

Equity Research Report

Quantum Computing Inc. (NASDAQ: QUBT)

Integrated photonics and quantum optics

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14 October 2025

STRATOS
The Empirically Driven Economy

Quantum Computing Inc. (NASDAQ: QUBT)

Photonic IP Priced Ahead of Commercial Proof

Initiating coverage with a SELL rating. A 9,140x price-to-sales multiple and a market capitalisation of about 47x the ∼$101M patent NPV discount commercial execution that reported revenue does not support, while guidance misses, dilution and litigation add downside risk.

RECOMMENDATION

SELL

CMP:	**$21.78**
Target Price:	n.a.
Price as of:	10 Oct 2025
Ticker:	NASDAQ: QUBT

Stock Data (as on 10 Oct 2025)

Russell 2000:	2,468.85
52 Weeks High / Low:	0.67 / 27.15
Market Cap ($ M):	4,774.3
O/s Shares (mn):	186.75
NASDAQ Ticker:	QUBT
CMP ($):	21.78

Stock Performance

6 Months:	**+178.00%**
1 Year:	**+2,649.42%**
5 Years:	**+399.08%**

Shareholding Pattern (current)



Institutions:	33.31%
Corporations:	0.30%
Individuals / Insiders:	12.96%
Public and Others:	53.43%

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Company Overview

Quantum Computing Inc. (NASDAQ: **QUBT**) is an innovative integrated photonics and quantum optics technology company positioned at the forefront of the quantum computing revolution. With recent capital raises totalling $1.64 billion since November 2024, including a $750 million oversubscribed private placement in October 2025, QUBT has the funding for a pipeline of IP and planned investment in R&D, although the capital raised has yet to translate into revenue.

QUBT specializes in developing quantum machines and photonic technologies for commercial and government markets. The company's core innovation lies in its thin film lithium niobate (TFLN) chips for optical devices, including electro-optical modulators, periodically poled devices for frequency conversion, and micro ring resonator cavities. Unlike competing quantum systems that require ultra-low temperatures, QUBT's photonic approach operates at room temperature, significantly reducing operational complexity and costs.

QUBT primarily serves government agencies and research institutions through R&D contracts, collaborations, and consulting, with limited large-scale product sales. It also targets select enterprise clients in telecom and photonics. Its key moats lie in its **thin-film lithium niobate photonic technology**, which operates at room temperature, reducing cost and complexity; a **growing IP portfolio** protecting its innovations; and **strong funding** supporting in-house chip manufacturing. As an early mover in photonic components, QUBT has gained cost and supply-chain advantages.

Valuation and View

Quantum Computing Inc. trades at an expensive valuation of EV/Sales around 492x, Price/Book at 10.4x and Price/Sales ratio of ∼9,140x, far exceeding peers like IonQ (P/S ∼534x), Rigetti (P/S ∼1,414x), and D-Wave (P/S ∼1,349x). At current revenue, market valuation is completely driven by IP speculation and speculative future potential.

Conservative **NPV of its patent portfolio is ∼$101M**, a fraction of the current market cap, highlighting the premium investors are paying for anticipated execution and market adoption rather than realized financial performance.

From a forward-looking perspective, QUBT's implied valuation assumes successful commercialization and revenue generation several years out. Using conservative NPV-based cash flow assumptions and 40% discounting, early revenue inflection is expected around **2028–2030**, with medium-term realizable revenue substantially below current market capitalization.

As compared to peers, such high valuation needs to be substantiated by aggressive commercial progress and acceptance.

The IP of Quantum Computing Inc. has some technical merit, and an inflection point remains possible if the company sustains operations for 3–5 years. The current share price already discounts that outcome, so the risk/reward is skewed to the downside and supports our **SELL** rating.

Key Highlights (Q2 2025)

- Total revenue declined 67% Y-o-Y to $61K in Q2 2025 vs. $183K in Q2 2024, reflecting challenges in commercial scaling.
- Gross profit dropped 55% Y-o-Y to $26K, with gross margin improving to 42.6% from 31.7% due to product mix optimization.
- Operating loss widened 93% Y-o-Y to $(10.2)M driven by aggressive R&D spending scaling 185% to $6.0M as the company accelerates technology development.
- Cash position surged 342% to $348.8M as of June 30, 2025 vs. $78.9M at December 31, 2024, following successful capital raises providing multi-year runway.
- Total assets increased 177% to $426.1M driven by cash infusion, positioning company for sustained R&D investment and commercial expansion.
- Stockholders' equity strengthened 269% to $396.0M with minimal debt obligations, maintaining financial flexibility for strategic initiatives.
- Research and development expenses increased 185% Y-o-Y to $6.0M in Q2 2025, demonstrating commitment to advancing photonic quantum computing technology platform.
- Sales and marketing spend rose 58% Y-o-Y to $680K, reflecting early commercial efforts and market development activities.
- Net loss per share widened to $(0.26) from $(0.06) primarily due to $28.1M derivative liability mark-to-market adjustment related to warrant valuations.
- Maintained position as only pure-play public company in nonlinear quantum optics and integrated photonics, capturing early-mover advantage in emerging market.
- Strong balance sheet with $349M cash provides 6+ years operational runway at current burn rates, enabling aggressive technology development without near-term funding concerns.
- Derivative liability decreased from $40.5M to $24.6M, reducing future non-cash volatility impact on earnings as warrant values stabilize.

Source: SEC Quarterly Earnings Release Q2 2025

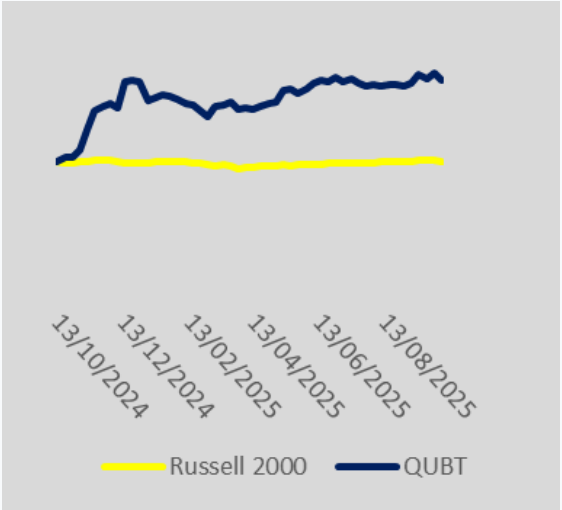
Key Positives

- Developing photonic quantum processors, innovation in the industry as compared to conventional superconducting qubits technology.
- Growing commercial relationship with government institutions.
- Decent cash position provides multi year runway for cash burn.
- Strong investor interest for private placement fund raise establishing credibility.

Key Negatives

- High cash burn rate relative to revenue generation.
- Continuous quarterly guidance performance miss raises concerns regarding successful future operations.
- Less or no clarity regarding IP rights and commercial scalability of end products.
- Ongoing fraud litigations and allegations against the company.

Relative Stock Performance (1 Yr)



QUBT (navy) vs. Russell 2000 (yellow)

Industry Outlook

Quantum Computing Industry

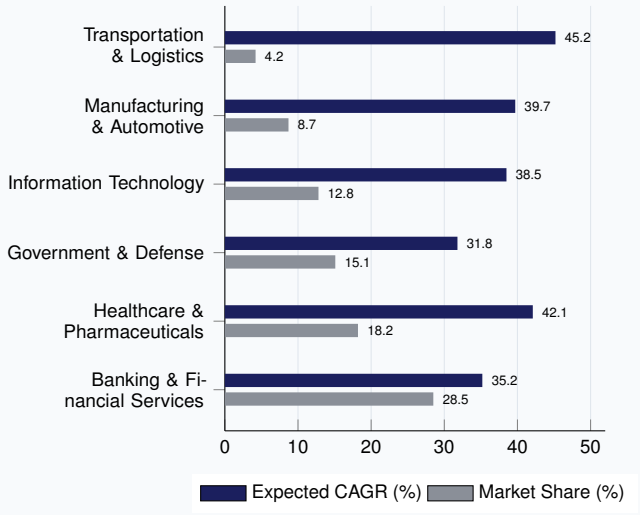
In the coming decade the global quantum computing market will reach an inflection point, and from there onwards commercialization of quantum computing products will begin at a mass scale.

According to McKinsey's Quantum Technology Monitor 2025, the market generated roughly **USD 4 billion in 2024**, with projections rising to **USD 28–72 billion by 2035**, implying a **compound annual growth rate (CAGR) of 19–30%**.

The broad forecast range reflects high uncertainty around technology maturity, hardware scalability, and commercialization pace. Nevertheless, consensus across consulting and academic estimates suggests that the **mid-2030s** will mark the beginning of **enterprise-grade adoption**, when quantum advantage begins to deliver measurable ROI in real-world applications.

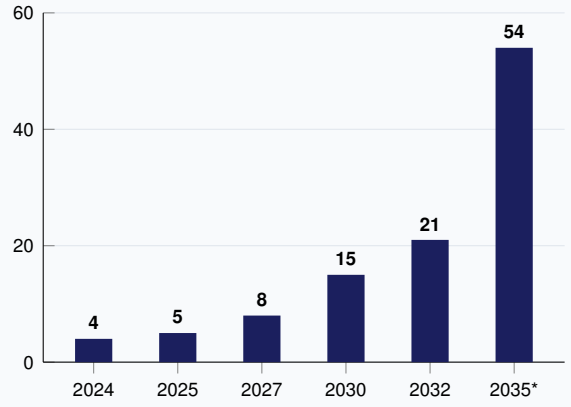
Source: McKinsey report on Quantum Computing

Industry-Wise Application (%)



Source: McKinsey, BCG, other sources

Growth Projection: Global QC Market Size (US$ Billion)



Source: Statista, McKinsey report, Deloitte report

2035 Market Size Debate

For 2035 there has been widespread debate amongst analysts regarding the growth of the QC industry, with analysts quoting the industry to be as large as US$ 127 Billion. Here a more conservative approach has been taken considering diverse factors.

Sectoral Application and Current Use Cases

The Banking & Financial Services sector leads the quantum computing market with a 28.5% share, driven by portfolio optimization, risk modeling, and fraud detection, with major banks like JPMorgan and Goldman Sachs piloting use cases.

Healthcare & Pharmaceuticals hold 18.2% share and the fastest growth (42.1% CAGR), led by drug discovery and protein folding analysis (58.7% CAGR). Transportation & Logistics shows 45.2% CAGR, driven by route optimization and supply chain forecasting, while Government & Defense (15.1%) focuses on quantum cryptography and secure communications.

The sector's evolution marks a shift from experimentation to early commercial deployment. The quantum computing market is transitioning from research to practical applications, with financial services and healthcare leading adoption. The wide range of growth projections reflects the technology's nascent stage, but consistent high CAGR forecasts across all sectors indicate strong commercial potential.

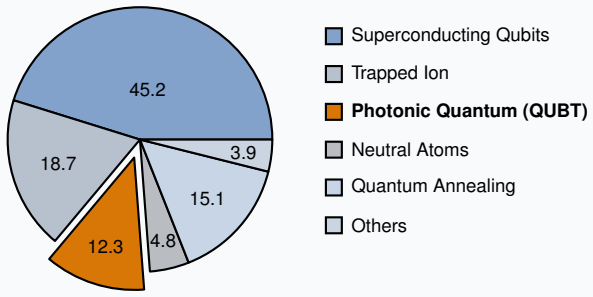
Global Quantum Computing Landscape

The quantum computing market is experiencing rapid regional differentiation, driven by technology adoption, funding concentration, and talent availability. North America dominates cloud-based QaaS deployments and venture capital inflows, Europe leverages structured public-private programs to accelerate software and hardware commercialization, while Asia-Pacific is scaling through government-backed initiatives and a deepening talent pipeline. Across regions, photonic and superconducting technologies are emerging as the leading platforms, reflecting both commercial readiness and strategic R&D focus.

QUBT within the Photonic Segment

QUBT operates within the photonic quantum computing segment (12.3% share), focusing on leveraging photonics-based technology to deliver practical and scalable quantum solutions. The company's approach offers several technical advantages, including room-temperature operation, compatibility with existing fiber-optic infrastructure, and lower power consumption compared to superconducting systems. Strategically, QUBT positions itself as a pure-play photonic quantum company, targeting both commercial and government clients through partnerships with organizations like NASA and NIST. Additionally, its foundry services for thin-film lithium niobate (TFLN) chip manufacturing provide potential for long-term scalability and ecosystem development within the broader photonics and quantum industries.

Quantum Technology Platform Market Share (%)



Source: Quantum Technology Monitoring Report

Region Specific Insights

North America

North America leads global quantum computing, with 55% of Quantum-as-a-Service deployments via AWS Braket, Azure Quantum, and Google Quantum AI. U.S. startups raised $920 million in 2024, representing 65% of global venture funding, while the $1.8 billion U.S. National Quantum Initiative supports R&D across 20+ federal labs, advancing both hardware and software innovation.

Europe

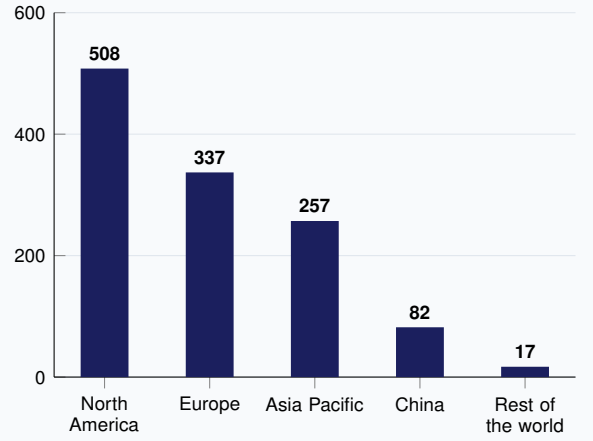
Europe's quantum ecosystem is driven by the €1 billion EU Quantum Flagship, projected to unlock €3 billion in private co-funding by 2027, supporting a 35.8% CAGR in regional growth. Software firms like Qu&Co and Menten AI grew 120% in 2024, while Germany and the Netherlands filed 60% of European quantum patents, reflecting strong university-industry collaboration.

Asia-Pacific

APAC is rapidly expanding, led by China's $15 billion national program and 18 new quantum startups in 2024. Japan and South Korea account for 35% of device orders, driven by telecom and automotive applications. The region also produces 42% of global quantum engineering PhDs, fueling R&D and manufacturing scale-up.

Source: BCC Research

Current Market Value by Region



Source: BCC Research

Macro View

Macro industry and investment trends indicate huge potential in the QC industry, with government providing policy and financial support. As of the latest available data, quantum computing is positioned in the "**Innovation Trigger**" phase of Gartner's Hype Cycle. This stage is characterized by early interest and experimentation, often driven by breakthroughs or technological advancements that generate significant media attention. Widespread commercialization for the industry is still far from reach as of now.

Quarterly Result Update — June 30, 2025

Business Performance

- QUBT has transitioned from survival stage to developmental stage, as reiterated by the strong liquidity available from equity infusion and escalating R&D intensity.
- No sustainable revenue even after the claims of large-scale success, and increasing operational cost raises concerns.

Balance Sheet Performance

- The **342% cash increase to $349M** reveals QUBT raised massive capital but shows minimal deployment into actual business operations. For a company claiming breakthrough technology and foundry operations, the cash accumulation suggests either:
  - Management lacks confidence in their own business model;
  - Actual operational opportunities are far smaller than claimed;
  - The company is essentially a cash management vehicle rather than an operating business.
- Accounts Receivables of $96K (up from $27K) confirm very little business and billing activity. The same goes for the inventory levels.
- The **$2.4M increase in Property & Equipment** is surprisingly small given management's claims of a fully functional TFLN (thin film lithium niobate) foundry, mass production capacity and large scale installments.
- Balance sheet remains **debt-light, equity-funded, and highly liquid**, positioning the company to sustain extended R&D cycles.

Income Statement

- **Revenue Deterioration:** Q2 2025 revenue declined 66.7% to $61K vs $183K prior year. H1 2025 revenue fell 52.4% to $100K vs $210K prior year. Consistent revenue decline contradicts management's "commercial progress" claims.
- **Operating Expense Rise:** R&D expenses increased 185% (Q2) and 108% (H1), reaching $9.0M vs $100K revenue. Total operating expenses rose 91.5% (Q2) while revenue declined 66.7%. R&D intensity reached 8,960% of revenue, indicating extreme operational imbalance.
- **Profitability Metrics:** Operating losses widened 93% (Q2) to $10.2M despite improved gross margins. Net losses deteriorated 602% (Q2) including $28.1M derivative liability impact. Loss per share worsened to -$0.26 from -$0.06, including 51% share count dilution.

Cash Flow

- Working capital changes minimal due to low business activity levels.
- Capital expenditure of $2.8M represents only 3.8% increase year-over-year.
- Revenue-to-operating expense ratio: 0.54% (unsustainable).
- Cash burn coverage: 66 quarters at current rate.

Quarterly Analysis View

Quantum Computing Inc.'s June 2025 financials depict a pre-commercialization stage, heavily capitalized yet still searching for revenue traction and operational scalability. The substantial equity infusion has strengthened liquidity and provides ample runway for R&D and product development, but the limited operating activity, modest capex, and persistent losses underscore the execution risk inherent in transitioning from research-driven innovation to market-driven growth.

The near-term outlook depends on management's ability to convert its technological advancements and foundry capabilities into tangible customer adoption and recurring revenues, a critical inflection point that will determine whether QUBT evolves from a cash-backed R&D enterprise into a sustainable quantum hardware business.

Source: SEC Quarterly filings

Concall Update June 30, 2025

Aspect	Promised / Guidance	Actual / Outcome	Notes on Missed / Followed	Overall Evaluation
Revenue Expectations	Significant revenue growth expected in 2024 and 2025 with commercialization milestones by mid-2025	Revenue remained minimal (∼$62K Q4 2024, $39K Q1 2025) despite operational progress	Missed by a large margin; guidance on scaling revenue not realized	Guidance was overly optimistic; actual revenue remains in early-stage low-level sales; softening investor confidence
Foundry & Manufacturing Milestones	Construction of Tempe facility completed on schedule; full production expected in Q2 2025	Foundry construction completed; initial order fulfillment started in Q2 2025	On schedule, but revenue from foundry remains minimal; no significant production ramp-up reported	Progress on physical infrastructure, but commercial output and scaling are lagging; risk of underperformance in scaling
Technology Development & Deployment	Goals to integrate quantum machines with photonic chips, with key milestones over the next 2–3 years	Demonstrations of quantum and photonic solutions (e.g., NASA contracts, academic orders)	Mostly achieved demonstration projects, but commercialization (customer adoption and revenue) has not matched expectations	Achievements in validation and validation-related milestones, yet commercial traction and sales lag behind roadmaps
Financial Guidance and Capital	Strengthening balance sheet, incremental cash flows, and disciplined expense management	Cash increased significantly (∼$167M end of Q1 2025), but operating losses persist (∼$16M net loss in Q1 2025)	Strong cash position but operating losses and low revenue indicate misalignment with growth expectations	Financials show cash accumulation but operational and revenue growth are not aligned; concerns about burn rate and sustainability
Strategic Partnerships & Customer Engagement	Expand partnerships, secure new orders, and demonstrate commercial adoption	Multiple academic and government contracts secured; a few commercial orders (e.g., Delft University, automotive)	Limited scale-up of customer base; most orders are pilot or small-scale	Progress in validation but not enough to guarantee broad commercial adoption; partnership expansion is still nascent
Management and Leadership	Clear focus on execution, scaling, and expanding customer pipeline	Leadership appointments and strategic focus announced	Execution on revenue and scaling has not kept pace with strategic announcements	Leadership changes evident, but actual market results and revenue growth are lagging

Source: Conference call transcripts FY 2025 Q2, FY 2025 Q1, FY 2024 Q4

Quarterly Analysis View

- **Guidance Misses:** Revenue targets and scaling milestones consistently missed or delayed.
- **Progress vs. Commercial Reality:** Validation via government and academic contracts but limited broader market adoption.
- **Capital Use:** Strong cash reserves, but operating expenses and losses remain high, raising concerns about burn rate and efficiency.
- **Overall Trajectory:** Progress on infrastructure and validation milestones is evident, but translating these into revenue and sustained growth has yet to materialize.

Governance Analysis

No.	Name	Designation	Qualification	Comments
1	**Yuping Huang**	CEO & Chairman	PhD in quantum AMO physics in 2009 from Michigan State University. Overall 20+ years of experience in the industry.	Founding director of the Center for Quantum Science and Engineering and Gallagher Associate Professor of Physics at Stevens Institute of Technology. Prior to joining QCi, Yuping founded QPhoton, Inc., focusing on commercializing quantum devices and technology.
2	**Robert Fagenson**	Vice Chairman	B.S. from Syracuse University in 1970	Mr. Fagenson is Vice Chairman of QCi's Board and the Chairman of the Board for National Holdings Corp. Group Companies. Held various posts in NYSE and also ran his own investment firm till 2012.
3	**Michael Turmelle**	Ind. Director	BA in Economics from Amherst College and is a graduate of General Electric's Financial Management Program	Mr. Turmelle is an experienced executive with a background in finance, operations, and electrical technology, having served as CFO, COO, and board member across multiple public companies including SatCon, Beacon Power, and Implant Sciences. Currently Managing Director at Hayward Tyler.
4	**Chris Roberts**	CFO & General Counsel	Law degree, B.S. Electrical and MBA from MIT	More than 39 years of vast experience in corporate finance and government contracting, credible previous experience.
5	**Yong Meng Sua**	CTO	PhD Engineering Physics, MS Photonics	Research Assistant Professor at Stevens Institute of Technology. With over 90 publications and multiple commercialized patents, he leads QCi's quantum technology development, backed by collaborations with NSF, NASA, and major industry partners.
6	**Milan Begliarbekov**	COO	PhD from Stevens Institute of Technology	17 years of expertise in nanofabrication and materials science, leading development of photonic technologies. Previously at CUNY, he directed a major nanofabrication facility and remains active in STEM education outreach.
7	**Richard Nelson**	SVP – BD	BA from Dartmouth College, and an MBA from the Carlson School of Management at the University of Minnesota.	With 20+ years in high-tech industries at firms like L3 Harris, Philips, and GE, leads QCi's global business development, leveraging deep expertise in translating advanced technologies into commercial success.

Source: QCi Website

Management Assessment

Overall top management is well suited for the company. Dr Yuping and Dr Yong bring in primary research and technological expertise, while Mr Michael and Mr Robert bring in the necessary expertise for commercialization of the product and building government affiliations. The techno-marketing domain expertise of Mr Richard will play a crucial role in commercialization of the product at a broader level in the coming times.

There are journals and research papers published by Dr Yuping and Dr Yong in the domain of quantum computing, establishing credibility.

Management and Supervisory BOD Remuneration Analysis

On the basis of the compensation review, most senior leaders received either substantial increases or moderate reductions in pay during FY24, with the CFO's remuneration rising sharply alongside ongoing company scaling and capital activity. The CEO and Chief Quantum Officer saw restrained or decreased pay despite deeper company losses, indicating some alignment with performance realities. Even when the company is making losses, such a sharp rise in the CFO's salary is unwarranted, and for the same reason a few months back there has been a change in the company's CFO.

Top Management Remuneration

Name	Designation	Remuneration FY23 (USD)	Remuneration FY24 (USD)	Growth (%)	Net Income FY23 (USD M)	Net Income FY24 (USD M)	Net Income YoY Change (%)
Chris Boehmler	Chief Financial Officer	503,995	857,826	**70.20%**	-27.0	-68.5	-153.70%
William J. McGann	Chief Executive Officer & President	610,562	596,314	-2.3%	-27.0	-68.5	-153.7%
Robert Liscouski	Chairman	478,393	593,357	24.00%	-27.0	-68.5	-153.7%
Yuping Huang	Chairman, Chief Quantum Officer	506,796	414,120	-18.3%	-27.0	-68.5	-153.7%

Directors Remuneration

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)	Stock Options ($)	Total Remuneration ($)
Robert Liscouski	129,032	0	0	**129,032**
Michael Turmelle	52,000	0	32,492	**84,492**
Carl Weimer	36,913	0	32,492	**69,405**
Robert Fagenson	52,000	0	32,492	**84,492**
Javad Shabani	27,320	12,376	27,433	**67,129**

The total salary for top management at Quantum Computing Inc. in FY24 was $2.10 million, with combined executive compensation accounting for approximately 525% of the company's annual revenue of $0.4 million. The board-approved annual non-employee director base stipend was further increased to $60,000, with additional stipends for key committee chairs, also paid quarterly. This scale of compensation significantly exceeds commercial performance, a clear signal that for Quantum Computing Inc., without large scale commercial output, such high levels of compensation are not justified and are unsustainable.

Source: DEF 14A

Competitive Landscape

Analysis and Views

The quantum computing sector, being in a very nascent phase, is exhibiting a pronounced hierarchy in technical maturity and market traction. At the forefront are **IonQ, Rigetti, and D-Wave**, each reporting comparatively stronger TTM revenues, substantial order backlogs, and established cloud or hybrid-HPC partnerships. Their price-to-sales multiples in the mid-hundreds reflect investor confidence in proven roadmaps and ongoing enterprise deployments.

Behind them, private photonic specialists **PsiQuantum, Xanadu, and Quandela** command multi-billion valuations backed by deep strategic funding, fabricator alliances, and early customer engagements. PsiQuantum's $7 billion valuation and GlobalFoundries wafer partnership target a million-qubit scale, Xanadu's C$1.5 billion value and paying cloud users validate its modular systems, and Quandela's €400 million backing and academic collaborations position it for specialized interferometry services.

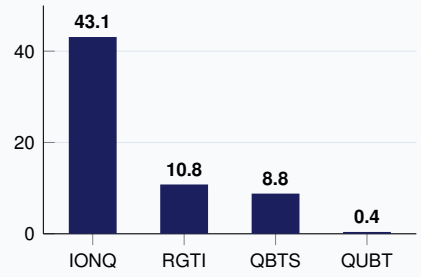
In this competitive scenario **Quantum Computing Inc.** occupies a different tier. With sub-$1 million revenues, a 9,140x P/S multiple, and disputed foundry claims, its photonic IP (i.e., Intellectual Property), nine core patents, offers technical novelty but lacks the breadth and commercial validation of its peers. Nonetheless, QUBT's two oversubscribed raises ($100 million in January and $750 million in October 2025) underscore distinct investor motivations: it remains the sole public pure-play in thin-film lithium niobate quantum optics.

Listed Peer Comparison

Company	Technology	Rev. TTM ($M)	Mkt Cap ($B)	P/S (x)
IONQ	Trapped-ion	43.10	23.00	534.00
RGTI	Superconducting	10.80	15.30	1,414.00
QBTS	Quantum annealing	8.80	11.90	1,349.00
QUBT	**Photonic**	**0.40**	**3.50**	**9,140.00**

Source: Koyfin, company websites

Revenue (TTM, $M)



Clientele

- **IonQ (IONQ):** Amazon Web Services (AWS) Braket, Microsoft Azure Quantum, Volkswagen Group, Airbus, U.S. Department of Energy national labs (Argonne, Oak Ridge).
- **Rigetti Computing (RGTI):** Amazon Braket hybrid-HPC integrations, Johnson & Johnson, U.S. National Science Foundation HPC initiatives, Standard Chartered Bank.
- **D-Wave Systems (QBTS):** Volkswagen Group, Pacific Northwest National Laboratory, US Treasury, Fujitsu.
- **PsiQuantum (private):** GlobalFoundries, Australian Government, Goldman Sachs.
- **Xanadu (private):** Toronto Metropolitan University, Applied Materials, National Research Council Canada, various enterprise customers on Xanadu Cloud (financial services, life sciences).
- **Quandela (private):** French Alternative Energies and Atomic Energy Commission (CEA), Université Paris Saclay, European Space Agency.
- **Quantum Computing Inc. (QUBT):** Delft University of Technology, National Institute of Standards & Technology (NIST), small-scale research labs in South Korea and Canada.

Source: company website, newswire, Yahoo Finance

Intellectual Property Scenario & Peers IP Status

Quantum Computing Inc. – 9 patents

- In the area of thin-film lithium niobate photonics, sensing, limited quantum algorithm IP.
- Few peer-reviewed publications directly tied to IP portfolio; mostly internal R&D patents.
- Patent portfolio promising but narrow and early-stage; no demonstrated license revenue.
- Narrow IP scope and limited peer-reviewed validation weaken valuation confidence.

IONQ – 150+ patents

- Extensive coverage across trapped-ion tech, error correction, cryogenics, control electronics.
- Multiple publications in leading journals; extensive collaborations with US DOE labs; peer-validation critical to competitive edge.
- Patents aggressively defended; licensing revenues from DOE (i.e., Department of Energy) contracts and partnerships.
- Broad portfolio provides competitive moat, recognized in market cap and investor confidence.

Rigetti – 80+ patents

- Strong superconducting qubit control, system integration patents.
- Significant university-government lab co-authored publications; work cited extensively in QC control literature.
- Active patent enforcement; commercial chip sales protected by proprietary IP.
- Growing portfolio aligns with full-stack system approach; IP value implicit in integrations.

D-Wave (QBTS) – 1200+ patents

- Dominant in annealing, cryogenic packaging, flux qubit stability.
- Multiple academic collaborations and validation of annealing methodology; patents well-cited.
- Extensive patent portfolio underpinning mature commercial offering; licensing agreements.
- High volume patents provide defensive barrier; annealing IP is market differentiator.

PsiQuantum (private) – 50+ patents

- Focused on photonic wafer architecture, fault tolerance, large qubit integration.
- Some peer-reviewed papers on photonic integration, but primarily industrial R&D focus.
- Emerging IP with strong ownership claims; commercialization roadmap linked to foundry scaling.
- High valuation correlates with strategic foundry partnerships and cutting-edge photonic tech.

Xanadu (private) – 30+ patents

- Specializes in photonic circuits, continuous-variable QC software, modular design.
- Growing scientific publications in photonic QC and hybrid models; publications increasing.
- IP forms backend for cloud services and modular hardware.
- Valuation supported by both hardware and proprietary QC software, enhancing market opportunities.

Quandela (private) – 20+ patents

- Focused on photonic interferometry, quantum optics innovations.
- Limited but growing presence in academic literature centered on photonic applications.
- Research-driven; limited commercialization but growing patent families.
- Niche scientific IP translating slowly into market presence; moderate valuation impact.

Source: companies' websites, annual reports, USPTO patent filings, IEEE

Intellectual Property Evaluation

Discriminative Remote Sensing and Surface Profiling Based on Superradiant Photonic Backscattering

- 5 citations, all by internal teams of Stevens Institute of Technology.
- Remote sensing, defense, industrial inspection, and autonomous vehicles application with significant long-term revenue potential through device sales, licensing, and service models.
- Commercialization requires substantial investment and 3–5 years to scale.

Method and Apparatus for Quantum Measurement via Mode Matched Photon Conversion

- 19 citations, with Stevens Institute of Technology, Lockheed Martin and Boeing being the major institutions.
- Enables premium contracts in defense and biomedical sectors with high-value precision sensing demand.
- Success depends on integration with existing sensor platforms and scaling nonlinear optical component manufacturing.

Chip-Integrated Device and Methods for Generating Random Numbers that is Reconfigurable and Provides Genuineness Verification

- 4 citations by US Air Force, Stuttgart University etc.
- Captures value from growing government and financial sector demand for secure encryption solutions.
- Profitability depends on efficient scalable mass production.

Systems and Methods for Quantum-Secured, Privacy-Preserving Computations

- 62 citations by Fujitsu Ltd, Mitsubishi, Lockheed-Martin, Cornell University etc.
- Enables secure, privacy-preserving collaborative computations using entangled photons and encrypted measurement bases.
- Targets finance, healthcare, and government sectors with high-value data security needs.

Super Ising Emulator with Multi-Body Interactions and All-to-All Connections

- 3 internal citations.
- Facilitates efficient optical computation of complex multi-body problems using super Ising emulators with nonlinear optical interactions.
- Targets high-value optimization markets in logistics, finance, and materials science with potential for premium hardware and specialized service revenues.

Devices and Methods for Low Voltage Optical Modulation

- 88 patent citations by Lucent Technologies, President and Fellows of Harvard College, Huawei Technologies Co., Ltd., Toshiba Corp etc.
- Provides energy-efficient optical signal control for high-speed telecommunications, data centers, and on-chip photonic processors.
- Reduces power and cooling costs, appealing to hyperscale cloud providers and telecom operators with multi-billion-dollar market potential.

Approaches, Apparatuses and Methods for LIDAR Applications Based on Mode-Selective Frequency Conversion

- 10 citations by California Institute of Technology, Stevens Institute of Technology etc.
- Enhances object detection and ranging precision in LIDAR using telecom-grade optical components and nonlinear frequency conversion.
- Targets autonomous vehicle and geospatial mapping markets with potential for premium pricing.

Machine Learning Mapping for Quantum Processing Units

- 17 citations by Accenture Global, Volkswagen AG etc.
- Uses machine learning to decompose complex problems into quantum-executable subproblems, enhancing QPU efficiency for finance and logistics optimization.
- Enables revenue from software licensing and quantum cloud services, supporting scalable quantum computing adoption.

Variational Analog Quantum Oracle Learning

- No citation.
- Implements variational learning with quantum annealers for iterative optimization in quantum-enhanced machine learning and complex problem-solving.
- Targets quantum AI and optimization markets, offering revenue through software licensing and service models.

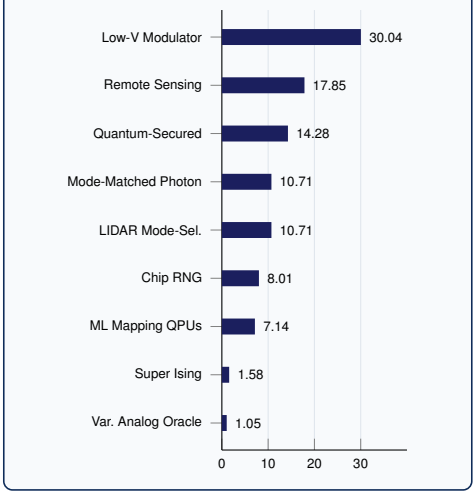
IP Valuation: Assumptions

Patent	Addressable Market ($B)	Citations / Recognition	Commercializ. Timeline (Yrs)	Conservative Mkt Capture (%)	Revenue Potential ($M)	Notes / Risk Adjustment
Discriminative Remote Sensing	5	Moderate (5)	3–5	2%	100	Early-stage adoption; capital-intensive
Mode-Matched Photon Conversion	3	High (19)	3–5	2%	60	Strong defense/biomedical demand; integration risk
Chip-Integrated RNG	2	Moderate (4)	3–4	2%	40	Targeting secure comms; mass-production scaling required
Quantum-Secured Computation	4	High (62)	3–5	2%	80	Enterprise adoption dependent; cybersecurity premium
Super Ising Emulator	15	Low (3)	4–5	1%	15	Frontier IP; commercialization uncertain
Low-Voltage Optical Modulator	5	Very High (88)	3–4	3%	150	High-value telecom/cloud potential; production scaling feasible
LIDAR Mode-Selective Conversion	3	Moderate (10)	3–5	2%	60	Autonomous vehicle and mapping applications; cost-sensitive
ML Mapping for QPUs	2	Moderate (17)	3–5	2%	40	Software/cloud-focused; dependent on platform adoption
Variational Analog Quantum Oracle Learning	1	Low (0)	4–5	1%	10	Early-stage frontier innovation; no citations; high uncertainty

IP Valuation: NPV by Patent

Patent	Revenue Potential ($M)	Commercializ. Timeline (Yrs)	Midpoint t (Yrs)	NPV ($M)	Probable Profitability Yr
Discriminative Remote Sensing	100	3–5	4	17.85	2029
Mode-Matched Photon Conversion	60	3–5	4	10.71	2029
Chip-Integrated RNG	40	3–4	3.5	8.01	2028
Quantum-Secured Computation	80	3–5	4	14.28	2029
Super Ising Emulator	15	4–5	4.5	1.58	2030
Low-Voltage Optical Modulator	150	3–4	3.5	30.04	2028
LIDAR Mode-Selective Conversion	60	3–5	4	10.71	2029
ML Mapping for QPUs	40	3–5	4	7.14	2029
Variational Analog Quantum Oracle Learning	10	4–5	4.5	1.05	2030
Total portfolio	**555**			**101.37**	

NPV Contribution by Patent ($M)



Assumptions

Valuation applies conservative market penetration, time-to-market adjustments, and commercialization factors reflecting capex risk and early-stage business model dilution. Citation weighting (0.8–1.3) adjusts market value for institutional recognition. A high discount rate (40%) accounts for technical, adoption, and execution risks. Midpoints of commercialization timelines (3–5 years $\rightarrow$ 4 years) are used to calculate NPV. Revenue capture assumes early-stage, pilot-driven adoption with gradual scaling.

Analyst Takeaways

QUBT's patent portfolio carries latent strategic value ($\sim$\$13B potential), with top contributors like Low-Voltage Optical Modulator, Discriminative Remote Sensing, and Quantum-Secured Computation. Its conservative **NPV of $\sim$\$101M covers only about 2% of the current market capitalisation**. Commercialization is expected around 2028–2030, which keeps the portfolio **long-dated and high-risk**. Institutional recognition is moderate to strong, but monetization depends on successful scaling, partnerships, and market adoption.

Financials

Income Statement Summary & Forecast (FY17A – FY26E, $M)

Particulars	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
Revenue	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	**1.1**	**1.6**
Gross Profit	–	–	–	–	–	0.1	0.2	0.1	**0.55**	**0.8**
SG&A Expenses	0.2	5.5	1.7	15.8	7.8	23.5	17.5	14.7	**17.7**	**20.2**
R&D Expenses	–	3.0	9.0	15.0	94.0	52.0	89.0	113.0	**15.0**	**17.0**
Depreciation and Amortization	–	–	–	–	–	–	–	–		
Operating Income	-0.2	-5.8	-2.5	-17.3	-17.1	-28.6	-26.2	-25.9	**-32.2**	**-36.4**
Interest Expense		4.2	5.8	8.8	11.0	0.8	1.6	2.5	**3.0**	**3.0**
EBT	-2.0	-9.9	-8.4	-25.2	-28.1	-26.0	-27.0	-68.5	**-35.15**	**-39.40**
Tax	–	–	–	–	–	–	–	–		
Net Income	**-0.2**	**-10.5**	**-8.4**	**-24.7**	**-27.9**	**-26.0**	**-27.0**	**-68.5**	**-35.15**	**-39.4**

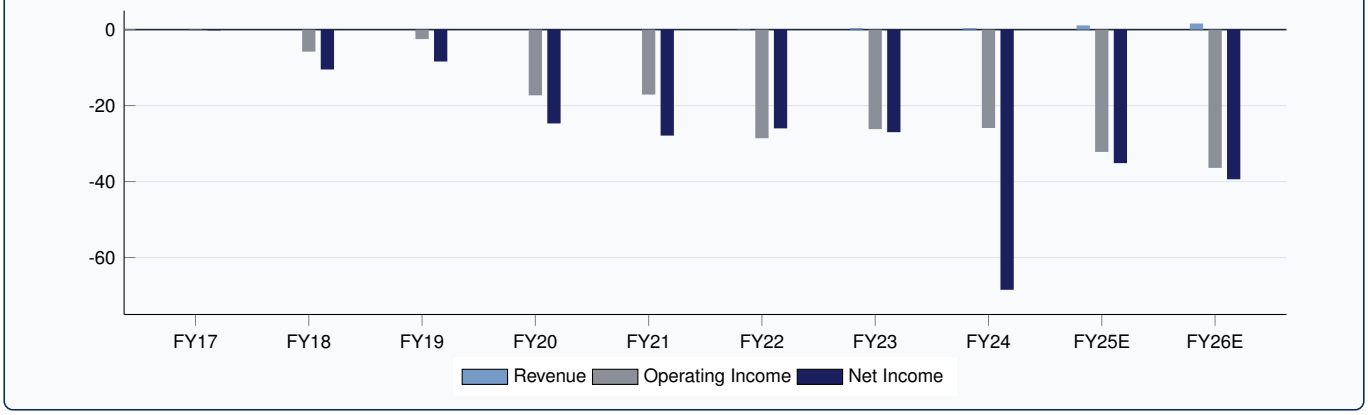
Source: SEC Annual Report; FY25E and FY26E are estimates

Projection Rationale

The financial projections for Quantum Computing Inc. anticipate revenue growth from $0.4 million in FY24 to $1.1 million in FY25 and $1.6 million in FY26, driven by the addition of 2–3 new projects expected to contribute to the top line. Despite modest revenue gains, high SG&A and R&D expenses continue, reflecting ongoing investment in technology development, operations, and market positioning. The company is projected to sustain significant operating losses at -$32.15 million in FY25 and -$36.4 million in FY26, indicating a high cash burn rate typical of early-stage deep-tech firms investing heavily to capture future market opportunities.

The assumptions are justified by the nascent commercial stage, where new projects are expected to initiate revenue inflows but scalability remains limited. Expense growth in SG&A and R&D aligns with historical trends and industry norms as the company builds capability while commercial traction remains limited. The stable assumption for interest expenses reflects conservative financing cost management. Overall, these projections reflect a capital-intensive transition period with a path toward revenue growth but near-term profitability delayed by aggressive investment and substantial cash burn, underscoring execution risk and the need for continued funding.

Revenue, Operating Income and Net Income, FY17–FY26E ($M)

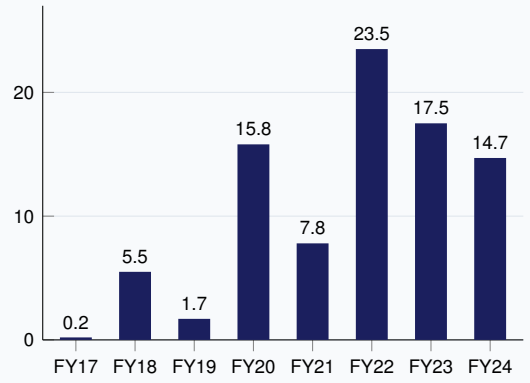


Operational Expense Monitoring

Selling, General & Administrative Expense

SG&A expenses for Quantum Computing Inc. have remained very high relative to its minimal revenue, indicating a company still in the heavy investment and scaling phase. In FY22, SG&A peaked at $23.5 million and, while it decreased to $14.7 million in FY24, it still overshadows the company's flat $0.4 million revenue. This persistently high SG&A-to-revenue ratio reflects substantial ongoing spending on administration, sales, and marketing with little immediate payoff in terms of sales, typical of early-stage tech companies pursuing long-term growth.

SG&A Expenses ($M)

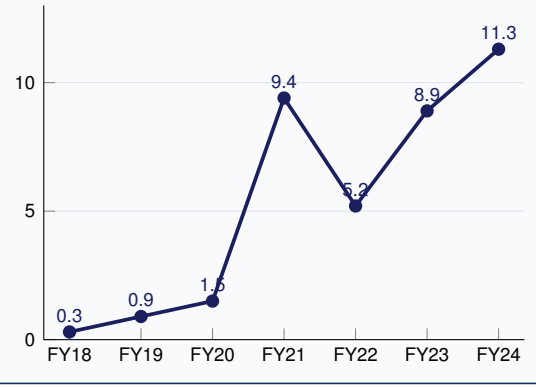


While such elevated SG&A can be justified during early development and product launches, the failure to convert these costs into substantial revenue raises red flags about commercial execution and operational efficiency. If SG&A is not contained or matched by strong top-line growth in the coming years, Quantum Computing Inc. will continue to rely heavily on external capital to fund operations, amplifying both dilution and risk for existing shareholders.

R&D Expense

Quantum Computing Inc.'s R&D spending has surged to $11.3 million in FY24, underscoring aggressive investment in scaling photonic quantum technologies despite minimal revenues. This behavior is typical for early-stage tech innovators, with R&D outlays far outpacing sales as the company builds foundational intellectual property and product capabilities before commercial inflection. Relative to peers like IonQ and Rigetti, which also commit substantial amounts to R&D but support these investments with stronger revenue streams, QUBT's R&D intensity amplifies technical and execution risk.

R&D Expenses ($M)



While sector leaders begin pivoting towards revenue generation, QUBT remains predominantly in a development and investment phase, with sustainability and eventual profitability dependent on successful commercialization of its technology and continued financial backing.

Source: SEC Annual Report

Technical Analysis

QUBT Weekly Chart (NASDAQ) with MACD (12, 26)



Source: TradingView

- The stock has been trading in an upper channel since the beginning of 2025 on a weekly time frame with decent volume. Current support lies near the 17–19 region.
- MACD shows a sign of exhaustion and a potential cool-off period for the stock.
- Similarly, RSI has reversed from the upper band of the 70 region and is now near 55, showing weakness.
- 20 and 50 DEMA stand at 20.21 and 18.49 respectively, which act as a support zone for the stock.

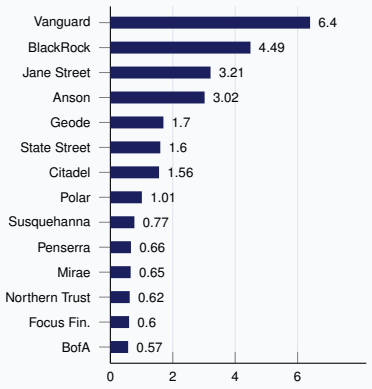
Stock Ownership as on 30-06-2025

Promoters have been selling stock in the open market. Several major investment firms appear in the ownership list, but the largest positions belong to index managers (Vanguard, BlackRock, Geode, State Street, Northern Trust) and market makers (Jane Street, Citadel, Susquehanna), whose holdings follow index membership and liquidity provision. They therefore offer limited fundamental support to the current valuation.

Owner	Market Value	% of Market Cap
Vanguard Group Inc	$190.00M	6.40%
BlackRock, Inc.	$133.26M	4.49%
Jane Street Group, LLC	$89.68M	3.21%
Anson Funds Management LP	$89.68M	3.02%
Geode Capital Management, LLC	$50.43M	1.70%
State Street Corporation	$47.58M	1.60%
Citadel Advisors LLC	$46.20M	1.56%
Polar Asset Management Partners Inc.	$29.37M	1.01%
Susquehanna International Group, LLP	$22.83M	0.77%
Penserra Capital Management LLC	$19.54M	0.66%
Mirae Asset Global ETFs Holdings Ltd.	$19.15M	0.65%
Northern Trust Corporation	$18.27M	0.62%
Focus Financial Network, Inc.	$20.57M	0.60%
Bank of America Corporation	$17.04M	0.57%

Source: koyfin.com

% of Market Cap, Top Holders



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