$ 5,142**	**$ 6,151**	**$ 6,376**	**$ 6,619**	**$ 6,941**	**$ 7,645**	**$ 8,264**	**$ 9,139**
Less: Taxes	(1,279)	(1,349)	(1,245)	$ (1,432)	$ (1,185)	$ (1,538)	$ (1,654)	$ (1,824)
Less: CapEx	(250)	(210)	(237)	$ (167)	$ (259)	$ (249)	$ (279)	$ (295)
QTL FCF	**$ 3,613**	**$ 4,592**	**$ 4,894**	**$ 5,019**	**$ 5,497**	**$ 5,858**	**$ 6,331**	**$ 7,020**
QTL EBT	$ 5,585	$ 6,590	$ 6,590	$ 6,827	$ 6,999	$ 7,662	$ 8,240	$ 9,092
Less: Taxes	(1,279)	(1,349)	(1,245)	(1,432)	(1,185)	(1,538)	(1,654)	(1,824)
QTL Net Income	**$ 4,306**	**$ 5,241**	**$ 5,345**	**$ 5,395**	**$ 5,814**	**$ 6,124**	**$ 6,586**	**$ 7,268**

Discounted Future Share Price Models

Discounted Future Share Price - Base

Beginning Cash (After-Tax)		$ 20,430	$ 12,012	$ 8,996	$ 6,234
Plus: FCF		6,327	7,937	8,954	10,221
Available Cash		$ 26,757	$ 19,949	$ 17,949	$ 16,455
Beginning S/O		1,667	1,496	1,402	1,305
Buybacks		$ 10,000	$ 5,000	$ 5,000	$ 5,000
P/E		16.0x	16.0x	16.0x	16.0x
Share Price	$ 68.2	$ 62.4	$ 83.4	$ 98.7	$ 118.9
Shares Repurchased Buyback Program		160	60	51	42
FCF		6,327	7,937	8,954	10,221
x 75%		4,745	5,953	6,715	7,666
Buybacks	35%	$ 1,661	$ 2,083	$ 2,350	$ 2,683
Shares		10	35	46	64
Dividends	65%	$ 3,084	$ 3,869	$ 4,365	$ 4,983
Dividends / Share		$ 2.1	$ 2.8	$ 3.3	$ 4.2
Diluted S/O	1,667	1,496	1,402	1,305	1,199
Ending Cash		$ 12,012	$ 8,996	$ 6,234	$ 3,790
Share Price		$ 70	$ 89	$ 106	$ 129

NPV of Dividends	10.0%	$ 10
NPV of Share Price		88
NPV / Share		$ 98
x Current Shares		1,667
TEV		$ 163,174
Plus: NPV Ending Cash		2,588
Market Capitalization		**165,763**

Discounted Future Share Price - Leverage

Beginning Shares	1,496	1,345	1,204	1,062
Plus: Revolver / New Debt	$ 4,000	$ 4,000	$ 4,000	$ 4,000
Less: Interest	(48)	(120)	(160)	(200)
Interest Rate	*1.2%*	*3.0%*	*4.0%*	*5.0%*
Additional Buybacks	57	44	36	29
Ending Shares	1,440	1,301	1,168	1,033
Net Cash	$ 7,964	$ 1,020	$ (5,750)	$ (12,322)
Share Price	$ 72	$ 96	$ 118	$ 150

NPV of Dividends	10%	$ 10
NPV of Share Price		103
NPV / Share		$ 112
x Current Shares		1,667
TEV		$ 186,857
Plus: NPV Ending Cash		(8,416)
Market Capitalization		**$ 178,441**

Discounted Future Share Price - Heavy Leverage

Beginning Shares	1,440	1,247	1,074	908
Plus: Incremental Debt	$ 4,000	$ 4,000	$ 4,000	$ 4,000
Less: Interest	(48)	(280)	(320)	(360)
Interest Rate	*6.0%*	*7.0%*	*8.0%*	*9.0%*
Additional Buybacks	55	39	31	24
Ending Shares	1,385	1,208	1,043	884
Net Cash	$ 4,012	$ (6,652)	$ (17,102)	$ (27,314)
Share Price	$ 75	$ 103	$ 133	$ 175

NPV of Dividends	10%	$ 10
NPV of Share Price		120
NPV / Share		$ 129
x Current Shares		1,667
TEV		$ 215,641
Plus: NPV Ending Cash		(18,656)
Market Capitalization		**$ 196,985**

Standard DCF Output – Base Case

Standard Discounted Cash Flow Analysis (based on model outputs)						
Discount Rate	10%					
Perpetual Growth	2.50%	$ 7,597	$ 6,327	$ 7,937	$ 8,954	$ 149,903
NPV TEV	$ 117,292					
Plus: Cash	20,430					
NPV	**$ 137,722**					
EBITDA Exit	10.0x	$ 7,597	$ 6,327	$ 7,937	$ 8,954	$ 101,615
NPV TEV	$ 87,309					
Plus: Cash	20,430					
NPV	**$ 107,739**					
P/E Exit	15.1x	$ 7,597	$ 6,327	$ 7,937	$ 8,954	$ 146,831
NPV	**$ 115,384**					

Sum of the Parts Output – Base Case

Sum-of-the-parts Analysis		LTM 3/31/2016	LTM 3/31/2017	LTM 3/31/2018	LTM 3/31/2019
QCT					
Revenue	$ 19,442	$ 16,564	$ 19,117	$ 21,540	$ 24,156
EBITDA	$ 3,247	$ 1,866	$ 3,076	$ 3,740	$ 4,383
Net Income	$ 4,057	$ 1,904	$ 2,437	$ 2,832	$ 3,267
FCF	$ 2,578	$ 830	$ 2,079	$ 2,622	$ 3,201
Discount Rate		LT Growth Rate			P/E Exit Multiple
10.0%		1.0%			14.0x
Exit Multiple Cash Flows		$ 830	$ 2,079	$ 2,622	$ 48,971
Perpetual Growth Cash Flows		$ 830	$ 2,079	$ 2,622	$ 39,124
	Net Present Value		Plus Cash		Equity Value
Exit Multiple	$ 37,891		NA		$ 37,891
Perpetual Growth	31,165		10,215		41,380
Average:					**$ 39,635**
QTL					
Revenue	$ 8,121	$ 8,075	$ 8,759	$ 9,420	$ 10,559
EBITDA	$ 6,619	$ 6,941	$ 7,645	$ 8,264	$ 9,139
Net Income	$ 5,395	$ 5,814	$ 6,124	$ 6,586	$ 7,268
FCF	$ 5,019	$ 5,497	$ 5,858	$ 6,331	$ 7,020
Discount Rate		LT Growth Rate			TEV / Revenue Multiple
10%		2.5%			6.3x
Exit Multiple Cash Flows		$ 5,497	$ 5,858	$ 6,331	$ 53,037
Perpetual Growth Cash Flows		$ 5,497	$ 5,858	$ 6,331	$ 102,954
	Net Present Value		Plus Cash		Equity Value
Exit Multiple	$ 50,820		$ 10,215		$ 61,035
Perpetual Growth	$ 84,914		$ 10,215		$ 95,129
Average					**$ 78,082**

Primary Research Sources

Type	Affiliation	Title	Name
Company Insider	QCOM	Director, IR	Amy Berguson
Company Insider	QCOM	Assistant, IR	Kelley (last name unknown)
Buy-Side	Falconhead Capital	Senior MD	Adam Treanor
Buy-Side	Aesir Capital	Managing Partner	Marc Fishman
Sell-Side	WFC	Research Analyst	David Wong
Sell-Side	Wells Fargo	Research Analyst (junior)	Charles Long
Sell-Side	Morgan Stanley	Research Analyst	James Faucette
Sell-Side	Credit Suisse	Research Analyst	Will Chu
Sell-Side	Deutsche Bank	Research Analyst	Vijay Bhagavath, PhD