UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16
OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of August 2026

Commission File Number: 001-43203

Horizon Quantum Holdings Ltd.
(Exact name of registrant as specified in its charter)

29 Media Cir., #05-22
Singapore, 138565
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Horizon Quantum Holdings Ltd.

By: /s/ Joseph Fitzsimons
Name: Joseph Fitzsimons
Title: Chief Executive Officer and Chairman

Date: August 4, 2026

EXHIBIT INDEX

Exhibit No.	Description
Exhibit 99.1	Press Release, dated August 4, 2026.

Exhibit 99.1

Horizon Quantum Announces Second Quarter 2026 Financial Results
August 4, 2026

SINGAPORE — (BUSINESS WIRE) — August 4, 2026 — Horizon Quantum Holdings Ltd. (Nasdaq: HQ) ("Horizon Quantum," "Horizon," or "the Company"), a pioneer of software infrastructure for quantum applications, today reported financial results for the fiscal second quarter ended June 30, 2026 ("Q2 2026").

Second Quarter 2026 Financial and Business Highlights (all figures approximate and presented in USD):

- Beryllium, Horizon's object-oriented programming language, became available to early access users at the end of Q2 2026.
- A strategic collaboration with Quantum Machines has been announced, which includes the joint development of embedded calibration technologies.
- Ember-1, Horizon's Singapore-based testbed system, became available to first users.
- Cash received from exercise of warrants improves financial runway. As of August 3, 2026 cash balances have been fortified by proceeds of $28.7 million from the exercise of approximately 2.5 million publicly traded warrants (Nasdaq: HQWWW) (the "Public Warrants"). During Q2 2026, 2.4 million of these were exercised for gross proceeds of $27.5 million, which combined with existing cash, resulted in total cash and cash equivalents at the end of Q2 2026 of $113.3 million, a net increase of $16.7 million from $96.6 million at the end of the fiscal quarter ended March 31, 2026 ("Q1 2026").
- Operating loss for Q2 2026 on an as-reported basis of $7.2 million compared to $2.7 million for the second fiscal quarter ended June 30, 2025 ("Q2 2025").
- Net loss for Q2 2026 on an as-reported basis of $115.2 million, or $2.20 per ordinary share, compared to a loss of $2.9 million in Q2 2025, or $0.07 per ordinary share in Q2 of 2025. The Q2 2026 quarter result included a $108.3 million non-cash loss from the remeasurement of warrant-related derivative liabilities driven by an increase in the Company's share price.
- Adjusted EBITDA was a loss of $5.5 million in Q2 2026 as compared to a loss of $2.1 million in Q2 2025.

CEO Commentary

"During the second quarter of 2026, we reached important milestones with Beryllium, an object-oriented quantum programming language that we believe will allow developers to build increasingly sophisticated quantum applications and begin to abstract away the subtleties of quantum mechanics from the work necessary to realize quantum advantage. More recently, we also announced a strategic collaboration with Quantum Machines, which aims to further our technical capabilities in calibration," said Horizon Quantum CEO and Founder Dr. Joe Fitzsimons.

He continued, "I am also pleased to share that Horizon Quantum experienced a cash infusion from the exercise of our Public Warrants, further fortifying our cash balances by $27.5 million during the second quarter. As a result, we continue to anticipate sufficient financial runway for the foreseeable future, allowing us to make increased investments in R&D, further advance Triple Alpha, our integrated development environment, and continue the push towards quantum advantage with the extension of our testbed."

Operational Highlights

Beryllium

Beryllium is Horizon Quantum's object-oriented quantum programming language. It aims to enable developers to construct quantum programs in a way that resembles modern classical software engineering. It introduces advanced control flow structures and familiar programming constructs, including classes, functions, and libraries to quantum programming, allowing developers to define reusable quantum components analogous to those used in today's classical programming languages.

By providing a high level of abstraction, Beryllium is designed to let developers focus on algorithmic intent rather than implementation mechanics and to make quantum software development more accessible and efficient.

Beryllium is currently the highest level of abstraction available within Triple Alpha. It can be compiled down to Helium, Triple Alpha's BASIC–like language, and Hydrogen, its assembly language, as well as targeted quantum hardware. Horizon Quantum is developing its layered programming framework incrementally, with the aim of ultimately creating tools that enable developers to write quantum programs using familiar classical languages. The release of Beryllium represents an important step towards this objective.

- Beryllium saw its release to early access users at the end of the second quarter of 2026, following its initial preview in December 2025 at the annual Quantum to Business (Q2B) trade show.

- During the first half of 2026, Horizon Quantum extended and finalized the initial release of the Beryllium language, enhancing its core capabilities. The Company also improved the performance and stability of the Beryllium layer in its compiler.

- Beryllium libraries: Horizon Quantum has begun building Beryllium libraries that implement standard algorithmic building blocks. With these libraries, Horizon Quantum aims to enable developers, even those without deep quantum expertise, to build complex quantum algorithms with less code.

Hardware Collaborators

By tightly integrating its software infrastructure with a variety of hardware platforms, Horizon Quantum aims to provide developers with the most direct path to broad quantum advantage and help ensure that their quantum applications remain useful, no matter which modality emerges as a frontrunner.

- Quantum Machines – strategic collaboration on calibration: In July 2026, Horizon Quantum announced a strategic collaboration with Quantum Machines, a leading provider of advanced quantum control solutions, to enhance Ember-1 uptime by leveraging Quantum Machines' control platform and engineering expertise. This collaboration is intended to result in an embedded calibration framework that enables lightweight calibration routines to execute as part of normal system operation, thereby increasing uptime by reducing reliance on lengthy full-system calibration cycles.

Testbed

Horizon Quantum is the first quantum software company to operate its own quantum computer. In doing so, Horizon Quantum maintains full control over both quantum hardware and software stacks, providing a testbed for the integration of its software directly with hardware systems and allowing Horizon Quantum to develop real-time execution capabilities that go beyond what is possible over cloud connections. Having full control over the technology stack provides a critical advantage in accelerating the development of Horizon Quantum's software infrastructure. Deeper software-hardware integration is also expected to play a central role in advancing experimentation with quantum error correction, fault tolerance, and other technologies critical to realizing practical quantum advantage. The testbed provides an ideal environment for developing and testing these capabilities. Horizon Quantum's testbed currently houses a superconducting system, and the Company has announced its purchase of a second system based on trapped-ion technology to expand the testbed.

- Testbed opens to first users: Ember-1, Horizon Quantum's initial testbed system located at its Singapore headquarters and running since December 2025, has been opened to select first users. By enabling tighter hardware-software integration, the testbed environment provides efficient execution, extended capabilities, and faster iteration by accelerating the feedback loop.

- Triple Alpha on Ember-1 supports real-time execution of complete programs, eliminating the need for post-selected execution. The environment provides pulse- and gate-level access, supporting a broad range of quantum operations, experiments, and workflows.

- Second testbed system to be located at Horizon Quantum's European headquarters: In June 2026, Horizon Quantum announced it would locate a 256-qubit trapped-ion system, anticipated to be one of the most advanced commercial quantum systems in the world, in Dublin, Ireland. This testbed adds a second, technologically distinct hardware modality, and with its expected qubit count and high gate fidelities, the system may be capable of solving some challenging computational problems.

Second Quarter 2026 Financial Results

All results presented as approximate and in USD.

- Cash generated from the exercise of Public Warrants improved the Company's financial runway. As of August 3, 2026 approximately 2.5 million Public Warrants, representing 79% of the Public Warrants outstanding at the close of the business combination, had been exercised. The exercise of these Public Warrants has generated gross proceeds to the Company of approximately $28.7 million to date. As of the end of Q2 2026, a total of approximately 2.4 million Public Warrants had been exercised generating $27.5 million in gross proceeds, which, combined with existing cash, resulted in a total cash balance of $113.3 million as of June 30, 2026. This represents a net increase of $16.7 million from $96.6 million as of the end of Q1 2026.

- Total operating expenses for Q2 2026 were $7.2 million compared to $2.8 million for Q2 2025.

- Research and development (R&D) expenses for Q2 2026 were $2.6 million compared to $1.2 million for Q2 2025, representing an increase of 117%. When excluding share-based compensation and non-recurring compensation adjustments from each period of $0.7 million and $0.3 million, respectively, the period-over-period increase in R&D expenses was 100% and was primarily attributable to increases in headcount and to a lesser extent costs from the setup of the hardware testbed.

- Sales and marketing expenses for Q2 2026 were $0.4 million, up 51% period-over-period compared to $0.2 million for Q2 2025. When excluding share-based compensation and non-recurring compensation adjustments from each period of $0.08 million and $0.07 million, respectively, the period-over-period increase in sales and marketing expenses was 63% and was primarily attributable to increased trade show activity and industry engagement.

- General and administrative (G&A) expenses for Q2 2026 were $3.8 million compared to $1.1 million for Q2 2025, representing an increase of 236%. Excluding share-based compensation, non-recurring compensation adjustments and one-time business combination expenses of $1.5 million and $0.3 million from Q2 2026 and Q2 2025, respectively, G&A expenses increased 191% period over period. The period-over-period increase in G&A expenses was primarily due to increases in headcount, and other operating expenses associated with transitioning to a public company.

- Operating loss for Q2 2026 was $7.2 million compared to $2.7 million for Q2 2025, representing an increase of $4.4 million. The widening of the loss was primarily due to increases in expenses associated with transitioning to a public company, increases in research and development headcount, and related operational support costs as compared to the prior-year period.

- Net loss for Q2 2026 was $115.2 million, or $2.20 per ordinary share, compared to a net loss of $2.9 million, or $0.07 per ordinary share, in Q2 2025.

    - The Q2 2026 result included a $108.3 million non-cash loss from the remeasurement of warrant-related derivative liabilities. The increase in the trading price of Horizon Quantum's Class A ordinary shares during Q2 2026 increased the fair value of these liabilities, resulting in the accounting charge. This charge did not affect the Company's cash balance. By contrast, the voluntary exercise of Public Warrants during Q2 2026 generated cash proceeds and increased share capital.

    - All warrants of Horizon Quantum that remain outstanding will continue to be remeasured at fair value each fiscal quarter. Accordingly, future movements in the trading price of Horizon Quantum's Class A ordinary shares could result in additional non-cash gains or losses.

    - Because these fair-value adjustments can create substantial volatility in reported earnings without affecting underlying operating performance or cash flow, management also evaluates results on an Adjusted EBITDA basis, a non-GAAP measure. Adjusted EBITDA excludes changes in the fair value of derivative liabilities as well as share-based compensation, and non-recurring expenses associated with the business combination. On this basis, the company recorded an Adjusted EBITDA loss of $5.5 million for Q2 2026 compared with an Adjusted EBITDA loss of $2.1 million in Q2 2025.

Conference Call Information

As previously announced, the company will hold a conference call to discuss its second quarter on August 4 at 8:00 a.m. ET. The conference call will be broadcast live over the internet and can be accessed at https://investors.horizonquantum.com/news-events. For those unable to listen to the live broadcast, an archived version will be available at the same location for one year.

Non-GAAP Financial Measures

To supplement Horizon Quantum's condensed financial statements presented in accordance with U.S. GAAP, Horizon Quantum uses non-GAAP measures of certain components of financial performance. EBITDA and Adjusted EBITDA are financial measures that are not required by or presented in accordance with GAAP. Management believes that these measures provide investors an additional meaningful method to evaluate certain aspects of Horizon Quantum's results period over period. EBITDA is defined as net loss before net interest income or expense, depreciation and amortization expenses, and income tax expense, and Adjusted EBITDA is defined as net loss before net interest income or expense, depreciation and amortization expenses, income tax expense, share-based compensation, change in fair value of derivative liabilities and non-recurring business combination expenses. Horizon Quantum uses EBITDA and Adjusted EBITDA to measure the operating performance of its business, by excluding specifically identified items that its management does not believe directly reflect Horizon Quantum's core operations and may not be indicative of its recurring operations. The presentation of non-GAAP financial measures is not meant to be considered in isolation or as a substitute for the financial results prepared in accordance with U.S. GAAP, and Horizon Quantum's non-GAAP measures may be different from non-GAAP measures used by other companies. For Horizon Quantum's investors to be better able to compare its current results with those of previous periods, Horizon Quantum has shown a reconciliation of GAAP to non-GAAP financial measures at the end of this release.

About Horizon Quantum

Horizon Quantum [NASDAQ: HQ] is on a mission to unlock broad quantum advantage by building the software infrastructure that empowers developers to use quantum computing to solve the world's toughest computational problems.

Founded in 2018 by Dr. Joe Fitzsimons, a leading researcher and former professor with more than two decades of experience in quantum computing, the company is bridging the gap between today's hardware and tomorrow's applications through the creation of advanced quantum software development tools. Its integrated development environment, Triple Alpha, enables developers to write sophisticated, hardware-agnostic quantum programs at different levels of abstraction. Learn more at www.horizonquantum.com.

Note to Investors Regarding Forward-Looking Statements

This press release includes forward-looking statements. The expectations, estimates, and projections of the businesses of Horizon Quantum may differ from its actual results and consequently, you should not rely on these forward-looking statements as predictions of future events. Words such as "expect," "estimate," "anticipate," "intend," "may," "will," "could," "should," "potential," "plan," "enable," and similar expressions are intended to identify such forward-looking statements. Actual results may differ materially and adversely from those expressed or implied in any forward-looking statements and Horizon Quantum therefore cautions against placing undue reliance on any of these forward-looking statements. Many of these factors are outside of the control of Horizon Quantum and are difficult to predict. Factors that may cause such differences include, but are not limited to: (1) statements regarding estimates and forecasts of other financial, performance and operational metrics and projections of market opportunity; (2) references with respect to the anticipated benefits and costs, if any, of the strategic collaborations with Quantum Machines, including Horizon's ability to integrate their technologies within Horizon's quantum computing testbed and Triple Alpha platform; (3) the outcome of any efforts to deploy or build out the 256-qubit trapped-ion system in Horizon Quantum's Dublin, Ireland facility; (4) Horizon Quantum's ability to scale and grow its business, and the advantages and expected growth of Horizon Quantum; (5) the cash position of Horizon Quantum and its estimates of expenses and profitability; (6) the ability to recognize the anticipated benefits of the recently completed business combination with dMY Squared Technology Group, Inc., which may be affected by, among other things, competition, the ability of Horizon Quantum to grow and manage growth profitably and source and retain its key employees; (7) changes in applicable laws and regulations or political and economic developments; (8) the possibility that Horizon Quantum may be adversely affected by other economic, business and/or competitive factors; (9) difficulties operating Horizon Quantum's quantum processors and the possibility that the quantum processors do not provide the advantages that Horizon Quantum expects; (10) the ability of Horizon Quantum's coding languages to provide additional abstraction when compared to other quantum computing solutions; (11) the ability to maintain the listing of Horizon Quantum's Class A ordinary shares and warrants on Nasdaq; and (12) other risks and uncertainties included in the "Risk Factors" section of the Annual Report on Form 20-F filed by Horizon Quantum on April 14, 2026 with the U.S. Securities and Exchange Commission ("SEC"), as well as other documents filed or to be filed with the SEC by Horizon Quantum. The foregoing list of factors is not exclusive. New risks emerge from time to time, and it is not possible for management to predict all risks, nor can management assess the impact of all factors on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Except as required by law, Horizon Quantum undertakes no obligation to update any forward-looking statements. You should not place undue reliance upon any forward-looking statements, which speak only as of the date made. Horizon Quantum does not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in their expectations or any change in events, conditions, or circumstances on which any such statement is based, except as required by law.

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Condensed consolidated balance sheet (Unaudited)

(In US$, unless otherwise stated)	June 30, 2026	December 31, 2025
ASSETS		
Current assets		
Cash and cash equivalents	$ 113,254,440	$ 222,939
Prepaid and other current assets	6,868,373	746,372
Total current assets	**120,122,813**	**969,311**
Property and equipment, net	3,489,535	3,204,829
Intangible assets, net	20,392	22,566
Right-of-use assets	361,307	459,982
Other non-current assets	51,716	175,115
TOTAL ASSETS	**$ 124,045,763**	**$ 4,831,803**
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Derivative liabilities - SAFE	$ -	$ 6,406,878
Other payables	3,224,136	2,602,604
Operating lease liabilities	325,126	396,025
Total current liabilities	**3,549,262**	**9,405,507**
Derivative liabilities - warrants	76,778,574	-
Operating lease liabilities, non-current	42,393	88,921
TOTAL LIABILITIES	**$ 80,370,229**	**$ 9,494,428**
STOCKHOLDERS' EQUITY		
Seed Preferred Shares, 2,500,000 authorized; 2,500,000 issued and outstanding as of December 31, 2025	$ -	$ 839,602
Seed Plus Preferred Shares, 2,936,828 authorized; 2,936,828 issued and outstanding as of December 31, 2025	-	2,349,212
Series A Preferred Shares, 2,586,522 authorized; 2,586,522 issued and outstanding as of December 31, 2025	-	18,100,000
Ordinary Shares, 8,000,000 authorized; 8,000,000 issued and outstanding as of December 31, 2025	-	3,649
Ordinary Class A Shares, 34,227,495 authorized, 34,227,495 issued and outstanding as of June 30, 2026	187,124,075	-
Ordinary Class B Shares, 19,744,585 authorized, 19,744,585 issued and outstanding as of June 30, 2026	40,110	-
Additional paid-in capital	8,997,535	7,417,778
Equity proceeds receivable	(343,862)	-
Accumulated deficit	(152,439,504)	(33,573,537)
Accumulated other comprehensive income	297,180	200,671
TOTAL STOCKHOLDERS' EQUITY	**$ 43,675,534**	**$ (4,662,625)**
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	**$ 124,045,763**	**$ 4,831,803**

Note: All results presented prior to the closing of the business combination on March 19, 2026, reflect the financial results of Horizon Quantum Computing Pte. Ltd. Results as of June 30, 2026, reflect Horizon Quantum Holdings Ltd.

Condensed consolidated statement of operations and comprehensive loss (Unaudited)

(In US$, except share amount and per share data)	Three Months Ended June 30,		Six Months Ended June 30,	
	2026	2025	2026	2025
Revenue	$ -	$ 38,462	$ -	$ 38,462
Operating Expenses:				
Research and development	2,614,022	1,206,612	4,742,435	4,527,603
Selling and marketing	375,989	248,716	834,952	576,665
General and administrative	3,849,526	1,146,373	7,451,257	2,047,525
Depreciation and amortization	335,966	180,787	646,233	349,836
Total operating expenses	7,175,504	2,782,488	13,674,878	7,501,629
Loss from operations	**(7,175,504)**	**(2,744,027)**	**(13,674,878)**	**(7,463,167)**
Other income and (expense):				
Interest expense	(2,694)	(2,320)	(5,686)	(4,830)
Other income	487,055	16,943	530,443	49,730
Change in fair value of derivative liabilities	(108,294,223)	-	(105,317,692)	-
Foreign exchange (loss)	(241,982)	(172,909)	(318,912)	(306,927)
Income tax expense	-	-	-	-
Net loss	**$ (115,227,348)**	**$ (2,902,313)**	**$ (118,786,726)**	**$ (7,725,194)**
Other comprehensive loss:				
Foreign currency translation adjustment	62,202	72,683	96,509	290,671
Total comprehensive loss	**$ (115,165,146)**	**$ (2,829,630)**	**$ (118,690,217)**	**$ (7,434,523)**
Basic and diluted weighted average ordinary shares outstanding, as recast	52,367,347	39,015,950	46,630,787	39,015,950
Net (loss) income per ordinary share, basic and diluted, as recast	$ (2.20)	$ (0.07)	$ (2.55)	$ (0.20)

Note: All results presented prior to the closing of the business combination on March 19, 2026, reflect the financial results of Horizon Quantum Computing Pte. Ltd. Results as of June 30, 2026, reflect Horizon Quantum Holdings Ltd.

Condensed consolidated statement of cashflow (Unaudited)

(In US$, unless otherwise stated)	Six Months Ended June 30, 2026	2025
Cash flows from operating activities		
Loss for the period	$ (118,786,726)	$ (7,725,194)
Adjustments to reconcile net loss to net cash used for operating activities:		
Depreciation	644,059	349,035
Share based compensation	1,878,363	3,387,475
Change in fair value of derivative liabilities	105,317,692	-
Unrealized foreign currency transaction (gain) loss	85,088	629,163
Amortization	2,174	801
Changes in operating assets and liabilities:	-	-
Accounts receivable	-	270,824
Other payables	1,890,795	(241,801)
Lease liability	(212,283)	(131,790)
Prepaid expenses and other assets	(102,350)	(189,219)
Net cash used in operating activities	**(9,283,188)**	**(3,650,706)**
Cash flows from investing activities		
Purchase of property, equipment including construction in progress	(5,521,276)	(297,706)
Purchase of intangible assets and trademarks	-	-
Net cash used in investing activities	**(5,521,276)**	**(297,706)**
Cash flows from financing activities		
Proceeds from issuance of SAFE notes	2,500,000	-
Proceeds from exercise of warrants	27,186,518	-
Proceeds from merger and PIPE transaction, net of transaction costs	98,167,633	-
Net cash provided by financing activities	**127,854,151**	**-**
Effect of exchange rate changes on cash	(18,186)	(194,118)
Net increase (decrease) in cash and cash equivalents	**113,031,501**	**(4,142,530)**
Cash and cash equivalents at beginning of period	222,939	4,848,855
Cash and cash equivalents at end of period	**$ 113,254,440**	**$ 706,325**
Supplemental disclosures of non-cash transactions:		
Initial recognition of warrant liabilities at close of the business combination	$ 20,526,410	-
Initial recognition of net assets at close of the business combination	$ 2,458,713	-
Conversion of SAFE liabilities into equity at close of the business combination	$ 11,183,077	-
Issuance of shares to a service provider	$ 269,000	-
Reclassification of warrant liabilities to equity upon exercise	$ 46,789,330	-

Note: All results presented prior to the closing of the business combination on March 19, 2026, reflect the financial results of Horizon Quantum Computing Pte. Ltd. Results as of June 30, 2026, reflect Horizon Quantum Holdings Ltd.

Reconciliation of Non-GAAP Financial Measures
Below is a reconciliation of net loss (GAAP) to adjusted EBITDA:

	Three Months Ended June 30,		Six Months Ended June 30,	
(In US$, unless otherwise stated)	**2026**	**2025**	**2026**	**2025**
Net loss (GAAP)	**$ (115,227,348)**	**$ (2,902,313)**	**$ (118,786,726)**	**$ (7,725,194)**
Adjustments				
Net interest (income) expense	(477,253)	(12,805)	(512,778)	(42,915)
Depreciation and amortization expenses	335,966	180,787	646,233	349,836
EBITDA	**(115,368,635)**	**(2,734,330)**	**(118,653,271)**	**(7,418,272)**
Adjustments				
Share based compensation within				
Research and development	436,808	261,285	676,982	2,778,608
Selling and marketing	46,320	65,299	92,386	170,448
General and administrative	509,959	130,294	839,994	437,675
Change in fair value of derivative liabilities	108,294,223	-	105,317,692	-
Business combination and post-closing expenses*	622,980	214,101	2,164,930	214,101
Adjusted EBITDA	**$ (5,458,343)**	**$ (2,063,351)**	**$ (9,561,286)**	**$ (3,817,439)**

* Includes $0.27 million in share-based compensation for a vendor in the six months ended June 30, 2026.

Note: All results presented prior to the closing of the business combination on March 19, 2026, reflect the financial results of Horizon Quantum Computing Pte. Ltd. Results as of June 30, 2026, reflect Horizon Quantum Holdings Ltd.