QCOM gideon lens

Qualcomm (QCOM) - Gideon-Lens Equity Research

Date: 2026-04-25. Analyst: Codex ER2. Ticker: QCOM. Company: Qualcomm Incorporated. Current price used for the P/E 15 test: $136.06. Fiscal year convention: Qualcomm's fiscal year ends on the last Sunday in September; FY2025 ended September 28, 2025.

VERDICT BLOCK

Verdict: PASS

Scorecard:

Gate	Result	Notes
Management	YELLOW	Capable team; capital allocation and data-center economics not yet clean.
Moat	YELLOW	Real QTL/QCT moat; 2046 test remains disclosure-limited.
P/E <= 15 on confident EPS at TTM + 5 calendar years	PASS	Base EPS cushion 44.4%.
Compounder Score	Audited 50 / 100	50/100; diagnostic Reject because ROIIC is not calculated, acquisition-inclusive returns are not proven, and the 20% hurdle fails at the refreshed price.
Business Quality Score	Audited 48 / 80	48/80; real QTL/QCT economics and strong FCF are capped by handset concentration, Apple/modem uncertainty, missing stream-level margins, material SBC, and YELLOW moat/management gates.
20% Return UW Score	Audited 2 / 20	2/20; the base case does not approach 20% annualized return from the refreshed quote and requires roughly 45x exit P/E to clear the hurdle.

One-line thesis (or reason to pass): Qualcomm clears the five-year valuation math, but ER2 defaults to PASS because both management and moat/2046 durability remain YELLOW rather than clean PASS gates.

Kill / trigger criteria:

- BUY trigger: management and moat evidence upgrade to PASS while price remains below roughly $196.50, the base-case $13.10 horizon EPS multiplied by 15.
- PASS triggers: QCT revenue growth below 0% YoY with QCT EBT margin below 28.0% in either of the next two reported quarters; two-quarter average QCT margin below 28.0% with Handsets down more than 5% YoY in either quarter; QTL renewal, underpayment, or regulatory evidence that moves QTL toward the bear case of $4.968 billion revenue and 65.0% margin.
- Upgrade to BUY conditions: QCT diversification converts into disclosed revenue and margin durability, QTL renewal economics remain intact, capital returns stay FCF-funded after SBC and strategic investment, and the moat/2046 test moves from plausible to demonstrably durable.

Position sizing if bought: 0% today under ER2, because the verdict is PASS. If upgraded, size should start modestly until QCT margin and QTL renewal evidence improve.

Stage 0 - Time Anchor

Today is 2026-04-25. Qualcomm's fiscal year ends on the last Sunday in September; FY2025 ended September 28, 2025. The most recently reported quarter is Q1 FY2026, ended December 28, 2025 and announced February 4, 2026. Q2 FY2026 is scheduled for April 29, 2026 and is excluded because it had not been reported as of the run date. The TTM anchor is Q2 FY2025 + Q3 FY2025 + Q4 FY2025 + Q1 FY2026, ending December 28, 2025. The forward horizon is exactly TTM + 5 calendar years, or December 28, 2030.

Stage 1 - Disqualifier Sweep

ROIC is GREEN/YELLOW: Qualcomm has historically high-return licensing and fabless semiconductor economics, but recent GAAP net income was distorted by tax valuation allowance noise. FCF conversion is GREEN: the data package shows strong TTM free cash flow against depressed GAAP net income. Leverage is GREEN: balance-sheet leverage stays below the ER2 disqualifier threshold. End markets are YELLOW: handsets are mature and cyclical, while Automotive, IoT, edge AI, and data-center adjacency are growing but not yet enough to displace handset dependence. Governance is GREEN/YELLOW: disclosure and board structure are acceptable, but capital allocation intensity deserves monitoring. AI disruption exposure is GREEN/YELLOW: AI is more opportunity than direct substitution, yet merchant silicon competition and internal customer silicon are real. Pricing power is YELLOW: QTL and premium Snapdragon show power, but handset SoC competition and OEM concentration temper it.

Management

The management appendix rates the gate YELLOW. Cristiano Amon and Akash Palkhiwala are long-tenured insiders with credible operating command and a coherent diversification agenda. The team has been direct about near-term handset pressure, including industry-wide memory supply constraints, and the strategy around automotive, edge AI, data center, and broader connected compute is internally consistent. The yellow flag is capital allocation. TTM buybacks plus dividends were 104.5% of TTM FCF, and the March 2026 $20 billion buyback authorization extends that capital-return posture while Qualcomm is also broadening its strategic aperture through Alphawave, data-center inference, robotics, and edge AI. The team is not a governance fail; compensation, independence, ownership guidelines, clawback, and anti-hedging features are broadly acceptable. But ER2 needs proof that capital returns remain opportunistic and FCF-funded while new growth bets produce revenue, margin, and ROIC evidence.

Moat

The moat appendix also rates the gate YELLOW, with the 2046 test YELLOW. Qualcomm has real moat elements today: QTL's standards-essential patent estate and licensing model, QCT's modem-to-RF-to-compute integration, scale in premium Android silicon, and long automotive design cycles. QTL is the cleanest profit moat by margin durability; QCT is the largest revenue moat by platform breadth. But the blended company is still handset-heavy, QTL customer and royalty-rate detail is undisclosed, and QSI is noncore investment EBT rather than a recurring operating moat. The refreshed moat review incorporated all completed segment appendices and still did not upgrade to PASS. The five-year segment bridge is credible, but a specific 2046 Qualcomm still requires the handset-centered platform to expand into automotive, connected edge AI, and adjacent compute while preserving QTL economics. That is plausible, not proven.

Stage 5 Synthesis

The synthesis appendix passes the P/E 15 gate in the base case. At the supplied price of $136.06, the required horizon EPS for a 15.0x P/E is $9.07. The base model reaches December 28, 2030 revenue of $56.626 billion, pretax income of $15.155 billion, net income of $12.730 billion, diluted shares of 0.972 billion, and EPS of $13.10. That implies a 10.4x horizon P/E and a 44.4% cushion versus required EPS. All 11 synthesis tie-out checks passed.

Case	Revenue	Pretax income	Net income	EPS	P/E 15 result
Bear	$45.416B	$9.352B	$7.762B	$7.22	FAIL
Base	$56.626B	$15.155B	$12.730B	$13.10	PASS
Bull	$66.031B	$19.024B	$16.170B	$17.39	PASS

The base case is not heroic, but it is exposed to specific beams. QCT must reach $49.896 billion of revenue at a 29.6% margin; QTL must remain a $6.380 billion, 72.0% margin royalty profit engine; QSI must be treated as small investment EBT rather than capitalized revenue; and buybacks must reduce diluted shares without overwhelming SBC, dividends, strategic investment, and balance-sheet discipline. The bear case fails the P/E test, which matters because it shows the cushion is valuation-real but not business-quality-proof.

Red Team

The red team says the most fragile assumption is QCT holding near-30% margin while still depending heavily on Handsets and while Apple runoff, stream margins, and Automotive backlog conversion remain unresolved. The most likely optimistic synthesis number is the 0.972 billion horizon diluted share count, because buybacks must overcome high official TTM SBC of

$2.912 billion, strategic M&A and R&D needs, and already-high capital returns. The exit signal is concrete: rewrite or exit if either of the next two quarters shows QCT revenue growth below 0% YoY with QCT EBT margin below 28.0%, or if two-quarter average QCT margin falls below 28.0% with Handsets down more than 5% YoY in either quarter.

Analyst Flags

The QF/QFR gate caught a material stale-FMP issue: FMP quarterly cash flow showed stale zeros for Q4 FY2025 and Q1 FY2026 stock-based compensation. The final files use official SEC control: TTM SBC is $2.912 billion versus FMP comparison-only $1.361 billion. Segment data gaps remain material: QCT stream-level margins, Apple modem revenue/runoff, Automotive backlog dollars, QTL OEM/geography/royalty-rate splits, QTL renewal schedule, and QSI portfolio economics are not disclosed. Current price was anchored at $136.06 from a current market-data search result available during the run; any refreshed quote should update the P/E cushion. Q2 FY2026 is scheduled for April 29, 2026 and should be incorporated after release.

Appendix A - Company Primer

Appendix A - Qualcomm Company Primer

Source Discipline And Anchor

This primer is reader-facing orientation for the ER2 / Gideon run on Qualcomm Incorporated. It is not the quantitative source of record. All financial figures in this appendix are taken from `quant_foundation.md` unless explicitly described as business context from Qualcomm primary sources. The quant foundation was cleared by QFR for Wave 1 and uses the Stage 0 anchor supplied for this run: today is 2026-04-25; Qualcomm's fiscal year ends on the last Sunday in September; FY2025 ended September 28, 2025; the latest reported quarter is Q1 FY2026 ended December 28, 2025; the TTM period is Q2 FY2025 through Q1 FY2026 and ends December 28, 2025; the forward horizon is December 28, 2030.

Primary qualitative anchors include Qualcomm's FY2025 Form 10-K, the Q1 FY2026 10-Q referenced in the quant foundation, and Qualcomm investor releases. The FY2025 10-K describes Qualcomm as having three reportable segments: QCT, QTL, and QSI, with the business conducted primarily through QCT and QTL while QSI makes strategic investments ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). Qualcomm's Q4 FY2025 release highlighted record QCT fiscal-year revenue, 18% growth in total QCT non-Apple revenue, and 27% growth in combined QCT Automotive and IoT revenue ([Qualcomm FY2025 results](https://www.qualcomm.com/news/releases/2025/11/qualcomm-announces-fourth-quarter-and-fiscal-2025-results)). Those claims are useful context, but the numeric base used in ER2 remains the quant foundation.

Business Overview

Qualcomm is best understood as two interlocking businesses plus a small strategic-investment arm. The first business, Qualcomm CDMA Technologies, or QCT, designs and sells semiconductor platforms and related system software. QCT is the operating engine most investors see in quarterly revenue movement: smartphone application processors and modems, radio-frequency front-end components, Wi-Fi/Bluetooth/connectivity chips, automotive digital cockpit and connectivity products, advanced driver-assistance and automated-driving products, industrial and embedded IoT processors, edge networking chips, consumer compute products, and related software. QCT uses a mostly fabless model. Qualcomm designs the chips, software, and reference platforms, then relies on foundries, assembly, and test partners for most silicon production. Qualcomm does operate some facilities for certain RFFE modules and RF filter products, but the core model is asset-light compared with an integrated device manufacturer.

The second business, Qualcomm Technology Licensing, or QTL, licenses Qualcomm's cellular and related patent portfolio. QTL is not a chip sale. It is the monetization of Qualcomm's long history of R&D and standards participation across 3G, 4G, 5G, and emerging next-generation wireless technologies. QTL collects royalties from device makers and other licensees that sell products using Qualcomm's licensed intellectual property. The FY2025 10-K says QTL royalties are primarily per-unit royalties based on sales of licensed products, generally tied to a percentage of the wholesale selling price of complete licensed products, subject in some cases to minimums, caps, or fixed per-unit amounts ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). In plain English: QTL gives Qualcomm an economic interest in the global cellular device base even when Qualcomm does not supply the application processor in a given phone.

The third segment, Qualcomm Strategic Initiatives, or QSI, makes strategic investments. It is much smaller than QCT or QTL and should not be confused with a recurring product segment. In FY2025 QSI had no revenue in the quant foundation's official segment table, but it generated positive EBT from investment and other income. QSI can matter in individual periods through gains, losses, or strategic positioning, but it is not the main compounding engine.

TTM revenue in the quant foundation is $44.867 billion. QCT accounts for $38.896 billion of that amount, QTL for $5.639 billion, QSI for zero revenue, and reconciling/nonreportable items for $332 million. TTM EBT is $12.575 billion, with QCT contributing $11.726 billion, QTL contributing $4.117 billion, QSI contributing $339 million, and reconciling items subtracting $3.607 billion. The high-level read is simple: QCT is the scale business and principal growth platform; QTL is the higher-margin royalty franchise; corporate, unallocated, and reconciling costs are material and must be modeled explicitly rather than ignored.

Qualcomm's strategic identity has also shifted. It is no longer only a mobile-phone chip company, though handsets remain dominant. Management is trying to turn its core capabilities - modem-to-antenna systems, low-power compute, integrated AI

engines, software stacks, and standards-based connectivity - into a broader platform across premium Android handsets, autos, industrial edge devices, PCs, XR, robotics, and eventually data-center inference/connectivity. That expansion is credible because Qualcomm already has the engineering base, customer relationships, and platform-integration skill to move beyond phones. It is also uncertain because many of the new markets have different buying cycles, incumbents, qualification requirements, and margin structures than mobile.

Revenue Architecture

Qualcomm's revenue architecture starts with QCT. Within QCT, the quant foundation breaks TTM revenue into three streams: Handsets at $28.042 billion, Automotive at $4.097 billion, and IoT at $6.757 billion. The TTM QCT total is $38.896 billion, so handsets remain about seven times the size of automotive and over four times the size of IoT. Even after several years of diversification messaging, the practical underwriting question is still: how durable is Qualcomm's premium mobile position, and how quickly can the non-handset streams scale enough to offset Apple modem attrition and handset cyclicality?

Handsets include products sold for mobile phones: Snapdragon application processor platforms, integrated modem/application processor SoCs, standalone modems, RF front-end components, power management, connectivity, and related system software. The highest-value handset products are integrated premium-tier platforms, where Qualcomm can sell a richer bill of materials and capture the benefit of modem, CPU, GPU, NPU, ISP, connectivity, and RFFE integration. A standalone thin modem sale to Apple is economically different: it is valuable revenue, but it excludes Qualcomm's integrated application processor technology and has lower revenue and margin contribution than a full Snapdragon platform. Qualcomm's 10-K explicitly warns that Apple is expected to increasingly use its own modem products rather than Qualcomm products, with significant negative impact on QCT revenue, operating results, and cash flows ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). That risk is central, not peripheral.

Automotive includes connectivity, digital cockpit, and ADAS/AD products. The financial profile here differs from handsets. Design wins can create long-duration revenue streams because auto platforms have long product lives and stringent qualification standards. But the lag from design win to material revenue can be long, and the qualification burden raises cost and execution risk. Qualcomm's 10-K notes that the automotive industry has long design-in time frames, long product life cycles, and high regulatory and safety requirements ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). That cuts both ways: once embedded, Qualcomm may enjoy sticky sockets; before production ramps, investor expectations can run ahead of reported revenue.

IoT is a broad category rather than one homogeneous end-market. Qualcomm's FY2025 10-K defines IoT as primarily products for consumer devices, edge networking, and industrial applications such as handhelds, retail, tracking/logistics, and utilities. Qualcomm has also refreshed branding around Dragonwing for industrial and edge networking IoT and has acquired capabilities around industrial/embedded IoT and AI developer tooling. In January 2026, Qualcomm described an expanded industrial and embedded IoT portfolio including processors, software, services, developer tools, and technologies from several acquisitions including Arduino, Edge Impulse, Foundries.io, FocusAI, and Augentix ([Qualcomm IE-IoT release](https://www.qualcomm.com/news/releases/2026/01/qualcomm-s-ie_iot-expansion-is-complete--edge-ai-unleashed-for-d)). For ER2, the key is to avoid treating all IoT revenue as equally recurring or equally high quality. Edge networking, industrial handhelds, PC/XR, consumer electronics, cameras, robotics, and developer ecosystems have different replacement cycles and competitive sets.

QTL revenue is smaller but strategically powerful. The quant foundation shows TTM QTL revenue of $5.639 billion and TTM QTL EBT of $4.117 billion, implying far higher EBT intensity than QCT. QTL's royalty revenue generally follows licensees' sales of licensed cellular devices, which makes it tied to handset units, mix, and average selling prices, but without the same cost-of-goods burden as semiconductor shipments. It is a patent-and-contract business with legal, regulatory, and renewal risk. The core model works because cellular standards are cumulative and global: a 5G device usually uses a stack of inventions built over decades, and Qualcomm owns a deep portfolio across cellular standards and adjacent technologies.

Unit Economics

QCT's economics are semiconductor-platform economics. Qualcomm must spend heavily on R&D before it knows whether a design will win, then capture revenue through chip and software sales once an OEM launches. Gross margin depends on product mix, wafer/foundry costs, RFFE attach, pricing power, inventory health, yield, capacity terms, and customer concentration. Premium integrated Snapdragon platforms should carry better economics than lower-tier commodity

components because they solve more of the system for the OEM. But the same integration that makes Qualcomm valuable also makes it exposed to large customers' launch cycles and purchasing power.

The fabless model improves capital intensity because Qualcomm does not own most leading-edge wafer fabs. The quant foundation shows TTM capital expenditure of $1.464 billion against TTM revenue of $44.867 billion and TTM free cash flow of $12.926 billion. That is consistent with a business that can convert earnings to cash at attractive rates when inventory and working capital are normal. The model is not risk-free. Qualcomm depends on a limited number of foundry, assembly, and test suppliers, many in Asia. The FY2025 10-K names TSMC, Samsung Electronics, and GlobalFoundries as primary foundry suppliers for various integrated circuits and notes that most foundry/assembly/test suppliers are in Asia-Pacific ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). The company benefits from not carrying a full fab base, but it inherits supply-chain, geopolitical, node-cost, and capacity-allocation risk.

QTL economics are closer to software/IP economics. Once the patent portfolio and licensing infrastructure exist, incremental royalty revenue has high margin. The quant foundation's FY2025 segment data show QTL revenue of $5.582 billion and QTL EBT of $4.043 billion. TTM QTL EBT of $4.117 billion on $5.639 billion of revenue reinforces the point: QTL is the profit ballast. This is why licensing disputes matter disproportionately. A dollar of QTL revenue lost is not equivalent to a dollar of lower-margin chip revenue lost. The 10-K explicitly warns that reductions in licensing revenue could disproportionately reduce cash available for purposes such as R&D ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)).

Qualcomm's consolidated cash generation is strong in the current anchor period. The quant foundation reports TTM operating cash flow of $14.390 billion and TTM free cash flow of $12.926 billion. FY2025 GAAP net income is depressed by a tax valuation allowance, so TTM FCF to GAAP net income is unusually high and should not be casually annualized as a normal conversion rate. Liquidity is adequate: latest cash plus short-term investments are $11.822 billion, total debt is $14.817 billion, and net debt is $7.612 billion. Net debt to TTM EBITDA is 0.55x under the quant foundation's direct calculation, with a separate FMP key-metrics methodology at 2.26x; both are below the 3.0x ER2 gate.

Customer And Industry Context

The handset industry is mature in units but still economically important because premium devices absorb high-value silicon. Qualcomm's strongest position is in premium Android, where device makers need leading modem performance, application processing, graphics, camera, AI, Wi-Fi, power management, and RF integration. The competitive battleground is not just raw benchmark performance; it is time-to-market, carrier certification, thermal performance, battery life, modem stability, global band support, camera pipeline, AI acceleration, and software support. Qualcomm's platform approach gives OEMs a tested base to launch globally.

Customer concentration is a key issue. The FY2025 10-K says Apple, Samsung, and Xiaomi each represented 10% or more of consolidated revenue in fiscal 2025 ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). That creates launch-cycle volatility and bargaining power risk. It also means Qualcomm's reported growth can be moved by product timing at a handful of customers. Apple is the most obvious discrete headwind because Apple has already begun using its own modem in some products and Qualcomm expects Apple to increasingly use internal modems over time. Samsung is both customer and competitor because it can use Qualcomm Snapdragon in some regions/models and internal Exynos in others. Xiaomi and other Chinese OEMs are attractive customers but operate in a policy environment that encourages domestic semiconductor self-sufficiency.

China exposure is substantial. The quant foundation and 10-K show FY2025 revenue by customer/licensee headquarters: China including Hong Kong represented $20.340 billion, or 46% of revenue. The 10-K cautions that this geography is not necessarily where end devices are sold to consumers, but the concentration is still important. U.S./China trade restrictions, export licenses, tariffs, entity-list decisions, China's semiconductor self-sufficiency policies, and payment/royalty behavior by Chinese licensees all can affect Qualcomm. The 10-K notes that the U.S. Department of Commerce revoked the export license under which Qualcomm previously sold 4G and certain other integrated circuit products to Huawei, and Qualcomm does not expect further product revenues from Huawei ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)).

Automotive demand is structurally different. OEMs increasingly want digital cockpits, connectivity, driver-assistance, and software-defined vehicle architectures. Qualcomm's opportunity is to turn cockpit and connectivity beachheads into broader Snapdragon Digital Chassis content. The attraction is higher duration: once a platform is qualified, revenue can persist through a model cycle. The risk is delayed monetization and high execution requirements. Safety-critical and

near-safety-critical systems require reliability, validation, cybersecurity, software support, and OEM-specific integration. Investors should track design wins, backlog quality, start-of-production timing, content per vehicle, and whether wins are connectivity/cockpit only or include ADAS/AD compute.

Competition

In premium Android handsets, Qualcomm competes most visibly with MediaTek, Samsung's internal Exynos efforts, and custom silicon initiatives by large customers. MediaTek has improved in high-end Android, especially as OEMs look for supplier diversity and cost leverage. Samsung can dual-source between Snapdragon and Exynos depending on region, product tier, yield, performance, and strategy. Apple is no longer simply a customer risk; it is the clearest example of vertical integration. In lower tiers, price pressure is more intense and differentiation is less durable.

In modems and RF, competition includes internal customer efforts, other merchant suppliers, and the difficulty of maintaining leadership through each standards generation. Qualcomm's advantage is system-level integration from modem to RF front end to software. Its risk is that customers may accept somewhat lower performance or higher integration burden to reduce dependence on Qualcomm, lower cost, or control strategic components.

In automotive, Qualcomm faces incumbents and specialized competitors across cockpit, connectivity, ADAS, and autonomous-driving compute. NVIDIA is a powerful competitor in high-performance ADAS/AD and centralized compute. Mobileye remains deeply embedded in driver-assistance. Traditional automotive semiconductor vendors have long-standing relationships and safety qualification experience. Qualcomm's pitch is that its low-power compute, connectivity, AI engines, and consumer-device platform learning can translate into vehicles. That is plausible, but it must be proven in production revenue rather than press-release design wins alone.

In IoT and edge AI, the competitive set fragments. Depending on the submarket, Qualcomm may face NXP, STMicroelectronics, Texas Instruments, Broadcom, Marvell, Realtek, Ambarella, NVIDIA, AMD, Intel, MediaTek, Rockchip, or custom silicon. The breadth of IoT is both opportunity and problem. Qualcomm can reuse compute and connectivity IP across many verticals, but selling into many niches can dilute focus and require channel, software, and developer support that differs from smartphone OEM sales.

Data center is the newest and least proven frontier. Qualcomm's pending Alphawave Semi acquisition is intended to add high-speed wired connectivity, compute IP, custom silicon, connectivity products, and chiplet capabilities to accelerate data-center expansion. Qualcomm announced the acquisition in June 2025 at an implied enterprise value of approximately $2.4 billion, and the FY2025 10-K says it is intended to support expansion into data centers ([Qualcomm Alphawave announcement](https://www.qualcomm.com/news/releases/2025/06/qualcomm-to-acquire-alphawave-semi); [FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). The strategic logic is clear: energy-efficient inference and connectivity could be valuable as AI workloads scale. The underwriting standard should be conservative because the data-center accelerator and interconnect markets have entrenched ecosystems, demanding software stacks, hyperscaler validation cycles, and formidable competitors.

Strategic Assets

Qualcomm's first strategic asset is its patent portfolio. The company has spent decades contributing to cellular standards and developing system-level wireless technologies. QTL monetizes this asset directly, while QCT benefits indirectly because Qualcomm's deep standards knowledge and IP base inform product roadmaps. The 10-K says Qualcomm's patent portfolio includes cellular standard-essential patents and other patents useful to communications and adjacent devices, with licensing rights provided to hundreds of companies ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). That is not just legal inventory; it is a reinvestment flywheel. Licensing cash helps fund R&D, R&D helps create future standards and products, and products reinforce ecosystem relationships.

The second asset is platform integration. Qualcomm is not merely selling one chip; it often sells a platform that combines CPU, GPU, NPU, modem, Wi-Fi/Bluetooth, location, camera ISP, security, software, RF, and power-management elements. For an OEM, buying a platform can reduce engineering complexity, speed launches, and improve global performance. This matters in premium Android because OEMs compete on cameras, gaming, AI, battery life, and connectivity but may not have Apple's internal silicon scale.

The third asset is ecosystem reach. Qualcomm works with handset OEMs, carriers, automotive OEMs, Tier 1 suppliers, industrial equipment makers, developers, standards bodies, foundries, OS vendors, cloud providers, and regulators. Its 10-K

frames the roadmap as the product of collaboration across manufacturers, operators, developers, system integrators, infrastructure vendors, cloud providers, governments, and standards organizations. That breadth gives Qualcomm early visibility into where requirements are moving.

The fourth asset is cash generation and balance-sheet flexibility. The quant foundation's TTM FCF of $12.926 billion supports R&D, dividends, buybacks, and acquisitions. Qualcomm also announced in March 2026 a dividend increase and a new $20 billion repurchase authorization ([Qualcomm March 2026 capital return release](https://investor.qualcomm.com/news-events/press-releases/news-details/2026/Qualcomm-Increases-Quarterly-Cash-Dividend-and-Announces-New-20-Billion-Stock-Repurchase-Authorization/default.aspx)). Capital return does not make a business compound by itself, but it can matter if the core franchise throws off cash while the company navigates Apple attrition and diversification.

Cyclicality, Regulation, And Geopolitics

Qualcomm is cyclical because semiconductors are cyclical, handset demand is cyclical, channel inventory is cyclical, and customer launches are seasonal. Handset OEMs can build or draw inventory quickly. Foundry capacity can be tight in one node and loose in another. Premium Android strength can offset Apple headwinds in one period and reverse in the next. QTL is less exposed to chip inventory but still depends on device sell-through, handset units, device mix, and licensee compliance.

Regulation matters most through QTL. Qualcomm's licensing model has faced antitrust, FRAND, patent-exhaustion, royalty-base, and standard-essential-patent challenges in multiple jurisdictions over many years. The FY2025 10-K states that legal or regulatory outcomes could require Qualcomm to reduce royalty rates, reduce the base on which royalties are calculated, license chipset manufacturers, sell chipsets to unlicensed OEMs, or renegotiate agreements ([FY2025 10-K](https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm)). Because QTL has very high margins, adverse licensing changes could have an outsized profit impact.

Geopolitics matters through both revenue and supply. China including Hong Kong is 46% of FY2025 revenue by customer/licensee headquarters in the 10-K. Qualcomm also relies on Asian manufacturing, assembly, and test partners. U.S. export controls can reduce product revenue to specific Chinese customers. Chinese self-sufficiency policy can encourage OEMs to use domestic chips. Taiwan risk matters because leading-edge foundry capacity and Asia-Pacific assembly/test are difficult to replace quickly. Qualcomm's fabless model is economically attractive, but it does not eliminate geopolitical concentration.

Why This Business Could Or Could Not Compound

The positive compounding case starts with the combination of high-value mobile leadership and QTL royalty economics. If Qualcomm remains the default premium Android platform, retains enough Apple modem revenue during the transition, expands non-Apple handset content, and keeps QTL economics intact, the business can produce substantial free cash flow. Automotive then becomes an additional layer: design wins convert to production revenue, cockpit/connectivity sockets expand into ADAS/AD compute, and long platform life cycles create more durable revenue. IoT and edge AI add another layer if Dragonwing, industrial developer tooling, and acquisitions turn fragmented markets into scalable platforms. Data center is a call option if Qualcomm can convert low-power AI inference and high-speed connectivity into real hyperscaler or enterprise deployments.

The negative case is equally concrete. Apple modem attrition could remove a meaningful portion of QCT revenue and expose the true growth rate of non-Apple QCT. Premium Android could be healthy but not enough if MediaTek, Samsung, and Chinese internal silicon pressure pricing and share. QTL could remain profitable but face renewal, litigation, or regulatory pressure. Automotive could grow from a small base but take longer than investors expect, with design wins converting slowly and ADAS competition limiting margins. IoT could remain a collection of submarkets rather than a coherent high-return platform. Data center could consume capital and management attention without reaching software/ecosystem parity against incumbents.

The ER2 framing should therefore treat Qualcomm as a high-quality but contested compounder candidate. It has genuine strategic assets, high cash generation, and credible diversification vectors. It also has unusually visible single-customer, geography, licensing, and vertical-integration risks. The business can compound if non-Apple QCT plus automotive/IoT/data-center expansion outrun Apple attrition and if QTL survives largely intact. It may fail the Gideon bar if diversification is slower or lower-margin than expected, if handset competition erodes premium economics, or if licensing/regulatory pressure reduces the profit pool that funds the R&D flywheel.

Quick Glossary

QCT: Qualcomm CDMA Technologies, the semiconductor and system-software segment. It includes handsets, automotive, IoT, and related platform products.

QTL: Qualcomm Technology Licensing, the patent-licensing segment. It licenses Qualcomm's cellular and related IP portfolio and earns royalties from licensees' sales of licensed products.

QSI: Qualcomm Strategic Initiatives, the strategic-investment segment. It is small relative to QCT and QTL and can create gains or losses through investment activity.

Handsets: QCT products used in mobile phones, including Snapdragon platforms, modems, RFFE, connectivity, power management, and related software.

Automotive: QCT products for vehicles, including connectivity, digital cockpit, ADAS, and automated-driving systems.

IoT: A broad QCT category covering consumer, edge networking, industrial, embedded, and other connected-device markets.

Snapdragon: Qualcomm's brand for mobile, compute, sound, and automotive platforms.

Dragonwing: Qualcomm's brand for industrial and edge networking IoT products.

RFFE: Radio-frequency front end, the components between modem/transceiver and antenna that help a device transmit/receive across bands and standards.

SoC: System on chip, an integrated processor platform combining multiple compute/connectivity functions.

NPU: Neural processing unit, specialized silicon for AI workloads, especially power-efficient on-device inference.

Oryon: Qualcomm's custom CPU brand used in newer compute platforms.

ADAS/AD: Advanced driver-assistance systems / automated driving.

Fabless: A semiconductor model in which the company designs chips but relies mostly on third-party foundries, assembly, and test partners for manufacturing.

SEP: Standard-essential patent, a patent needed to implement an industry standard such as 4G or 5G.

FRAND: Fair, reasonable, and non-discriminatory licensing commitment often associated with standard-essential patents.

MDM/thin modem: A standalone modem product, notably used by Apple historically, without Qualcomm's integrated application processor technology.

TTM: Trailing twelve months. For this ER2 run, TTM is Q2 FY2025 + Q3 FY2025 + Q4 FY2025 + Q1 FY2026, ending December 28, 2025.

Appendix M - Management Assessment

Qualcomm - Management Assessment

Stage 0 anchor: today is 2026-04-25; Qualcomm's fiscal year ends in late September; the TTM period ends 2025-12-28; the forward horizon is 2030-12-28. This appendix is written as Sub-Agent M for the Qualcomm ER2 run and uses the local data package for capital allocation and corporate actions, supplemented by the 2026 proxy statement, recent 10-K/10-Q/IR material, and earnings-call transcripts.

1. Who is running the company

Qualcomm is run by an internally developed senior team. The CEO is Cristiano R. Amon, who has been President and CEO since June 2021. The 2026 proxy states that Amon previously served as President and CEO-elect from January 2021 to June 2021, President from January 2018 to January 2021, Executive Vice President of Qualcomm Technologies and President of QCT from November 2015 to January 2018, and in senior QCT product-management roles before that. The proxy lists 28 years of Qualcomm service. That matters: the current strategy is not a recent external reset. Amon owns the pivot from a wireless licensing and handset-chip narrative toward a connected-computing, edge-AI, automotive, industrial IoT, PC, and now data-center inference platform. He also owns the decision to keep returning large amounts of capital while funding that diversification.

The CFO is Akash Palkhiwala. Qualcomm appointed him CFO in November 2019 and expanded his role to CFO and COO in January 2024. Qualcomm's January 2024 announcement says the expanded COO role added oversight of global go-to-market, operations, and IT, while he continued reporting to Amon. The 2026 proxy lists his prior Qualcomm roles as Senior Vice President and Interim CFO, Senior Vice President of QCT Finance, and Senior Vice President and Treasurer, with 24 years of service. This is a useful pairing: the CEO is the product-and-market architect, while the CFO/COO is a finance operator who has sat close to QCT and corporate development.

Material operating leadership includes Alexander H. Rogers, Executive Vice President and President of Qualcomm Technology Licensing and Global Affairs since June 2021; Baaziz Achour, Chief Technology Officer as of February 2025 after serving as Deputy CTO; and Ann Chaplin, General Counsel and Corporate Secretary. Segment-level accountability is partly embedded in the QCT/QTL structure rather than disclosed as cleanly as at a pure-play industrial company. That is a disclosure limitation, but not necessarily a governance flaw. QTL is explicitly represented on earnings calls through Rogers when licensing matters are central; QCT is effectively led through Amon and Palkhiwala.

Board oversight is credible but not flawless. The 2026 proxy lists 11 director nominees for the March 17, 2026 annual meeting and states that, except for the CEO, all directors are independent under Nasdaq rules. The board chair is independent, and Qualcomm has separated the CEO and chair roles since March 2014. The proxy describes independent-chair responsibilities including agenda setting, executive sessions, CEO performance evaluation in coordination with the HR and Compensation Committee, and engagement in any control transaction or proxy contest. The board added three directors in fiscal 2025, including Jeremy "Zico" Kolter, which gives the board fresher technical AI expertise. The main yellow flag is not independence; it is whether the board will force capital-allocation discipline if the new data-center and robotics ambitions absorb capital before revenue proof arrives.

2. Tenure and track record

Amon has been CEO for about four years and ten months as of 2026-04-25. That is long enough to own the current strategy and the fiscal 2025/TTM performance, but just short of the five-year "proven allocator" line that Gideon uses for a clean management PASS. His three most important CEO-era decisions are the non-handset diversification push, the preservation and monetization of premium Android leadership during Apple's modem transition, and the choice to return almost all free cash flow through buybacks and dividends while still buying capability in data center, industrial IoT, and edge AI.

The first decision has visible early numbers. The data package's historical segment and product tables show FY2025 revenue of $44.284 billion and TTM revenue of $44.878 billion. Qualcomm's recent calls repeatedly emphasize that automotive and IoT are no longer presentationware. In the Q4 FY2025 call, management reported fiscal 2025 non-GAAP revenue of $44 billion, record QCT annual revenue of $38.4 billion, automotive revenue growth of 36%, IoT growth of 22%, and QCT non-Apple revenue growth of 18%. In the Q1 FY2026 call, Qualcomm reported record total revenue of $12.3 billion, QCT revenue of $10.6 billion, QCT automotive revenue of $1.1 billion, and QCT EBT margin of 31%. The operating evidence supports Amon's claim that the company is broadening from handset dependency.

The second decision is more mixed but still constructive. Qualcomm has not escaped handset cyclicality, customer concentration, or Apple modem risk, but management has held the premium Android narrative together better than feared. In recent transcripts, Amon repeatedly anchors around Samsung share, premium/high-tier demand, Chinese OEM design wins, and Snapdragon content gains. In Q1 FY2026, management directly acknowledged memory-related handset constraints and Chinese OEM inventory caution rather than pretending that the March-quarter slowdown was a normal seasonal hiccup. That candor earns credit.

The third decision is the source of the management-gate yellow. The data package Section 7 shows TTM free cash flow of $12.926 billion, share repurchases of $9.691 billion, and common dividends of $3.812 billion. Combined stockholder returns were $13.503 billion, or 104.5% of TTM free cash flow. Q1 FY2026 alone returned approximately $3.6 billion to holders, including $2.650 billion of repurchases and $949 million of dividends. On March 17, 2026, the board raised the quarterly dividend from $0.89 to $0.92 per share and authorized a new $20.0 billion repurchase program in addition to roughly $2.1 billion remaining under the November 2024 program. That is shareholder-friendly if the stock is cheap and the handset trough is temporary. It is less attractive if the company is simultaneously entering capital-intensive or acquisition-heavy adjacencies where the return curve is unproven.

There are decisions that are not yet proven. Data-center inference is promising but early. The Q4 FY2025 call highlighted AI 200/AI 250 inference products, a first customer, and a multi-generation roadmap; the Q1 FY2026 call noted the completed Alphawave Semi acquisition and Ventana acquisition to strengthen data-center and RISC-V CPU capability. Those are coherent moves, but there is no demonstrated five-year revenue, margin, or ROIC record yet. The management team should receive strategy credit, not full allocation credit, until those investments produce disclosed economics.

3. Capital allocation behavior

The data package's Section 7 is the controlling source for capital allocation. For the TTM ended 2025-12-28, Qualcomm generated $14.390 billion of operating cash flow, spent $1.464 billion on capital expenditures, and produced $12.926 billion of free cash flow. Against that, it spent $9.691 billion on repurchases and $3.812 billion on common dividends. Stock-based compensation was $2.912 billion on the official control basis. The resulting pattern is high cash conversion, low capex intensity for a semiconductor design/licensing model, meaningful SBC, and very large capital returns.

The allocation mix is consistent with stated strategy in one sense and in tension with it in another. It is consistent because Qualcomm's model does not require foundry-scale capex. A fabless design and IP company can invest through R&D, internal product roadmaps, targeted acquisitions, and ecosystem partnerships while returning cash. It is in tension because the company is asking investors to underwrite an ambitious expansion across automotive, industrial IoT, PCs, robotics, edge AI, and data-center inference. If those are large enough to alter Qualcomm's growth profile, they may also require sustained R&D and selective M&A. Returning more than 100% of TTM free cash flow leaves less margin for error if the handset business weakens at the same time acquisitions need integration capital.

M&A is targeted rather than empire-building so far. The data package Section 9 notes that Qualcomm completed the Alphawave Semi acquisition in Q1 FY2026 and treats it as strategic data-center expansion context, with no historical revenue line included in the current package. Recent management commentary also refers to Ventana, Arduino, Edge Impulse, and Foundries.io as capability additions. The rationale is clear: build power-efficient AI inference, industrial edge AI tooling, and RISC-V CPU capabilities around Qualcomm's compute/connectivity base. Observable outcome is not yet clear. There is no write-down evidence in the reviewed material, but neither is there a mature acquisition scorecard showing revenue uplift, margin contribution, or ROIC.

Buybacks look heavy and partly opportunistic, but not clearly price-sensitive enough to earn a full pass. The March 2026 repurchase authorization was announced after the stock had weakened materially from prior levels, and the no-expiration structure gives management flexibility. That is better than a rigid near-top accelerated repurchase. Still, the combination of a $20 billion authorization, the remaining $2.1 billion prior authorization, and a dividend increase when the company is absorbing memory-driven handset volatility can read as an effort to support the equity story while waiting for diversification proof. The capital allocation grade is "good but aggressive."

4. Compensation alignment

Qualcomm's executive-compensation architecture is above average. The 2026 proxy says a significant portion of executive pay varies with company performance and reports that 61% of the CEO's fiscal 2025 target total direct compensation was in performance-based equity. Annual cash incentives use adjusted operating income at 60% and adjusted revenue at 40%, modified by a human-capital factor from 0.9x to 1.1x, with funding capped at 200% of target. This is not perfect, because

adjusted operating income and adjusted revenue can reward scale without explicit ROIC discipline, but the measures are better than vague strategic milestones.

Long-term incentives are more aligned. Fiscal 2025 PSUs include relative TSR against the Nasdaq-100 and adjusted EPS over a three-year period. The proxy states that relative-TSR PSUs pay target at the 55th percentile, maximum at the 90th percentile, and zero below the 25th percentile; it also caps earned shares at target if absolute TSR is negative over the full three-year period. EPS PSUs use a three-year average adjusted EPS goal. That structure ties management to shareholder outcomes and profit expansion, although it still lacks a direct invested-capital or free-cash-flow-return measure.

There is evidence that the plan can pay down when performance is not good enough. Fiscal 2023 PSUs that vested in December 2025 were earned at 66% of target in aggregate, with relative TSR PSUs at 73% of target and EPS PSUs at 60% of target. Actual adjusted EPS of $9.98 compared with a $11.35 target. That is an important governance signal: the board did not simply adjust away underperformance.

Ownership is real relative to salary, but not founder-like. As of December 15, 2025, the proxy lists Amon with 217,483 shares and Palkhiwala with 54,803 shares, each below 1% of the company. Qualcomm requires the CEO to hold shares worth 10x base salary and other executive officers to hold 2x salary; unvested RSUs and PSUs do not count. The proxy says all named executive officers serving at that date met the guidelines. That is appropriate institutional alignment, not controlling-owner alignment.

Dilution requires monitoring. Data package Section 7 uses official stock-based compensation of $2.912 billion for the TTM period. Against TTM revenue of roughly $44.878 billion, SBC is about 6.5% of revenue. That is not extreme for a large technology company, but it is meaningful enough that the buyback program must be evaluated net of dilution rather than as pure accretion. Qualcomm's proxy also asked holders to approve a 24 million-share increase to the 2023 LTIP reserve at the 2026 annual meeting. Given the company's talent needs, this is understandable, but it reinforces the need to track SBC discipline.

Policy protections are solid. The proxy reports a clawback policy applicable to annual cash incentives and PSUs where required by policy, regulation, or stock-exchange rules. It also states that officers, directors, and covered employees may not hedge Qualcomm securities, and designated insiders may not pledge shares or hold them in margin accounts. Change-in-control arrangements do not provide single-trigger payments or excise-tax gross-ups. These are governance positives.

5. Disclosure quality and candor

Management's disclosure style is promotional but generally numerate. The last several quarters of call material show a consistent cadence: Amon explains the product and platform roadmap; Palkhiwala translates it into segment revenue, EBT margin, operating expense, capital return, and guidance. When conditions are favorable, management provides concrete markers such as Samsung share assumptions, QCT margin ranges, automotive revenue milestones, IoT growth, and product-design counts. When conditions are unfavorable, the team has shown willingness to name the pressure.

The clearest example is the Q1 FY2026 call. Amon and Palkhiwala explicitly described the memory shortage and DRAM pricing issue as a constraint on handset OEMs, especially in China. Palkhiwala then connected that issue to reduced chipset orders and guided QCT handset revenue to approximately $6 billion for Q2 FY2026. This is direct question-handling behavior: the explanation ties the cause to customer behavior and to a revenue line. It is not just "macro uncertainty."

Guidance discipline appears acceptable. Q4 FY2025 revenue and EPS exceeded the high end of guidance, and Q1 FY2026 non-GAAP EPS reached the upper end of the prior range. Management also framed the Q2 FY2026 slowdown before it hit the reported numbers. The language is still management-friendly: transcripts contain repeated phrases such as "on track," "record," "leadership," "strong," and "encouraged." But the hedging is balanced by enough numbers to test the claims.

Voluntary disclosure is mixed. Qualcomm gives QCT and QTL revenue and margins, plus QCT handsets, automotive, and IoT revenue. It discloses design wins and long-term 2029 targets. However, it does not yet give detailed economics for new data-center inference, robotics, or industrial acquisitions. It also does not disclose a clean revenue contribution from Alphawave in the current data package. That is reasonable at the earliest stage, but as data center becomes a thesis pillar, the management team will need to move from customer anecdotes and roadmap language to revenue, gross margin, backlog, customer concentration, and return metrics.

Overall candor grade: good enough for a compounder watchlist, not pristine. The team answers with numbers when the question is close to current operating reality. The more speculative the growth vector, the more the communication leans

toward narrative and roadmap.

6. Strategic coherence

Qualcomm's stated strategy is coherent. Its recent corporate language says the company delivers intelligent computing everywhere, built around AI, high-performance low-power compute, and connectivity. Amon's Q4 FY2024 formulation was sharper: transform Qualcomm from a wireless communications company into a connected computing company for the age of AI. The investment pattern supports that statement. The company is pushing Snapdragon into premium Android, PCs, XR/smart glasses, automotive digital chassis, industrial edge, robotics, and AI inference. The acquisitions of Alphawave, Ventana, Arduino, Edge Impulse, and Foundries.io all fit the same map: broaden compute platforms, improve developer access, and extend Qualcomm's edge-AI and connectivity stack into more endpoints and adjacent infrastructure.

The strategy also has a clear 5-10 year destination: reduce Apple and handset-cycle dependency by making Qualcomm a platform supplier across intelligent edge devices and selected data-center inference workloads. The fiscal 2029 targets for automotive and IoT provide long-dated milestones. Automotive has particular strategic logic because design wins convert over long program cycles and can create durable content per vehicle. IoT is more fragmented but broad enough to absorb Qualcomm's compute/connectivity strengths. PCs and data center are more competitive and therefore more speculative.

The biggest strategic question is not whether management has a plan. It clearly does. The question is whether the plan is narrow enough. Qualcomm is attempting to win in premium Android, automotive, industrial IoT, PCs, XR/smart glasses, robotics, and data-center inference while preserving the licensing franchise. That is a wide front. Amon's technical background and Qualcomm's IP base make the ambition plausible, but the risk of too many initiatives is real. The management team deserves credit for naming competitive shifts such as memory constraints, Apple transition, edge AI, and hyperscaler demand; it should be monitored for whether it also names failed initiatives quickly.

7. Governance flags

No blocking governance flag surfaced in the reviewed sources. Qualcomm has a single class of common stock for practical governance purposes; there is no founder-controlled dual-class structure in the materials reviewed. The proxy states that all directors except the CEO are independent and that the board has an independent chair. It reports no single-trigger change-in-control payments, no excise-tax gross-ups, stock-ownership guidelines, hedging and pledging restrictions, and a clawback policy.

There is one related-party item. The proxy discloses that Amon's brother, Rogerio Amon, serves as Vice President, Program Management, and that his fiscal 2025 compensation exceeded $120,000; the HR and Compensation Committee reviewed and approved the transaction. This is not a management-gate failure. It is disclosed, reviewed, and immaterial in company context. It should remain in the monitoring file.

I found no evidence in the reviewed proxy, 10-K/10-Q context, or data package of recent SEC enforcement, restatements, or material weaknesses in internal control. Insider ownership is modest but policy-compliant. Any insider-selling assessment should be handled separately with Form 4 detail; nothing in the current reviewed material suggests a clustered governance break.

8. Peer comparison

Against Jensen Huang at Nvidia, Amon is a less proven capital allocator. Nvidia's CEO has a founder-like ownership and an extraordinary track record of compounding through CUDA, GPUs, networking, and AI infrastructure. Qualcomm cannot match that per-dollar reinvestment record. Qualcomm's management is more conservative financially and more shareholder-return oriented, but it has not yet produced a comparable evidence trail in AI infrastructure.

Against Lisa Su at AMD, Amon is credible but still behind on transformation proof. AMD's management has delivered a decade-long turnaround, gained server CPU share, integrated Xilinx, and communicated product roadmaps with unusual precision. Qualcomm's transformation is earlier. Amon's edge-AI and automotive thesis may prove excellent, but its scorecard is still developing.

Against Hock Tan at Broadcom, Qualcomm is more technology-roadmap led and less financially austere. Broadcom's CEO has a clearer per-dollar M&A and operating-margin discipline record, albeit with a very different acquisition-heavy model. Qualcomm's buyback-heavy capital return is shareholder-friendly, but Broadcom has a stronger reputation for forcing acquired assets through a hard return filter. Qualcomm ranks below Broadcom on proven capital allocation and below Nvidia on visionary compounding, but above many semiconductor peers on disclosure, balance-sheet conservatism, and the internal

coherence of its diversification plan.

On five-year stewardship, Amon is in the upper half of semiconductor CEOs but not elite yet. The difference between "good operator" and "follow for a decade" depends on whether automotive, IoT, and data center become measurable high-return pools rather than offsets to handset maturity.

9. Verdict on the management gate

Management gate: YELLOW.

Qualcomm's management team is capable, internally seasoned, and strategically coherent. Amon and Palkhiwala have delivered strong TTM cash generation, maintained QCT margins, communicated handset headwinds with reasonable candor, and built early evidence that automotive and IoT diversification is real. Governance and compensation are generally shareholder-aligned, with independent board leadership, robust ownership guidelines, clawback and anti-hedging policies, and performance equity that can pay below target.

The gate does not clear to PASS because the capital-allocation record is still mixed. Returning 104.5% of TTM free cash flow through buybacks and dividends while simultaneously widening the strategic aperture into data-center inference, robotics, and industrial edge AI is aggressive. The March 2026 $20 billion buyback authorization may prove smart if Qualcomm is undervalued, but it also raises the bar for evidence that repurchases are more attractive than reinvestment. Amon is close to a five-year CEO record, but the most important transformation investments are still short-duration and not yet proven on revenue, margin, or ROIC.

The right stance is not distrust. It is watchful respect. Management is not a reason to reject Qualcomm, but it is not yet a clean Gideon-style management PASS. Upgrade to PASS would require two to three more quarters of candid disclosure on the handset slowdown, continued automotive/IoT execution against 2029 targets, clear economics for Alphawave/Ventana/data-center inference, and evidence that buybacks remain opportunistic rather than reflexive.

Source notes

- Local ER2 data package: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Qualcomm\data_package.md`, Sections 7 and 9.
- Qualcomm 2026 proxy statement, filed 2026-01-22: https://investor.qualcomm.com/financial-info-sec-filings/sec-filings/sec-filings-details/default.aspx?FilingId=19077734
- Qualcomm March 17, 2026 capital-return release: https://www.qualcomm.com/news/releases/2026/03/qualcomm-increases-quarterly-cash-dividend-and-announces-new--20
- Qualcomm Q1 FY2026 earnings call transcript: https://www.fool.com/earnings/call-transcripts/2026/02/04/qualcomm-qcom-q1-2026-earnings-call-transcript/
- Qualcomm Q4 FY2025 earnings call transcript: https://www.fool.com/earnings/call-transcripts/2025/11/06/qualcomm-qcom-q4-2025-earnings-call-transcript/
- Qualcomm Q4 FY2024 and Q1 FY2025 earnings-call transcripts used as additional disclosure-quality checks.

Appendix W - Moat and 2046 Durability

Qualcomm Incorporated - Moat and 2046 Durability

Prepared: 2026-04-25 Owned output: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Qualcomm\appendix_moat.md` Ticker: QCOM Company: Qualcomm Incorporated Stage 0 anchor: today is 2026-04-25; the latest reported quarter is Q1 FY2026 ended 2025-12-28; TTM is Q2 FY2025 through Q1 FY2026; TTM+5 horizon is 2030-12-28; the 2046 test date is 2046-04-25.

Segment appendix status: the reviewed QCT, QTL, and QSI appendices are now complete and supersede the earlier stub limitation. This moat appendix now incorporates their segment-level evidence: QCT base horizon revenue of $49.896 billion with a 29.6% margin and $14.761 billion of operating-income proxy; QTL base horizon revenue of $6.380 billion with a 72.0% margin and $4.594 billion of EBT proxy; and QSI carrying $0 revenue with a base $100 million investment-driven EBT treatment. The remaining limitation is no longer missing segment work. It is disclosure depth: QCT still lacks annual stream histories, stream-level margins, Apple modem runoff, and automotive backlog conversion detail; QTL still lacks OEM, geography, royalty-rate, and renewal-schedule splits; and QSI still lacks portfolio value and invested-capital detail.

1. Moat Taxonomy Applied

Network effects are indirect rather than consumer-style. Qualcomm does not run a marketplace whose value rises mechanically with every user. The relevant network is the cellular standards ecosystem: OEMs, carriers, foundries, operating-system vendors, device makers, automotive OEMs, industrial developers, regulators, and standards bodies all coordinate around global radio standards, certification requirements, and device roadmaps. Qualcomm's QTL patent portfolio benefits from cumulative standards adoption, and QCT benefits because deep standards knowledge lets it ship modem-to-RF-to-application-processor platforms that OEMs can certify and launch globally. This is a real ecosystem advantage, but it is not impregnable; Apple has shown that a sufficiently scaled customer can internalize parts of the stack over time.

Switching costs are strong in premium handsets and stronger in automotive, but they differ by segment. In handsets, an OEM can switch silicon suppliers, yet the cost is not just the chip price. It includes redesigning the board, modem/RF tuning, carrier testing, thermal and power validation, camera pipeline work, software support, global band compliance, launch-risk management, and time-to-market. That favors Qualcomm at the premium Android tier. In automotive, switching costs are more durable because design wins move through long qualification cycles, safety and reliability requirements, and multi-year model lifetimes. In QTL, switching costs are contractual and legal: device makers that need cellular IP must license standard-essential and related patents, but they can litigate, renegotiate, or seek lower royalty bases.

Scale economies are meaningful. QCT had TTM revenue of $38.896 billion, or 86.7% of consolidated revenue, and that scale supports heavy R&D across modems, CPUs, GPUs, NPUs, RF front end, connectivity, software, and reference designs. The same silicon building blocks can be reused across handsets, automotive cockpit, IoT, PCs, XR, edge AI, and emerging data-center initiatives. QTL adds a second scale loop: licensing cash helps fund R&D, R&D contributes to future standards and products, and those products reinforce Qualcomm's role with OEMs and standards bodies. The risk is that scale is partly tied to handsets, where units are mature and customer concentration is high.

Brand is moderate, not primary. Snapdragon matters to Android OEMs and some consumers, especially in premium devices where performance, battery life, AI capability, camera quality, and connectivity are visible selling points. But Qualcomm's brand is mostly an ingredient brand and procurement trust signal, not a consumer monopoly. Brand helps close platform decisions when performance is proven; it does not by itself prevent MediaTek, Samsung Exynos, Apple internal silicon, NVIDIA in automotive, or domestic Chinese alternatives from gaining share.

Regulatory position is double-edged. QTL's economics are rooted in standard-essential patents, FRAND commitments, and long licensing agreements. That creates a legally enforceable profit pool, but the same structure invites antitrust, royalty-base, patent-exhaustion, and jurisdictional challenges. The primer notes that adverse outcomes could require reduced royalty rates, altered royalty bases, chipset-level licensing, or renegotiated agreements. The moat is therefore real but politically contested. A regulated moat that produces 70%+ EBT margins is valuable, but it cannot be treated as permanent law-of-nature economics.

IP and patents are one of the core moat pillars. QTL monetizes decades of cellular R&D and standards participation, while QCT uses the same technical base to build integrated platforms. FY2025 QTL revenue was $5.582 billion and QTL EBT was

$4.043 billion, a 72.4% EBT margin; TTM QTL revenue was $5.639 billion and TTM QTL EBT was $4.117 billion. Those economics are direct evidence that the IP portfolio is not merely a talking point. The question is not whether the IP moat exists today; it is whether royalty rates, device bases, and license compliance remain sufficiently intact through 2046.

High-trust procurement is strong. Qualcomm sells into areas where failure is expensive: global phone launches, cellular certification, premium Android performance, automotive cockpit/connectivity, industrial edge devices, and eventually possibly data-center connectivity or inference. OEMs do not buy only a component; they buy reduced launch risk, support, and a tested roadmap. That procurement trust is especially important in automotive, where long design-in cycles and product lives can create stickier sockets than consumer electronics.

2. Per-Segment Moat

QCT is the scale and platform-integration moat. The reviewed QCT appendix starts from TTM Handsets revenue of $28.042 billion, Automotive revenue of $4.097 billion, and IoT revenue of $6.757 billion, then models a base horizon QCT case of $49.896 billion of revenue, 29.6% margin, and $14.761 billion of operating-income proxy by 2030-12-28. That base case gives Qualcomm credit for real diversification: Handsets rise modestly to $31.727 billion, Automotive doubles to $8.241 billion, and IoT grows to $9.928 billion. But Handsets still remain 63.6% of QCT at the horizon, so the moat is still led by premium Android and modem/RF platform economics rather than by a fully diversified auto/edge franchise. The 5-year durability is good, because premium Android OEMs still need proven global platforms and QCT can plausibly grow while holding margins near 30%. The 10-year durability is yellow because Apple modem attrition, MediaTek high-end improvement, Samsung internal silicon, and Chinese domestic-silicon policy can pressure share or price. The 20-year durability depends on whether Qualcomm remains a leading low-power connected compute platform beyond phones. The earliest warning sign would be premium Android share loss accompanied by QCT margin compression, not simply a cyclical handset unit decline.

Automotive, inside QCT, has a smaller but potentially more durable moat. Q1 FY2026 Automotive revenue was $1.101 billion, up 15% year over year and above $1 billion for a second consecutive quarter. The moat is design-win stickiness, qualification burden, long platform lives, connectivity know-how, and the chance to expand from telematics and cockpit into more compute-rich software-defined vehicle systems. The 5- and 10-year durability are credible if production ramps follow design wins. The 20-year durability is plausible but not proven because NVIDIA, Mobileye, traditional auto semiconductor suppliers, and automaker internal software stacks can limit profit pools. The earliest warning sign would be design-win announcements failing to convert into production revenue growth or automotive gross/EBT contribution falling short as content shifts toward lower-margin sockets.

IoT is the weakest and broadest QCT moat. TTM IoT revenue was $6.757 billion, and the most recent quarter grew 9% year over year. The moat is reuse of Qualcomm's low-power compute, connectivity, AI acceleration, and developer tools across industrial, edge networking, consumer, PC/XR, robotics, and embedded markets. But IoT is not one market. It is a basket of niches with different competitors, channels, and replacement cycles. The 5-year moat is moderate because Qualcomm can reuse technology and acquisitions. The 10- and 20-year moat are yellow because fragmentation can dilute pricing power and focus. The earliest warning sign would be IoT revenue volatility with no clear margin expansion or failure of Dragonwing/edge AI platforms to become repeatable procurement defaults.

QTL is the legal-IP moat and the profit ballast. It is only 12.6% of FY2025 consolidated revenue but contributes high-margin EBT. The reviewed QTL appendix models base horizon revenue of $6.380 billion, a 72.0% margin, and $4.594 billion of EBT proxy, versus TTM QTL revenue of $5.639 billion and TTM EBT of $4.117 billion. The moat is Qualcomm's cellular patent portfolio, license agreements, standards participation, and the fact that device makers need access to cellular IP whether or not they buy Qualcomm chips. The 5-year durability is strong, as shown by QTL margins of 68.4%, 72.3%, and 72.4% from FY2023 through FY2025, 73.0% across the TTM bridge, and 77% in Q1 FY2026. The 10-year durability is good but legally contested because the QTL appendix still lacks OEM, geography, royalty-rate, royalty-cap, and renewal-schedule splits. The 20-year durability is yellow because 6G and post-smartphone device mix, regulatory pressure, and royalty-base challenges could reduce the royalty pool. The earliest warning sign would be major license renewals at lower effective rates, adverse regulatory orders, or rising unlicensed device sales.

QSI is not an operating moat. The reviewed QSI appendix keeps revenue at $0 in every case and treats QSI as a separate investment-driven EBT line, with base horizon EBT of $100 million, bull EBT of $300 million, and bear EBT of negative $100 million. QSI may help strategic positioning, but it should not carry any blended company moat judgment because portfolio value, invested capital, realized versus unrealized gains, and cash-flow contribution are not disclosed.

The blended moat is weaker than QTL alone and less stable than the best premium-QCT narrative. Qualcomm's equity is mostly exposed to QCT, because QCT is 86.7% of TTM revenue. QTL has superior economics but is too small by revenue to

make the whole business immune to handset or QCT pricing pressure. The company earns a moat gate only if QCT platform integration and QTL IP economics are evaluated together; either pillar alone is insufficient for a 20-year compounder verdict.

3. Margin Persistence Evidence

The margin evidence supports a moat but also shows concentration. Consolidated operating income in the TTM period was $12.166 billion on $44.867 billion of revenue, a 27.1% operating margin. Income before tax was $12.575 billion, or 28.0% of revenue. FY2025 net income was distorted by a tax valuation allowance, so operating income, EBT, and free cash flow are more useful for moat evidence than GAAP net income alone. TTM free cash flow was $12.926 billion on TTM revenue of $44.867 billion, a strong cash-generation profile for a fabless semiconductor and IP company.

Segment margins are the cleanest evidence. QCT EBT margins were 26.1% in FY2023, 28.7% in FY2024, and 30.4% in FY2025. TTM QCT EBT was $11.726 billion on $38.896 billion of revenue, or about 30.1%. Q1 FY2026 QCT EBT margin was 31%, down one point from 32% in Q1 FY2025 but still strong. This is meaningful because QCT competes in visible, well-funded markets; margins above 30% at this scale are hard to sustain without product differentiation, platform leverage, or procurement trust.

QTL margin persistence is stronger. QTL EBT margins were 68.4% in FY2023, 72.3% in FY2024, 72.4% in FY2025, and 77% in Q1 FY2026. Those numbers are direct evidence of IP economics and contract leverage. The weakness in the evidence is that only FY2023-FY2025 annual segment histories and TTM bridge data are present in the package, not a full 10-year segment margin table. The available history is sufficient for an initial moat read, but a final assembled report should not overclaim 10-year stability unless older annual segment data are explicitly incorporated.

The reviewed segment models strengthen the 5-year durability case without clearing the 20-year test. In the base horizon case, QCT grows from $38.896 billion of TTM revenue to $49.896 billion while margin normalizes only modestly from 30.1% to 29.6%. QTL grows from $5.639 billion to $6.380 billion while margin remains near its historical low-70s pattern at 72.0%. QSI contributes only $100 million of base EBT and no operating revenue. That combined evidence says Qualcomm can plausibly remain a high-margin business through 2030, but it does not prove that QCT stream economics, Apple runoff, QTL renewals, and regulatory risk are durable through 2046.

4. AI Disruption Stress Test

Handsets are not a prompt-to-output workflow. Qualcomm sells critical hardware, firmware, software, and system integration for devices that must operate within power, thermal, connectivity, camera, graphics, and carrier-certification constraints. AI changes the feature set: on-device inference, NPU performance, memory bandwidth, model optimization, privacy, and battery efficiency become more important. That is platform-adjacent, not purely disruptive. The risk is that AI increases the strategic value of custom silicon for Apple, Samsung, Google, and Chinese OEMs, pushing them to internalize more compute. The moat survives if Qualcomm remains the best merchant platform for OEMs that cannot justify Apple-scale internal silicon.

Automotive is also not a simple workflow. It is chokepoint-like in procurement, qualification, safety, and long product cycles, while AI increases demand for edge compute, cockpit intelligence, driver monitoring, ADAS perception, and vehicle connectivity. AI can expand Qualcomm's addressable content, but it also intensifies competition with NVIDIA, Mobileye, and automaker software stacks. The most protected AI exposure is automotive connectivity/cockpit/edge compute where qualification and system reliability matter. The most exposed portion is high-performance ADAS/AD compute if the market standardizes around another ecosystem.

IoT is mixed. Some IoT use cases are hardware chokepoints: industrial handhelds, edge gateways, networking, cameras, robotics controllers, and embedded modules need low-power compute and connectivity. Other IoT categories risk commoditization as generic AI modules and low-cost SoCs improve. Qualcomm's edge AI and developer-tool acquisitions can help, but broad IoT lacks the concentrated moat of QTL or premium handset platforms. AI disruption is therefore yellow for IoT: it creates growth vectors but can also make more competitors look technically adequate.

QTL is protected from AI in the narrow sense because a foundation model cannot replicate standard-essential patent rights. But AI may change the device mix that generates royalties. If future connected devices are cheaper, less handset-centric, or litigate different royalty bases, QTL economics could soften even while cellular connectivity remains essential.

5. The 2046 Test

Today is 2026-04-25. The 2046 test date is 2046-04-25, twenty years from today. A plausible 2046 Qualcomm still sells low-power connected compute platforms, modem/RF systems, AI accelerators, software stacks, and reference platforms into

personal devices, vehicles, industrial edge systems, robots, and selected data-center or edge-infrastructure markets. Its customers are still global device OEMs, automotive OEMs and Tier 1s, industrial equipment makers, networking vendors, and licensees of cellular and adjacent IP. Handsets as a category probably still exist but are less dominant in revenue mix; the economic center has shifted toward a broader installed base of connected AI devices and vehicles. QCT still exists, but it is less handset-heavy. QTL still exists, but the royalty base is more diversified across 5G Advanced, 6G, and successor cellular/short-range connectivity standards. QSI remains noncore unless it has been absorbed into product strategy.

Directionally, the 2046 operating margin is likely lower than today's best QTL-weighted profile but still attractive if the platform moat survives. The reason is mix: automotive, IoT, and data-center or infrastructure silicon are unlikely to replicate QTL's 70%+ EBT margin, and some are more competitive than premium Android. The company still makes money at high returns if two moats remain intact: first, standards/IP economics that give Qualcomm a royalty stream across connected devices; second, platform-integration economics that make Qualcomm the trusted merchant supplier for OEMs that need high-performance, low-power, certified connected AI systems without building everything internally.

The completed segment appendices make the five-year bridge more credible but do not make the 2046 bridge self-evident. QCT's base case still has Handsets as the largest 2030 revenue and profit pool, and the QCT appendix explicitly flags missing annual stream histories, stream-level margins, Apple modem revenue base, and automotive backlog. QTL's base case keeps the royalty engine intact, but the QTL appendix explicitly flags missing customer, geography, royalty-rate, and renewal-schedule data. QSI adds strategic optionality, not operating durability. Therefore the 2046 test is still a durability judgment, not a spreadsheet extension of the 2030 base case.

The bear-case 2046 description is concrete. Qualcomm becomes a mature merchant chip supplier with a shrinking premium handset role after Apple, Samsung, and leading Chinese OEMs internalize more silicon; MediaTek and domestic Chinese vendors pressure Android pricing; QTL royalty rates are reduced by regulation and license renegotiation; automotive grows but at lower margins and with fragmented wins; IoT remains a collection of competitive niches; data-center efforts never reach ecosystem parity. In that world Qualcomm still has revenue, but it no longer has a Gideon-quality 20-year moat. I assign that bear case meaningful probability. It is not the base case because current QCT and QTL margins remain strong, but the vector is obvious enough that the 2046 test should be YELLOW rather than PASS.

6. Competitive Threat Inventory

Threat	Mechanism	Segment(s) affected	Earliest observable signal	Plausibility
Apple and other customer internal silicon	Large customers internalize modems, processors, or integrated platforms to control roadmap and cost	QCT Handsets, possibly QTL bargaining	Apple-related QCT revenue attrition, lower premium handset share, customer concentration falling with margin compression rather than healthy diversification	High
Licensing/regulatory compression	Courts, regulators, or licensees force lower royalty rates, altered royalty bases, or less favorable renewals	QTL	QTL revenue stagnates or falls despite device growth; EBT margin breaks below historical 68%-77% range; adverse renewal disclosures	Medium-high
Merchant-platform competition and China self-sufficiency	MediaTek, Samsung, Chinese domestic silicon, NVIDIA/Mobileye in auto, and local policy reduce share or pricing	QCT Handsets, Auto, IoT	QCT EBT margin compression, premium Android socket losses, automotive design wins not converting, China-headquartered revenue pressure	High

7. Pricing Power Verification

Observable pricing power is strongest in QTL. A segment that earns FY2025 EBT of $4.043 billion on $5.582 billion of revenue has structural pricing power or legal-contract power, even if management does not print a clean price-increase table. The persistence of QTL margins around 68%-77% across FY2023, FY2024, FY2025, and Q1 FY2026 suggests the royalty model has not yet been competed away. Still, this is not unqualified pricing power; it is litigated and regulated pricing power. The verification standard should be license economics and renewal outcomes, not posted price increases.

QCT pricing power is real but more mixed. QCT EBT margins expanded from 26.1% in FY2023 to 30.4% in FY2025 while revenue rose from $30.382 billion to $38.367 billion. That indicates Qualcomm retained attractive economics through a competitive cycle. Q1 FY2026 QCT revenue grew 5% year over year, but QCT EBT margin slipped from 32% to 31%, which argues for disciplined caution rather than a blanket pricing-power claim. The premium platform likely has pricing power when

Qualcomm delivers a full Snapdragon system; lower-tier components and broad IoT are more exposed to price competition.

Automotive pricing power is not yet fully proven. Long design cycles and qualification requirements can support stickiness, and the second consecutive quarter above $1 billion of automotive revenue is encouraging. But the data package does not provide automotive segment margin, contract escalators, backlog conversion, or minimum commitments. The right conclusion is that automotive has switching-cost potential, not yet fully verified pricing power. IoT pricing power is weaker still because the category is fragmented.

8. Moat Verdict

Moat gate: YELLOW

2046 test: YELLOW

Qualcomm has a real moat today: QTL's high-margin IP economics and QCT's scale/platform-integration economics are observable in segment margins, cash generation, and continued premium-platform relevance. The company is not a no-moat semiconductor vendor. The completed segment appendices strengthen the evidence for a 5-year base case: QCT can plausibly reach $49.896 billion of revenue at a 29.6% margin, QTL can plausibly reach $6.380 billion of revenue at a 72.0% margin, and QSI should be treated as a small noncore investment EBT line. But the blended moat is less durable than the strongest QTL paragraph would imply because QCT is 86.7% of TTM revenue and remains heavily handset-dependent, with Apple/internal silicon, China policy, MediaTek/Samsung competition, and automotive/IoT execution risk all visible. The 2046 description can be written with specificity, but it depends on Qualcomm turning a handset-centered platform into a broader connected AI edge and automotive franchise while keeping QTL largely intact. That is plausible enough to avoid FAIL, but contested enough that the moat and 2046 gates remain YELLOW even after the segment appendices are complete.

Appendix B1 - Qualcomm CDMA Technologies (QCT)

Qualcomm CDMA Technologies (QCT) - Segment Deep Dive

Prepared: 2026-04-25 Owned output: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Qualcomm\appendix_B_qct.md` Ticker: QCOM Company: Qualcomm Incorporated Segment: Qualcomm CDMA Technologies (QCT) Segment slug: qct Stage 0 anchor: TTM ends 2025-12-28; TTM+5y horizon is 2030-12-28. Unit convention: USD millions unless otherwise stated. Segment profit is referred to as operating income or OI for ER2 model comparability, but Qualcomm's reportable-segment profit measure in the data package is EBT. All Qualcomm historical dollar figures and management commentary below use `data_package.md` as the controlling source.

0. Segment Boundary + Taxonomy Note

Qualcomm CDMA Technologies, or QCT, is Qualcomm's product and systems segment. The data package maps QCT to products and services that include integrated circuits and system software sold into three disclosed revenue streams: Handsets, Automotive, and IoT. QCT is a reportable segment, while Handsets, Automotive, and IoT are disaggregated QCT revenue streams rather than standalone reportable segments. The taxonomy used here is stable over the historical window supplied in the data package. There is no restatement boundary flagged for QCT in the last three years, but there is an important disclosure boundary: FMP product segmentation does not expose the Handsets, Automotive, and IoT stream detail, so QCT stream dollars are anchored to the SEC-sourced rows in the data package rather than to FMP product tables. This appendix therefore models QCT from TTM stream dollars, not from a fabricated annual stream series.

1. What This Segment Actually Is

QCT is the operating engine that sells Qualcomm's semiconductor platforms, modem-RF systems, processors, connectivity chips, software stacks, and system-level reference designs into device and edge-compute markets. The segment's economic customer is usually an original equipment manufacturer, tier-one supplier, module maker, or ecosystem partner that needs a complex wireless and compute platform to put into a physical product. In Handsets, the customer set includes Android smartphone OEMs and, for modem components, Apple where Qualcomm still supplies cellular chips under existing arrangements. In Automotive, the customer set is automakers and tier-one suppliers adopting Snapdragon Digital Chassis products for connectivity, cockpit, driver assistance, central compute, and software-defined vehicle architectures. In IoT, the customer set is more fragmented: industrial device makers, consumer electronics companies, XR and wearable vendors, networking and edge device companies, and embedded-compute customers.

The product is not just a commodity chip. A flagship Snapdragon handset platform combines CPU, GPU, NPU, ISP, modem, RF front end, power management, connectivity, software enablement, camera support, AI acceleration, security, and reference implementation work. That full stack matters because OEMs are buying time-to-market and integration confidence as much as silicon area. The same logic carries into Automotive, where the product increasingly includes cockpit compute, ADAS compute, connectivity, and software integration, and into IoT, where the product can range from low-power connectivity to high-performance edge AI.

Pricing is mostly product-sale based, with revenue recognized as chips and related systems are sold. QCT does not have the explicit royalty model of QTL. QCT's price realization depends on bill of materials content per device, product tier, attach rates for RF and connectivity components, customer concentration, foundry and packaging costs, and the competitive alternatives available to each OEM. In Handsets, the highest pricing power usually sits in premium Android platforms because performance, modem quality, thermal behavior, AI acceleration, camera support, and global carrier certification are difficult to replicate. In lower tiers, MediaTek and other vendors create more price pressure. In Automotive, pricing is shaped by design-win economics and long production lives: once qualified, a platform can produce revenue for years, but initial development and validation burdens are higher. In IoT, the range is wider, and pricing power depends on whether Qualcomm is supplying a differentiated compute and connectivity platform or a more substitutable embedded component.

Go-to-market is ecosystem-led. In Handsets, Qualcomm sells to OEMs that build Android devices and to large customers that need cellular modem capabilities. The annual premium Snapdragon cycle creates a visible product cadence. In Automotive, the design-win cycle is longer, and revenue can lag bookings by several years because vehicles move from platform selection to engineering validation to production. In IoT, Qualcomm sells through both direct engagements and module or channel partners, with product breadth spanning consumer, enterprise, and industrial uses. The common thread is that QCT monetizes Qualcomm's wireless engineering base by turning standards, modem expertise, compute design, and software

integration into merchant platforms.

2. Current Economics

QCT is the dominant revenue segment inside Qualcomm. The data package shows FY2025 QCT revenue of $38,367 million, equal to 86.6% of consolidated revenue, and FY2025 QCT EBT of $11,670 million, a 30.4% EBT margin. The TTM period ending 2025-12-28 is the controlling forward-model anchor. On that basis, QCT revenue was $38,896 million, equal to 86.7% of consolidated revenue, and QCT EBT was $11,726 million, implying a TTM segment profit margin of 30.1%. The most recent quarter, Q1 FY2026, printed QCT revenue of $10,613 million, up 5% year over year, with QCT EBT of $3,302 million and a 31% margin. These figures are from data_package.md Section 3 and Section 5.

The current product mix remains handset-heavy. The data package's QCT stream table gives TTM Handsets revenue of $28,042 million, or 72.1% of QCT revenue and 62.5% of consolidated revenue. Automotive was $4,097 million, or 10.5% of QCT revenue. IoT was $6,757 million, or 17.4% of QCT revenue. The mix is therefore still controlled by Handsets even though the strategic narrative emphasizes Automotive, IoT, edge AI, robotics, and data center optionality. This distinction matters for valuation. A high-growth Automotive story cannot carry the QCT model by itself from today's base, because every 1% change in the Handsets stream is worth roughly $280 million of TTM revenue, while every 1% change in Automotive is roughly $41 million.

Recent growth is not uniform across streams. In Q1 FY2026, Handsets revenue was $7,824 million versus $7,574 million in Q1 FY2025, up 3%. Automotive revenue was $1,101 million versus $961 million, up 15%. IoT revenue was $1,688 million versus $1,549 million, up 9%. Total QCT revenue was $10,613 million versus $10,084 million, up 5%. The data package also records management commentary that FY2025 had record QCT revenues, QCT non-Apple revenue grew 18% year over year, and combined Automotive plus IoT grew 27% year over year. Those growth disclosures are useful for directional judgment, but the model below uses stream-level TTM dollars as the revenue base because the data package does not provide a complete annual stream history.

Capital intensity for QCT is indirect rather than foundry-owned. Qualcomm is a fabless semiconductor company, so QCT does not need to fund a leading-edge wafer-fab buildout on its own balance sheet. That is an advantage versus integrated manufacturers, but it does not make the business capital-light in an economic sense. QCT consumes heavy R&D, advanced-node mask sets, software engineering, validation, reference designs, foundry prepayments or capacity commitments at times, and inventory risk. The data package does not break QCT's capital expenditures by segment, so this appendix treats capital intensity qualitatively. The key point is that QCT's accounting margin can be high because manufacturing assets sit largely at foundry partners, but reinvestment needs remain structurally high because modem, RF, AI, CPU, GPU, automotive safety, and software stacks require constant refresh.

3. Unit Economics

QCT's unit economics begin with silicon content per device or platform. In Handsets, revenue per unit depends on whether Qualcomm sells only an application processor, a modem-RF system, a broader RF front-end set, connectivity, power management, or a nearly complete premium platform. A premium Android flagship can carry materially higher Qualcomm content than a low-end smartphone because the OEM needs leading CPU and GPU performance, modem leadership, AI acceleration, image processing, gaming performance, global carrier support, and RF integration. The more Qualcomm captures the system, the more revenue it earns per device and the more difficult it is for an OEM to substitute a single component without re-architecting the product.

The gross margin side depends on price tier, die size, process node cost, yield, packaging, memory or component pass-through exposure, and customer mix. Premium nodes and advanced packaging are expensive, but premium handset platforms can support high average selling prices if performance and time-to-market matter. Lower-tier platforms are more vulnerable to MediaTek competition and to OEM bargaining power. Automotive can carry attractive lifetime economics when Qualcomm wins a platform because the revenue stream can persist across vehicle model years, but the upfront engineering burden, safety validation, support requirements, and long qualification cycles absorb operating expense before revenue scales. IoT margins are likely more mixed because some products are differentiated edge AI or XR platforms while others are more competitive connectivity or embedded-compute products.

Operating expense is the central reinvestment lever. The data package shows QCT operating expenses of $7,395 million in FY2025, $7,021 million in FY2024, and $7,091 million in FY2023. QCT cost of revenues was $19,302 million in FY2025 against revenue of $38,367 million, while EBT was $11,670 million. That structure shows a segment with high gross-profit dollars and meaningful R&D and selling support. The segment's EBT margin improved from 26.1% in FY2023 to 28.7% in

FY2024 and 30.4% in FY2025, with TTM margin of 30.1%. The improvement came during a period when revenue rose from $30,382 million in FY2023 to $38,367 million in FY2025, suggesting scale leverage, stronger mix, and operating discipline. It should not be extrapolated mechanically. At these margin levels, future margin upside requires either richer mix, broader platform attach, or disciplined opex absorption; downside can come quickly if handset volumes soften, foundry costs rise, Apple modem revenue rolls off, or Automotive and IoT investments grow ahead of revenue.

For modeling, I treat Handsets as the highest-margin current stream, Automotive as a scale-up stream whose margin can rise over time but is still burdened by engineering support, and IoT as a mixed-margin stream. Qualcomm does not disclose stream-level profit in the data package, so these are modeling allocations, not reported facts. The revenue-weighted margin assumptions are calibrated to reconcile to QCT's current 30.1% TTM segment margin and to plausible mix dynamics. This is important: the forward model does not assign the entire QCT margin to Automotive or IoT just because those streams are growing faster. It forces the total segment margin to be reconstructable from product-level revenue and assumed product-level margins.

The biggest margin swing factor is handset concentration. If premium Android demand remains resilient and Qualcomm keeps strong share in premium Snapdragon sockets, Handsets can fund the R&D base and allow Automotive and IoT to scale into higher margins. If Handsets stagnate or Apple modem revenue falls faster than Android gains, the fixed engineering base becomes more visible and QCT margin compresses. Automotive adds a second potential margin engine, but only if design wins convert into production revenue without price concessions or support costs overwhelming scale benefits. IoT can help diversify revenue, but it is not one market; weakness in consumer IoT could offset strength in XR, industrial, or edge AI.

4. Competitive Dynamics

QCT competes in several overlapping markets rather than one clean industry. In smartphone application processors and modem platforms, the primary external competitors are MediaTek, Apple, Samsung LSI, Huawei HiSilicon in the markets where Huawei can use internal chips, and UNISOC in lower tiers. Counterpoint's global smartphone AP-SoC share data for Q2 2025 placed MediaTek at 37%, Qualcomm at 26%, Apple at 14%, UNISOC at 13%, Samsung at 6%, and HiSilicon at 4% by shipments. That shipment-share framing is useful but incomplete because Qualcomm's economics are skewed toward higher-value premium Android sockets and modem-RF content rather than low-end unit share. A lower unit share can still produce strong revenue if the share is concentrated in premium devices.

The handset market itself is mature. IDC's final historical 2025 smartphone tracker reported 1.2617 billion worldwide smartphone shipments in 2025, up 2.0% year over year, and its March 2026 page also referenced a sharp 2026 decline forecast tied to memory shortage pressure. This reinforces management's own near-term handset caution in the data package, where the Q1 FY2026 commentary flagged industry-wide memory supply constraints. The structural implication is that Handsets should not be modeled as a broad unit-growth story. The base case should come from content gains, premium mix, AI feature pull, modem-RF attach, and Android share resilience, not from a large increase in global smartphone units.

In Automotive, QCT competes against NVIDIA, Mobileye, Ambarella, Renesas, NXP, Texas Instruments, Infineon, STMicroelectronics, MediaTek in some cockpit/connectivity opportunities, and automaker internal efforts. The competitive battlefield is shifting from individual chips to platform architecture: cockpit, connectivity, ADAS, central compute, software, AI, and long-term support. Qualcomm's advantage is strongest where wireless connectivity, cockpit compute, Android ecosystem knowledge, low-power AI, and automotive-grade integration intersect. NVIDIA is a formidable competitor in high-performance automated-driving compute and software ecosystems. Mobileye remains powerful in ADAS perception and safety stacks. Traditional auto semiconductor suppliers have entrenched relationships, functional safety know-how, and broad catalogs. Qualcomm's challenge is to turn design wins into production revenue while expanding from cockpit/connectivity into higher-value ADAS and central compute without being forced into margin-eroding competition.

In IoT, the competitor set is diffuse. It includes MediaTek in consumer and connectivity chips, NVIDIA in edge AI modules and robotics, AMD and Intel in embedded compute, NXP, STMicro, Renesas, Infineon, Silicon Labs, Nordic, Broadcom, and many specialized vendors depending on the application. This fragmentation cuts both ways. It creates many addressable niches for Qualcomm's connectivity and edge AI expertise, but it also means fewer winner-take-most dynamics than premium handsets. Qualcomm can earn attractive economics in XR, wearables, industrial edge, robotics, and high-end connected devices where performance-per-watt and wireless integration matter. It has less pricing power in low-end embedded connectivity markets where customers can choose from multiple suppliers and qualification barriers are lower.

Pricing power is strongest when Qualcomm's platform reduces customer execution risk. A handset OEM preparing a flagship launch cannot easily replace a mature Snapdragon platform if it needs global carrier support, high-end camera and gaming performance, thermal predictability, and on-device AI features. An automaker building a software-defined vehicle platform

values long lifecycle support and a roadmap. An XR or edge AI device maker may value power efficiency and software enablement. Pricing power weakens when the customer can dual-source, when performance requirements are modest, when the chip is a small and substitutable component, or when a large customer can vertically integrate. Apple is the obvious example of vertical-integration risk. Huawei is another, though constrained by geopolitics and manufacturing access. Samsung can dual-source between Snapdragon and Exynos at times, which can pressure share and pricing.

5. Moat at the Segment Level

QCT's moat is real but uneven. The strongest element is accumulated wireless systems know-how. Qualcomm has spent decades translating cellular standards into merchant silicon, software, RF systems, and carrier-certified platforms. That expertise is difficult to reproduce because it sits across standards participation, modem architecture, RF front-end integration, power management, software, testing, and customer launch support. It is not enough to design a fast chip; a premium mobile platform has to work across networks, bands, geographies, thermal envelopes, camera systems, AI workloads, and OEM schedules.

The second moat element is ecosystem cadence. Premium Android OEMs build roadmaps around Snapdragon launches. Developers, accessory makers, carriers, and reviewers recognize the platform. This does not give Qualcomm monopoly power, but it lowers friction for OEMs and creates a default choice at the premium end. The data package's management framing around record QCT revenues and QCT non-Apple growth is consistent with that platform role. The danger is that cadence can become a treadmill. Qualcomm must keep earning the slot every year because MediaTek, Samsung, Apple, and internal OEM projects keep advancing.

The third moat element is system attach. QCT becomes more defensible when it sells a modem-RF system, connectivity, compute, AI acceleration, and software support as a bundle. A single component can be competed away more easily than a full validated platform. This is the logic behind Snapdragon Digital Chassis in Automotive and the logic behind edge AI and XR opportunities in IoT. The more the customer depends on Qualcomm's full-stack integration, the more switching costs and launch risk protect the account.

The fourth moat element is scale. QCT's TTM revenue base of $38,896 million funds R&D that smaller competitors cannot easily match. Scale matters in leading-edge chip design because design costs, software enablement, validation, and customer support are large fixed investments. That said, scale is not exclusive to Qualcomm. Apple funds internal silicon at enormous scale. MediaTek has scale in smartphone SoCs. NVIDIA has scale and software depth in AI compute. Automotive incumbents have breadth and customer trust. QCT's moat is therefore best described as a high-quality engineering and ecosystem moat in specific premium and connected-platform contexts, not as an impregnable semiconductor franchise.

Over five to ten years, the moat is most durable in premium Android, modem-RF, automotive cockpit/connectivity, and integrated low-power edge AI platforms. It is less durable in low-end handset SoCs, commodity IoT connectivity, and any customer relationship where a large OEM has the strategic will and technical capacity to vertically integrate. The segment deserves a moat premium because its recent 30% margin is backed by technical complexity and customer reliance, but the model should still carry bear-case margin compression. Semiconductor moats are tested every product cycle.

6. Historical Growth Rates - Reproduced From Data Package

The data package provides three annual QCT reportable-segment years and TTM stream-level detail. It does not provide a complete annual Handsets, Automotive, and IoT stream history. Therefore, the table below separates reported annual QCT history from stream-level TTM and Q1 FY2026 disclosure. Product-level annual history beyond TTM is flagged as a data gap rather than back-solved.

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	Disclosed CAGR / trend	Most recent YoY	Data package cite
QCT total	$30,382	$33,196	$38,367	FY2023-FY2025 CAGR 12.3%; FY2025 YoY +15.6% calculated from row values	Q1 FY2026 +5%	data_package Section 3 rows 88 and 91-92; Section 5 row 166
Handsets	[DATA GAP: annual stream dollars not provided]	[DATA GAP: annual stream dollars not provided]	[DATA GAP: annual stream dollars not provided]	TTM dollars only in package; no annual stream CAGR	Q1 FY2026 +3%	data_package Section 4 rows 125-130 and 134-139; Section 10 row 270
Automotive	[DATA GAP: annual stream dollars not provided]	[DATA GAP: annual stream dollars not provided]	[DATA GAP: annual stream dollars not provided]	TTM dollars only in package; no annual stream CAGR	Q1 FY2026 +15%	data_package Section 4 rows 125-130 and 134-139; Section 10 row 270

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	Disclosed CAGR / trend	Most recent YoY	Data package cite
IoT	[DATA GAP: annual stream dollars not provided]	[DATA GAP: annual stream dollars not provided]	[DATA GAP: annual stream dollars not provided]	TTM dollars only in package; no annual stream CAGR	Q1 FY2026 +9%	data_package Section 4 rows 125-130 and 134-139; Section 10 row 270
QCT non-Apple revenue	[DATA GAP: dollar base not provided]	[DATA GAP: dollar base not provided]	[DATA GAP: dollar base not provided]	FY2025 growth-only disclosure of +18%	n/a	data_package Section 4 row 148; Section 7 row 192; Section 10 row 271
Automotive + IoT combined	[DATA GAP: annual combined dollars not provided]	[DATA GAP: annual combined dollars not provided]	[DATA GAP: annual combined dollars not provided]	FY2025 growth-only disclosure of +27%	Components: Auto +15%; IoT +9% in Q1 FY2026	data_package Section 4 row 149; Section 7 row 193; Section 10 row 272

QCT stream	Q2 FY2025	Q3 FY2025	Q4 FY2025	Q1 FY2026	TTM	TTM share of QCT	Data package cite
Handsets	$6,929	$6,328	$6,961	$7,824	$28,042	72.1%	data_package Section 4 rows 125-130
Automotive	$959	$984	$1,053	$1,101	$4,097	10.5%	data_package Section 4 rows 125-130
IoT	$1,581	$1,681	$1,807	$1,688	$6,757	17.4%	data_package Section 4 rows 125-130
Total QCT revenue	$9,469	$8,993	$9,821	$10,613	$38,896	100.0%	data_package Section 4 row 130; Section 3 row 108

Internal arithmetic check: QCT annual FY2024 to FY2025 equals $33,196 x 1.156 = $38,375, within rounding of the disclosed $38,367, so the annual row is arithmetically coherent. QCT annual FY2023 to FY2024 equals $30,382 x 1.093 = $33,208, within rounding of the disclosed $33,196. Q1 FY2026 stream checks also tie: Handsets $7,574 x 1.03 = $7,801 versus $7,824 disclosed, Automotive $961 x 1.15 = $1,105 versus $1,101 disclosed, and IoT $1,549 x 1.09 = $1,688, exactly matching the disclosed IoT row after rounding. No annual stream back-solving is used because the package does not provide enough annual stream history to do it without importing unsupported assumptions.

7. Management Guidance - Quoted From Data Package Section 6

The data package's management-commentary section is intentionally bounded. It gives several QCT-relevant anchors and warns that some growth areas remain forward optionality rather than modeled historical revenue lines. The first handset-specific item is the near-term headwind quote: management referred to "industry-wide memory supply constraints" when discussing the near-term handset outlook. Interpretation: Handsets should not be modeled from Q1's 3% growth as if supply were unconstrained. The quote supports a base case that assumes muted near-term handset growth and only modest five-year CAGR, with a bear case that allows temporary or prolonged volume pressure.

The second QCT item is the FY2025 strength quote: management described "record QCT revenues." Interpretation: this confirms that FY2025 was not a depressed trough year. A forward model that compounds from TTM should not assume a snapback from trough conditions. It should instead ask whether QCT can grow from an already strong revenue base of $38,896 million.

The third item is the non-Apple disclosure: management cited "18% year-over-year growth" for QCT non-Apple revenue in FY2025. Interpretation: diversification within QCT is not only theoretical; non-Apple revenue is growing. However, the data package does not provide non-Apple dollar revenue, so this supports mix and moat reasoning but cannot become a separate model line.

The fourth item is the combined Automotive plus IoT disclosure: management cited "27% year-over-year" growth for the combined lines in FY2025. Interpretation: the growth engines outside Handsets are real and material directionally, but the model still needs to respect the current base. TTM Automotive plus IoT revenue is $10,854 million, or 27.9% of QCT. Even high growth in those lines must be weighed against Handsets at $28,042 million.

The fifth item is the capital-return framing: the March 2026 release ties dividend increase and a $20.0 billion buyback authorization to "stockholder returns" while pursuing diversification. Interpretation: management is signaling confidence in cash generation, but capital returns do not directly raise QCT revenue. The appendix treats them as a corporate capital-allocation point, not a QCT growth driver.

[DATA GAP: The data package does not contain a full investor-day style QCT backlog, automotive design-win pipeline, Apple modem revenue base, or stream-level margin disclosure. Those gaps limit precision in separating Handsets, Automotive, and IoT profitability.]

8. Forward Growth Assumptions - Explicit, Per Product

The forward horizon is exactly five calendar years from the TTM end date: 2025-12-28 to 2030-12-28. The model starts with TTM stream revenue from data_package Section 4: Handsets $28,042 million, Automotive $4,097 million, and IoT $6,757 million. The product-level CAGRs below are not management guidance; they are ER2 modeling assumptions anchored to the data package history, management commentary, and competitive context.

Base case: QCT grows from $38,896 million to $49,896 million over five years, a 5.1% segment CAGR. The base case assumes Handsets remain mature but not structurally declining, Automotive continues to compound from a small base as design wins convert, and IoT grows at a healthy but moderating rate.

Product	TTM revenue	Historical anchor	Latest YoY	Mgmt FY+1 guide / commentary	Base CAGR TTM to TTM+5y	TTM+5y revenue	Justification
Handsets	$28,042	QCT annual FY2023-FY2025 CAGR 12.3%; no annual handset stream CAGR in package	+3%	Near-term outlook affected by "industry-wide memory supply constraints"	2.5%	$31,727	Mature smartphone units and Apple risk cap growth, but premium Android content, AI features, modem-RF attach, and Snapdragon platform strength support modest positive CAGR.
Automotive	$4,097	TTM stream dollars; annual stream CAGR not disclosed	+15%	Automotive is part of the combined Auto + IoT "27% year-over-year" FY2025 growth disclosure	15.0%	$8,241	Design-win conversion, cockpit/connectivity strength, and central-compute adoption justify mid-teens growth, below recent combined Auto + IoT growth to allow for program timing and auto-cycle variability.
IoT	$6,757	TTM stream dollars; annual stream CAGR not disclosed	+9%	IoT is part of combined Auto + IoT "27% year-over-year" FY2025 growth disclosure	8.0%	$9,928	Edge AI, XR, industrial, and connected-device growth support high-single-digit growth, but fragmentation and customer cyclicality keep it below Automotive.
Total QCT	$38,896	FY2023-FY2025 QCT CAGR 12.3%	+5%	"record QCT revenues"	5.1% blended	$49,896	Mix shift away from Handsets creates segment growth above handset growth but below FY2023-FY2025 QCT CAGR.

Bull case: QCT grows from $38,896 million to $58,770 million, an 8.6% segment CAGR. The bull case assumes premium Android share and content hold up, Automotive ramps faster into central compute and ADAS, and IoT benefits from edge AI and XR adoption.

Product	TTM revenue	Historical anchor	Latest YoY	Mgmt FY+1 guide / commentary	Bull CAGR TTM to TTM+5y	TTM+5y revenue	Justification
Handsets	$28,042	QCT annual FY2023-FY2025 CAGR 12.3%; no annual handset stream CAGR in package	+3%	Memory constraints are near-term rather than permanent in this case	5.0%	$35,789	Premium Android content per device rises, AI features drive replacement demand, and Apple modem erosion is offset by non-Apple QCT strength.

Product	TTM revenue	Historical anchor	Latest YoY	Mgmt FY+1 guide / commentary	Bull CAGR TTM to TTM+5y	TTM+5y revenue	Justification
Automotive	$4,097	TTM stream dollars; annual stream CAGR not disclosed	+15%	Combined Auto + IoT FY2025 growth of "27% year-over-year" supports the growth runway	22.0%	$11,073	Design wins convert faster, cockpit/connectivity expands into ADAS and central compute, and software-defined vehicle adoption raises Qualcomm content per car.
IoT	$6,757	TTM stream dollars; annual stream CAGR not disclosed	+9%	Diversification includes AI at the edge and broader connected platforms	12.0%	$11,908	XR, industrial edge AI, robotics-adjacent platforms, and connected consumer devices grow faster than the base case, with Qualcomm retaining differentiated performance-per-watt.
Total QCT	$38,896	FY2023-FY2025 QCT CAGR 12.3%	+5%	"record QCT revenues" plus diversification	8.6% blended	$58,770	Automotive and IoT become large enough to lift total QCT growth even with Handsets below historical QCT CAGR.

Bear case: QCT grows from $38,896 million to $40,148 million, a 0.6% segment CAGR. This case does not assume a collapse, but it does assume handset pressure, slower auto conversion, and more competitive IoT pricing.

Product	TTM revenue	Historical anchor	Latest YoY	Mgmt FY+1 guide / commentary	Bear CAGR TTM to TTM+5y	TTM+5y revenue	Justification
Handsets	$28,042	QCT annual FY2023-FY2025 CAGR 12.3%; no annual handset stream CAGR in package	+3%	"industry-wide memory supply constraints" persist longer and demand softens	-1.0%	$26,668	Smartphone units weaken, Apple modem revenue rolls off faster than Android content gains, and MediaTek/Samsung competition pressures mid and premium tiers.
Automotive	$4,097	TTM stream dollars; annual stream CAGR not disclosed	+15%	Auto remains a growth area but program ramps are slower	8.0%	$6,020	Design wins still convert, but vehicle-cycle weakness, delayed SDV adoption, and competition from NVIDIA, Mobileye, and incumbents reduce CAGR.
IoT	$6,757	TTM stream dollars; annual stream CAGR not disclosed	+9%	Diversification narrative proves uneven	2.0%	$7,460	Consumer IoT and embedded markets remain cyclical, low-end competition limits pricing, and edge AI adoption is slower than expected.
Total QCT	$38,896	FY2023-FY2025 QCT CAGR 12.3%	+5%	Record revenue base leaves less room for rebound	0.6% blended	$40,148	Automotive and IoT growth mostly offset handset erosion rather than creating major segment expansion.

The thesis-consistency check is especially important for Automotive. The latest disclosed Automotive YoY is +15%, while the base case uses a 15% five-year CAGR. That does not require a sharp deceleration; it assumes recent growth persists as backlog converts. The bull case lifts Automotive to 22%, supported by the strategic shift to cockpit, ADAS, and central compute, but still below the combined Auto + IoT FY2025 growth disclosure of 27%. The bear case drops Automotive to 8%, reflecting the risk that design wins ramp later than expected. For Handsets, the model deliberately decelerates from QCT's reported FY2023-FY2025 segment CAGR because the data package's current handset YoY is only +3% and management flagged memory constraints.

9. Forward Operating Margin Assumptions - Explicit and Justified

Current QCT TTM segment profit is $11,726 million on $38,896 million of revenue, or a 30.1% margin. The data package does not disclose stream-level margins. The model therefore uses stream-level margin assumptions that reconcile to the total segment economics and reflect likely business mix. These are not reported facts. They are modeling assumptions for ER2 synthesis.

Product	Current margin evidence	Base TTM+5y margin	Bull TTM+5y margin	Bear TTM+5y margin	Mechanism
Handsets	QCT total TTM margin 30.1%; Handsets 72.1% of TTM QCT revenue	32.0%	33.0%	28.0%	Handsets likely remain the profit anchor. Base assumes stable premium mix; bull assumes richer content and AI attach; bear assumes Apple erosion, pricing pressure, and weaker utilization.
Automotive	QCT total TTM margin 30.1%; no stream margin disclosed	27.0%	30.0%	21.0%	Automotive should gain scale leverage as design wins convert, but safety validation, support, and competitive ADAS investment keep base margin below Handsets. Bull reaches QCT-average margin with central-compute scale; bear absorbs delayed ramps and pricing pressure.
IoT	QCT total TTM margin 30.1%; no stream margin disclosed	24.0%	27.0%	20.0%	IoT is mixed. XR and edge AI can be attractive, but embedded and consumer IoT are fragmented. Base assumes some scale; bear assumes commoditization and weaker demand.
Total QCT	TTM margin 30.1% from data_package Section 3	29.6%	31.2%	25.5%	Blended margin is revenue-weighted from product assumptions.

The base-case margin of 29.6% is 50 basis points below the current TTM margin. That may look conservative given QCT's recent margin improvement, but it reflects two offsetting forces: Handsets remain profitable, while faster-growing Automotive and IoT are assumed to carry somewhat lower margins than premium Handsets during scale-up. It also leaves room for the memory constraint and customer mix risks already visible in management commentary.

The bull-case margin of 31.2% is 110 basis points above current TTM. The mechanism is mix quality, not just revenue growth. Handsets maintain premium economics, Automotive scales into higher-value central compute and ADAS sockets, and IoT mix shifts toward differentiated edge AI and XR platforms. A margin above this would require stronger evidence of stream-level profitability than the data package provides.

The bear-case margin of 25.5% is 460 basis points below current TTM. The mechanism is a combination of handset pricing pressure, faster Apple-related erosion, lower utilization or mix deterioration, Automotive investment ahead of revenue, and IoT commoditization. This is not a disaster case. It is a plausible semiconductor-cycle and competitive-pressure case for a business whose margins are high and whose largest stream faces mature end-market demand.

10. Segment Rollup - Bottoms-Up Tie

The rollup below is built directly from the product-level revenue and margin assumptions in Sections 8 and 9. Segment totals reconcile to product assumptions within rounding. The model uses TTM revenue as the start point and compounds each product stream for exactly five calendar years to 2030-12-28.

Case	Handsets revenue	Automotive revenue	IoT revenue	QCT revenue	Handsets OI	Automotive OI	IoT OI	QCT OI	QCT margin
Bear	$26,668	$6,020	$7,460	$40,148	$7,467	$1,264	$1,492	$10,223	25.5%
Base	$31,727	$8,241	$9,928	$49,896	$10,153	$2,225	$2,383	$14,761	29.6%
Bull	$35,789	$11,073	$11,908	$58,770	$11,810	$3,322	$3,215	$18,347	31.2%

The base case implies QCT adds $11,000 million of revenue over five years. Handsets add $3,685 million, Automotive adds $4,144 million, and IoT adds $3,171 million. This is a balanced but not heroic diversification path: Automotive becomes much more important, but Handsets remain the largest revenue and profit line in 2030. In the base case, Handsets are still 63.6% of QCT revenue at the horizon, down from 72.1% in TTM. Automotive rises from 10.5% to 16.5%, and IoT moves from 17.4% to 19.9%.

The bull case implies $19,874 million of revenue growth. Automotive and IoT together rise to $22,981 million, or 39.1% of QCT revenue. That is the strategic diversification outcome investors want to underwrite, but it still depends on Handsets growing to $35,789 million. Even in the bull case, Qualcomm is not a pure automotive or IoT story by 2030; it is a broader edge-compute platform with a still-large handset core.

The bear case implies only $1,252 million of total QCT revenue growth. Automotive and IoT add enough revenue to offset most handset erosion, but blended margin falls to 25.5%. This is the case that matters most for valuation discipline: even if diversification is directionally real, the company's largest profit pool can still compress if handset share, pricing, or customer mix disappoint. The bear case is also where the absence of stream-level margin disclosure matters most, because investors cannot observe whether Automotive and IoT are already close to QCT-average profitability or still meaningfully below it.

11. Key Risks and Wildcards

Bear risk - Apple modem and customer concentration: If Apple internalizes more modem content faster than expected, Handsets could decline even if Android remains stable. The data package does not include Apple-specific QCT dollars, creating a [DATA GAP: Apple modem revenue base not provided]. This risk primarily affects the bear case and margin assumptions.

Bear risk - smartphone maturity and memory constraints: The data package records management's near-term handset caution around "industry-wide memory supply constraints." If supply constraints, pricing, or consumer demand pressure persist, Handsets could underperform the base case. Because Handsets are 72.1% of TTM QCT, even small growth changes matter.

Bear/Base risk - MediaTek and Samsung competition: Qualcomm has strong premium positioning, but MediaTek has large unit share in smartphone SoCs and can move upward in performance tiers. Samsung can use Exynos in selected Galaxy models. Competition can pressure both revenue share and pricing.

Base risk - Automotive conversion timing: Automotive revenue growth depends on design wins converting into production volume. Vehicle programs can slip, model launches can be delayed, and automakers can rebalance suppliers. This affects the base and bear cases more than the bull case.

Bull wildcard - software-defined vehicle central compute: If Qualcomm expands from cockpit and connectivity into broader central compute and ADAS domains, Automotive revenue per vehicle could rise faster than modeled. This is the main bull-case upside lever.

Bull wildcard - edge AI and XR adoption: IoT could exceed base growth if on-device AI, XR glasses, industrial edge compute, and robotics-adjacent devices move from pilots to volume categories. The data package treats these as forward optionality because historical dollars are not disclosed.

Bear risk - stream margin opacity: Qualcomm discloses QCT segment profit but not stream-level margin. The model assumes Automotive and IoT are below Handsets in base-case profitability. If they are much lower than assumed, diversification could dilute margins more than expected. If they are already high margin, the bull margin case may be too conservative.

Bear/Base risk - foundry and advanced-node cost: QCT depends on external foundries and advanced process technology. Cost inflation, capacity tightness, yield issues, or geopolitical disruption could pressure gross margin or supply availability. This risk is not visible in the historical QCT stream table but is central to semiconductor unit economics.

Summary Table

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	$40,148	25.5%	$10,223	25%
Base	$49,896	29.6%	$14,761	50%
Bull	$58,770	31.2%	$18,347	25%
Probability-weighted	$49,678	29.2%	$14,523	100%

Data Gap Register

[DATA GAP: Annual Handsets, Automotive, and IoT stream dollars are not provided in the data package beyond TTM quarter detail and Q1 FY2026 year-over-year comparisons.]

[DATA GAP: QCT non-Apple revenue dollars are not provided; only FY2025 growth of +18% is disclosed in the data package.]

[DATA GAP: Apple modem revenue base and runoff schedule are not provided in the data package.]

[DATA GAP: Stream-level QCT margins for Handsets, Automotive, and IoT are not disclosed in the data package.]

[DATA GAP: Automotive backlog/design-win dollar pipeline is not provided in the data package.]

External Competitive Context Sources Used

- Counterpoint Research, Global Smartphone AP-SoC Market Share, Q2 2025: https://archive.ph/2025.12.04-142935/https%3A/counterpointresearch.com/en/insights/global-smartphone-apsoc-market-share-quarterly
- IDC Smartphone Market Insights, updated 2026-03-23: https://www.idc.com/promo/smartphone-market-share/market-share/
- Qualcomm automotive platform context, Snapdragon Digital Chassis momentum, 2026-01-05: https://www.qualcomm.com/news/releases/2026/01/qualcomm-drives-the-future-of-mobility-with-strong-snapdragon-di

Appendix B2 - Qualcomm Technology Licensing (QTL)

Appendix B - Qualcomm Technology Licensing (QTL)

Ticker: QCOM Company: Qualcomm Incorporated Segment: Qualcomm Technology Licensing (QTL) Stage 0 anchor: TTM ends 2025-12-28; TTM+5y horizon is 2030-12-28 Unit convention: USD millions unless otherwise stated. Percentages are calculated from the cited data package rows unless noted.

0. Segment Boundary + Taxonomy Note

QTL is Qualcomm's patent-licensing segment. The taxonomy is stable in the current Qualcomm data package: Qualcomm reports QCT, QTL, and QSI as reportable segments, with QCT containing the product and system software business, QTL containing licensing, and QSI containing strategic investments. The data package quotes the FY2025 Form 10-K taxonomy at a short level: QTL "grants licenses" and is separately disclosed from QCT and QSI. There is no data-package evidence of a QTL restatement boundary within the last three years, so the FY2023-FY2025 and TTM comparisons below are treated as comparable. Q4 FY2025 has an explicitly disclosed $1 million presentation difference: the Q4 FY2025 8-K prints QTL revenue of $1,409 million, while the FY2025 Form 10-K annual less Q1-Q3 implies $1,410 million. The data package uses $1,410 million to preserve annual and TTM arithmetic, and this appendix follows that source-of-truth choice.

1. What This Segment Actually Is

QTL is the monetization layer for Qualcomm's cellular invention base. The customer is normally not the end consumer and not necessarily the chip buyer. The economic customer is the device maker, contract manufacturer, or OEM ecosystem participant that manufactures, sells, or uses devices covered by Qualcomm's intellectual property. The product is not a physical modem, application processor, RF front-end component, or automotive module. It is the right to use specified Qualcomm patents and related intellectual property in wireless products.

The segment exists because Qualcomm has spent decades contributing technologies to mobile standards and related wireless systems. The local FY2025 10-K source file describes QTL as granting licenses or rights to use portions of Qualcomm's intellectual property portfolio, including patent rights essential or useful in wireless products. That is a broader formulation than "cellular SEPs only." In practice, the core economics are tied to cellular standards, handset units, handset ASPs, the negotiated royalty base, and the enforceability of license agreements. The more phones, tablets, connected devices, or other cellular products that ship under valid licenses, and the higher the royalty-bearing selling price within applicable caps and terms, the more revenue QTL can generate.

The go-to-market model is therefore contract-first, audit-heavy, and legal/regulatory-sensitive. Qualcomm does not need to manufacture a chip to collect QTL revenue. A handset OEM can use a Qualcomm chipset, a competing chipset, or an internal chipset and still owe QTL royalties if the shipped device practices licensed Qualcomm patents. That distinction is the heart of the segment's quality and controversy. It makes QTL less exposed than QCT to Qualcomm's own chip share in a given design, but more exposed to patent exhaustion arguments, FRAND disputes, license renegotiations, regulator pressure, and underpayment behavior by OEMs.

Pricing is not disclosed in the data package at a per-device royalty rate level. The correct modeling base is therefore segment revenue and EBT, not an invented unit-rate schedule. Economically, QTL revenue can be framed as:

Licensed device units x royalty-bearing device price or cap x contractual royalty rate x compliance/collection factor.

Only the resulting segment revenue is disclosed in the data package. The unit base, ASP base, rate schedule, caps, customer mix, and compliance factor are not provided at QTL-specific numeric detail. This is a critical model limitation because two cases can arrive at similar revenue through different mechanisms. A stable smartphone unit base with premium-mix inflation is different from flat ASPs and better compliance. A China-heavy Android replacement cycle is different from a U.S. premium iPhone-heavy cycle. The data package does not allow those components to be separated cleanly.

That said, the segment's reported behavior is highly informative. FY2025 QTL revenue was $5,582 million, only 12.6% of Qualcomm consolidated revenue, but FY2025 QTL EBT was $4,043 million. The calculated EBT margin was 72.4%, far above QCT's FY2025 EBT margin of 30.4%. On a TTM basis through Q1 FY2026, QTL revenue was $5,639 million and QTL EBT was $4,117 million. That makes QTL a smaller revenue stream but a disproportionately important profit stream.

2. Current Economics (FY2025 and TTM)

The current QTL base is a mature, high-margin licensing annuity with modest reported growth. Annual segment revenue was $5,306 million in FY2023, $5,572 million in FY2024, and $5,582 million in FY2025. Annual EBT was $3,628 million, $4,027 million, and $4,043 million over the same periods. The calculated annual EBT margin improved from 68.4% in FY2023 to 72.3% in FY2024 and 72.4% in FY2025. The margin improvement matters because it indicates that a licensing revenue base growing only modestly can still expand profit if enforcement, mix, or cost discipline improve.

TTM through 2025-12-28 shows an even stronger margin snapshot: QTL revenue of $5,639 million and QTL EBT of $4,117 million, implying a 73.0% EBT margin. The TTM quarterly revenue components are $1,319 million in Q2 FY2025, $1,318 million in Q3 FY2025, $1,410 million in Q4 FY2025, and $1,592 million in Q1 FY2026. The TTM quarterly EBT components are $929 million, $942 million, $1,015 million, and $1,231 million. The most recent quarter was the strongest quarter in the TTM set, with Q1 FY2026 QTL revenue of $1,592 million, up 4% year over year, and QTL EBT of $1,231 million, up 6% year over year. The Q1 FY2026 QTL EBT margin was 77%, compared with 75% in Q1 FY2025.

This segment is not capital-intensive in the normal product-company sense. The underlying invention engine sits mostly in Qualcomm's R&D and platform development infrastructure, much of which is reported at the company and QCT operating model level rather than as QTL capital expenditure. The QTL segment itself bears licensing costs, litigation/enforcement costs, legal expense, compliance and audit infrastructure, and some allocation of operating expenses. It does not need inventory, wafer capacity, or a large working-capital cycle to support incremental royalty revenue. That is why the segment can report margins in the 70% range.

The key sub-product is effectively the patent license portfolio. Qualcomm does not disclose QTL revenue by customer, geography, patent family, standard generation, handset tier, or device category in the data package. For modeling, this appendix uses one QTL line rather than fabricating sub-lines. The underlying drivers are still analyzed explicitly: global handset units, premium handset ASP, Chinese OEM mix, Apple/Samsung/Xiaomi and other large OEM concentration, Huawei/China dynamics, contract renewal risk, and legal/regulatory durability.

[DATA GAP: The data package does not disclose QTL revenue by OEM, geography, device category, royalty rate, royalty cap, standard generation, unit base, or handset ASP base. All QTL forecasts in this appendix therefore model the disclosed segment line directly rather than constructing a pseudo-precise per-device royalty waterfall.]

3. Unit Economics

QTL's unit economics are licensing economics. Once the patent portfolio exists and a license is signed, incremental royalty revenue has very high contribution margin. The cost base is not zero, but it is not manufacturing-like. Qualcomm must fund legal teams, licensing executives, audits, patent prosecution, standards participation, and dispute resolution. It must maintain enough engineering credibility and standards contribution to keep future patent portfolios relevant. It must also bear litigation and regulatory defense costs when OEMs or governments challenge the model. But it does not need to buy components for each royalty-bearing device.

The revenue-to-profit bridge is therefore unusually powerful: a $100 million revenue change can plausibly carry a much larger profit impact than a $100 million change in QCT product revenue. The reported data supports this. In FY2025, QTL produced $4,043 million of EBT on $5,582 million of revenue, with $1,539 million of costs and expenses. In TTM, QTL produced $4,117 million of EBT on $5,639 million of revenue. The TTM implied cost base is $1,522 million, very close to the FY2025 cost base despite the higher recent revenue. This is the scale-leverage argument in one line: the licensing infrastructure is relatively fixed over ordinary volume ranges.

Margin can break down in several ways. First, royalty revenue can fall faster than costs if a major licensee withholds payment, delays reporting, or wins less favorable contract terms. Second, legal and regulatory costs can spike during major disputes even if revenue is initially stable. Third, if regulators force lower rates, narrower royalty bases, compulsory licensing to component suppliers, or changes to "no license, no chips" style practices, the revenue base can reset while fixed costs remain. Fourth, as patents expire, the company needs new standards-relevant inventions to replace the economic weight of older portfolios. The FY2025 10-K risk language in the local source file explicitly flags that licensing success requires Qualcomm to evolve the patent portfolio and renew or renegotiate expiring license agreements.

Margin can also improve. If license renewals are completed without major rate concessions, if handset premium mix rises, if China OEM compliance remains orderly, and if legal spend normalizes after dispute-heavy years, QTL can maintain or slightly improve margins. The Q1 FY2026 margin of 77% is evidence that the segment can operate above the FY2025 full-year 72.4% margin in a favorable quarter. I do not underwrite 77% as the structural horizon margin because quarterly timing, catch-up royalties, mix, and cost timing can distort one quarter. But it is a useful upper-bound marker for what the segment can produce

when the revenue base is healthy and the cost base is not under stress.

For ER2 synthesis, I treat QTL EBT margin as the segment operating margin proxy because the data package provides segment EBT, not a separate QTL operating income line. This is a modeling convention, not a claim that Qualcomm's formal segment EBT equals GAAP operating income in all respects. The convention is acceptable for segment rollup because the same segment disclosure basis is used consistently across historical and forward cases.

4. Competitive Dynamics

QTL's competition is not conventional product competition. A patent-licensing segment does not compete for shelf space in the same way a modem or application processor does. The competitive pressure comes from substitute technology ownership, bargaining leverage of large OEMs, legal challenges, regulatory remedies, standards policy changes, and attempts by licensees to shift royalty obligations down the supply chain.

The most important counterparties are major handset and connected-device OEMs. Qualcomm's FY2025 10-K local source file says a small number of customers/licensees have historically represented a significant portion of consolidated revenue and that Apple, Samsung, and Xiaomi each represented 10% or more of FY2025 consolidated revenue. This is not a QTL-only customer table, and the data package does not include a QTL customer split. Still, it is directly relevant because QTL economics depend on large licensees remaining licensed, reporting accurately, and selling royalty-bearing premium-tier devices.

Apple is the most visible example of both durability and risk. Qualcomm and Apple announced a global settlement in April 2019, including a six-year license agreement effective April 1, 2019 with a two-year extension option, and a multiyear chipset supply agreement. That settlement did not eliminate renewal risk forever. It created a defined contract window. As of the Stage 0 date, the base six-year term would have reached April 2025, with the option period, if operative, extending the license window to April 2027. The data package does not state the current Apple license status, so I do not model Apple-specific QTL revenue. The correct analytical takeaway is narrower: one major OEM renewal can matter a great deal even when the segment is reported as a single line.

China is the other central competitive/regulatory vector. The local FY2025 10-K source file states that China including Hong Kong represented $20,340 million, or 46%, of FY2025 company revenue. That is a company-wide geography statistic, not a QTL-only statistic. It matters for QTL because Chinese handset OEMs are important participants in the global Android ecosystem, and because U.S./China trade and national security tensions can affect both product sales and royalty behavior. The local 10-K risk language also notes that Chinese licensees could delay or cease royalty payments, which would materially affect the business. Huawei is specifically named in the local 10-K context because the U.S. Department of Commerce revoked an export license under which Qualcomm had sold certain products to Huawei; the product-revenue point is QCT-specific, but Huawei device share can indirectly influence QTL if devices shift among OEMs with different licensing behavior or royalty economics.

Regulatory competition has been intense. In the United States, the FTC case was the largest recent stress test of Qualcomm's licensing model. The FTC case page records that the agency filed a complaint charging Qualcomm with anticompetitive tactics. But the Ninth Circuit reversed the district court's decision in 2020, and the FTC later declined to seek Supreme Court review in 2021. Legal commentary from Sullivan & Cromwell and other law firms summarized the appellate holding as rejecting antitrust liability for several challenged licensing practices, including the absence of an antitrust duty to license rival chipmakers. This was a major durability win for QTL, but it is not a permanent global safe harbor. Regulators outside the United States can still challenge rates, bases, or practices, and standards bodies can influence licensing norms.

The direct substitute to QTL is not MediaTek or Samsung Exynos as chip suppliers; it is a world in which device makers can use cellular technology without paying Qualcomm at current economics. That can happen through lower negotiated rates, narrower royalty bases, patent invalidation, exhaustion rulings, compulsory licensing, or successful shifting of royalties to suppliers. The competitive question is therefore whether Qualcomm's patent portfolio remains essential and enforceable enough that OEMs prefer signing and renewing to litigating or withholding payment.

5. Moat at the Segment Level

QTL's moat is a patent, standards, and enforcement moat. It is not a brand moat in the consumer sense, and it is not a low-cost manufacturing moat. The moat has four parts.

First, Qualcomm owns a broad cellular patent portfolio built over multiple technology generations. The local FY2025 10-K source file describes QTL's rights as including patents essential and/or useful in wireless products. Standards-essential

patents are powerful because a device implementing a standard may need access to the covered invention. The more central Qualcomm's inventions are to 3G, 4G, 5G, and future wireless standards, the stronger QTL's bargaining position.

Second, Qualcomm has a long operating history of signing, renewing, auditing, and enforcing licenses. Licensing scale is itself a capability. A smaller patent holder may own good patents but lack the global legal, compliance, and commercial infrastructure to collect royalties across hundreds of counterparties and jurisdictions. Qualcomm has already fought the defining model-level disputes and still reports QTL margins above 70%.

Third, QTL benefits from the ecosystem importance of Qualcomm's broader platform. Although QTL is legally distinct from QCT product sales, Qualcomm's role in modems, RF, premium Android platforms, automotive connectivity, and standards contribution reinforces its relevance to OEMs. Even when the royalty obligation is tied to patents rather than chip supply, OEMs face a repeat-game counterparty that is deeply embedded in wireless product roadmaps.

Fourth, the legal precedent stack is better than it looked at the worst point of the FTC litigation. The Ninth Circuit reversal did not immunize every practice forever, but it materially reduced the probability of a near-term U.S. court-imposed reset of the core model. The durability conclusion is therefore positive but conditional: QTL has a real moat, yet the moat is always being re-litigated at the edges.

The moat can erode. Patent portfolios decay as patents expire. New standards can reduce the relative importance of legacy inventions. OEMs can consolidate bargaining power. Apple, Samsung, Xiaomi, and Chinese OEMs can use their scale to negotiate hard. Regulators can decide that the social cost of a strong SEP monetization model is too high. Standards bodies can push policy changes that reduce returns to innovators. Licensees can underreport, underpay, or hold out during disputes. These are not theoretical. Qualcomm's own FY2025 risk language, in the local source file, lists strategies licensees and other parties may use to reduce or avoid royalties, including litigation, FRAND arguments, appeals to governments, collective action, lobbying, and attempts to shift royalty obligations to suppliers.

My moat score for QTL as a segment is high but not pristine. It is stronger than a normal semiconductor product cycle moat because it can earn royalties even when another chip supplier wins the socket. It is weaker than a pure monopoly utility because the rules of monetization are contested, contracts expire, and regulator attitudes can change. Over a five-year ER2 horizon, the base case assumes the moat persists with modest erosion at the edges. Over a ten-year horizon, the risk is that patent expiry and policy pressure compound unless Qualcomm keeps refreshing the portfolio with standards-relevant inventions.

6. Historical Growth Rates - Reproduced from Data Package

The data package provides QTL segment-level history but no QTL product-level breakdown. The historical table therefore uses QTL as the product/sub-segment line. This is not a simplification of a disclosed sub-segment table; it is a constraint imposed by the source package.

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	3-yr CAGR / available period CAGR	Most recent YoY	Data package cite
QTL licensing revenue	5,306	5,572	5,582	2.6% FY2023-FY2025 CAGR	+0.2% FY2025 YoY; +4% Q1 FY2026 YoY	data_package Section 3 annual segment table rows for QTL revenue; Section 5 Q1 FY2026 metric table row for QTL revenue
QTL EBT	3,628	4,027	4,043	5.6% FY2023-FY2025 CAGR	+0.4% FY2025 YoY; +6% Q1 FY2026 YoY	data_package Section 3 annual segment table rows for QTL EBT; Section 5 Q1 FY2026 metric table row for QTL EBT
QTL EBT margin	68.4%	72.3%	72.4%	+400 bps FY2023-FY2025	+10 bps FY2025 YoY; +200 bps Q1 FY2026 YoY	data_package Section 3 annual segment table rows for QTL EBT margin; Section 5 Q1 FY2026 metric table row for QTL EBT margin

TTM bridge from the data package:

Metric	Q2 FY2025	Q3 FY2025	Q4 FY2025	Q1 FY2026	TTM	Data package cite
QTL revenue	1,319	1,318	1,410	1,592	5,639	data_package Section 3 TTM segment history rows for QTL revenue

Metric	Q2 FY2025	Q3 FY2025	Q4 FY2025	Q1 FY2026	TTM	Data package cite
QTL EBT	929	942	1,015	1,231	4,117	data_package Section 3 TTM segment history rows for QTL EBT
QTL EBT margin	70.4%	71.5%	72.0%	77.3%	73.0%	calculated from data_package Section 3 TTM segment rows

Internal arithmetic checks:

Check	Calculation	Result
FY2023 to FY2024 QTL revenue	5,306 x 1.050 = 5,571	Pass versus reported 5,572; rounding difference only
FY2024 to FY2025 QTL revenue	5,572 x 1.002 = 5,583	Pass versus reported 5,582; rounding difference only
TTM QTL revenue	1,319 + 1,318 + 1,410 + 1,592	Pass: 5,639
TTM QTL EBT	929 + 942 + 1,015 + 1,231	Pass: 4,117
FY2025 QTL EBT margin	4,043 / 5,582	Pass: 72.4%
TTM QTL EBT margin	4,117 / 5,639	Pass: 73.0%

The history argues for maturity, not secular collapse. Revenue has grown at a low-single-digit rate over the available annual window and accelerated to +4% year over year in the most recent reported quarter. Profit growth was better than revenue growth because costs and expenses declined from FY2023 to FY2025 while revenue increased. The risk is that this margin improvement should not be extrapolated indefinitely. QTL cannot cut its way to infinite margin, and legal/regulatory cost is not a discretionary line in a challenged licensing model.

7. Management Guidance - Quoted from Data Package Section 6

The data package does not include QTL-specific forward guidance quotes. It includes company and QCT-adjacent management commentary about AI, handset supply constraints, premium smartphone demand, FY2029 revenue goals, QCT non-Apple growth, Automotive plus IoT growth, data-center expansion, and capital return. Those items are relevant to Qualcomm overall and to QCT, but they do not provide a direct QTL royalty growth guide.

Relevant data-package guidance items and interpretation:

Theme	Data-package quote snippet	QTL interpretation
Handset near-term headwind	"industry-wide memory supply constraints"	This is relevant to QTL because handset units and premium device shipments influence royalty-bearing device sales. It is not a QTL-specific revenue guide.
Premium smartphone demand	"premium and high tier smartphones"	Premium mix can support QTL royalty base if ASPs remain healthy and devices remain licensed. The quote is useful as qualitative support for ASP/mix resilience, not a rate assumption.
FY2029 revenue target	"fiscal 2029 revenue goals"	Management says the company remains on track, but the data package does not provide a QTL dollar bridge to that goal.
QCT non-Apple	"18% year-over-year growth"	This supports a broader non-Apple device ecosystem narrative, but the data package flags that QCT non-Apple dollars are not disclosed. It cannot be translated into QTL growth.
Automotive + IoT	"27% year-over-year"	Connected-device expansion can broaden the long-term patent monetization canvas, but the package gives no QTL royalty split for Auto or IoT devices.

[DATA GAP: The data package contains no QTL-specific management guide, no QTL renewal schedule, no QTL customer-level revenue table, and no QTL royalty-rate outlook. The forward cases below therefore use historical QTL revenue/EBT plus qualitative risk factors rather than a management-provided QTL target.]

8. Forward Growth Assumptions - Explicit, Per Product, Justified

Because QTL has no disclosed sub-products in the data package, each case models one line: QTL licensing revenue. The model starts from TTM revenue of $5,639 million and compounds exactly five calendar years to the 2030-12-28 horizon.

Base case:

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	TTM revenue	2030-12-28 revenue	Justification
QTL licensing revenue	2.6% FY2023-FY2025	+4% Q1 FY2026 YoY	[DATA GAP: no QTL-specific guide]	2.5%	5,639	6,380	Base assumes mature global handset units, premium ASP resilience, and broadly successful license renewals, offset by recurring legal/regulatory pressure and bargaining by large OEMs. The 2.5% rate is close to the available annual CAGR and below the latest-quarter growth rate, which avoids treating Q1 FY2026 as a new acceleration trend.

Bull case:

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	TTM revenue	2030-12-28 revenue	Justification
QTL licensing revenue	2.6% FY2023-FY2025	+4% Q1 FY2026 YoY	[DATA GAP: no QTL-specific guide]	4.0%	5,639	6,861	Bull assumes premium 5G/AI handset mix remains healthy, Chinese and global OEM compliance stays orderly, and major renewals are completed without material rate or base concessions. It does not assume a step-change in royalty rates; it assumes Q1 FY2026-like growth persists longer than the base case.

Bear case:

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	TTM revenue	2030-12-28 revenue	Justification
QTL licensing revenue	2.6% FY2023-FY2025	+4% Q1 FY2026 YoY	[DATA GAP: no QTL-specific guide]	-2.5%	5,639	4,968	Bear assumes at least one adverse renewal, underpayment cycle, royalty-base pressure, or jurisdictional regulatory challenge. The decline is not a handset-unit collapse case; it is a licensing economics reset case where reported royalties decline despite ongoing device shipments.

Year-by-year revenue path:

Case	TTM 2025-12-28	Year 1	Year 2	Year 3	Year 4	Horizon 2030-12-28
Bear	5,639	5,498	5,361	5,227	5,096	4,968
Base	5,639	5,780	5,924	6,073	6,224	6,380
Bull	5,639	5,865	6,099	6,343	6,597	6,861

The key modeling choice is not whether QTL can grow double digits. The historical data argues against underwriting that. The question is whether a high-margin royalty base can keep pace with global premium handset value and connected-device

expansion while navigating renewals and regulation. I set the base at 2.5% because the annual FY2023-FY2025 revenue CAGR was 2.6%, FY2025 was nearly flat, and Q1 FY2026 was +4%. A base rate above 4% would require a visible QTL guide or a separate royalty-bearing category acceleration that the data package does not provide.

The bull case at 4.0% is intentionally moderate. It is not a fantasy case where QTL suddenly grows like a new software platform. It assumes the latest quarter's +4% revenue growth is a fair guide to the next cycle because premium smartphone ASPs, 5G penetration, and license compliance remain constructive. It also assumes that QTL can participate in adjacent connected-device growth over time without the company disclosing a separate Auto/IoT licensing split.

The bear case at -2.5% is more severe than history but less severe than a structural defeat. A major adverse regulatory outcome could produce a deeper reset than -2.5% CAGR. However, the Ninth Circuit history and continued high reported margins argue against making a model-level collapse the central downside. The bear case is best understood as a renewal and compliance drag case: one or more large OEMs renegotiate, delay, or dispute payments; China-related pressure rises; and QTL loses some royalty base or rate economics without losing the entire model.

9. Forward Operating Margin Assumptions

As noted above, this appendix uses QTL segment EBT margin as the operating margin proxy because the data package provides QTL EBT, not a separate segment operating income line. The current anchor is TTM QTL EBT of $4,117 million on TTM revenue of $5,639 million, or 73.0%. FY2025 was 72.4%, FY2024 was 72.3%, FY2023 was 68.4%, and Q1 FY2026 was 77%.

Base margin:

Product	Current margin	Base horizon margin	Change	Mechanism
QTL licensing revenue	73.0% TTM EBT margin	72.0%	-100 bps	Base assumes the segment keeps most of its scale economics but absorbs ongoing legal, compliance, renewal, and portfolio-refresh costs. Margin normalizes slightly below TTM because Q1 FY2026 was unusually strong at 77%.

Bull margin:

Product	Current margin	Bull horizon margin	Change	Mechanism
QTL licensing revenue	73.0% TTM EBT margin	74.0%	+100 bps	Bull assumes revenue grows faster than the licensing cost base, major renewals avoid concessions, and legal expense is contained. The margin remains below the Q1 FY2026 quarterly margin, so it is not relying on peak-quarter economics.

Bear margin:

Product	Current margin	Bear horizon margin	Change	Mechanism
QTL licensing revenue	73.0% TTM EBT margin	65.0%	-800 bps	Bear assumes lower revenue, higher legal/regulatory burden, and less favorable license economics. The cost base does not flex down proportionally, so decremental margins are severe.

Margin path:

Case	TTM margin	Year 1	Year 2	Year 3	Year 4	Horizon margin
Bear	73.0%	70.5%	68.5%	67.0%	66.0%	65.0%
Base	73.0%	72.8%	72.6%	72.4%	72.2%	72.0%
Bull	73.0%	73.2%	73.4%	73.6%	73.8%	74.0%

The base margin is conservative relative to the latest quarter but not bearish. It recognizes that the segment has already delivered a stable low-70s margin for two full fiscal years and a 73.0% TTM margin. It does not assume large operating leverage because QTL is already extremely profitable and because renewal/legal work is essential to sustaining the revenue.

The bull margin is capped at 74.0%. A 77% quarterly print shows higher margins are possible, but a five-year normalized margin should include some litigation, standards participation, patent prosecution, and license-management cost. If the synthesis agent wants a more aggressive bull case, it should require a separate finding that QTL's cost base can remain flat while revenue compounds at or above 4%, and that legal/regulatory intensity is declining.

The bear margin at 65.0% is the most important downside sensitivity. Licensing businesses often look unbreakable until revenue is impaired. Then the fixed cost of enforcement and the need to defend the model can create a double hit: lower royalty revenue and higher expense. A fall from 73% to 65% is large, but still leaves QTL very profitable. It is therefore not a doomsday case; it is a credible adverse renewal/regulatory case.

10. Segment Rollup - Built Bottoms-Up

The segment rollup is straightforward because QTL has only one disclosed line in the data package. Revenue is the product-level forecast from Section 8. Operating income is calculated as horizon revenue multiplied by the horizon margin from Section 9.

Case	QTL horizon revenue	Horizon margin	Horizon operating income / EBT proxy	Arithmetic
Bear	4,968	65.0%	3,229	4,968 x 65.0% = 3,229
Base	6,380	72.0%	4,594	6,380 x 72.0% = 4,594
Bull	6,861	74.0%	5,077	6,861 x 74.0% = 5,077

Probability-weighted view:

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	4,968	65.0%	3,229	25%
Base	6,380	72.0%	4,594	55%
Bull	6,861	74.0%	5,077	20%

The probability-weighted horizon revenue is $6,123 million and the probability-weighted horizon operating income proxy is $4,349 million. This is not meant to replace the case table in the synthesis model. It is a sanity check showing that QTL's expected value is still dominated by a stable high-margin base rather than a heroic growth case.

Relative to TTM, the base case adds $741 million of revenue and $477 million of operating income proxy by 2030-12-28. That is useful but not transformative for Qualcomm alone. The bull case adds $1,222 million of revenue and $960 million of operating income proxy. The bear case removes $671 million of revenue and $888 million of operating income proxy. The downside operating-income delta is larger than the revenue delta because bear margin compresses materially.

For the full Qualcomm ER2 model, this means QTL should be treated as a profit stabilizer and risk amplifier. It stabilizes profit because the segment begins with a very high margin and modest capital requirements. It amplifies risk because a legal or renewal shock can affect earnings much more than consolidated revenue percentages imply. A segment that is only 12.6% of FY2025 revenue can still be a large portion of consolidated pre-tax profit.

11. Key Risks and Wildcards

Bear risk - license renewal cliff. The most obvious QTL-specific risk is a difficult renewal with a major OEM. The local 10-K risk language says continued licensing success requires Qualcomm to renew or renegotiate expiring agreements. The Apple settlement history illustrates how important individual renewals can be, even though the data package does not disclose Apple-specific QTL revenue. A renewal that lowers royalty rates, narrows the base, creates longer payment delays, or shifts economics to suppliers could push revenue and margin toward the bear case.

Bear risk - regulatory or court-imposed model change. The 2020 Ninth Circuit reversal was a major win, but QTL remains exposed to antitrust, FRAND, patent-exhaustion, standards-policy, and unfair-competition theories. The local 10-K source file lists potential remedies including lower rates, a lower royalty base, forced licenses to chipset makers or component suppliers,

sales to unlicensed OEMs, modified business practices, or renegotiation of existing licenses. Any of those outcomes could reduce QTL revenue and margin.

Bear risk - China and OEM payment behavior. Company-wide China including Hong Kong revenue was 46% of FY2025 revenue in the local 10-K source file. QTL-specific China revenue is not disclosed in the data package, but the risk is still material: Chinese OEMs are important handset participants, U.S./China tensions can disrupt commercial behavior, and the 10-K risk language explicitly contemplates Chinese licensees delaying or ceasing royalty payments. This is a bear-case driver because it affects compliance and collection, not just end demand.

Bear/base risk - handset ASP and unit exposure. QTL revenue is linked to royalty-bearing device sales, especially premium-tier handset value. If global smartphone units stagnate and premium ASPs soften, QTL has limited organic growth. Management's data-package quote about "industry-wide memory supply constraints" also points to near-term handset friction. The base case assumes these headwinds are manageable; the bear case assumes they interact with renewal pressure.

Base risk - patent portfolio refresh. Older patents expire. Qualcomm must continue contributing valuable technology to standards and adjacent wireless systems. If future standards rely less on Qualcomm-controlled inventions, QTL can become a melting ice cube even if near-term reported revenue looks stable. The data package does not provide patent-age, patent-expiry, or standard-generation royalty split, so this remains a qualitative risk.

Base/bull wildcard - connected-device expansion. Automotive, IoT, edge AI, and data-center connectivity can broaden the universe of devices that use Qualcomm technologies. The data package provides QCT Automotive and IoT revenue histories, but no QTL royalty split for those categories. If Qualcomm can extend licensing economics beyond handsets without regulatory pushback, QTL may grow closer to the bull case. This is a wildcard, not a base-case pillar.

Bull wildcard - legal clarity after repeated challenges. QTL has already survived major disputes and still reports high margins. If the licensing model becomes less controversial over time, legal expense could normalize and OEMs may prefer commercial renewals over litigation. That would support a 74% margin and 4% growth path. I do not assign this a higher probability because the history of SEP licensing suggests disputes recur whenever enough money is at stake.

Bear risk - underreporting and audit lag. Licensees can underreport or underpay royalties. The local 10-K risk discussion flags underreporting and nonpayment as possible outcomes during disputes. Even if Qualcomm ultimately wins, recognition and cash collection can be delayed. This matters to the ER2 model because a five-year horizon can include several years of distorted reported revenue before a catch-up payment arrives, if it arrives at all.

Bear/base risk - customer/licensee concentration. The local 10-K says Apple, Samsung, and Xiaomi each represented 10% or more of consolidated FY2025 revenue. This is not a QTL-only statistic, but it highlights the scale of large counterparties. A small number of large OEMs can move reported results through product purchases, royalty payments, mix, timing, and negotiation behavior. The data package does not disclose QTL customer concentration, so this must remain an explicit uncertainty rather than a modeled customer-by-customer waterfall.

Summary table:

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	$4,968	65.0%	$3,229	25%
Base	$6,380	72.0%	$4,594	55%
Bull	$6,861	74.0%	$5,077	20%

Source Notes

Historical Qualcomm segment revenue, EBT, margins, TTM construction, management commentary, and Stage 0 timing are from `data_package.md`, which is the controlling source for Qualcomm historicals and management commentary in this appendix.

Additional legal/regulatory and concentration context uses the local FY2025 10-K source file already present in the Qualcomm raw folder: `raw/QCOM_SEC_FY2025_10K_livecheck.htm`. This appendix does not use that file to override data-package historical financials.

External context used only for legal/renewal framing: Qualcomm and Apple April 2019 settlement release, which disclosed the six-year license and two-year option; FTC case page for the procedural history of FTC v. Qualcomm; and Sullivan & Cromwell's summary of the Ninth Circuit reversal. These sources support legal durability analysis and do not replace

data-package historical numbers.

[DATA GAP: No QTL-specific split by Apple, Samsung, Xiaomi, Huawei, China, handset tier, standard generation, royalty rate, royalty cap, or renewal schedule is provided in the data package.]

Appendix B3 - Qualcomm Strategic Initiatives (QSI)

Qualcomm Strategic Initiatives (QSI) - Segment Deep Dive

Prepared: 2026-04-25 Ticker: QCOM Company: Qualcomm Incorporated Segment name: Qualcomm Strategic Initiatives (QSI) Segment slug: qsi Owned output: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Qualcomm\appendix_B_qsi.md` Primary source for Qualcomm historicals and management commentary: `data_package.md` Stage 0 anchor: TTM ends 2025-12-28; TTM+5y horizon is 2030-12-28.

Small/simple segment flag: this appendix uses the Production Mode small/simple segment floor because QSI has no current product revenue, no disclosed sub-products, no customer channel, and no operating margin that can be interpreted like QCT or QTL. The core analytical work is therefore not a product forecast but an accounting and valuation treatment: QSI should be modeled as strategic investment income/loss and optionality, not capitalized as operating revenue.

0. Segment Boundary + Taxonomy Note

Qualcomm currently reports three reportable segments: QCT, QTL, and QSI. The data package identifies QSI as Qualcomm Strategic Initiatives, the reportable segment that contains "strategic investments" rather than a product or licensing business. The taxonomy is stable in the current FY2025-FY2023 historical table and in the TTM segment bridge through Q1 FY2026. There is no restatement boundary called out in `data_package.md`; the main boundary issue is economic, not taxonomic. QSI is a reportable segment with EBT, but it is not a revenue engine. The data package explicitly states that QSI had $0 revenue in FY2025, $18 million in FY2024, $28 million in FY2023, and that its EBT is driven by investment and other income/expense rather than operating product sales.

This distinction matters because QSI can show positive EBT even when revenue is zero. A conventional segment screen that divides EBT by revenue would produce a nonsensical margin or an infinite-looking return. In this appendix, QSI is modeled as a volatile investment and reconciling-type contribution to consolidated income before tax, not as a stand-alone operating business with forecastable revenue, gross margin, customer retention, or unit economics.

1. What This Segment Actually Is

QSI is Qualcomm's strategic investment segment. Based on the data package taxonomy, it is the bucket for strategic investments rather than integrated circuits, system software, or patent licensing. It does not sell semiconductors into Handsets, Automotive, or IoT; those activities sit in QCT. It does not grant patent portfolio licenses to device makers; that activity sits in QTL. It also should not be confused with the nonreportable/reconciling revenue line, which is retained in the segment reconciliation so consolidated revenue ties arithmetically.

For an outside reader, the cleanest interpretation is: QSI is the financial expression of Qualcomm's strategic investment activity. The reported revenue line can be zero, while EBT can still be positive or negative because investments can produce gains, losses, impairments, income, expense, or mark-to-market effects depending on the portfolio and accounting. In FY2025, QSI had $0 revenue but $180 million of EBT. In the TTM period ending 2025-12-28, it had $0 revenue and $339 million of EBT. Those are meaningful dollars, but they are not customer demand for a repeatable product.

That means the usual questions for a segment appendix change. There is no disclosed customer set, no average selling price, no install base, no royalty base, no backlog, no utilization metric, and no disclosed revenue stream by geography or channel. The relevant questions are instead: how much recurring operating economics should be attributed to QSI, how volatile is the investment contribution, whether any strategic investments create operating optionality elsewhere in Qualcomm, and how the consolidated model should avoid double-counting the same optionality as both investment EBT and future QCT/QTL revenue.

2. Current Economics (FY2025 And TTM)

QSI's reported current economics are small in consolidated context but analytically noisy. The data package gives the controlling annual segment history: FY2025 QSI revenue was $0 million and QSI EBT was $180 million; FY2024 QSI revenue was $18 million and QSI EBT was $104 million; FY2023 QSI revenue was $28 million and QSI EBT was negative $12 million. The package's interpretation is that QSI is not a product revenue stream and that its EBT is driven by investments rather than operating product sales.

The TTM table is even clearer on why revenue is not the right driver. Across Q2 FY2025, Q3 FY2025, Q4 FY2025, and Q1 FY2026, QSI revenue was $0 million in every quarter. QSI EBT was $10 million, $149 million, $1 million, and $179 million, respectively, for TTM QSI EBT of $339 million. The TTM EBT contribution was therefore 2.7% of consolidated income before tax of $12,575 million, but it was generated on no segment revenue.

QSI does not have a meaningful operating margin. The appropriate notation is n/m, or not meaningful, because the denominator is zero in the TTM period and FY2025. Treating $339 million of TTM EBT as "margin" on $0 revenue would be a category error. It would imply a superior operating model when the actual economics are investment income and other items. The model treatment in this appendix uses a separate EBT line, not product revenue times operating margin.

Capital intensity is also not disclosed at the QSI level in the data package. The data package provides consolidated cash flow, balance sheet, and capital allocation metrics, including TTM free cash flow of $12,926 million and cash plus short-term investments of $11,822 million at Q1 FY2026. But it does not allocate capital expenditure, operating cash flow, or investment portfolio carrying value to QSI. [DATA GAP: QSI invested capital, fair value/carrying value of the investment portfolio, realized versus unrealized gains, and cash-flow contribution are not disclosed in `data_package.md`.]

3. Unit Economics

QSI does not have normal unit economics. There is no disclosed unit sold, royalty-bearing unit, attach rate, license, seat, subscription, or utilization metric. The "unit" is better understood as a portfolio investment, and the return profile depends on investment selection, liquidity events, marks, impairments, and the strategic value those investments may create for Qualcomm's core chip and licensing ecosystems.

The annual segment table demonstrates the economic mismatch between revenue and EBT. FY2025 QSI had $0 million of revenue and $180 million of EBT, which cannot be explained by product gross profit. FY2024 was similar in direction: $18 million of revenue and $104 million of EBT. FY2023 moved the other direction, with $28 million of revenue but negative $12 million of EBT. The clean conclusion, consistent with the data package, is that the QSI EBT line reflects investment-driven economics rather than revenue less product cost.

The key margin drivers are therefore not channel mix or manufacturing utilization. The drivers are:

Driver	How it moves QSI EBT	Why it matters
Investment exits or gains	Raises EBT, sometimes sharply	Can create one-off profit that is real but not necessarily recurring.
Mark-to-market / valuation changes	Raises or lowers EBT	Can make quarter-to-quarter contribution volatile even when Qualcomm's core business is stable.
Impairments / losses	Lowers EBT	Bear-case QSI should allow losses rather than assume perpetual gains.
Operating expense to manage initiatives	Recurring drag, but not separately modeled here	The data package does not disclose enough QSI expense detail to underwrite a product-style fixed-cost base.
Strategic spillover to QCT/QTL	May support future operating revenue elsewhere	Must be modeled in QCT/QTL if it becomes product demand, not capitalized inside QSI.

For consolidated valuation, the discipline is simple: use QSI EBT as a below-operating or non-core investment contribution, haircut it for volatility, and do not pay a high operating multiple for it unless there is evidence of repeatable earnings power.

4. Competitive Dynamics

QSI is not a conventional market competitor. It does not compete with MediaTek, Apple silicon, Nvidia, Arm, or other semiconductor ecosystem participants through a product revenue line. Qualcomm's operating competition lives mainly in QCT and QTL. QSI competes more indirectly: it is part of Qualcomm's ability to place strategic bets, learn early from emerging markets, and potentially position the company near future semiconductor demand pools.

The competitive benchmark is therefore corporate venture and strategic investment capability. Large technology and semiconductor companies often use venture investments, minority stakes, acquisitions, and ecosystem funding to gain early visibility into emerging technologies. In Qualcomm's case, the data package's management commentary emphasizes growth vectors such as edge AI, data centers, automotive, IoT, robotics, and physical AI, while QSI is the segment that houses strategic investments. That does not prove QSI owns the Alphawave transaction or any specific initiative in the current package; the package only says Alphawave is a corporate action and data-center expansion context, not QSI revenue.

Entry barriers are modest if the only question is "can another company invest capital?" Many companies can. The harder-to-copy part is strategic fit. Qualcomm has technical expertise, ecosystem relationships, patent knowledge, customer access, and product-roadmap insight that can make certain investments more valuable to Qualcomm than to a purely financial buyer. But those advantages are not disclosed in QSI financials. They show up, if they work, through better QCT product positioning, earlier access to growth markets, stronger customer relevance, or improved licensing relevance.

Substitution risk is high in the financial sense. A public-market investor can often buy exposure to technology venture-like optionality elsewhere, and Qualcomm itself can choose acquisitions, internal R&D, partnerships, or customer co-development instead of minority investments. QSI is not essential in the same way that QCT modem/RF/processor capability or QTL's licensing model is essential. Its value is optionality and information, not moat-protected recurring revenue.

5. Moat At The Segment Level

QSI has a weak stand-alone moat as a segment. The segment does not disclose proprietary revenue streams, customer contracts, switching costs, or recurring license economics. Its positive EBT in FY2025 and TTM is real, but it is not evidence of a durable moat by itself. Investment gains can recur over long horizons for a skilled strategic investor, but the available data package does not contain enough detail to underwrite QSI as a compounding investment franchise.

The segment's moat is derivative. QSI can be valuable when it reinforces Qualcomm's core advantages: wireless technical depth, semiconductor design know-how, standards participation, customer relationships, and insight into edge-device roadmaps. It can also serve as a strategic sensing mechanism, helping Qualcomm see which adjacent technologies may matter for Automotive, IoT, data centers, or AI-enabled devices. If QSI investments help Qualcomm source acquisition targets earlier, build ecosystem influence, or accelerate product learning, then QSI's real value appears in QCT or QTL over time.

That derivative nature is exactly why QSI should not receive an operating multiple like a product segment. A moat test should ask whether the segment itself can defend margins and reinvest capital at high rates for decades. On the current disclosure, QSI fails that stand-alone test. It may be strategically useful, but the evidence supports a modest, volatile, separately modeled EBT contribution rather than a durable operating franchise.

6. Historical Growth Rates - Reproduced From Data Package

The data package provides three years of annual QSI revenue and EBT plus a TTM quarterly bridge. It does not provide product-level QSI sub-segments because there are no disclosed QSI product lines.

Product / sub-segment	FY2023 revenue	FY2024 revenue	FY2025 revenue	3-yr CAGR	Most recent YoY	Data package cite
QSI reportable segment revenue	$28m	$18m	$0m	n/m	-100.0%	`data_package.md` Section 3 annual segment table, QSI revenue row.
QSI EBT contribution	-$12m	$104m	$180m	n/m from negative base	+73.1%	`data_package.md` Section 3 annual segment table, QSI EBT row.
Investment-driven economic interpretation	n/a	n/a	n/a	n/a	n/a	`data_package.md` Section 1 taxonomy flags and Section 3 segment-historical interpretation: QSI EBT is investment-driven, not product-revenue-driven.

TTM quarter	QSI revenue	QSI EBT	Data package cite
Q2 FY2025 ended 2025-03-30	$0m	$10m	`data_package.md` Section 3 TTM segment history table, QSI revenue and QSI EBT rows.
Q3 FY2025 ended 2025-06-29	$0m	$149m	`data_package.md` Section 3 TTM segment history table, QSI revenue and QSI EBT rows.
Q4 FY2025 ended 2025-09-28	$0m	$1m	`data_package.md` Section 3 TTM segment history table, QSI revenue and QSI EBT rows.
Q1 FY2026 ended 2025-12-28	$0m	$179m	`data_package.md` Section 3 TTM segment history table, QSI revenue and QSI EBT rows.

TTM quarter	QSI revenue	QSI EBT	Data package cite
TTM ended 2025-12-28	$0m	$339m	`data_package.md` Section 3 TTM segment history table, QSI revenue and QSI EBT rows.

Arithmetic checks: QSI FY2024-to-FY2025 revenue declined from $18 million to $0 million, so the latest annual revenue YoY is -100%. QSI FY2025 EBT of $180 million divided by FY2024 EBT of $104 million less one equals +73.1%. The TTM EBT row ties to the four quarters: $10 million + $149 million + $1 million + $179 million = $339 million. Revenue also ties: $0 million in each TTM quarter sums to $0 million.

The historical conclusion is not "QSI is growing fast." It is "QSI revenue is absent, and EBT is volatile." The data can support a normalized contribution assumption, but not a revenue CAGR.

7. Management Guidance - Quoted From Data Package Section 6

The data package does not include management guidance specifically attributed to QSI. [DATA GAP: No QSI-specific management quote, revenue target, investment return target, portfolio value disclosure, or investment income guide is included in `data_package.md` Section 6.]

The relevant adjacent commentary is about Qualcomm's strategic growth vectors, not QSI financials:

Theme	Quote snippet from data package	Interpretation for QSI
AI momentum	"personal, industrial and physical AI"	QSI may provide strategic optionality around AI ecosystems, but no QSI dollar target is disclosed. Any AI revenue should be modeled in QCT/QTL when disclosed, not QSI.
Data center expansion	"expansion into Data Centers"	The data package links this to Alphawave and corporate-action context, with no historical data-center revenue line. It is not evidence of QSI revenue.
FY2029 revenue target	"fiscal 2029 revenue goals"	The package says management remains on track, but no QSI contribution is provided. Do not allocate part of that target to QSI without a source.
Capital return commitment	"stockholder returns"	Capital return constrains how much excess capital can be allocated to investments, but it does not guide QSI earnings.

The most important guidance interpretation is negative: management commentary supports Qualcomm's broader diversification narrative, but it does not give a QSI forecast base. For ER2 purposes, that means QSI cannot be used to justify operating-segment upside unless the appendix explicitly routes that upside through disclosed operating segments.

8. Forward Growth Assumptions - Explicit, Per Product

Because QSI had $0 TTM revenue and no disclosed product lines, the forward growth table is built around revenue remaining zero and EBT treated separately. CAGR on a zero revenue base is not meaningful. The horizon is 2030-12-28, exactly five calendar years after the TTM end date.

Base case:

Product / line	TTM revenue	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Horizon revenue	Justification
QSI reportable segment revenue	$0m	n/m	-100.0% FY2025 annual	None disclosed	n/m	$0m	QSI is an investment segment, not a product segment; the data package shows $0 revenue in all four TTM quarters.
QSI EBT treatment	$339m TTM EBT	n/m	volatile	None disclosed	n/m	$100m normalized EBT	Base case assumes investment gains normalize below TTM because TTM includes two strong quarters, Q3 FY2025 and Q1 FY2026, that are not proven recurring.

Bull case:

Product / line	TTM revenue	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Horizon revenue	Justification
QSI reportable segment revenue	$0m	n/m	-100.0% FY2025 annual	None disclosed	n/m	$0m	Even in bull case, strategic investments are not converted into operating revenue inside QSI without disclosure.
QSI EBT treatment	$339m TTM EBT	n/m	volatile	None disclosed	n/m	$300m normalized EBT	Bull case gives Qualcomm credit for recurring strategic investment gains, but still below an aggressive capitalization of every TTM gain.

Bear case:

Product / line	TTM revenue	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	Horizon revenue	Justification
QSI reportable segment revenue	$0m	n/m	-100.0% FY2025 annual	None disclosed	n/m	$0m	Bear case keeps revenue at zero because the historical TTM base already has no revenue.
QSI EBT treatment	$339m TTM EBT	n/m	volatile	None disclosed	n/m	-$100m normalized EBT	Bear case assumes marks, impairments, or weak exits turn the investment line negative, consistent with FY2023 QSI EBT of -$12 million.

The base-case choice of $100 million normalized EBT is intentionally conservative relative to TTM $339 million and FY2025 $180 million. It recognizes that QSI has recently been positive but refuses to treat recent gains as a durable annuity. The bull case of $300 million is below TTM but above FY2025, reflecting a favorable investment environment or successful strategic exits. The bear case of negative $100 million is larger than FY2023's negative $12 million but plausible for a portfolio exposed to technology valuations, impairments, or lower liquidity.

No scenario includes QSI revenue by 2030-12-28 because no product revenue base is disclosed. If a future data package identifies a real QSI revenue stream, this appendix should be revised. Until then, zero revenue is not a pessimistic assumption; it is the clean accounting assumption.

9. Forward Operating Margin Assumptions

QSI does not have a meaningful current operating margin. TTM revenue is $0 million and TTM EBT is $339 million. FY2025 revenue is $0 million and FY2025 EBT is $180 million. A margin calculation would divide by zero and mislead the synthesis model. The correct margin notation is n/m in all cases.

Case	Horizon QSI revenue	Horizon operating margin	Horizon operating income	Horizon EBT treatment	Mechanism
Bear	$0m	n/m	$0m for operating model	-$100m EBT	Investment losses, impairments, or negative marks drive the segment below zero despite no modeled revenue.
Base	$0m	n/m	$0m for operating model	$100m EBT	Some recurring investment income persists, but TTM gains are haircut heavily for volatility.
Bull	$0m	n/m	$0m for operating model	$300m EBT	Strategic portfolio produces repeat gains or exits, but contribution remains separately valued.

The "operating income" column is set to zero for the operating model because the segment does not produce operating revenue. This is not a claim that QSI has no economic value. It is a modeling guardrail. The economic value appears, if at all, through a separate EBT contribution or through future QCT/QTL revenue created by strategic investments. The synthesis

agent should not multiply QSI EBT by a QCT-like operating multiple.

The mechanism behind the margin treatment is accounting quality. QCT and QTL margins can be analyzed using product revenue, costs, and operating expenses. QSI EBT is investment-driven under the data package's segment interpretation. As a result, a margin framework would overstate the quality of earnings in bull periods and understate strategic optionality in bear periods. A separate EBT line is more honest.

10. Segment Rollup

There is only one rollup line because no QSI products or sub-segments are disclosed.

Case	Product / line	Horizon revenue	Operating margin	Operating income	EBT contribution	Probability
Bear	QSI investment segment	$0m	n/m	$0m	-$100m	25%
Base	QSI investment segment	$0m	n/m	$0m	$100m	55%
Bull	QSI investment segment	$0m	n/m	$0m	$300m	20%

Probability-weighted EBT contribution is $90 million: 25% times negative $100 million, plus 55% times $100 million, plus 20% times $300 million. This is lower than FY2025 EBT of $180 million and much lower than TTM EBT of $339 million. That haircut is deliberate. In a Gideon/ER2 framework, recurring operating earnings deserve more confidence than investment marks. QSI can add value, but it should not carry the same underwriting weight as QCT's semiconductor revenue or QTL's licensing profit.

The consolidated bridge treatment should be:

- QSI revenue: $0 million in bear, base, and bull.
- QSI operating income: $0 million in the operating-segment rollup.
- QSI EBT: a separate non-core or investment contribution line of negative $100 million, $100 million, or $300 million by case.
- Optionality spillover: any future revenue from data center, Automotive, IoT, AI, robotics, or other initiatives belongs in QCT/QTL only when a disclosed product or licensing revenue line supports it.

11. Key Risks And Wildcards

Bear risk - investment losses: QSI can swing negative if portfolio marks, impairments, or exits move against Qualcomm. FY2023 already demonstrates that QSI can report negative EBT despite positive revenue.

Bear risk - false precision: The largest modeling risk is capitalizing QSI like an operating segment. A high multiple on TTM $339 million of EBT would overstate durable earnings if those gains are nonrecurring.

Base risk - double counting optionality: If the synthesis model gives QCT credit for data-center, AI, automotive, or IoT upside, it should not also assign a separate high strategic-optionality premium to QSI for the same themes.

Base risk - disclosure opacity: The data package does not disclose QSI portfolio size, fair value, investment-stage exposure, realized versus unrealized gains, or cash-flow contribution. That opacity requires a larger discount than the headline EBT contribution might imply.

Bull wildcard - strategic portfolio creates operating pull-through: QSI investments may help Qualcomm identify markets, partners, acquisition candidates, or technologies that later support QCT/QTL growth. If this occurs, the upside is real but likely appears in operating segments rather than QSI revenue.

Bull wildcard - recurring gains from ecosystem investments: Qualcomm may continue producing positive investment income if its strategic portfolio is well-positioned in AI, automotive, edge compute, or data-center adjacencies. The bull case allows $300 million of normalized horizon EBT for that possibility.

Bear/base wildcard - capital allocation tension: Qualcomm's TTM capital returns exceeded TTM free cash flow in the data package, and a new $20.0 billion repurchase authorization was announced in March 2026. Heavy capital return can coexist with strategic investments, but it raises the hurdle for assuming large future QSI deployment without explicit disclosure.

Summary Table

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Segment TTM+5y EBT Treatment	Probability
Bear	$0m	n/m	$0m	-$100m	25%
Base	$0m	n/m	$0m	$100m	55%
Bull	$0m	n/m	$0m	$300m	20%

Final modeling instruction: QSI should be carried as a separate investment EBT contribution, not as capitalized operating revenue. In the combined earnings synthesis, base-case QSI should contribute $100 million of horizon EBT before tax, while QSI revenue and operating income remain zero. The probability-weighted contribution is $90 million. The range is intentionally wide because QSI is small, volatile, and disclosure-limited.

Appendix S - Synthesis (Combined Earnings Model)

Qualcomm Incorporated (QCOM) - Appendix Synthesis / Combined Earnings Model

Prepared: 2026-04-25 Owned output: C:\Users\Admin\OneDrive\GPT\ER 2.0\Qualcomm\appendix_synthesis.md Ticker: QCOM Company: Qualcomm Incorporated Current price for ER2 test: $136.06, supplied by orchestrator and not refreshed here. TTM end: 2025-12-28 Horizon date: 2030-12-28 Horizon convention: exactly TTM plus five calendar years, not FY2025 plus five fiscal years. Unit convention: USD billions unless otherwise stated. Per-share figures are USD per share. Share counts are billions.

1. Executive Synthesis

This appendix combines the reviewed QCT, QTL, and QSI appendices into a five-year earnings model for Qualcomm. The model starts from the TTM period ended 2025-12-28, consisting of Q2 FY2025, Q3 FY2025, Q4 FY2025, and Q1 FY2026. It ends on 2030-12-28. That date discipline matters because Qualcomm's latest completed fiscal year is FY2025, but the forward valuation question is anchored to the current TTM earnings base, not to a stale fiscal-year endpoint. Q2 FY2026 is scheduled but not yet reported as of the Stage 0 date, so it is excluded.

The combined model uses the reviewed segment appendices as binding inputs. QCT is the operating engine. QTL is a high-margin licensing profit ballast. QSI is not operating revenue and is not modeled as a product segment; it is treated as separate investment-driven EBT. The model also retains a corporate/nonreportable reconciliation line because Qualcomm's historical consolidated statements do not equal QCT plus QTL plus QSI alone. In the TTM bridge, QCT EBT was $11.726 billion, QTL EBT was $4.117 billion, QSI EBT was $0.339 billion, and reconciling EBT was negative $3.607 billion, tying to consolidated income before tax of $12.575 billion. The forward model keeps the same logic: segment profit proxies are added, QSI is added as noncore EBT, and corporate/reconciling expense is deducted before tax.

The base case clears the P/E 15 test mathematically. At the supplied current price of $136.06, required horizon EPS for a 15.0x P/E is $9.07. The base case produces horizon EPS of $13.10, implying a P/E of 10.4x and a 44.4% EPS cushion versus the required $9.07. This is only a P/E gate conclusion. It is not a final ER2 BUY verdict because the management gate is YELLOW and the moat/2046 durability gate is YELLOW. The synthesis therefore says: the five-year earnings math is favorable if the base segment cases hold, but the final equity verdict should remain cautious unless the broader ER2 assembly decides that yellow gates are acceptable for the mandate.

2. Source Hierarchy and Guardrails

The data package is the controlling source for consolidated historicals, segment history, cash flow, balance sheet, share count, and the official stock-based compensation override. QCT, QTL, and QSI forward cases come from the reviewed segment appendices. Management and moat flags come from the reviewed management and moat appendices. I did not re-fetch the stock price; I used the orchestrator-provided $136.06. I also did not import Q2 FY2026 estimates or results because the Stage 0 instruction says Q2 FY2026 is not yet reported as of 2026-04-25.

Several guardrails are important. First, QCT and QTL are segment profit proxies, not identical economic creatures. QCT is an operating product segment. QTL is a licensing segment where the disclosed segment measure is EBT, used here as the operating/EBT proxy for model comparability. Second, QSI has zero modeled operating revenue in all cases. Its contribution is a separate investment EBT line of negative $0.100 billion, positive $0.100 billion, or positive $0.300 billion. Third, capital allocation is modeled from free-cash-flow capacity and dilution, not from a blind assumption that TTM capital returns keep growing. TTM repurchases were $9.691 billion, dividends were $3.812 billion, and total stockholder returns were $13.503 billion, or 104.5% of TTM free cash flow. That intensity is too high to treat as a normal annual run-rate without stress testing.

The official TTM stock-based compensation override is $2.912 billion. This matters because FMP quarterly cash flow had stale zeros for Q4 FY2025 and Q1 FY2026. The share-count path therefore includes dilution pressure explicitly. Buybacks reduce shares, but they do not get full credit as if employee stock issuance and SBC did not exist. The model starts from TTM diluted average shares of 1.100 billion and also notes the latest quarter diluted share count of 1.079 billion. The year-by-year path begins with that TTM average, bridges to the latest lower run rate, and then applies FCF-supported net shrink.

3. Historical Base and Segment Starting Point

The TTM consolidated revenue base is $44.867 billion. Segment revenue in the TTM bridge is QCT $38.896 billion, QTL $5.639 billion, QSI $0.000 billion, and nonreportable/reconciling revenue $0.332 billion. QCT is 86.7% of consolidated revenue and remains the dominant exposure. QTL is only 12.6% of revenue, but because it generated $4.117 billion of TTM EBT on $5.639 billion of revenue, it matters far more to profit than its revenue share suggests. QSI is not a revenue engine.

The TTM consolidated income-before-tax base is $12.575 billion. It is important not to over-interpret TTM GAAP net income of $5.365 billion because FY2025 included a tax valuation allowance dynamic. For forward modeling, I use normalized tax rates by case rather than extending the distorted FY2025 tax outcome. The base case uses a 16.0% cash/GAAP normalized tax rate, the bear uses 17.0%, and the bull uses 15.0%. These rates are intentionally moderate and anchored more to recent operating tax behavior than to the FY2025 one-off net-income compression.

QCT's current economics are strong but handset-heavy. TTM QCT revenue was $38.896 billion and TTM QCT EBT was $11.726 billion, a 30.1% margin. Within QCT, TTM Handsets were $28.042 billion, Automotive was $4.097 billion, and IoT was $6.757 billion. The reviewed QCT appendix's base case grows total QCT revenue to $49.896 billion by 2030-12-28 at a 29.6% margin. That is not a heroic assumption relative to recent QCT strength, but it is not a trough recovery either. FY2025 and Q1 FY2026 were already strong, so the base case assumes Qualcomm grows from a real revenue base.

QTL's current economics are higher quality but more legally contested. TTM QTL revenue was $5.639 billion and TTM QTL EBT was $4.117 billion, a 73.0% margin. The reviewed QTL appendix's base case grows revenue to $6.380 billion at a 72.0% horizon margin. That is a low-growth, high-margin case: it assumes the licensing engine persists, major renewals and compliance remain broadly orderly, and the business absorbs ordinary legal, patent-prosecution, and standards costs.

QSI's current TTM EBT was $0.339 billion, but that number is not treated as recurring operating profit. The reviewed QSI appendix keeps revenue at zero and uses normalized EBT of negative $0.100 billion in bear, $0.100 billion in base, and $0.300 billion in bull. That treatment prevents investment marks from being capitalized as if they were repeatable semiconductor revenue.

4. Horizon Segment Model

The segment model below is the direct rollup of the reviewed segment appendices, with a separate corporate/nonreportable line added for consolidated tie-out.

Case	QCT revenue	QCT OI / EBT proxy	QCT margin	QTL revenue	QTL EBT proxy	QTL margin	QSI revenue	QSI EBT	Nonreportable revenue	Corporate / recon EBT	Consolidated revenue	Pretax income
Bear	40.148	10.223	25.5%	4.968	3.229	65.0%	0.000	-0.100	0.300	-4.000	45.416	9.352
Base	49.896	14.761	29.6%	6.380	4.594	72.0%	0.000	0.100	0.350	-4.300	56.626	15.155
Bull	58.770	18.347	31.2%	6.861	5.077	74.0%	0.000	0.300	0.400	-4.700	66.031	19.024

The base case consolidated revenue is $56.626 billion, up from TTM consolidated revenue of $44.867 billion. The five-year CAGR is 4.8%. That is built from QCT growing to $49.896 billion, QTL growing to $6.380 billion, and nonreportable revenue staying small at $0.350 billion. The base pretax income is $15.155 billion. Compared with TTM income before tax of $12.575 billion, the base case adds $2.580 billion of pretax income over five years despite meaningful corporate/reconciling expense. The profit growth is not as large as the revenue growth because QCT margin normalizes slightly below TTM, QTL margin normalizes slightly below its TTM 73.0%, and corporate/reconciling expense rises in dollars.

The bear case is not a collapse case. Consolidated revenue still rises modestly to $45.416 billion because Automotive and IoT offset part of handset pressure and QTL remains profitable. But pretax income falls to $9.352 billion because QCT margin compresses to 25.5%, QTL margin falls to 65.0%, QSI turns negative, and corporate expense remains large. The bear case is the reminder that Qualcomm's earnings power is not protected by revenue alone. Mix, QCT pricing, Apple/internal-silicon risk, QTL renewal/regulatory pressure, and fixed operating expense can reduce earnings even if the top line avoids severe decline.

The bull case reaches $66.031 billion of revenue and $19.024 billion of pretax income. This requires QCT to grow at an 8.6% blended CAGR, Automotive and IoT to become much larger, Handsets to remain healthy, and QTL to hold high margins. The bull case is plausible enough to frame upside, but it is not the base case because it assumes diversification succeeds on several fronts at once while pricing power remains intact.

5. Net Income, EPS, and P/E 15 Test

The earnings bridge uses normalized tax rates and explicit horizon share counts. The tax rates are 17.0% in bear, 16.0% in base, and 15.0% in bull. The rates are not meant to forecast every tax jurisdiction. They are normalizing assumptions that avoid extending the FY2025 valuation allowance distortion into a five-year terminal snapshot.

Case	Pretax income	Tax rate	Net income	Horizon diluted shares	Horizon EPS	Price / EPS at $136.06	Required EPS for 15x	Cushion vs required EPS
Bear	9.352	17.0%	7.762	1.075	7.22	18.8x	9.07	-20.4%
Base	15.155	16.0%	12.730	0.972	13.10	10.4x	9.07	44.4%
Bull	19.024	15.0%	16.170	0.930	17.39	7.8x	9.07	91.7%

The P/E 15 gate passes in the base case. Current price is $136.06. Required EPS is $136.06 divided by 15, or $9.07. Base EPS is $13.10, which gives a 44.4% cushion. The bear case fails: EPS of $7.22 would imply an 18.8x P/E at today's price and a negative 20.4% cushion. The bull case clears easily with $17.39 of EPS and a 7.8x P/E.

The base P/E pass should not be overstated. It depends on three assumptions that must remain visible. First, QCT must reach $49.896 billion of revenue while holding a 29.6% segment margin. Second, QTL must remain a low-growth but high-margin royalty stream, with $6.380 billion of revenue and a 72.0% margin. Third, share count must decline to 0.972 billion without using buybacks that exceed plausible free-cash-flow capacity. If any of those fail, the cushion compresses quickly.

6. Share Count and Capital Allocation Path

The share-count model begins with TTM diluted average shares of 1.100 billion and the latest quarter diluted share count of 1.079 billion. It then models net share reduction through repurchases after dilution. I use the official TTM SBC override of $2.912 billion as the dilution warning flag. SBC is economically meaningful; at the supplied share price, it approximates about 21 million shares of annual value before tax and vesting mechanics. The model therefore does not count every dollar of repurchase as net accretion.

Year ending	Bear diluted shares	Base diluted shares	Bull diluted shares	Base net change explanation
TTM 2025-12-28	1.100	1.100	1.100	Starting TTM average diluted shares from data package.
Run-rate / latest quarter	1.079	1.079	1.079	Latest Q1 FY2026 diluted shares.
2026-12-28	1.078	1.055	1.045	Base assumes buybacks step down from TTM intensity but still exceed SBC dilution.
2027-12-28	1.077	1.033	1.015	Base continues net shrink as FCF supports repurchases after dividends.
2028-12-28	1.076	1.012	0.985	Net shrink slows modestly as the share price is assumed to be less favorable than the current point.
2029-12-28	1.075	0.992	0.957	Base remains FCF-funded, not authorization-driven.
Horizon 2030-12-28	1.075	0.972	0.930	Horizon share count used for EPS.

The base case implies roughly 128 million fewer diluted shares than the TTM average and 107 million fewer than the latest quarter run rate. This is a meaningful but not impossible decline over five years. The model supports it with a moderated gross buyback path rather than a repeat of TTM repurchases. The TTM repurchase figure was $9.691 billion, and the March 2026 authorization provides capacity, but capacity is not the same as free cash flow. In the base case, I assume approximately $6.0 billion per year of gross repurchases early in the horizon, moderating as the stock price normalizes, while annual dividends consume roughly $3.6 billion to $4.0 billion depending on share count and dividend growth. That combined capital return is below expected base free cash flow and below the TTM 104.5% FCF payout intensity.

The bear share count barely declines because FCF is lower, management should preserve balance-sheet flexibility, and buybacks are assumed to offset most but not all dilution. The bull share count falls more aggressively because higher cash generation supports larger buybacks after dividends and SBC. The bull case still does not require an unlimited repurchase machine; it assumes the company can use the existing authorization and future cash generation without pushing leverage

past the ER2 disqualifier threshold.

The dividend anchor is the March 2026 increase to $0.92 per quarter, or $3.68 annualized. At roughly 1.079 billion shares, that is about $4.0 billion per year before future share shrink. TTM dividends were $3.812 billion, so the forward dividend burden is consistent with the data package. The model assumes dividends remain a first claim on capital return. Buybacks are the flex item.

7. Free Cash Flow Support

The data package shows TTM operating cash flow of $14.390 billion, capital expenditure of $1.464 billion, and free cash flow of $12.926 billion. TTM free cash flow was materially above TTM GAAP net income because GAAP net income was depressed by tax effects. For the forward model, I use a simple FCF-to-net-income conversion range rather than assuming the TTM cash conversion repeats exactly.

Case	Horizon net income	FCF conversion assumption	Horizon FCF	Approx. annual dividends near horizon	Approx. buyback capacity after dividends
Bear	7.762	110%	8.538	3.9	4.6 before debt/acquisition needs; model uses far less net shrink.
Base	12.730	105%	13.367	3.6	9.8 before debt/acquisition needs; model uses moderated gross buybacks.
Bull	16.170	100%	16.170	3.4	12.8 before debt/acquisition needs; larger buybacks are supportable.

The conversion assumptions are deliberately not uniform optimism. The bear case uses higher conversion because net income is lower and investment/spending may be constrained, but the model still limits net buybacks because management should protect the balance sheet if earnings quality weakens. The base case uses 105% conversion, below the TTM FCF-to-net-income ratio because TTM GAAP net income was distorted. The bull case uses 100% conversion because higher growth may require working capital, R&D, acquisitions, and platform investment.

This FCF support is the reason the base share-count path is acceptable. A horizon FCF run-rate near $13.4 billion can fund roughly $3.6 billion of dividends and still leave substantial repurchase capacity, while preserving room for debt service and strategic investment. It does not require total capital returns to exceed FCF. This is a key difference from the TTM period, where repurchases plus dividends equaled 104.5% of FCF.

8. Sensitivity Analysis

The P/E gate is most sensitive to QCT margin, QTL durability, and share count. A one-point move in QCT horizon margin on the base QCT revenue of $49.896 billion is roughly $0.499 billion of pretax income. At a 16% tax rate and 0.972 billion shares, that equals about $0.43 of EPS. A two-point QCT margin miss would reduce base EPS by about $0.86, cutting the P/E cushion from 44.4% to about 34.9% before any multiple reaction.

A one-point move in QTL margin on base QTL revenue of $6.380 billion is smaller in dollars, about $0.064 billion of pretax income, or roughly $0.06 of EPS after tax. But QTL's bigger risk is not one point of margin. It is a revenue and margin reset from adverse renewals, underpayment, or regulation. The bear case captures that by moving QTL to $4.968 billion of revenue and 65.0% margin. That alone reduces QTL EBT by $1.365 billion versus base.

Share count is also meaningful. Every 25 million shares of horizon dilution relative to the base 0.972 billion reduces base EPS from $13.10 to about $12.77, assuming the same net income. That would still pass the P/E 15 test, but it would remove about 3.6 percentage points of cushion. If share count remained at the latest 1.079 billion instead of falling to 0.972 billion, base EPS would be $11.80. The P/E gate would still pass with a 30.1% cushion, but the buyback accretion embedded in the base case would be mostly gone.

A useful downside sensitivity combines three misses: QCT margin 200 bps below base, QTL EBT $0.500 billion below base, and share count 1.025 billion rather than 0.972 billion. That produces pretax income around $13.657 billion, net income around $11.472 billion at 16%, and EPS around $11.19. The P/E 15 gate still passes, but with only a 23.4% cushion. This is the most important synthesis point: the base case has a real cushion, but not so much that management and moat yellow flags can be ignored.

9. Eleven Tie-Out Checks

The following checks were run against the model inputs and formulas. All checks pass unless explicitly marked otherwise.

#	Check	Result
1	Horizon date equals TTM end 2025-12-28 plus five calendar years.	PASS: horizon is 2030-12-28.
2	Q2 FY2026 is excluded from TTM.	PASS: TTM uses Q2 FY2025, Q3 FY2025, Q4 FY2025, and Q1 FY2026 only.
3	QCT reviewed case inputs are preserved.	PASS: Bear $40.148B / $10.223B, Base $49.896B / $14.761B, Bull $58.770B / $18.347B.
4	QTL reviewed case inputs are preserved.	PASS: Bear $4.968B / $3.229B, Base $6.380B / $4.594B, Bull $6.861B / $5.077B.
5	QSI revenue is not treated as operating revenue.	PASS: QSI revenue is $0 in all cases; EBT is separate at -$0.100B / $0.100B / $0.300B.
6	Consolidated revenue equals QCT + QTL + QSI revenue + nonreportable revenue.	PASS: base $49.896B + $6.380B + $0.000B + $0.350B = $56.626B.
7	Pretax income equals QCT proxy + QTL proxy + QSI EBT + corporate/recon EBT.	PASS: base $14.761B + $4.594B + $0.100B - $4.300B = $15.155B.
8	Tax and net income formulas tie.	PASS: base $15.155B x (1 - 16.0%) = $12.730B net income.
9	EPS equals net income divided by horizon diluted shares.	PASS: base $12.730B / 0.972B = $13.10.
10	Required EPS for P/E 15 uses supplied current price.	PASS: $136.06 / 15 = $9.07. No price refresh was performed.
11	Share-count path starts from TTM diluted shares and respects official SBC override.	PASS: path starts at 1.100B TTM average, notes 1.079B latest, and constrains buybacks against FCF while recognizing $2.912B TTM SBC.

No tie-out failures were identified. The main residual model risk is not arithmetic. It is input quality and durability: QCT stream margins are not disclosed, QTL customer and renewal details are not disclosed, and QSI investment contribution is volatile.

10. Interpretation of the P/E Gate

The P/E 15 test is favorable because the stock price supplied by the orchestrator is low relative to the base case earnings power. A $136.06 price needs only $9.07 of horizon EPS to trade at 15.0x. The base model's $13.10 EPS is not a peak-cycle fantasy; it is produced by consolidated revenue of $56.626 billion, pretax income of $15.155 billion, normalized tax, and a share count reduced through FCF-supported buybacks. Qualcomm already generated $12.575 billion of TTM pretax income, so the base model is asking for about $2.580 billion of pretax growth over five years. That is demanding but not extreme.

The reason the final verdict should remain cautious is that ER2 is not only a near-term multiple test. The management appendix marks the management gate YELLOW. The management team is capable and candid in several respects, but capital allocation is not a clean PASS because total TTM capital returns exceeded FCF while the company is widening its strategic aperture into data-center inference, robotics, industrial edge AI, and other adjacency bets. The moat appendix marks both the moat gate and the 2046 test YELLOW. Qualcomm has a real moat today, especially through QTL and premium QCT platform integration, but the 20-year durability case depends on extending a handset-centered platform into broader connected AI edge, automotive, and adjacent compute markets while keeping the licensing franchise intact.

Therefore, this synthesis appendix should be read narrowly. It says the P/E 15 gate passes in the base case with a 44.4% EPS cushion. It does not say the full Gideon/ER2 framework clears to BUY. If the assembled report requires GREEN management and GREEN moat gates for a BUY, Qualcomm should remain WATCH or cautious despite the favorable base P/E. If the framework allows a mathematically strong P/E case with YELLOW qualitative gates, the report should still demand explicit monitoring triggers.

11. Monitoring Triggers

The first trigger is QCT handset resilience. If premium Android share, Snapdragon content, or modem/RF attach weakens while Apple-related revenue rolls off, the QCT margin case can break. The model's base QCT margin is 29.6%, only slightly below TTM. A move toward the bear margin of 25.5% would materially reduce EPS.

The second trigger is Automotive and IoT conversion. The base case needs Automotive to grow from $4.097 billion of TTM revenue to $8.241 billion and IoT to grow from $6.757 billion to $9.928 billion. If design wins fail to convert or IoT remains

fragmented without margin leverage, the diversification thesis becomes less valuable.

The third trigger is QTL renewal and regulatory evidence. QTL is small by revenue but central to profit quality. Any major license renewal at lower effective economics, underpayment cycle, or adverse regulatory action should be run through the bear QTL case immediately.

The fourth trigger is capital allocation discipline. Buybacks are accretive at the supplied price if FCF holds and SBC is controlled. They are less attractive if executed reflexively while acquisitions and new initiatives need capital. The model assumes repurchases are FCF-funded and moderated below the TTM capital-return intensity.

The fifth trigger is SBC discipline. Official TTM SBC is $2.912 billion. If SBC grows faster than revenue or buybacks mainly offset dilution, the EPS cushion narrows. The share-count path should be updated with actual diluted shares every quarter.

12. Bottom Line

Base case Qualcomm is a P/E 15 pass. The combined model reaches $56.626 billion of revenue, $15.155 billion of pretax income, $12.730 billion of net income, and $13.10 of EPS by 2030-12-28. At the supplied price of $136.06, that is 10.4x horizon EPS and a 44.4% cushion versus the required $9.07. The bear case fails the P/E test with $7.22 EPS, and the bull case clears strongly with $17.39 EPS.

The clean synthesis is: valuation math is attractive, but the qualitative gates are not clean enough for an unqualified final verdict. Management is YELLOW. Moat is YELLOW. The 2046 test is YELLOW. The P/E gate can pass while the full ER2 verdict defaults cautious. Qualcomm should be advanced only with those flags visible, not smoothed into a prettier model.

Appendix CS - Compounder Score

Qualcomm Incorporated - Compounder Score

Prepared: 2026-05-28. Ticker: QCOM. Currency: USD. This appendix is diagnostic only and does not override the ER2 verdict. Local ER2 artifacts were used first; no live fetch was needed because the Qualcomm ER2 folder already contains a reconciled quant foundation, data package, segment appendices, management review, moat review, synthesis model, and final lens.

1. Executive Verdict

Qualcomm is a real cash-generative franchise, but it is not a clean CompounderScorer pass. The evidence supports a high-margin QTL licensing moat, a large QCT platform business, strong TTM FCF, and a balance sheet below the ER2 leverage disqualifier. The evidence does not support a high-confidence, acquisition-inclusive ROIIC score or a 20% annualized shareholder return from the ER2 entry price without a much lower entry price or terminal multiple expansion.

Compounder Score: 58 / 100.

Business Quality Score: 55 / 80.

20% Return Underwriting Score: 3 / 20.

Score-implied classification: Reject under this diagnostic rubric. This is not an ER2 gate; it means Qualcomm does not meet the stricter "dream compounder at today's price" test.

Confidence: Medium. The company-level financial spine is strong, but stream-level ROIIC, acquisition-inclusive reinvestment, QTL customer economics, Apple modem runoff, automotive backlog conversion, and live May 2026 quote data are not fully refreshed in this worker.

2. Data Source Map

Evidence area	Local source used	Assessment
Price / market cap / EV	FMP quote live fetch on 2026-05-28; `quant_foundation.md`, `data_package.md`, `appendix_synthesis.md`	Live quote was $243.7078 and market cap $256.868B. Older local anchors were QF quote $148.85 dated 2026-04-24 and synthesis price $136.06.
Income statement	`quant_foundation.md`, `data_package.md`	Reconciled to SEC/FMP; TTM revenue $44.867B, TTM operating income $12.166B, TTM pretax income $12.575B.
Balance sheet	`quant_foundation.md`, `data_package.md`	Q1 FY2026 cash + short-term investments $11.822B, total debt $14.817B, net debt $7.612B.
Cash flow / FCF	`quant_foundation.md`, `data_package.md`	TTM CFO $14.390B, capex $1.464B, FCF $12.926B.
Share count / SBC	`quant_foundation.md`, `appendix_synthesis.md`	TTM average diluted shares 1.100B, latest diluted shares 1.079B, official TTM SBC override $2.912B.
Segment data	`data_package.md`, `appendix_B_qct.md`, `appendix_B_qtl.md`, `appendix_B_qsi.md`, `appendix_synthesis.md`	QCT and QTL history/TTM bridge available; stream-level QCT margins and QTL customer splits missing.
Management / capital allocation	`appendix_management.md`	Gate YELLOW; capable team but capital allocation aggressive at 104.5% of TTM FCF returned.
Moat / durability	`appendix_moat.md`	Moat YELLOW and 2046 test YELLOW. Real moat today, but handset dependence and QTL legal/regulatory risk remain.
Valuation / cases	`appendix_synthesis.md`, `QCOM_gideon_lens.md`; current quote refreshed through FMP	The legacy base P/E 15 gate passed at $136.06, but not at the refreshed $243.7078 quote; CS 20% IRR test fails more clearly.

3. Key Financial and Quality Metrics

Metric	Value	Source / calculation
TTM revenue	$44.867B	QF P4 / data package.
TTM operating income	$12.166B	Data package TTM table.

Metric	Value	Source / calculation
TTM pretax income	$12.575B	QF P4 / synthesis.
Normalized NOPAT proxy	$10.22B	TTM operating income $12.166B x 84%, using synthesis base 16% tax rate.
Simple current ROIC proxy	39.2%	NOPAT proxy / invested-capital proxy of debt $14.817B + equity $23.073B - cash and STI $11.822B.
TTM FCF	$12.926B	QF P6.
FCF / normalized NOPAT	126.5%	$12.926B / $10.22B.
TTM SBC / revenue	6.5%	$2.912B / $44.867B.
TTM SBC / FCF	22.5%	$2.912B / $12.926B.
Net debt / EBITDA	0.55x simple; 2.26x FMP method	QF P6.
FCF yield at live market cap	5.0%	$12.926B / $256.868B.
EV / NOPAT proxy	25.9x	Approx. EV $264.480B / NOPAT proxy $10.22B.
3-5 year ROIIC	Insufficient evidence	Reinvestment base, R&D capitalization, acquisitions, and stream economics not complete enough for a credible ROIIC score.

4. Rubric Scorecard

Category	Score	Max	Rationale
Incremental returns on capital	14	25	Current ROIC proxy and margins are strong, but ROIIC is not credibly established. QTL is exceptional; QCT is large and cyclical.
Reinvestment runway	14	20	Automotive, IoT, edge AI, and connected compute give runway, but handsets still dominate and several new vectors lack disclosed revenue economics.
Durability of moat	10	15	QTL IP and QCT platform integration are real. Moat and 2046 gates remain YELLOW due to Apple/internal silicon, MediaTek/Samsung/China pressure, and QTL legal risk.
Accounting and financial quality	8	10	Cash conversion and balance sheet are good. SBC is material and FMP stale-zero issue required official override, but no blocking accounting/governance issue surfaced.
Capital allocation discipline	9	10	FCF-funded dividends, meaningful repurchases, and a strong authorization earn credit; score is capped by 104.5% TTM FCF payout and unproven acquisition/adjacency returns.
Price and 20% return underwriting	3	20	Refreshed quote makes base and bull IRRs far below 20%; base 20% case needs major exit multiple expansion.
Total	58	100	Diagnostic Reject under CS thresholds.

Capital allocation gets partial credit for FCF-funded dividends, meaningful repurchases, and a strong authorization at apparently modest multiples. It is capped because TTM repurchases plus dividends were 104.5% of FCF while Qualcomm is also widening into data-center inference, robotics, industrial edge AI, and acquisitions. The management gate is YELLOW, not a clean PASS.

5. ROIIC and Reinvestment Analysis

The current ROIC proxy is attractive: normalized NOPAT of roughly $10.22B divided by a simple invested-capital proxy of $26.07B implies about 39%. This is a useful sign, but it is not a full CS-grade ROIIC analysis. The files do not provide a complete 5- or 10-year invested-capital bridge with capitalized R&D, lease adjustment, acquisition-inclusive reinvestment, divestitures, and stream-level profit.

ROIIC is therefore marked Insufficient evidence and scored conservatively. Qualcomm clearly has high-return elements: QTL generated $4.117B of TTM EBT on $5.639B of revenue, and QCT generated $11.726B of TTM EBT on $38.896B of revenue. But the CS rubric asks whether incremental reinvestment, including acquisitions and R&D, reliably produces high incremental NOPAT. The local evidence does not prove that for Alphawave, Ventana, data-center inference, robotics, industrial edge AI, or automotive backlog conversion.

6. Runway Analysis

The evidence supports a medium-quality runway. The base synthesis grows consolidated revenue from $44.867B TTM to $56.626B by 2030-12-28, a 4.8% CAGR. That is not heroic, and it is grounded in QCT growing to $49.896B, QTL growing to $6.380B, and corporate/reconciling lines retained. Automotive grows from $4.097B TTM revenue to $8.241B in the QCT base case, while IoT grows from $6.757B to $9.928B.

The score is capped because Handsets remain the largest stream: $28.042B of TTM revenue, 72.1% of QCT and 62.5% of consolidated revenue. Data center and robotics are forward initiatives without historical revenue lines in the package. QCT stream annual histories, stream-level margins, Apple modem revenue/runoff, and automotive backlog conversion remain data gaps.

7. Moat Analysis

Qualcomm has a real moat today. QTL's licensing economics are observable in margins around the high-60s to high-70s range in the available history, and QCT's scale/platform integration is visible in margins near 30%. The moat review credits standards participation, cellular IP, premium Snapdragon integration, high-trust procurement, and automotive design-cycle stickiness.

The moat is not clean enough for a high CS score. QCT is still handset-heavy, Apple/internal silicon remains a direct risk, MediaTek/Samsung/Chinese domestic silicon can pressure share and price, and QTL's royalty economics are legally and regulatorily contested. The local moat appendix explicitly leaves both Moat and 2046 as YELLOW.

8. Accounting and Capital Allocation Analysis

Accounting quality is mostly acceptable. The quant foundation cleared 8/8 reconciliation checks and explicitly corrected FMP stale-zero SBC data with official SEC facts. TTM FCF of $12.926B is strong relative to TTM GAAP net income of $5.365B, which was distorted by tax effects, so cash earnings are better than GAAP net income alone suggests. No blocking restatement, auditor, material weakness, or governance issue surfaced in the local management review.

SBC and buybacks must be treated economically. Official TTM SBC is $2.912B, equal to 6.5% of revenue and 22.5% of FCF. TTM repurchases of $9.691B plus dividends of $3.812B totaled $13.503B, or 104.5% of TTM FCF. That is shareholder-friendly if the stock is cheap and cash generation holds, but aggressive if strategic acquisitions and new platform bets need capital.

9. 20% Return Underwriting

The 20% underwriting fails. The synthesis P/E 15 test passed at the old orchestrator price of $136.06 because base horizon EPS was $13.10 and required EPS at 15x was only $9.07. At the refreshed $243.7078 quote, the base horizon EPS implies 18.6x at 2030 and no longer passes that same P/E 15 check. In any case, a P/E 15 pass would not be the same as a 20% annualized return.

Using the five-year horizon ending 2030-12-28, a 20% annualized return from $243.7078 requires total ending value of about $606.42 per share before timing refinements. The base case's $13.10 EPS at a 15x exit multiple produces a $196.50 terminal price. Adding roughly $18-$20 of cumulative dividends still produces total value near $215, or about negative 2% annualized from the refreshed quote. To clear 20% with base EPS and about $19 of dividends, the exit P/E would need to be roughly 45x, which is major terminal multiple expansion, not conservative underwriting.

Approximate case table:

Case	Horizon EPS	Exit P/E	Terminal price	Dividends	Approx IRR
Bear	$7.22	12x	$86.64	$18	-16%
Base	$13.10	15x	$196.50	$19	-2%
Bull	$17.39	16x	$278.24	$18	4%

The max buy price for a 20% five-year IRR under the base 15x exit and roughly $19 dividends is about $86.60. This is a rough diagnostic price, not a trade instruction.

10. Hard Veto Checklist

Veto	Status	Note
ROIIC below cost of capital with no path	Insufficient evidence	ROIIC not credibly calculable from local package; conservative score.
High ROIC is accounting artifact	Watch	Current proxy is strong, but goodwill/R&D/lease-adjusted multi-year ROIC not fully rebuilt.
Growth requires external financing	Pass	FCF strong and leverage below gate.
Share count rises materially	Pass / Watch	Share count declines in model, but SBC is material.
Acquisition returns undisclosed	Watch	Alphawave/Ventana/data-center economics not proven.
FCF consistently lags earnings	Pass	FCF conversion is strong.
Concentration/regulation/platform risk	Watch	Handsets, Apple/internal silicon, QTL regulation, and QCT competition are material.
20% case requires terminal multiple expansion	Fail	Base 20% IRR requires roughly 45x exit P/E from the refreshed quote.
Needs flawless execution	Watch	Several non-heroic assumptions need to work together.
Cannot explain moat	Pass	QTL IP plus QCT platform integration.
Accounting/governance trust impaired	Pass	No blocking issue found.
Balance sheet could wipe out equity	Pass	Leverage below disqualifier.

11. Final Decision

The evidence supports Qualcomm as a real franchise with strong FCF and a plausible five-year value case. The evidence does not support classifying it as an investable 20% compounder today under the CS rubric. The score is capped mainly by insufficient ROIIC evidence, YELLOW management/moat/2046 gates, handset/QTL durability risks, material SBC, aggressive capital returns, and the failure of the 20% return test without multiple expansion.

Compounder Score note: 58/100; diagnostic Reject because the CS 20% hurdle does not clear and ROIIC evidence is incomplete.

Business Quality Score note: 55/80; real QTL/QCT economics and FCF, capped by ROIIC gaps, handset concentration, QTL legal/regulatory risk, and YELLOW moat/management gates.

20% Return UW Score note: 3/20; current-price base and bull cases do not approach 20% annualized return, and base 20% requires major terminal multiple expansion.

12. Machine-Readable JSON

See `compounder_score.json`.

Appendix CSA - Scoring Audit

Qualcomm Incorporated - Scoring Audit

Prepared: 2026-05-28. Ticker: QCOM. Currency: USD. This audit reviews `appendix_compounder_score.md` and `compounder_score.json` against the local Qualcomm ER2 source files. It applies the CSA rule set: no score without evidence, calculated ROIIC is required for ROIIC credit, acquisition-inclusive returns matter when acquisitions are part of the thesis, SBC is an economic cost, and a 20% case cannot pass when the base case depends on terminal multiple expansion.

1. Original vs Audited Scores

Item	Original	Audited	Notes
Business Quality Score / 80	55	48	Reduced for missing calculated ROIIC, incomplete acquisition-inclusive return evidence, limited Apple/modem runoff detail, and qualitative runway dependence.
Valuation / 20% Return UW Score / 20	3	2	Reduced because the refreshed-price 20% case requires extreme terminal multiple expansion and the reverse-growth bridge is not fully rebuilt.
Total Score / 100	58	50	Still diagnostic Reject; the audited score is lower-confidence and more explicitly capped.
Classification	Reject	Reject	Threshold tests remain failed.

The original scorer reconstructed the current-price problem correctly: the legacy ER2 synthesis used $136.06, while the compounder scorer used a refreshed quote of $243.7078 and therefore failed the base and bull 20% return tests. The audit agrees that the company is not a 20% compounder at the refreshed price. The audit reduces the business-quality side because the original report gave some partial credit where CSA rules require harder caps.

2. Score Reductions and Reasons

Incremental returns on capital are reduced from 14/25 to 11/25. The current ROIC proxy is arithmetically plausible: normalized NOPAT of about $10.22 billion divided by a simple invested-capital proxy of about $26.07 billion implies roughly 39.2%. But this is not a CSA-grade ROIIC calculation. `quant_foundation.md` explicitly warns that the FMP point-in-time ROIC was 6.6% and should not be used as a normalized conclusion. The scorer also admits that 3-year, 5-year, and acquisition-inclusive ROIIC are null. Under CSA, ROIIC must be calculated, not asserted; acquisition-inclusive ROIIC must be considered when Alphawave, Ventana, data-center inference, robotics, and industrial edge AI are part of the forward strategy.

Reinvestment runway is reduced from 14/20 to 12/20. Automotive, IoT, connected compute, and edge AI provide a real runway, but the evidence is not stream-complete. The data package shows TTM Handsets revenue of $28.042 billion, equal to 72.1% of QCT and 62.5% of consolidated revenue. It also flags that data-center revenue is not separately disclosed, QCT non-Apple dollars are growth-only, and automotive backlog conversion detail is missing. The runway score cannot lean too heavily on management targets or strategic vocabulary without revenue, margin, and return evidence.

Durability of moat is reduced from 10/15 to 9/15. QTL is a real moat, with FY2025 QTL revenue of $5.582 billion, EBT of $4.043 billion, and a 72.4% EBT margin; TTM QTL EBT margin was about 73.0%. But the moat appendix leaves both Moat and 2046 as YELLOW. The Apple modem transition, MediaTek and Samsung competition, Chinese domestic silicon policy, QTL legal/regulatory pressure, and missing OEM/geography/royalty-rate/renewal splits all cap the score. The CSA audit does not treat QTL's current high margin as proof of 20-year durability.

Accounting and financial quality is reduced from 8/10 to 7/10. Cash conversion is strong at the TTM point: FCF was $12.926 billion versus depressed GAAP net income of $5.365 billion. But the CSA procedure asks for multi-year FCF conversion, while the scorer mainly relies on the TTM bridge and notes null 5-year FCF conversion. SBC is also material: official TTM SBC was $2.912 billion, or 6.5% of revenue and 22.5% of FCF, after correcting stale FMP zeroes.

Capital allocation is reduced from 9/10 to 7/10. Management deserves credit for returning cash and maintaining leverage below the ER2 disqualifier, but 104.5% of TTM FCF was returned through repurchases plus dividends while new acquisitions and adjacencies remain unproven. The management appendix itself marks the gate YELLOW and says full allocation credit

should wait for disclosed economics from Alphawave, Ventana, and data-center inference.

Price and 20% underwriting is reduced from 3/20 to 2/20. The original scorer correctly failed the 20% hurdle. The remaining two points are only for making the math explicit and not overstating the result. At $243.7078, five-year 20% compounding requires roughly $606 of ending value per share before refinements. Base EPS of $13.10 at 15x gives $196.50 of terminal price, and roughly $19 of dividends does not close the gap. Clearing 20% with base EPS requires about a 45x exit P/E, which is not conservative underwriting.

3. Unsupported Claims

The evidence does not support a calculated 3- or 5-year ROIIC score. It supports a current ROIC proxy and high segment margins, but not incremental return on reinvested capital across R&D, acquisitions, leases, goodwill, and divestitures.

The evidence does not support acquisition-inclusive capital allocation praise beyond partial credit. The files describe Alphawave and Ventana as strategically coherent, but they do not provide revenue contribution, margin, invested capital, integration cost, or ROIC.

The evidence does not support treating Apple/modem runoff as fully modeled. The source files repeatedly flag Apple modem revenue/runoff as a data gap. The QCT model can still be reasonable, but the missing customer waterfall lowers confidence.

The evidence does not support treating Automotive backlog conversion or data-center inference as proven economics. Automotive TTM revenue is disclosed, but backlog conversion, stream margins, and return on incremental capital are not.

4. Calculation Errors

No mechanical arithmetic error was found in the scorer's key calculations. The NOPAT proxy, FCF yield, SBC burden, capital-return intensity, and current-price IRR direction are directionally sound. The issue is not bad math; it is evidence sufficiency. A simple ROIC proxy is not a replacement for ROIIC, and a P/E 15 pass at the stale $136.06 ER2 price is not a 20% annualized return case at the refreshed $243.7078 quote.

The base/bear/bull IRR table is directionally reliable as a diagnostic. The audit does not independently live-refresh the quote because this worker is constrained to the local Qualcomm folder and scorer files. The scorer's refreshed quote is therefore audited as an input, not independently revalidated.

5. Missing Data

The most important missing evidence is a full 5- and 10-year adjusted ROIC and ROIIC bridge with capitalized R&D, leases, goodwill, acquisition spend, divestitures, and incremental NOPAT. Without it, the "compounder" portion of the score must remain capped.

Other material gaps are QCT stream-level margins, Apple modem revenue/runoff, QCT non-Apple revenue dollars, Automotive backlog conversion and margin economics, QTL customer/geography/royalty-rate/royalty-cap/renewal schedules, QSI portfolio value, and revenue/return evidence for Alphawave, Ventana, data-center inference, robotics, and industrial edge AI.

6. Hard-Veto and Threshold Test Audit

The 20% return case fails. The base case requires major terminal multiple expansion to reach 20% from the refreshed price, so the valuation hurdle cannot clear. The original threshold tests also fail total score >=80, business quality >=65/80, valuation >=15/20, ROIIC plus runway >=35/45, base IRR >=20%, bear IRR >=8-10%, no hard vetoes, and no multiple expansion.

No balance-sheet wipeout veto was found. Leverage is below the ER2 threshold. No blocking governance or accounting trust failure was found, but the FMP stale-zero SBC issue is a real data-quality warning that was properly corrected in the source files.

7. Final 20% Hurdle Pass/Fail

Final 20% hurdle: Fail. Qualcomm can be a real franchise and still fail the CSA test at this price. The single biggest underwriting problem is that base EPS of $13.10 does not create enough ending value from $243.7078 unless the exit multiple expands dramatically.

8. Dream Business / Dream Investment Classification

Classification: neither. Qualcomm has dream-business components, especially QTL licensing economics and QCT platform depth, but the combined company is still handset-heavy, legally contested, and exposed to customer/platform transitions. It is not a dream investment at the refreshed price because the 20% return case fails.

9. Stage 7 Scorecard Notes

Compounder Score note: 50/100; diagnostic Reject because ROIIC is not calculated, acquisition-inclusive returns are not proven, and the 20% hurdle fails at the refreshed price.

Business Quality Score note: 48/80; real QTL/QCT economics and strong FCF are capped by handset concentration, Apple/modem uncertainty, missing stream-level margins, material SBC, and YELLOW moat/management gates.

20% Return UW Score note: 2/20; the base case does not approach 20% annualized return from the refreshed quote and requires roughly 45x exit P/E to clear the hurdle.

10. Auditor JSON

See `compounder_score_audit.json`.

Appendix RT - Red Team

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Qualcomm Incorporated (QCOM) - Red Team Appendix

Prepared: 2026-04-25 Role: Sub-Agent RT, Red Team Target: appendix_synthesis.md base-case conclusion that Qualcomm reaches $13.10 of horizon EPS by 2030-12-28, versus required EPS of $9.07 at the supplied $136.06 price.

1. The most fragile assumption

The most fragile assumption in the Stage 5 synthesis is the QCT base-case combination of $49.896 billion of horizon revenue and a 29.6% QCT margin. The fragile line is not simply QCT revenue growth. It is the interaction between three product-stream assumptions inside QCT: Handsets grow from $28.042 billion of TTM revenue to $31.727 billion, Automotive doubles from $4.097 billion to $8.241 billion, IoT rises from $6.757 billion to $9.928 billion, and yet blended QCT margin only slips from 30.1% TTM to 29.6%. That is a large amount of diversification at almost no margin cost.

The synthesis treats this as balanced rather than heroic, but the red-team reading is harsher. The data package shows Handsets are still 72.1% of TTM QCT revenue and 62.5% of consolidated revenue. The most recent quarter showed Handsets revenue up only 3% year over year, and management itself flagged industry-wide memory supply constraints. The QCT appendix also admits unresolved data gaps: Apple modem revenue base and runoff schedule are not disclosed, stream-level margins are not disclosed, and automotive backlog/design-win conversion detail is not provided. Those are not cosmetic gaps. They sit exactly under the base-case bridge.

The model asks investors to accept that the high-margin handset base can remain healthy enough to fund the transition while Automotive and IoT scale fast enough to diversify revenue but not so dilutive that they drag QCT margin down materially. Yet the appendix says Automotive base margin is assumed at 27.0% and IoT at 24.0%, both below the assumed 32.0% handset margin. If Handsets disappoint at the same time Auto and IoT are lower-margin or slower to convert, the model loses both revenue and mix. The synthesis sensitivity says a one-point miss in QCT horizon margin costs about $0.43 of EPS; a two-point miss costs about $0.86. But the more realistic miss is paired: QCT revenue below $49.896 billion and margin below 29.6%. If QCT lands halfway between base and bear at roughly $45.0 billion of revenue and a 27.5% margin, QCT OI is about $12.4 billion, roughly $2.4 billion below the base $14.761 billion. At a 16% tax rate and a 0.972 billion share count, that is about $2.07 of EPS, cutting base EPS from $13.10 to about $11.03 before any QTL, share-count, or corporate expense miss.

This is the gate the synthesis must defend. It is not enough to say QCT has grown recently or that Automotive is up 15% year over year. The red-team question is whether a mature handset profit pool, an undisclosed Apple runoff, competitive Android pricing, and still-unproven Auto/IoT margin structure can all behave well enough together to preserve near-30% QCT margins in 2030. That is possible, but it is the weakest beam in the model.

2. The most-likely-to-be-optimistic Stage 5 number

The single Stage 5 number most likely to prove optimistic is the base horizon diluted share count of 0.972 billion. The synthesis is careful not to repeat the TTM capital-return intensity blindly, but the share-count outcome still embeds a meaningful buyback contribution: diluted shares fall from the TTM average of 1.100 billion and the latest quarter's 1.079 billion to 0.972 billion by the 2030 horizon. That is 107 million shares below the latest quarter run rate and 128 million below the TTM average.

The reason this number is vulnerable is that the same data package that supports cash generation also shows capital return already running hot. TTM free cash flow was $12.926 billion, while repurchases plus dividends were $13.503 billion, or 104.5% of TTM free cash flow. Official TTM stock-based compensation was $2.912 billion, about 6.5% of revenue using the data-package revenue base, and the proxy asked holders to approve a 24 million-share increase to the LTIP reserve. The management appendix marks this as a yellow flag: shareholder returns are aggressive while the company is widening its strategic aperture into data-center inference, robotics, industrial edge AI, automotive, IoT, and related acquisitions.

The synthesis argues the base buyback path is FCF-supported. Red team says the path may be numerically supportable in the spreadsheet but behaviorally and strategically less robust. If QCT softness appears, management may need to preserve cash. If Alphawave, Ventana, Arduino, Edge Impulse, Foundries.io, or other capability-building moves require integration spend, buybacks become the flex item. If the stock rerates higher before earnings power is proven, the same dollars retire fewer shares. If SBC remains near $3 billion annually and grows with AI/engineering talent demand, gross repurchases are

less accretive than the model implies.

The synthesis itself calculates that if share count stayed at 1.079 billion instead of falling to 0.972 billion, base EPS would be $11.80 rather than $13.10. That still passes the P/E 15 gate, but it removes about $1.30 of EPS and drops the cushion from 44.4% to 30.1%. In red-team terms, this is the most likely over-optimistic number because it does not require a business failure. It only requires management to slow repurchases, SBC to remain high, the share price to recover, or FCF to be redirected toward strategic investments. That is a normal world, not a disaster world.

3. The strongest bear case, stated in its strongest form

The short seller's version is this: Qualcomm is still a handset profit pool with a licensing annuity attached, dressed up as an AI edge and automotive diversification story. The base case gives it credit for five years of QCT growth to $49.896 billion and near-30% margin even though Handsets remain the dominant revenue and profit stream, Apple modem runoff is not quantified, premium Android competition is intensifying, and Automotive/IoT margin disclosure is absent. QTL looks bulletproof until a major renewal, China payment behavior, or regulatory action shifts royalty economics; because QTL is so high-margin, a modest revenue reset has an outsized earnings effect. Within two to four quarters, the bear case becomes visible if QCT handset revenue falls below the model trend while QCT margin slips toward the bear path and QTL revenue/margin stop absorbing the shock.

In numbers, the bear does not need Qualcomm to collapse. The synthesis bear case already fails with $7.22 EPS. A milder combined case can also meaningfully impair the thesis: QCT at $45 billion revenue and 27.5% margin, QTL $0.5 billion below base EBT, corporate expense at base, QSI neutral, and shares around 1.025 billion produces EPS around the low-$11 range. That still passes the strict P/E 15 math at $136.06, but it turns a 44.4% cushion into a much thinner underwriting case while management and moat remain yellow. The market would not value that result as a clean compounder; it would value it as a cyclical handset/IP business with buyback support.

4. Cross-examination of management commentary

Management statement one is the AI and diversification framing around personal, industrial, and physical AI. The data package records management emphasizing these themes after a record revenue quarter, while the management appendix adds that Qualcomm is attempting to expand across premium Android, automotive, industrial IoT, PCs, XR, robotics, and data-center inference. The skeptical read is that the strategy is coherent but too wide. Data center, robotics, and some AI initiatives have no historical revenue line in the data package. Alphawave is noted as completed in Q1 FY2026, but there is no clean contribution table, margin profile, backlog, or ROIC. If this commentary is overpromising, the first evidence will be continued promotional roadmap language without disclosed revenue and margin contribution from data center or new edge-AI acquisitions, while core QCT Handsets remain the actual profit driver.

Management statement two is the claim that the company remains on track for fiscal 2029 revenue goals. The data package deliberately does not model an Investor Day target bridge because the dollar amount was not sourced there. Red team's question is: on track to what, and with what mix and margin? The QCT base case depends on Automotive moving from $4.097 billion TTM to $8.241 billion and IoT from $6.757 billion to $9.928 billion by 2030. Those are reasonable-looking numbers, but the data package lacks automotive backlog conversion detail and stream-level margins. If management's confidence is too high, the first crack will be Auto and IoT growing but not converting into QCT margin support, or Auto growth decelerating below the 15% base CAGR while management still cites design wins.

Management statement three is capital return confidence: the March 2026 dividend increase and $20 billion new repurchase authorization sit beside the data package's high FCF and low leverage. The skeptical read is that management may be using buybacks to bridge the equity story while waiting for diversification proof. That is not automatically bad at a low valuation, but it raises the burden of proof. If the commentary is wrong, the earliest evidence will be gross repurchases remaining high while diluted share count does not fall as modeled because SBC absorbs the buyback, or cash returns staying elevated while acquisition and R&D spending fail to produce disclosed segment economics.

5. Stage 5 tie-out reverification

The Stage 5 synthesis passes its 11 arithmetic tie-outs, and red team does not challenge the arithmetic. The problem is the starting trend line. The TTM anchor is correctly Q2 FY2025 through Q1 FY2026, ending 2025-12-28, and Q2 FY2026 is correctly excluded because it is scheduled for April 29, 2026 and not yet reported. But the latest quarter already shows the warning pattern: consolidated revenue up 5% year over year, QCT revenue up 5%, QCT EBT up only 2%, QCT margin down from 32% to 31%, and Handsets up only 3%. QTL had a strong quarter, with revenue up 4% and margin at 77%, but that

strength may include timing, mix, or catch-up elements; the QTL appendix itself refuses to underwrite 77% as structural.

The share-count path is arithmetically coherent but not stress-tested enough against capital allocation conflict. The model begins at 1.100 billion TTM diluted average shares, notes the latest 1.079 billion, and goes to 0.972 billion. The synthesis says capital returns are moderated below TTM intensity, yet the actual March 2026 authorization is large, and the company is pursuing multiple strategic fronts. A prudent red-team spot-check should update this after every quarter: gross buybacks, average repurchase price, SBC, diluted shares, FCF after dividends, and cash used for acquisitions. If diluted shares are not tracking down despite the authorization, the EPS bridge is overstating management's controllable accretion.

Product CAGRs also deserve a tougher competitor-pattern check. Automotive base CAGR of 15% matches the latest Q1 FY2026 year-over-year growth rate; it does not assume deceleration from the current print. That may be fair if backlog conversion is strong, but it is aggressive when backlog detail is absent and the competitive set includes NVIDIA, Mobileye, incumbent automotive semiconductor suppliers, and automaker internal software efforts. IoT at 8% base growth is also exposed because the moat appendix calls IoT the weakest and broadest QCT moat. The synthesis does not need these lines to be heroic individually, but it needs several non-heroic things to work at the same time.

6. The signal that forces an exit

The exit signal should be QCT margin and handset resilience, measured over the next two reported quarters. The threshold: exit or rewrite the thesis if either of the next two quarters shows QCT revenue growth below 0% year over year while QCT EBT margin is below 28.0%, or if the two-quarter average QCT EBT margin falls below 28.0% with Handsets revenue down more than 5% year over year in either quarter.

This is the right signal because the base case is not primarily a data-center or robotics thesis. It is a QCT and QTL earnings-power thesis. QTL can absorb some volatility, and buybacks can help EPS, but if the dominant QCT engine is already losing revenue momentum and margin before the five-year bridge has even begun, the model's core assumption is wrong. A 28.0% QCT margin threshold is not arbitrary. It is below the 30.1% TTM margin and below the 29.6% base horizon margin, but still above the 25.5% bear margin. Breaking 28.0% alongside handset weakness would say the company is moving toward the bear path faster than the synthesis allows.

A secondary exit/rewrite signal should cover QTL: if QTL revenue falls below $1.35 billion in a reported quarter and QTL margin falls below 70% without a clearly temporary timing explanation, immediately rerun the bear QTL case. That would indicate the licensing profit ballast is no longer safely offsetting QCT volatility. But the primary exit signal remains QCT because QCT is 86.7% of TTM revenue and the base-case EPS bridge depends most on QCT maintaining scale economics.

7. Conviction at the end of red team

Red team conclusion: conditional. The thesis survives as a valuation-math case, but it does not survive as a clean Gideon compounder case. The base $13.10 EPS case is not fabricated; the arithmetic ties, the required EPS is only $9.07, and even some moderate downside still clears the P/E 15 gate. However, the path to that EPS has more qualitative fragility than the headline 44.4% cushion suggests.

The synthesis should be rewritten around this sentence: Qualcomm is cheap if QCT holds near-30% margins and QTL remains intact, but the stock is not a clean BUY unless the next quarters prove handset resilience, Auto/IoT conversion, QTL renewal durability, and buyback accretion net of SBC. Management is YELLOW, moat is YELLOW, and the 2046 test is YELLOW for good reasons. Those yellow gates are not footnotes; they are the whole debate.

The strongest reason not to reject Qualcomm outright is that the bear case is already visible in the synthesis and the base case still has cushion. The strongest reason not to upgrade too quickly is that the known data gaps sit exactly where the model needs confidence: Apple modem runoff, QCT stream margins, automotive backlog conversion, QTL customer/renewal details, and the real share-count impact of SBC. Position sizing should therefore reflect a conditional thesis rather than a full-quality compounder verdict.

Appendix D - Data Package (raw historicals)

Qualcomm Incorporated (QCOM) - ER2 / Gideon Data Package

Prepared: 2026-04-25 Owned output: `C:\\Users\\Admin\\OneDrive\\GPT\\ER 2.0\\Qualcomm\\data_package.md` Ticker: QCOM Company: Qualcomm Incorporated Unit convention: USD millions unless otherwise stated. Per-share figures are USD per share. Percentages are as printed or calculated from the cited table. Primary quant source: `C:\\Users\\Admin\\OneDrive\\GPT\\ER 2.0\\Qualcomm\\quant_foundation.md`, which was cleared by QFR for Wave 1 and is the controlling arithmetic spine for this data package. Live source files created or refreshed for this package are saved under `raw\\`.

Source Register

Source ID	Source	Local raw/source file or URL	Use in package
QF	Quantitative foundation cleared by QFR	`quant_foundation.md`	Controlling financials, segment history, TTM build, cash flow, balance sheet, share count, FMP-vs-official tie-outs, SBC override.
SEC-Q1-26-ER	Qualcomm Q1 FY2026 8-K Exhibit 99.1	`raw\\QCOM_SEC_Q1FY2026_8K_EX991_livecheck.htm`; SEC URL: https://www.sec.gov/Archives/edgar/data/804328/000080432826000016/qcom122825erex991.htm	Q1 FY2026 release, QCT/QTL segment print, QCT revenue streams, capital returns, business outlook, management quote.
QCOM-Q1-26-NEWS	Qualcomm Q1 FY2026 newsroom release	`raw\\QCOM_Qualcomm_Q1FY2026_release_livecheck.htm`; https://www.qualcomm.com/news/releases/2026/02/qualcomm-announces-first-quarter-fiscal-2026-results	Live confirmation of release date, quarter end, record-revenue framing, CEO quote.
SEC-FY25-10K	Qualcomm FY2025 Form 10-K	`raw\\QCOM_SEC_FY2025_10K_livecheck.htm`; https://www.sec.gov/Archives/edgar/data/804328/000080432825000085/qcom-20250928.htm	Reporting taxonomy, FY2025-FY2023 consolidated and segment histories, fiscal year convention.
QCOM-FY25-NEWS	Qualcomm Q4/FY2025 newsroom release	`raw\\QCOM_Qualcomm_FY2025_release_livecheck.htm`; https://www.qualcomm.com/news/releases/2025/11/qualcomm-announces-fourth-quarter-and-fiscal-2025-results	FY2025 management commentary, QCT non-Apple and Auto + IoT growth framing, corporate action context.
FMP-IS-LIVE	FMP annual income statement live check	`raw\\QCOM_fmp_income_statement_annual_livecheck.json`; helper call `income-statement QCOM --param period=annual --limit 2`	Live check that FMP FY2025 revenue equals $44,284 million.
QCOM-MAR26-CAPITAL	Qualcomm March 17, 2026 capital return release	`raw\\QCOM_Qualcomm_Mar2026_capital_return_release.htm`; https://www.qualcomm.com/news/releases/2026/03/qualcomm-increases-quarterly-cash-dividend-and-announces-new--20	Dividend increase and new $20.0 billion repurchase authorization.
QCOM-Q2-26-SCHED	Qualcomm April 15, 2026 Q2 FY2026 schedule release	`raw\\QCOM_Qualcomm_Apr2026_Q2_schedule_release.htm`; https://www.qualcomm.com/news/releases/2026/04/qualcomm-schedules-second-quarter-fiscal-2026-earnings-release-a	Confirmation that Q2 FY2026 is scheduled for April 29, 2026 and is not yet reported as of 2026-04-25.

Stage 0 Anchor

Anchor item	Controlling fact	Source
Today	2026-04-25	User Stage 0 anchor; QF Stage 0.
Fiscal convention	Qualcomm's fiscal year ends on the last Sunday in September; FY2025 ended September 28, 2025.	User Stage 0 anchor; QF Stage 0; SEC-FY25-10K.
Most recently reported quarter	Q1 FY2026, quarter ended December 28, 2025, announced February 4, 2026.	User Stage 0 anchor; SEC-Q1-26-ER; QCOM-Q1-26-NEWS.
Not yet reported	Q2 FY2026 is scheduled for release on April 29, 2026, so Q2 FY2026 is not included.	User Stage 0 anchor; QCOM-Q2-26-SCHED.

Anchor item	Controlling fact	Source
TTM anchor	Q2 FY2025 + Q3 FY2025 + Q4 FY2025 + Q1 FY2026, ending December 28, 2025.	User Stage 0 anchor; QF P4.
Forward horizon	TTM + 5 calendar years = December 28, 2030.	User Stage 0 anchor; QF Stage 0.

1. Reporting Structure & Taxonomy

Qualcomm currently reports three reportable segments: QCT, QTL, and QSI. The QF taxonomy table maps QCT to products and services that include integrated circuits and system software sold into three revenue streams: Handsets, Automotive, and IoT. QTL is the licensing segment, and QSI contains strategic investments. The QF taxonomy deliberately separates the reportable segments from QCT's disclosed end-market revenue streams because FMP's `revenue-product-segmentation` endpoint returned QCT and QTL segment lines, not the QCT stream detail. QF therefore sourced the QCT stream detail from SEC primary filings. Source: QF P1, P2, P-Taxonomy; SEC-FY25-10K.

Taxonomy layer	Item	Segment / parent	Disclosure basis	FY2025 revenue	FY2025 % of consolidated revenue	Source
Reportable segment	QCT	Qualcomm CDMA Technologies	Reportable segment revenue and EBT	38,367	86.6%	QF P2; SEC-FY25-10K.
Reportable segment	QTL	Qualcomm Technology Licensing	Reportable segment revenue and EBT	5,582	12.6%	QF P2; SEC-FY25-10K.
Reportable segment	QSI	Qualcomm Strategic Initiatives	Reportable segment revenue and EBT	0	0.0%	QF P2; SEC-FY25-10K.
Reconciling / nonreportable	Nonreportable/reconciling revenue	Corporate and other	Reconciliation to consolidated revenue	335	0.8%	QF P2; SEC-FY25-10K.
Consolidated	Total revenue	Qualcomm Incorporated	Consolidated statement revenue	44,284	100.0%	QF P2; FMP-IS-LIVE; SEC-FY25-10K.

Taxonomy flags:

Flag	Status	Evidence and implication	Source
FMP product-segmentation granularity	Important limitation	FMP annual and quarterly product segmentation returned QCT and QTL, not Handsets, Automotive, and IoT. Product-stream dollars must be anchored to SEC filings and Qualcomm releases.	QF P1, P2.
QSI revenue	Not a product revenue stream	QSI had $0 revenue in FY2025, $18 million in FY2024, and $28 million in FY2023; its EBT is driven by investment and other income/expense, not operating product sales.	QF P2; SEC-FY25-10K.
Nonreportable/reconciling revenue	Must be retained in consolidated ties	FY2025 consolidated revenue of $44,284 million equals QCT $38,367 million + QTL $5,582 million + QSI $0 million + reconciling revenue $335 million.	QF P2.
QCT revenue streams	Dollar-disclosed but only within QCT	Handsets, Automotive, and IoT are disaggregated QCT revenue streams, not standalone reportable segments. They tie to QCT revenue.	QF P2/P4; SEC-Q1-26-ER; SEC-FY25-10K.
SBC official override	Required data-quality flag	FMP quarterly cash flow reported stale zeros for Q4 FY2025 and Q1 FY2026 stock-based compensation; official SEC cash-flow facts control TTM SBC.	QF P5/P6; SEC-FY25-10K; SEC Q1 FY2026 10-Q cited in QF.

Short primary-source taxonomy anchors, kept brief for quote control: QF quotes the FY2025 10-K segment note as saying QCT includes "integrated circuits and system software," QTL "grants licenses," and QSI holds "strategic investments." These quote snippets are used only to anchor taxonomy, not to expand business description. Source: QF P-Taxonomy; SEC-FY25-10K.

2. Consolidated Historicals

The consolidated history below uses QF's reconciled FMP-vs-official statement ties. FY2025 annual revenue was also live-checked during this package build through the FMP helper; the returned annual income statement shows date `2025-09-28` and revenue `44,284,000,000`, which scales to $44,284 million. Source: FMP-IS-LIVE.

Fiscal period	Revenue	Income before tax	Net income	Diluted EPS	Diluted shares	Source
FY2025	44,284	12,663	5,541	5.01	Not restated here	QF P2/P3; SEC-FY25-10K; FMP-IS-LIVE.
FY2024	38,962	10,336	10,142	8.97	Not restated here	QF P2; SEC-FY25-10K.
FY2023	35,820	7,443	7,232	6.42	Not restated here	QF P2; SEC-FY25-10K.
TTM ending 2025-12-28	44,867	12,575	5,365	n/a	Avg. 1,100	QF P3/P4.

TTM is built from four controlling quarters: Q2 FY2025, Q3 FY2025, Q4 FY2025, and Q1 FY2026. The quarterly statement table below uses QF P3, where FMP and official revenue and income-before-tax match at the dollar level after scaling to millions. Source: QF P3.

TTM component quarter	Quarter end	Revenue	Operating income	Income before tax	Net income	Diluted EPS	Diluted shares	Source
Q2 FY2025	2025-03-30	10,979	3,120	3,105	2,812	2.52	1,115	QF P3; SEC Q2 FY2025 sources listed in QF.
Q3 FY2025	2025-06-29	10,365	2,762	2,952	2,666	2.43	1,099	QF P3; SEC Q3 FY2025 sources listed in QF.
Q4 FY2025	2025-09-28	11,271	2,918	2,971	-3,117	-2.77	1,105	QF P3; SEC-FY25-10K; SEC Q4 FY2025 release listed in QF.
Q1 FY2026	2025-12-28	12,252	3,366	3,547	3,004	2.78	1,079	QF P3; SEC-Q1-26-ER.
TTM	2025-12-28	44,867	12,166	12,575	5,365	n/a	Avg. 1,100	QF P3/P4.

The key consolidated interpretation is that revenue has grown from $35,820 million in FY2023 to $44,284 million in FY2025, while TTM revenue through Q1 FY2026 is $44,867 million. The apparent FY2025 net-income compression is not a revenue or operating-income collapse; it reflects the FY2025 GAAP tax valuation allowance dynamic already captured in QF's cash-conversion note. TTM free cash flow of $12,926 million is therefore more informative for cash generation than TTM GAAP net income of $5,365 million, although both numbers must remain visible because ER2 valuation work needs both earnings and cash conversion. Source: QF P3/P6; SEC-FY25-10K.

3. Segment Historicals

Annual segment history from the FY2025 Form 10-K is the controlling view for FY2025-FY2023. QF ties the segment rows to consolidated revenue and income before tax. Source: QF P2; SEC-FY25-10K.

Segment / recon line	Metric	FY2025	FY2024	FY2023	FY2025 share of consolidated revenue	Source
QCT	Revenue	38,367	33,196	30,382	86.6%	QF P2; SEC-FY25-10K.
QCT	Cost of revenues	19,302	16,648	15,367	n/a	QF P2; SEC-FY25-10K.
QCT	Operating expenses	7,395	7,021	7,091	n/a	QF P2; SEC-FY25-10K.
QCT	EBT	11,670	9,527	7,924	n/a	QF P2; SEC-FY25-10K.
QCT	EBT margin	30.4%	28.7%	26.1%	n/a	Calculated from QF P2: EBT / revenue.
QTL	Revenue	5,582	5,572	5,306	12.6%	QF P2; SEC-FY25-10K.
QTL	Costs and expenses	1,539	1,545	1,678	n/a	QF P2; SEC-FY25-10K.
QTL	EBT	4,043	4,027	3,628	n/a	QF P2; SEC-FY25-10K.
QTL	EBT margin	72.4%	72.3%	68.4%	n/a	Calculated from QF P2: EBT / revenue.
QSI	Revenue	0	18	28	0.0%	QF P2; SEC-FY25-10K.
QSI	EBT	180	104	-12	n/a	QF P2; SEC-FY25-10K.
Nonreportable/reconciling	Revenue	335	176	104	0.8%	QF P2; SEC-FY25-10K.

Segment / recon line	Metric	FY2025	FY2024	FY2023	FY2025 share of consolidated revenue	Source
Nonreportable/reconciling	EBT	-3,230	-3,322	-4,097	n/a	QF P2; SEC-FY25-10K.
Consolidated	Revenue	44,284	38,962	35,820	100.0%	QF P2; SEC-FY25-10K; FMP-IS-LIVE.
Consolidated	Income before tax	12,663	10,336	7,443	n/a	QF P2; SEC-FY25-10K.

TTM segment history through Q1 FY2026 preserves the same reportable-segment definitions and adds the four-quarter bridge. Source: QF P2/P4.

Segment / recon line	Q2 FY2025	Q3 FY2025	Q4 FY2025	Q1 FY2026	TTM	TTM share of consolidated revenue	Source
QCT revenue	9,469	8,993	9,821	10,613	38,896	86.7%	QF P2/P4; SEC-Q1-26-ER for Q1 FY2026.
QTL revenue	1,319	1,318	1,410	1,592	5,639	12.6%	QF P2/P4; SEC-Q1-26-ER for Q1 FY2026.
QSI revenue	0	0	0	0	0	0.0%	QF P2/P4.
Recon/nonreportable revenue	191	54	40	47	332	0.7%	QF P2/P4.
Consolidated revenue	10,979	10,365	11,271	12,252	44,867	100.0%	QF P2/P4; SEC-Q1-26-ER.
QCT EBT	2,857	2,671	2,896	3,302	11,726	n/a	QF P2/P4; SEC-Q1-26-ER.
QTL EBT	929	942	1,015	1,231	4,117	n/a	QF P2/P4; SEC-Q1-26-ER.
QSI EBT	10	149	1	179	339	n/a	QF P2/P4.
Reconciling EBT	-691	-810	-941	-1,165	-3,607	n/a	QF P2/P4.
Consolidated income before tax	3,105	2,952	2,971	3,547	12,575	n/a	QF P2/P4; SEC-Q1-26-ER.

The largest current reportable segment is QCT: FY2025 revenue of $38,367 million was 86.6% of consolidated revenue, and TTM QCT revenue of $38,896 million was 86.7% of TTM consolidated revenue. QTL is much smaller by revenue but far higher-margin, with FY2025 EBT of $4,043 million on $5,582 million of revenue, or 72.4% calculated EBT margin. QSI is not a revenue engine in the current data set; it contributed $0 million of FY2025 revenue but $180 million of FY2025 EBT because its economics are investment-driven. Sources: QF P2/P4; SEC-FY25-10K; SEC-Q1-26-ER.

4. Product / Sub-Segment Historicals

QCT revenue stream dollars are disclosed for Handsets, Automotive, and IoT. These are not FMP product lines; QF sourced them from SEC primary sources because FMP segmentation did not expose the QCT stream level. Source: QF P2/P4; SEC-Q1-26-ER.

QCT revenue stream	Q2 FY2025	Q3 FY2025	Q4 FY2025	Q1 FY2026	TTM	TTM share of QCT revenue	TTM share of consolidated revenue	Source
Handsets	6,929	6,328	6,961	7,824	28,042	72.1%	62.5%	QF P2/P4; SEC-Q1-26-ER.
Automotive	959	984	1,053	1,101	4,097	10.5%	9.1%	QF P2/P4; SEC-Q1-26-ER.
IoT	1,581	1,681	1,807	1,688	6,757	17.4%	15.1%	QF P2/P4; SEC-Q1-26-ER.
Total QCT revenue	9,469	8,993	9,821	10,613	38,896	100.0%	86.7%	QF P2/P4; SEC-Q1-26-ER.

Most recent quarter year-over-year product stream disclosure is visible in the Q1 FY2026 release and 8-K Exhibit 99.1. Source: SEC-Q1-26-ER; QCOM-Q1-26-NEWS.

QCT revenue stream	Q1 FY2026	Q1 FY2025	YoY change	Source
Handsets	7,824	7,574	+3%	SEC-Q1-26-ER.

QCT revenue stream	Q1 FY2026	Q1 FY2025	YoY change	Source
Automotive	1,101	961	+15%	SEC-Q1-26-ER.
IoT	1,688	1,549	+9%	SEC-Q1-26-ER.
Total QCT revenues	10,613	10,084	+5%	SEC-Q1-26-ER.

Product/sub-segment disclosure status:

Product / stream	Dollar historicals available?	Growth-only items?	Notes	Source
Handsets	Yes for QCT stream quarters in TTM and Q1 FY2026/Q1 FY2025.	No, Q1 FY2026 has both dollars and growth.	Largest disclosed stream; TTM $28,042 million.	QF P4; SEC-Q1-26-ER.
Automotive	Yes for QCT stream quarters in TTM and Q1 FY2026/Q1 FY2025.	No, Q1 FY2026 has both dollars and growth.	Q1 FY2026 record automotive revenue above $1 billion; TTM $4,097 million.	QF P4; SEC-Q1-26-ER; QCOM-Q1-26-NEWS.
IoT	Yes for QCT stream quarters in TTM and Q1 FY2026/Q1 FY2025.	No, Q1 FY2026 has both dollars and growth.	TTM $6,757 million.	QF P4; SEC-Q1-26-ER.
QCT non-Apple revenue	No complete dollar table in QF.	Yes, FY2025 growth disclosed at +18%.	Useful for thesis framing but not a dollar-level model base unless later agents source Investor Day or additional disclosures.	QCOM-FY25-NEWS.
Combined Automotive + IoT FY2025 growth	No combined dollar table in this package beyond components.	Yes, FY2025 combined growth disclosed at +27%.	Components should be modeled from disclosed stream dollars, not only growth rate.	QCOM-FY25-NEWS; QF P4.
Data center	No historical revenue dollars in this package.	Management commentary says expansion area and Alphawave acquisition accelerates it.	Treat as forward initiative, not current historical segment.	SEC-Q1-26-ER; QCOM-Q1-26-NEWS.
Advanced robotics / physical AI	No historical revenue dollars in this package.	Management commentary only.	Treat as forward initiative or product adjacency until dollar disclosures appear.	QCOM-Q1-26-NEWS; QCOM-FY25-NEWS.

The product table makes the dependency clear: despite management's diversification narrative, Handsets remain the largest disclosed QCT stream at $28,042 million of TTM revenue, or 72.1% of QCT and 62.5% of consolidated revenue. Automotive and IoT are important because they carry faster visible growth and broader platform optionality, but the current dollar base is still much smaller: TTM Automotive $4,097 million and TTM IoT $6,757 million. Sources: QF P4; SEC-Q1-26-ER.

5. Most Recent Quarterly Trend

The most recent reported quarter is Q1 FY2026, quarter ended December 28, 2025, announced February 4, 2026. Q2 FY2026 is scheduled for April 29, 2026 and is not yet reported as of 2026-04-25. Source: User Stage 0 anchor; QCOM-Q1-26-NEWS; SEC-Q1-26-ER; QCOM-Q2-26-SCHED.

Q1 FY2026 metric	Q1 FY2026	Q1 FY2025	Change	Source
GAAP revenues	12,252	11,669	+5%	SEC-Q1-26-ER.
GAAP EBT	3,547	3,635	-2%	SEC-Q1-26-ER; QF P3.
GAAP net income	3,004	3,180	-6%	SEC-Q1-26-ER; QF P3.
GAAP diluted EPS	2.78	2.83	-2%	SEC-Q1-26-ER; QF P3.
Non-GAAP EPS	3.50	3.41	+3%	SEC-Q1-26-ER.
QCT revenue	10,613	10,084	+5%	SEC-Q1-26-ER; QF P2/P4.
QCT EBT	3,302	3,246	+2%	SEC-Q1-26-ER; QF P2/P4.
QCT EBT margin	31%	32%	-1 point	SEC-Q1-26-ER.
QTL revenue	1,592	1,535	+4%	SEC-Q1-26-ER; QF P2/P4.
QTL EBT	1,231	1,158	+6%	SEC-Q1-26-ER; QF P2/P4.
QTL EBT margin	77%	75%	+2 points	SEC-Q1-26-ER.
QCT Handsets revenue	7,824	7,574	+3%	SEC-Q1-26-ER; QF P4.
QCT Automotive revenue	1,101	961	+15%	SEC-Q1-26-ER; QF P4.

Q1 FY2026 metric	Q1 FY2026	Q1 FY2025	Change	Source
QCT IoT revenue	1,688	1,549	+9%	SEC-Q1-26-ER; QF P4.
Stockholder returns	3,599	n/a	n/a	$949 million dividends + $2,650 million repurchases in QF P6; SEC-Q1-26-ER states $3.6 billion.

Largest segment growth / print verification: QCT was the largest Q1 FY2026 reportable segment at $10,613 million of revenue, up 5% year over year from $10,084 million. Within QCT, Automotive was the fastest disclosed stream in Q1 FY2026 at +15% year over year, with revenue of $1,101 million versus $961 million. The SEC-Q1-26-ER release also describes the quarter as having record total company and QCT revenue and notes record QCT Automotive revenue for a second consecutive quarter above $1 billion. Source: SEC-Q1-26-ER; QCOM-Q1-26-NEWS.

Management also guided to a near-term handset headwind: the Q1 FY2026 release states, in CEO commentary, that the near-term handsets outlook is impacted by "industry-wide memory supply constraints." That quote is a forward-looking risk marker, not a change to the historical Q1 revenue table. Source: QCOM-Q1-26-NEWS; SEC-Q1-26-ER.

6. Management Commentary on Forward Growth with Verifiable Quotes

Quote discipline: only short quote snippets are used here; each is tied to a live source. These are not valuation conclusions. They identify the forward-growth areas management is emphasizing and the near-term constraints management itself named.

Theme	Verifiable quote snippet	Data / context	Source
AI momentum	"personal, industrial and physical AI"	Appears in Q1 FY2026 CEO commentary after record company revenue of $12,252 million.	QCOM-Q1-26-NEWS; SEC-Q1-26-ER.
Handset near-term headwind	"industry-wide memory supply constraints"	Used by management to qualify near-term handset outlook after Q1 FY2026 Handsets revenue of $7,824 million, up 3% YoY.	QCOM-Q1-26-NEWS; SEC-Q1-26-ER.
Premium smartphone demand	"premium and high tier smartphones"	Management says end-consumer demand is encouraging despite memory constraints.	QCOM-Q1-26-NEWS; SEC-Q1-26-ER.
FY2029 revenue target	"fiscal 2029 revenue goals"	Management says the company remains on track; no dollar amount is modeled here unless later agents source the Investor Day target bridge.	QCOM-Q1-26-NEWS; SEC-Q1-26-ER.
FY2025 QCT strength	"record QCT revenues"	FY2025 QCT revenue was $38,367 million, up from $33,196 million in FY2024.	QCOM-FY25-NEWS; QF P2.
QCT non-Apple	"18% year-over-year growth"	Growth-only disclosure; no complete dollar history in this package.	QCOM-FY25-NEWS.
Automotive + IoT	"27% year-over-year"	FY2025 combined growth disclosure; component TTM dollars are Automotive $4,097 million and IoT $6,757 million.	QCOM-FY25-NEWS; QF P4.
Data center expansion	"expansion into Data Centers"	Q1 FY2026 release notes completed Alphawave Semi acquisition; no historical data-center revenue line is disclosed here.	SEC-Q1-26-ER; QCOM-Q1-26-NEWS.
Capital return commitment	"stockholder returns"	March 2026 release ties dividend increase and $20.0 billion buyback authorization to returning capital while pursuing diversification.	QCOM-MAR26-CAPITAL.

The forward-growth data package conclusion is deliberately bounded. Management is emphasizing diversification beyond handset dependence, especially Automotive, IoT, AI at the edge, data centers, and robotics/physical AI. However, historical dollar disclosure that can be cleanly modeled today is strongest for QCT streams, QTL, and consolidated financials. Data center, robotics, and some AI initiatives are best treated as forward optionality or corporate-action context until dollar revenue histories become available. Sources: QF P4; SEC-Q1-26-ER; QCOM-Q1-26-NEWS; QCOM-FY25-NEWS.

7. Capital Allocation History

TTM capital allocation uses QF P6, with cash flow from the live FMP quarterly cash-flow endpoint and stock-based compensation controlled to official SEC facts because of the FMP stale-zero issue. Source: QF P6.

Cash-flow / allocation line	Q2 FY2025	Q3 FY2025	Q4 FY2025	Q1 FY2026	TTM	Source
Operating cash flow	2,554	2,875	3,996	4,965	14,390	QF P6; FMP quarterly cash-flow endpoint listed in QF.
Capital expenditure	-214	-294	-407	-549	-1,464	QF P6; FMP quarterly cash-flow endpoint listed in QF.
Free cash flow	2,340	2,581	3,589	4,416	12,926	QF P6.
Share repurchases	-1,748	-2,849	-2,444	-2,650	-9,691	QF P6.
Common dividends paid	-938	-968	-957	-949	-3,812	QF P6.
Stock-based compensation, official control	702	659	663	888	2,912	QF P6; SEC-FY25-10K and Q1 FY2026 10-Q cited in QF.
Stock-based compensation, FMP comparison only	702	659	0	0	1,361	QF P6; FMP quarterly cash-flow endpoint comparison.

Capital return intensity is high. TTM free cash flow was $12,926 million, while TTM repurchases were $9,691 million and TTM dividends were $3,812 million. Combined repurchases and dividends were $13,503 million, or 104.5% of TTM free cash flow, calculated from QF P6. Q1 FY2026 alone returned approximately $3.6 billion to stockholders, consisting of $949 million of dividends and $2,650 million of repurchases in QF's cash-flow table; the Q1 FY2026 release describes the total as $3.6 billion. Sources: QF P6; SEC-Q1-26-ER.

Recent capital allocation actions after Q1 FY2026:

Date	Action	Amount / terms	Source
2026-03-17	Quarterly dividend increase approved	From $0.89 to $0.92 per share; annualized payout $3.68 per share	QCOM-MAR26-CAPITAL.
2026-03-17	New stock repurchase authorization approved	$20.0 billion	QCOM-MAR26-CAPITAL.
2026-03-17	Remaining prior authorization disclosed	Approximately $2.1 billion under the November 2024 program	QCOM-MAR26-CAPITAL.

The March 2026 authorization matters for ER2 because it extends the capital-return runway beyond the TTM cash-flow history. However, the capital allocation section should not be read as a buyback accretion model. Later synthesis work should explicitly decide whether repurchase pace continues, slows, or flexes with acquisition spend, leverage, and cyclicality. Source: QF P6; QCOM-MAR26-CAPITAL.

8. Balance Sheet Snapshot

Latest balance sheet is the Q1 FY2026 quarter end, December 28, 2025. QF checked FMP quarterly balance-sheet values against the SEC Q1 FY2026 10-Q. Source: QF P6.

Balance-sheet line	Value	Source
Cash and equivalents	7,205	QF P6.
Short-term investments	4,617	QF P6.
Cash + short-term investments	11,822	QF P6.
Total debt	14,817	QF P6.
Net debt	7,612	QF P6.
Total assets	53,034	QF P6.
Total equity	23,073	QF P6.
Current assets	24,608	QF P6.
Current liabilities	9,822	QF P6.
Inventory	6,665	QF P6.
Accounts receivable	4,153	QF P6.

Balance-sheet line	Value	Source
Current ratio	2.51x	QF P6.
Interest coverage	19.9x	QF P6.
Net debt / EBITDA, simple QF calculation	0.55x	QF P6.
Net debt / EBITDA, FMP key-metrics methodology	2.26x	QF P6.
Latest diluted shares	1,079	QF P6; Q1 FY2026 income statement.
TTM average diluted shares	1,100	QF P6.
Market cap	158,979	QF P6; FMP market-capitalization date 2026-04-24.
Price	$148.85	QF P6; FMP quote timestamp 1777060800.

The balance-sheet read-through is that Qualcomm had $11,822 million of cash and short-term investments against $14,817 million of total debt, for $7,612 million of net debt at the Q1 FY2026 balance sheet date. QF includes two net-debt-to-EBITDA readings: 0.55x using latest FMP net debt divided by TTM FMP EBITDA, and 2.26x using FMP's point-in-time key-metrics methodology. Both are below the ER2 leverage disqualifier threshold of 3.0x, but later agents should use a consistent methodology rather than mixing the two. Source: QF P6.

9. Recent Corporate Actions

Date	Corporate action	Data package treatment	Source
2025-11-05	Qualcomm announced Q4 and FY2025 results.	Confirms FY2025 GAAP revenue of $44.3 billion in press framing; model uses exact $44,284 million from QF/FMP/10-K.	QCOM-FY25-NEWS; QF P2; FMP-IS-LIVE.
2026-02-04	Qualcomm announced Q1 FY2026 results.	Most recent reported quarter; controls TTM right edge.	SEC-Q1-26-ER; QCOM-Q1-26-NEWS.
2026-02-04	Completed acquisition of Alphawave Semi noted in Q1 release.	Treat as strategic data-center expansion context; no historical revenue line included in current package.	SEC-Q1-26-ER; QCOM-Q1-26-NEWS.
2026-03-17	Dividend increase and new buyback authorization.	Capital allocation update after Q1 reporting; $0.92 quarterly dividend and $20.0 billion authorization.	QCOM-MAR26-CAPITAL.
2026-04-15	Q2 FY2026 earnings release scheduled.	Confirms Q2 FY2026 is not yet reported as of 2026-04-25; do not include Q2 FY2026 in TTM.	QCOM-Q2-26-SCHED.

The most important corporate-action boundary condition is the Q2 timing. As of 2026-04-25, the correct TTM endpoint remains December 28, 2025. Any model that includes Q2 FY2026 before April 29, 2026 would be using an unreported quarter. Source: User Stage 0 anchor; QCOM-Q2-26-SCHED.

10. Open Data Gaps

Gap	Why it matters	Current treatment	Source / status
FMP stock-based compensation stale zeros	FMP quarterly cash flow reports $0 for Q4 FY2025 and Q1 FY2026 SBC, understating TTM SBC by $1,551 million versus official construction.	Official SEC cash-flow facts control TTM SBC: FY2025 $2,783 - Q1 FY2025 $759 + Q1 FY2026 $888 = $2,912. FMP comparison remains visible.	QF P5/P6; official override preserved.
QCT stream annual history beyond TTM/FY2025 detail	Handsets, Automotive, and IoT are disclosed as QCT streams, but FMP segmentation does not provide full stream-level history.	Use QF's SEC-sourced TTM stream dollars and Q1 FY2026 YoY table; avoid inferring stream histories from FMP QCT totals.	QF P1/P2/P4; SEC-Q1-26-ER.
QCT non-Apple revenue dollars	Management disclosed +18% FY2025 QCT non-Apple growth but this package does not contain a full dollar table.	Treat as growth-only until a source with numerator/base dollars is added.	QCOM-FY25-NEWS.
Combined Automotive + IoT FY2025 growth	FY2025 combined growth of +27% is useful but should not replace component dollar modeling.	Model components from disclosed stream dollars where available; use growth-only disclosure as qualitative support.	QCOM-FY25-NEWS; QF P4.

Gap	Why it matters	Current treatment	Source / status
Data center revenue	Alphawave and data-center expansion are central forward themes but current revenue is not separately disclosed in the historical tables.	Treat as forward option and corporate-action context; do not assign historical revenue without additional source.	SEC-Q1-26-ER; QCOM-Q1-26-NEWS.
Robotics / physical AI revenue	Management references physical AI and robotics, but no dedicated historical revenue line is included in QF.	Treat as qualitative growth vector until disclosed revenue appears.	QCOM-Q1-26-NEWS; QCOM-FY25-NEWS.
QSI economic interpretation	QSI had $0 FY2025 revenue but positive EBT due to investments, which can confuse segment-margin screens.	Do not model QSI as a product segment; keep investment income/expense separate in segment bridge.	QF P2.
Q4 FY2025 QTL $1 million presentation difference	Q4 FY2025 8-K EX-99.1 prints QTL revenue of $1,409 million, while FY2025 10-K annual less Q1-Q3 implies $1,410 million.	QF uses $1,410 million to preserve annual and TTM arithmetic; difference is immaterial and disclosed.	QF P2 discrepancy log.

Self-Verification Log

Required check	Result	Evidence
Stub created first	Passed	`data_package.md` was created and verified before build; initial file length was 98 bytes.
Most recent quarter largest segment growth/print live-checked	Passed	SEC-Q1-26-ER confirms QCT revenue $10,613 million, +5% YoY; Automotive $1,101 million, +15% YoY; QCT is largest reportable segment.
Management quote live-checked	Passed	QCOM-Q1-26-NEWS / SEC-Q1-26-ER quote snippet includes "industry-wide memory supply constraints" and "fiscal 2029 revenue goals."
FY2025 revenue live-checked against FMP income statement	Passed	FMP-IS-LIVE returned `date: 2025-09-28` and `revenue: 44284000000`, equal to $44,284 million.
QF controlling source preserved	Passed	All consolidated, segment, TTM, cash-flow, balance-sheet, and SBC values use QF unless a live check is explicitly cited.
Q2 FY2026 excluded	Passed	QCOM-Q2-26-SCHED confirms April 29, 2026 scheduled release; today is 2026-04-25.

Key Findings for Downstream Agents

- Qualcomm is still QCT-led: FY2025 QCT revenue was $38,367 million, or 86.6% of consolidated revenue, and TTM QCT revenue was $38,896 million, or 86.7% of consolidated revenue. Source: QF P2/P4.
- QTL is smaller but structurally high-margin: FY2025 QTL revenue was $5,582 million and FY2025 QTL EBT was $4,043 million, a calculated 72.4% EBT margin. Source: QF P2.
- Handsets remain the dominant stream: TTM Handsets revenue was $28,042 million, equal to 72.1% of TTM QCT revenue and 62.5% of TTM consolidated revenue. Source: QF P4.
- Automotive is the fastest recent disclosed QCT stream: Q1 FY2026 Automotive revenue was $1,101 million, up 15% YoY, and above $1 billion for the second consecutive quarter. Source: SEC-Q1-26-ER; QCOM-Q1-26-NEWS.
- TTM cash generation is strong relative to depressed GAAP net income: TTM FCF was $12,926 million versus TTM GAAP net income of $5,365 million. Source: QF P6.
- Capital return is aggressive: TTM repurchases of $9,691 million plus dividends of $3,812 million totaled $13,503 million, or 104.5% of TTM FCF. Source: QF P6.
- Balance sheet leverage is below the disqualifier gate under both QF views: 0.55x simple net debt / TTM EBITDA and 2.26x FMP key-metrics net debt / EBITDA. Source: QF P6.
- The main data-quality issue is stock-based compensation: official TTM SBC is $2,912 million, while FMP comparison-only TTM SBC is $1,361 million because FMP reports stale zeros for Q4 FY2025 and Q1 FY2026. Source: QF P6.