UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2023

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from

Commission File Number: 001-38952

CAMBIUM NETWORKS CORPORATION

(Exact Name of Registrant as Specified in its Charter)

Cayman Islands	**Not Applicable**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
c/o Cambium Networks, Inc. **3800 Golf Road, Suite 360** **Rolling Meadows, Illinois 60008**	**(345) 814-7600**
(Address of principal executive offices, including zip code)	**(Registrant's telephone number, including area code)**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary shares, $0.0001 par value	CMBM	Nasdaq Global Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of May 4, 2023, the registrant had 27,405,076 shares of ordinary shares, $0.0001 par value per share, outstanding.

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Note regarding forward-looking statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the federal securities laws. All statements other than statements of historical fact contained in this Quarterly Report on Form 10-Q, including statements regarding our future results of operations and financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, forward-looking statements may be identified by terms such as “may,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this Quarterly Report on Form 10-Q are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this quarterly report and are subject to a number of risks, uncertainties and assumptions. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, they should not be relied upon as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Some of the key factors that could cause actual results to differ from our expectations include:

- the unpredictability of our operating results;
- our inability to predict and respond to emerging technological trends and network operators' changing needs;
- the impact of competitive pressures on the development of new products;
- the impact of actual or threatened health epidemics and other outbreaks;
- our limited or sole source suppliers' inability to acquire or produce third-party components to build our products and the impact of supply shortages, extended lead times or changes in supply of components and other parts required to manufacture our products;
- the impact of increases in logistics, freight and other shipping costs and constraints on logistics and shipping due to labor shortages, container shortages or other constraints;
- our reliance on third-party manufacturers, which subjects us to risks of product delivery delays and reduced control over product costs and quality;
- our reliance on distributors and value-added resellers for the substantial majority of our sales;
- the inability of our third-party logistics and warehousing providers to deliver products to our channel partners and network operators in a timely manner;
- our distributors' and channel partners' inability to attract new network operators or sell additional products to network operators that currently use our products;
- the technological complexity of our products, which may contain undetected hardware defects or software bugs or subject our products to the risks of ransomware or malware or other cyber attacks;
- our channel partners' inability to effectively manage inventory of our products, timely resell our products or estimate expected future demand;
- credit risk of our channel partners, which could adversely affect their ability to purchase or pay for our products;
- our inability to maintain an effective system of internal controls, produce timely and accurate financial statements or comply with applicable regulations;
- our reliance on the availability of third-party licenses;
- risks associated with international sales and operations including risks caused by political tensions;
- current or future unfavorable economic conditions, both domestically and in foreign markets; and
- our inability to obtain intellectual property protections for our products.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Quarterly Report on Form 10-Q.

Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events or otherwise.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

Cambium Networks Corporation
Condensed Consolidated Balance Sheets
(in thousands, except for share and per share data)

	December 31, 2022	March 31, 2023
ASSETS		
Current assets		
Cash	$ 48,162	$ 38,696
Receivables, net of allowances of $577 and $540	89,321	98,207
Inventories, net	57,068	68,333
Recoverable income taxes	117	122
Prepaid expenses	11,857	10,792
Other current assets	6,464	7,557
Total current assets	212,989	223,707
Noncurrent assets		
Property and equipment, net	11,271	11,521
Software, net	8,439	9,309
Operating lease assets	4,011	4,709
Intangible assets, net	9,173	8,799
Goodwill	9,842	9,842
Deferred tax assets, net	12,782	14,301
Other noncurrent assets	955	876
TOTAL ASSETS	$ 269,462	$ 283,064
LIABILITIES AND EQUITY		
Current liabilities		
Accounts payable	$ 31,284	$ 29,537
Accrued liabilities	28,042	31,657
Employee compensation	7,394	6,991
Current portion of long-term external debt, net	3,158	3,160
Deferred revenues	8,913	8,761
Other current liabilities	8,429	13,667
Total current liabilities	87,220	93,773
Noncurrent liabilities		
Long-term external debt, net	24,463	23,837
Deferred revenues	8,617	8,666
Noncurrent operating lease liabilities	2,170	2,723
Other noncurrent liabilities	1,619	1,529
Total liabilities	124,089	130,528
Shareholders' equity		
Share capital; $0.0001 par value; 500,000,000 shares authorized at December 31, 2022 and March 31, 2023; 27,522,734 shares issued and 27,313,273 outstanding at December 31, 2022 and 27,618,271 shares issued and 27,397,342 outstanding at March 31, 2023	3	3
Additional paid in capital	138,997	142,009
Treasury shares, at cost, 209,461 shares at December 31, 2022 and 220,929 shares at March 31, 2023	(4,922)	(5,133)
Accumulated earnings	12,822	17,098
Accumulated other comprehensive loss	(1,527)	(1,441)
Total shareholders' equity	145,373	152,536
TOTAL LIABILITIES AND EQUITY	$ 269,462	$ 283,064

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Cambium Networks Corporation
Condensed Consolidated Statements of Operations
(in thousands, except for share and per share data)
(unaudited)

	Three Months Ended March 31,	
	2022	2023
Revenues	$ 61,896	$ 77,401
Cost of revenues	32,730	37,741
Gross profit	29,166	39,660
Operating expenses		
Research and development	12,942	14,262
Sales and marketing	10,429	11,670
General and administrative	6,544	6,667
Depreciation and amortization	1,446	1,496
Total operating expenses	31,361	34,095
Operating (loss) income	(2,195)	5,565
Interest expense, net	497	597
Other expense, net	77	154
(Loss) income before income taxes	(2,769)	4,814
(Benefit) provision for income taxes	(1,201)	538
Net (loss) income	$ (1,568)	$ 4,276
(Loss) earnings per share		
Basic	$ (0.06)	$ 0.16
Diluted	$ (0.06)	$ 0.15
Weighted-average number of shares outstanding to compute net (loss) earnings per share		
Basic	26,749,675	27,341,013
Diluted	26,749,675	28,452,855
Share-based compensation included in costs and expenses:		
Cost of revenues	$ 57	$ 56
Research and development	1,022	1,269
Sales and marketing	627	700
General and administrative	714	850
Total share-based compensation	$ 2,420	$ 2,875

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Cambium Networks Corporation
Condensed Consolidated Statements of Comprehensive (Loss) Income
(in thousands)
(unaudited)

	Three Months Ended March 31,	
	2022	2023
Net (loss) income	$ (1,568)	$ 4,276
Other comprehensive loss		
Foreign currency translation adjustment	(66)	86
Comprehensive (loss) income	**$ (1,634)**	**$ 4,362**

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Cambium Networks Corporation
Condensed Consolidated Statements of Shareholders' (Deficit) Equity
(in thousands)
(unaudited)

	Share Capital						
	Shares	Amount	Additional paid in capital	Treasury shares	Accumulated (deficit) equity	Accumulated other comprehensive loss	Total shareholders' equity
Balance at December 31, 2021	26,735	$ 3	$ 124,117	$ (3,906)	$ (7,378)	$ (699)	$ 112,137
Net loss	—	—	—	—	(1,568)	—	(1,568)
Share-based compensation	—	—	2,174	—	—	—	2,174
Issuance of vested shares	94	—	—	—	—	—	—
Treasury shares withheld for net settlement	(18)	—	—	(415)	—	—	(415)
Proceeds from exercise of share options	14	—	146	—	—	—	146
Foreign currency translation	—	—	—	—	—	(66)	(66)
Balance at March 31, 2022	26,825	$ 3	$ 126,437	$ (4,321)	$ (8,946)	$ (765)	$ 112,408

	Three Months Ended March 31, 2023						
	Share Capital						
	Shares	Amount	Additional paid in capital	Treasury shares	Accumulated equity	Accumulated other comprehensive loss	Total shareholders' equity
Balance at December 31, 2022	27,313	$ 3	$ 138,997	$ (4,922)	$ 12,822	$ (1,527)	$ 145,373
Net income	—	—	—	—	4,276	—	4,276
Share-based compensation	—	—	2,625	—	—	—	2,625
Issuance of vested shares	45	—	—	—	—	—	—
Treasury shares withheld for net settlement	(12)	—	—	(211)	—	—	(211)
Proceeds from exercise of share options	51	—	387	—	—	—	387
Foreign currency translation	—	—	—	—	—	86	86
Balance at March 31, 2023	27,397	$ 3	$ 142,009	$ (5,133)	$ 17,098	$ (1,441)	$ 152,536

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Cambium Networks Corporation
Condensed Consolidated Statements of Cash Flows
(in thousands)
(unaudited)

	Three Months Ended March 31,	
	2022	2023
Cash flows from operating activities:		
Net (loss) income	$ (1,568)	$ 4,276
Adjustments to reconcile net (loss) income to net cash used in operating activities:		
Depreciation	870	1,058
Amortization of software and intangible assets	920	1,037
Amortization of debt issuance costs	77	75
Share-based compensation	2,420	2,875
Deferred income taxes	(1,373)	(1,519)
Provision for inventory excess and obsolescence	52	1,336
Other	81	(231)
Change in assets and liabilities:		
Receivables	6,152	(8,973)
Inventories	(6,485)	(12,601)
Prepaid expenses	(578)	1,069
Accounts payable	(12,109)	(1,474)
Accrued employee compensation	(10,276)	(584)
Accrued liabilities	2,129	3,738
Other assets and liabilities	463	3,959
Net cash used in operating activities	(19,225)	(5,959)
Cash flows from investing activities:		
Purchase of property and equipment	(714)	(1,569)
Purchase of software	(1,068)	(1,537)
Net cash used in investing activities	(1,782)	(3,106)
Cash flows from financing activities:		
Repayment of term loan	—	(656)
Taxes paid from shares withheld	(42)	(148)
Proceeds from share option exercises	146	387
Net cash provided by (used in) financing activities	104	(417)
Effect of exchange rate on cash	9	16
Net (decrease) increase in cash	(20,894)	(9,466)
Cash, beginning of period	59,291	48,162
Cash, end of period	$ 38,397	$ 38,696
Supplemental disclosure of cash flow information:		
Income taxes paid	$ 116	$ 204
Interest paid	$ 95	$ 412

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Note 1. Business and significant accounting policies

Business

Cambium Networks Corporation ("Cambium" or "Cambium Networks" or the "Company"), incorporated under the laws of the Cayman Islands, is a holding company whose principal operating entities are Cambium Networks, Ltd. (UK), Cambium Networks, Inc. (USA), and Cambium Networks Private Limited (India). On June 26, 2019, the Company completed an Initial Public Offering and the Company's ordinary shares began trading on the Nasdaq Global Markets.

Cambium Networks Corporation and its wholly owned subsidiaries design, develop, and manufacture wireless broadband and Wi-Fi networking infrastructure solutions that are used by businesses, governments, and service providers in urban, suburban and rural environments. Cambium's products simplify and automate the design, deployment, optimization, and management of broadband and Wi-Fi access networks through intelligent automation.

Basis of Presentation

The unaudited condensed consolidated financial statements include the accounts of Cambium Networks Corporation and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated. The condensed consolidated financial statements as of March 31, 2023, and for the three-month periods ended March 31, 2022 and 2023, and the related notes are unaudited. The unaudited condensed consolidated financial statements have been prepared on the same basis as the annual audited consolidated financial statements, and, in the opinion of management, reflect all adjustments, which comprise only normal recurring adjustments necessary to state fairly the Company's financial position as of March 31, 2023 and results of operations for the three-month periods ended March 31, 2022 and 2023 and cash flows for the three-month periods ended March 31, 2022 and 2023. The condensed consolidated balance sheet as of December 31, 2022 has been derived from the audited financial statements at that date.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP") have been condensed or omitted. The condensed consolidated financial statements contained herein should be read in conjunction with the consolidated financial statements and related notes thereto for the year ended December 31, 2022 included in the Company's annual report on Form 10-K and filed with the SEC on February 27, 2023. The results of operations for the three-month period ended March 31, 2023 are not necessarily indicative of the operating results to be expected for the full year.

In 2022, management determined that certain costs previously included as general and administrative expenses related to other functions of the business. Prior periods have been revised to reflect the allocation of these costs to their respective functions. These costs primarily include facility costs such as leased space and shared IT costs. Revisions were made to increase research and development expense by $0.8 million and selling and marketing expense by $0.3 million and decrease general and administrative expense by $1.1 million for the three-month period ended March 31, 2022.

Update to Significant Accounting Policies

There have been no material changes to the Company's significant accounting policies disclosed in the 2022 Form 10-K, Part II, Item 8.

Note 2. Balance sheet components

Inventories, net

Inventories, net consisted of the following (in thousands):

	December 31, 2022	March 31, 2023
Finished goods	$ 50,052	$ 60,211
Raw materials	15,010	17,244
Gross inventory	65,062	77,455
Less: Excess and obsolete provision	(7,994)	(9,122)
Inventories, net	$ 57,068	$ 68,333

Accrued liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31, 2022	March 31, 2023
Accrued goods and services	$ 10,633	$ 12,092
Accrued inventory purchases	3,189	5,867
Accrued customer rebates	13,797	13,225
Other	423	473
Accrued liabilities	$ 28,042	$ 31,657

Accrued warranty

Provisions for warranty claims are primarily related to our hardware products and are recorded at the time products are sold. The change to accrued warranty was as follows (in thousands):

	Year ended December 31, 2022	Three Months ended March 31, 2023
Beginning balance	$ 1,731	$ 1,651
Fulfillment of assumed acquisition warranty	(142)	(154)
Provision increase (decrease), net	62	(40)
Ending balance	$ 1,651	$ 1,457

At March 31, 2023, $1.2 million is included in Other current liabilities and $0.2 million is included in Other noncurrent liabilities on the Company's condensed consolidated balance sheet.

Note 3. Property and equipment

Property and equipment, net consisted of the following (in thousands):

	Useful Life	December 31, 2022	March 31, 2023
Equipment and tooling	3 to 5 years	$ 33,026	$ 34,051
Computer equipment	3 to 5 years	4,572	4,832
Furniture and fixtures	10 years	809	814
Leasehold improvements	2 to 3 years	472	520
Total cost		38,879	40,217
Less: Accumulated depreciation		(27,608)	(28,696)
Property and equipment, net		$ 11,271	$ 11,521

Total depreciation expense was $0.9 million and $1.1 million for the three-month periods ended March 31, 2022 and 2023, respectively.

Note 4. Software

Software consisted of the following (in thousands):

		December 31, 2022			March 31, 2023		
	Useful Life	Gross carrying amount	Accumulated amortization	Net balance	Gross carrying amount	Accumulated amortization	Net balance
Acquired and Software for internal use	3 to7 years	$ 15,995	$ (15,326)	$ 669	$ 16,059	$ (15,391)	$ 668
Software marketed for external sale	3 years	11,650	(3,880)	7,770	13,120	(4,479)	8,641
Total		$ 27,645	$ (19,206)	$ 8,439	$ 29,179	$ (19,870)	$ 9,309

Amortization of acquired and internal use software is computed using the straight-line method over an estimated useful life of generally three to seven years. Amortization expense recognized on acquired and internal use software is reflected in depreciation and amortization in the condensed consolidated statements of operations. Amortization expense was $0.2 million and $0.1 million for the three-month periods ended March 31, 2022 and 2023, respectively.

Amortization expense recognized on software to be sold or marketed externally was $0.3 million and $0.6 million for the three-month periods ended March 31, 2022 and 2023, respectively, and is included in cost of revenues on the condensed consolidated statements of operations.

Based on capitalized software assets at March 31, 2023, estimated amortization expense in future fiscal years is as follows (unaudited and in thousands):

Year ending December 31,	Acquired and internal use software	Software marketed for external use	Total
2023 (April - December)	253	2,332	2,585
2024	190	3,259	3,449
2025	140	2,240	2,380
2026	79	810	889
2027	6	—	6
Thereafter	—	—	—
Total amortization	$ 668	$ 8,641	$ 9,309

Note 5. Goodwill and Intangible Assets

There was no change in the carrying amount of goodwill during the three-month period ended March 31, 2023 (unaudited).

The Company tests goodwill and intangible assets for impairment annually on December 31 and more frequently if impairment indicators exist. Accordingly, the Company performs quarterly qualitative assessments of significant events and circumstances such as a reporting unit's historical and current results, assumptions regarding future performance, strategic initiatives and overall economic factors, including the impact of the current global outbreak of COVID-19 and macro-economic developments, to determine the existence of potential indicators of impairment and assess if it is more likely than not that the fair value of the reporting unit or intangible asset is less than their carrying value. If indicators of impairment are identified, a quantitative impairment test is performed.

The qualitative assessment for the quarter did not indicate the existence of impairment indicators. Based on the operating results for the three-month period ended March 31, 2023 and other considerations, the Company believes that it is more likely than not that the enterprise value for its one reporting unit and the fair value of intangibles is still greater than their carrying values. Accordingly, no goodwill impairment indicators were present at March 31, 2023 that would necessitate an interim impairment assessment.

The useful life, gross carrying value, accumulated amortization, and net balance for each major class of definite-lived intangible assets at each balance sheet date were as follows (in thousands):

		December 31, 2022			March 31, 2023		
	Useful Life	Gross carrying amount	Accumulated amortization	Net balance	Gross carrying amount	Accumulated amortization	Net balance
Customer relationships	5 - 18 years	19,300	(10,127)	9,173	19,300	(10,501)	8,799
Total		$ 19,300	$ (10,127)	$ 9,173	$ 19,300	$ (10,501)	$ 8,799

Intangible assets are amortized over their expected useful life and none are expected to have a significant residual value at the end of their useful life. Intangible assets amortization expense was $0.4 million and $0.4 million for the three-month periods ended March 31, 2022 and 2023, respectively.

Based on capitalized intangible assets as of March 31, 2023, estimated amortization expense amounts in future fiscal years are as follows (unaudited and in thousands):

Year ending December 31,	Amortization
2023 (April - December)	1,124
2024	1,498
2025	1,498
2026	1,498
2027	1,498
Thereafter	1,683
Total amortization	$ 8,799

Note 6. Debt

As of March 31, 2023, the Company had $27.4 million outstanding under its current term loan facility and $0.0 million outstanding under its revolving credit facility. The Company has available $45.0 million under its revolving credit facility (unaudited).

The following table reflects the current and noncurrent portions of the external debt facilities at December 31, 2022 and March 31, 2023 (in thousands):

	December 31, 2022	March 31, 2023
Term loan facility	$ 28,031	$ 27,375
Less debt issuance costs	(410)	(378)
Total debt	27,621	26,997
Less current portion of term facility	(3,281)	(3,281)
Current portion of debt issuance costs	123	121
Total long-term external debt, net	$ 24,463	$ 23,837

Secured credit agreement

The Company is currently operating under its credit agreement entered into on November 17, 2021 with Bank of America ("BofA Credit Agreement") which provides for the provisions of loans and other financial accommodations in an aggregate principal amount of up to $75.0 million in the form of (i) a five-year term loan facility (the "Term Facility") in the amount of $30.0 million and (ii) a five-year revolving credit facility (the "Revolving Facility") in the amount of $45.0 million, including a $5.0 million sublimit for the issuance of letters of credit and a $5.0 million sublimit for swingline loans. On November 17, 2021, the Company borrowed $30.0 million as a Eurodollar Rate loan. Both the Term Facility and the Revolving Facility mature on November 17, 2026.

Interest accrues on the outstanding principal amount of the Term and Revolving Facilities on a quarterly basis and is equal to a base rate equal to the rate per annum determined by reference to the 1-month, 3-month or 6-month US Dollar LIBOR rate as selected by the Company, plus an applicable margin between 1.75% to 2.25% as determined by the Company’s performance as measured by the consolidated leverage ratio. At March 31, 2023 the applicable margin was 1.75% and the effective interest rate on the term loan was 7.12%. In addition to paying interest on the outstanding principal under the term loan facility, the Company is required to pay a quarterly commitment fee on the unutilized commitments under the revolving credit facility ranging from 0.20% to 0.25% as determined by the Company's performance as measured by the consolidated leverage ratio. The commitment fee was 0.20% at March 31, 2023. The Company is also required to pay letter of credit fees on the maximum amount available to be drawn under all outstanding letters of credit in an amount equal to the applicable margin on LIBOR-based borrowings under the revolving credit facility on a per annum basis, payable in arrears, as well as fronting fees for the issuance of letters of credit and agency fees.

The Company is required to make quarterly principal payments of $0.7 million, with the remaining principal due on maturity on November 17, 2026. The Company is required to pay interest quarterly on the outstanding balance. The Company is permitted to voluntarily reduce the unutilized portion of the commitment amount and repay outstanding loans under the BofA Credit Agreement at any time without premium or penalty.

Maturities on the external debt outstanding at March 31, 2023 is as follows (unaudited and in thousands):

Year ending December 31,		
2023 (April - December)		1,969
2024		2,625
2025		2,625
2026		19,500
Total	$	26,719

Borrowings under the BofA Credit Agreement are secured by a first-priority lien on substantially all of the Company’s assets, the equity interests in certain of the Company’s subsidiaries, and any intercompany debt. The Credit Agreement contains certain customary affirmative and negative covenants that are usual and customary for companies with similar credit ratings. As of March 31, 2023, the Company was in compliance with all affirmative and negative covenants (unaudited).

Net interest expense, including bank charges and amortization of debt issuance costs on the external debt, was $0.5 million and $0.6 million for the three-month periods ended March 31, 2022 and 2023, respectively.

Expected Discontinuation of LIBOR

In July 2017, the United Kingdom’s Financial Conduct Authority, or FCA, which regulates LIBOR, announced it will no longer compel banks to submit rates for the calculation of LIBOR after 2021. On December 31, 2021, the 1-week and 2-month US Dollar LIBOR ceased, and the remaining five US Dollar LIBOR tenors (overnight and 1-month, 3-month, 6-month and 12-month) will cease on June 30, 2023. The base interest rate on the Company’s BofA Credit Agreement may be determined by reference to the 1-month, 3-month or 6-month US Dollar LIBOR rate, as selected by the Company. The BofA Credit Agreement matures on November 17, 2026, which is subsequent to the cessation of all tenors of the US Dollar LIBOR rate.

The Company is evaluating the potential impact of the transition from LIBOR as an interest rate benchmark to other potential alternative reference rates, including SOFR. Eurodollar loans under the BofA Credit Agreement are currently indexed to the Eurodollar Rate (the rate equivalent to LIBOR). The BofA Credit Agreement contemplates the discontinuation of LIBOR and provides that a benchmark replacement rate shall be determined by reference to other applicable rates and additionally allows for the Company to switch to a Base Rate Loan, as defined in the BofA Credit Agreement. The Company does not believe that the transition will have a material effect on the consolidated financial statement or impact our ability to borrow under the current credit agreement.

Note 7. Employee benefit plans

The Company’s employee benefit plans currently consist of a retirement plan in the United States and a separate defined contribution plan in the UK. The Company does not offer any other postretirement benefit plans, such as retiree medical and dental benefits or deferred compensation agreements to its employees or officers.

U.S. plan

U.S. employees that satisfy certain eligibility requirements, including requirements related to age and length of service, are eligible to participate in the Cambium Networks, Inc. 401(k) Plan. The plan is intended to qualify as a tax-qualified 401(k) plan so that contributions to the 401(k) plan, and income earned on such contributions, are not taxable to participants until withdrawn or distributed from the 401(k) plan. Under the 401(k) plan, each employee is fully vested in his or her deferred salary contributions. Employee contributions are held and invested by the plan’s trustee as directed by participants. Under the Cambium Networks, Inc. 401(k) Plan, the Company matches 100% of employee contributions to the 401(k) plan up to a maximum amount of 4% of eligible wages, which matching contributions are subject to vesting in equal annual increments over two years of service. All contributions, including the Company match, are made in cash. Contributions made by the Company under the Cambium Networks, Inc. 401(k) Plan were $0.5 million and $0.4 million for the three-month periods ended March 31, 2022 and 2023, respectively.

UK plan

UK employees who satisfy certain eligibility requirements are eligible to participate in the Cambium Networks Ltd. Stakeholder Pension Scheme, which is a qualified defined contribution plan. Employees are eligible to participate on the first of the month following receipt of their enrollment form, and eligible employees are automatically enrolled in the plan at a default employee contribution rate of 3% of eligible compensation and a company contribution rate of 5% of the employee’s basic salary. The Company contribution rate increases by 1% for each additional 1% that the employee contributes up to a maximum of 7%. Company matching contributions vest immediately and employees are always vested in their own contributions. All contributions, including the Company match, are made in cash and deposited in the participant’s account each pay period. The total contributed by the Company under this plan was $0.1 million and $0.1 million for the three-month periods ended March 31, 2022 and 2023, respectively.

Note 8. Other expense (income), net

Net other expense was $0.1 million and $0.2 million for the three-month periods ended March 31, 2022 and 2023, respectively. Other expense, net represents foreign exchange gains and losses.

Note 9. Share-based compensation

2019 Share incentive plan

In June 2019, the Company's Board of Directors adopted, and its shareholders approved, the 2019 Share Incentive Plan ("2019 Plan"). The 2019 Plan provides for the grant of incentive share options, nonqualified share options, share appreciation rights, restricted share awards ("RSAs"), restricted share units ("RSUs"), other share-based awards and performance awards. The share reserve under the 2019 Plan is automatically increased on the first day of each fiscal year, beginning with the fiscal year ended December 31, 2020 and continuing until, and including, the fiscal year ending December 31, 2029. The number of shares added annually is equal to the lowest of 1,320,000 shares, 5% of the number of the Company's shares outstanding on the first day of such fiscal year, or an amount determined by the Board of Directors. On March 1, 2023, the Company registered 1,320,000 additional shares that may be issued under the 2019 Plan.

The Company's employees, officers, directors, consultants, and advisors are eligible to receive awards under the 2019 Plan. Incentive share options, however, may only be granted to the Company's employees.

The following table summarizes changes in the number of shares available for grant under the Company's equity incentive plans during the three-month period ended March 31, 2023 (unaudited):

	Number of shares
Available for grant at December 31, 2022	2,000,364
Added to 2019 Share Incentive Plan	1,320,000
RSUs granted	(15,935)
Shares withheld in settlement of taxes and/or exercise price	11,468
Forfeitures	7,661
Available for grant at March 31, 2023	3,323,558

For the three-month periods ended March 31, 2022 and 2023, the Company recorded corresponding income tax benefits of $0.1 million and $0.1 million, respectively.

As of March 31, 2023, the Company estimates the pre-tax unrecognized compensation expense of $20.6 million, net of estimated forfeitures, related to all unvested share-based awards, including share options and restricted share units will be recognized through the first quarter of 2027. The Company expects to satisfy the exercise of share options and future distributions of shares for restricted share units by issuing new ordinary shares that have been reserved under the 2019 Plan.

The Company uses the Black-Scholes option pricing model to estimate the fair value of share options. The Company utilized a forfeiture rate of 8.2% during the three-month period ended March 31, 2023 for estimating the forfeitures of share options and restricted share units granted.

Share options

Share options typically have a contractual term of ten years from grant date and typically vest over a four-year period. The following is a summary of option activity for the Company's share incentive plans for the three-month period ended March 31, 2023 (unaudited):

	Options	Weighted average exercise price	Weighted Average remaining contractual term (years)	Aggregate intrinsic value
Outstanding at December 31, 2022	3,395,219	$ 13.83	7.6	$ 28,985,969
Options exercised	(50,831)	$ 8.44	—	$ —
Options forfeited	(1,187)	$ 12.00	—	$ —
Outstanding at March 31, 2023	3,343,201	$ 13.91	7.4	$ 15,632,159
Options exercisable at March 31, 2023	1,925,300	$ 12.58	6.6	$ 11,296,025
Options vested and expected to vest at March 31, 2023	3,297,666	$ 13.89	7.4	$ 15,459,280

At March 31, 2023, the aggregate intrinsic value of options exercisable under the Company's share incentive plans was $11.3 million. The Company had 50,831 options exercised during the three-month period ended March 31, 2023.

At March 31, 2023, there was $10.7 million in unrecognized pre-tax share-based compensation expense, net of estimated forfeitures, related to unvested share option awards. The unrecognized share-based compensation expense is expected to be recognized through the third quarter of 2026.

For the three-month periods ended March 31, 2022 and 2023, there were no shares options granted in either period.

Restricted shares

Restricted shares typically vest over a four-year period. The following is a summary of restricted shares activity for the Company's share incentive plan for the three-month period ended March 31, 2023 (unaudited):

	Units	Weighted average grant date fair value
RSU balance at December 31, 2022	696,990	$ 18.22
RSUs granted	15,935	$ 20.63
RSUs vested	(44,706)	$ 17.98
RSUs forfeited	(6,474)	$ 17.92
RSU balance at March 31, 2023	661,745	$ 18.29

During the three-month period ended March 31, 2023, 15,935 RSUs were granted under the Company's 2019 Share Incentive Plan and 44,706 RSUs vested. The Company withheld 11,468 of those shares to pay the employees' portion of the minimum payroll withholding taxes.

As of March 31, 2023, there was $9.9 million in unrecognized pre-tax compensation expense, net of estimated forfeitures, related to unvested restricted share units. The unrecognized compensation expense is expected to be recognized through the first quarter of 2027.

Employee share purchase plan

In June 2019, the Company's Board of Directors adopted, and its shareholders approved, the Employee Share Purchase Plan ("ESPP"). The ESPP was effective on June 25, 2019, and the initial offering period of six-months commenced on January 1, 2021. The current offering period of six months commenced on January 1, 2023 and runs through June 30, 2023. The purchase price of the shares is 85% of the lower of the fair market value of the Company's ordinary shares on the first trading day of the offering period and the purchase date. The ESPP includes an annual increase to the shares available for sale on the first day of each fiscal year beginning in 2020, equal to the lesser of: 275,000 shares, 1% of the outstanding shares as of the last day of the immediately preceding fiscal year, or such other amount as the administrator may determine. The Company registered 273,133 additional shares on March 1, 2023.

For the three-month periods ended March 31, 2022 and 2023, the Company recognized $0.2 million and $0.3 million, respectively, of share-based compensation expense related to the ESPP.

Note 10. Share capital - shares

The following table reflects the share capital activity (unaudited):

	Number of shares	Par value (in thousands)
Balance at December 31, 2022	27,313,273	$ 3
Issuance of vested shares	44,706	—
Share options exercised	50,831	—
Shares withheld for net settlement of shares issued	(11,468)	—
Balance at March 31, 2023	27,397,342	$ 3

As of March 31, 2023, no dividends have been declared or paid.

Note 11. Earnings per share

Basic net earnings per share is computed by dividing net income by the weighted-average number of shares outstanding during the period. Diluted net earnings per share is computed by giving effect to all potentially dilutive ordinary share equivalents outstanding for the period. For purposes of this calculation, share options, RSUs, and ESPP awards are considered to be ordinary share equivalents but are excluded from the calculation of diluted earnings per share when including them would have an anti-dilutive effect. The following table sets forth the computation of basic and diluted net earnings per share (unaudited and in thousands, except for share and per share data):

	Three Months Ended March 31,	
	2022	2023
Numerator:		
Net (loss) income	$ (1,568)	$ 4,276
Denominator:		
Basic weighted average shares outstanding	26,749,675	27,341,013
Dilutive effect of share option awards	—	846,656
Dilutive effect of restricted share units and restricted share awards	—	265,160
Dilutive effect of employee share purchase plan	—	26
Diluted weighted average shares outstanding	26,749,675	28,452,855
Net (loss) earnings per share, basic	$ (0.06)	$ 0.16
Net (loss) earnings per share, diluted	$ (0.06)	$ 0.15

In the computation of diluted earnings per share for the three-month period ended March 31, 2022, the Company did not include any share equivalents because their inclusion would have been antidilutive. In the computation of diluted earnings per share for the three-month period ended March 31, 2023, 1,202,805 ordinary share equivalents were excluded because their inclusion would have been antidilutive.

Note 12. Income taxes

The Company's provision for income taxes is based upon the estimated annual tax rate for the year applied to federal, state and foreign income. The Company recorded a benefit for income taxes of $1.2 million for the three-month period ended March 31, 2022 and a provision for income taxes of $0.5 million for the three-month period ended March 31, 2023, with an effective tax rate of 43.4% and 11.2%, respectively. In the three-month period ended March 31, 2022, the effective tax rate of 43.4% was different from the statutory rate of 21.0%, primarily due to tax benefits arising on Research and Development tax credits, Foreign Derived Intangible Income, and the revaluing of UK deferred tax assets at a higher future tax rate. For the three-month period ended March 31, 2023, the Company's effective tax rate of 11.2% was different from the statutory rate of 21.0%, primarily due to Foreign Derived Intangible Income and tax benefits arising on Research and Development tax credits.

In applying the statutory tax rate in the effective income tax rate reconciliation, the Company used the statutory U.S. federal income tax rate of 21% rather than the Cayman Islands zero percent rate.

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and, therefore, the need for a valuation allowance on a quarterly basis.

Note 13. Commitments and contingencies

In accordance with ASC 460, *Guarantees*, the Company recognizes the fair value for guarantee and indemnification arrangements it issues or modifies, if these arrangements are within the scope of the interpretation. In addition, the Company must continue to monitor the conditions that are subject to the guarantees and indemnifications in order to identify if a loss has incurred. If the Company determines it is probable that a loss has occurred, then any such estimated loss would be recognized under those guarantees and indemnifications and would be recognized in the Company's condensed consolidated statements of operations and corresponding condensed consolidated balance sheets during that period.

Indemnification

The Company generally indemnifies its customers against claims brought by a third party to the extent any such claim alleges that the Company's product infringes a patent, copyright or trademark or violates any other proprietary rights of that third party. The maximum potential amount of future payments the Company may be required to make under these indemnification agreements is not estimable.

The Company indemnifies its directors and officers and select key employees, including key employees serving as directors or officers of the Company's subsidiaries, for certain events or occurrences, subject to certain limits, while the director or officer is or was serving at the Company's request in such capacity. The term of the indemnification period is for the director's or officer's term of service. The Company may terminate the indemnification agreements with its directors, officers or key employees upon the termination of their services as directors or officers of the Company or its subsidiaries, or the termination of activities for which indemnification has been provided, but termination will not affect claims for indemnification related to events occurring prior to the effective date of termination. The maximum amount of potential future indemnification is unlimited; however, the Company has a director and officer insurance policy that limits its exposure. The Company believes the fair value of these indemnification agreements is minimal.

Purchase commitments with contract manufacturers and suppliers

We purchase components from a variety of suppliers and use contract manufacturers to provide manufacturing services for our products. During the normal course of business, in order to manage manufacturing lead times and help ensure adequate component supply, we enter into agreements with contract manufacturers and suppliers that allow them to procure inventory and components based upon criteria as defined by us, such as forecasted demand. The Company may be liable to purchase excess product or aged material or components from our suppliers following reasonable mitigation efforts.

Warranties

The Company offers a standard warranty on its products, with the term depending on the product, and records a liability for the estimated future costs associated with potential warranty claims. The Company's responsibility under its standard warranty is the repair or replacement of in-warranty defective product, or to credit the purchase price of the defective product, at its discretion, without charge to the customer. The Company's estimate of future warranty costs is largely based on historical experience factors including product failure rates, material usage, and service delivery cost incurred in correcting product failures. The standard warranty is included in either Other current liabilities or Other noncurrent liabilities on its condensed consolidated balance sheets, depending on the time period covered by the warranty. The Company also offers an extended warranty for purchase that represents a future performance obligation for the Company. The extended warranty is included in deferred revenues (both current and noncurrent) on the condensed consolidated balance sheets and recognized on a straight-line basis over the term of the extended warranty. The warranty costs are reflected in the Company's condensed consolidated statements of operations within cost of revenues.

Legal proceedings

Third parties may from time to time assert legal claims against the Company. The Company records accruals for loss contingencies to the extent that it concludes it is probable that a liability has been incurred and the amount of the related loss can be reasonably estimated. The Company evaluates, on a regular basis, developments in legal proceedings and other matters that could cause a change in amounts recorded. Due to the inherent uncertainty involving legal matters, the ultimate resolution could differ from amounts recorded. There is no pending or threatened legal proceedings to which the Company is a party, that in the Company's opinion, is likely to have a material adverse effect on its financial condition or results of operations.

Note 14. Segment information

The Company's chief operating decision maker ("CODM") is its Chief Executive Officer. The Company's CODM reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. Accordingly, the Company determined that it operates as one operating segment and one reporting unit.

Note 15. Revenues from contracts with customers

Revenues consist primarily of revenues from the sale of hardware products with essential embedded software. Revenues also include amounts for software products, extended warranty on hardware products and subscription services. Substantially all products are sold through distributors and other channel partners, such as resellers and systems integrators.

The Company recognizes revenue to reflect the transfer of control of promised products or services to a customer in an amount that reflects the consideration to which the Company expects to be entitled in exchange for products or services.

The Company accounts for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable.

The Company identifies its distinct performance obligations under each contract. A performance obligation is a promise in a contract to transfer a distinct product or service to the customer. Hardware products with essential embedded software, software products, and purchased extended warranty on hardware products have been identified as separate and distinct performance obligations.

The transaction price is the amount of consideration to which the Company expects to be entitled in exchange for transferring products or services to a customer. An adjustment to revenue is made to adjust the transaction price to exclude the consideration related to products expected to be returned. The Company records an asset at the carrying amount of the estimated stock returns and a liability for the estimated amount expected to be refunded to the customer. The transaction price also excludes other forms of consideration provided to the customer, such as volume-based rebates and co-operative marketing allowances.

The Company recognizes revenue when, or as, it satisfies a performance obligation by transferring control of a promised product or service to a customer. Revenue from hardware products with essential embedded software is recognized when control of the asset is transferred, which is typically at the time of shipment. Revenue from perpetual license software is recognized at the point in time that the customer is able to use or benefit from the software. Extended warranty on hardware products is a performance obligation that is satisfied over time, beginning on the effective date of the warranty period and ending on the expiration of the warranty period. The Company recognizes revenue on extended warranties on a straight-line basis over the warranty period. Revenue from software subscriptions is recognized ratably over the term in which the services are provided and the performance obligation is satisfied.

The Company enters into revenue arrangements that may consist of multiple performance obligations, such as hardware products and extended warranty. The Company allocates the transaction price to each performance obligation on a relative standalone selling price basis for each distinct product or service in the contract. The best evidence of standalone selling price is the observable price of a product or service when the Company sells that product or service separately in similar circumstances and to similar customers. If a standalone selling price is not directly observable, the Company estimates the transaction price allocated to each performance obligation using the expected costs plus a margin approach.

Disaggregation of revenues

Revenues by product category were as follows (unaudited and in thousands, except percentages):

	Three Months Ended March 31,			
	2022		2023	
Point-to-Multi-Point	$ 30,926	50 %	$ 22,292	29 %
Point-to-Point	14,714	24 %	18,008	23 %
Enterprise	15,508	25 %	35,656	46 %
Other	748	1 %	1,445	2 %
Total Revenues	$ 61,896	100 %	$ 77,401	100 %

In the above table, the Company has renamed the Wi-Fi product category to Enterprise to more accurately represent the products and services included in this product category, which includes Wi-Fi, switching and software subscriptions.

The Company's products are predominately sold through third-party distributors, and distributed through a third-party logistics provider with facilities in the United States, Netherlands and China. The Company has determined the geographical distribution of product revenues based upon the ship-to destinations specified by its distributor customers.

Revenues by geography were as follows (unaudited and in thousands, except percentages):

	Three Months Ended March 31,			
	2022		2023	
North America	$ 28,321	46 %	$ 47,593	62 %
Europe, Middle East and Africa	20,332	33 %	19,708	25 %
Caribbean and Latin America	5,084	8 %	3,685	5 %
Asia Pacific	8,159	13 %	6,415	8 %
Total Revenues	$ 61,896	100 %	$ 77,401	100 %

Contract balances

The following table summarizes contract balances as of December 31, 2021 and March 31, 2023 (in thousands):

	December 31, 2022	March 31, 2023
Trade accounts receivable, net of allowance for credit losses	$ 89,181	$ 98,020
Deferred revenue - current	8,913	8,761
Deferred revenue - noncurrent	8,617	8,666
Refund liability	$ 3,186	$ 6,740

Deferred revenue consists of amounts due or received from customers in advance of the Company satisfying performance obligations under contractual arrangements. Deferred revenue is classified as current or noncurrent based on the timing of when revenue will be recognized. The changes in deferred revenue were due to normal timing differences between the Company's performance and the customers' payment.

The refund liability is the estimated amount expected to be refunded to customers in relation to product exchanges made as part of the Company's stock rotation program and returns that have been authorized, but not yet received by the Company. It is included within Other current liabilities in the condensed consolidated balance sheets.

Receivables and concentration of credit risk

Trade accounts receivable represents amounts for which the Company has an unconditional right to payment. Amounts are in accordance with contractual terms and are recorded at face amount less an allowance for credit losses. The Company establishes an allowance for credit losses to present the net amount of accounts receivable expected to be collected. The allowance is determined by using the loss-rate method, which requires an estimation of loss rates based upon historical loss experience adjusted for factors that are relevant to determining the expected collectability of accounts receivables. Some of these factors include macroeconomic conditions that correlate with historical loss experience, delinquency trends, aging behavior of receivables and credit and liquidity indicators for individual customers.

The Company considers the credit risk of all customers and regularly monitors credit risk exposure in its trade receivables. The Company's standard credit terms with its customers are generally net 30 to 60 days. The Company had one customer representing more than 10% of trade receivables at December 31, 2022 and one customer representing more than 10% of trade receivables at March 31, 2023.

Remaining performance obligations

Remaining performance obligations represent the revenue that is expected to be recognized in future periods related to performance obligations included in a contract that are unsatisfied, or partially satisfied, as of the end of a period. As of December 31, 2022, deferred revenue (current and noncurrent) of $17.5 million represents the Company's remaining performance obligations, of which $8.9 million is expected to be recognized within one year, with the remainder to be recognized thereafter. As of March 31, 2023, deferred revenue (current and noncurrent) of $17.4 million represents the Company's remaining performance obligations, of which $8.8 million is expected to be recognized within one year, with the remainder to be recognized thereafter (unaudited).

Revenue recognized during the three-month period ended March 31, 2023 which was previously included in deferred revenues as of December 31, 2022 was $3.4 million, compared to $2.2 million of revenue recognized during the three-month period ended March 31, 2022, which was previously included in deferred revenues as of December 31, 2021 (unaudited).

Cost to obtain a contract

Sales commissions are incremental costs of obtaining a contract. The Company has elected to recognize these expenses as incurred, as the amortization period of these costs is one year or less.

Note 16. Leases

The Company has operating leases for offices, vehicles and equipment. Leases with a term of 12 months or less are not recorded on the consolidated balance sheets and are expensed on a straight-line basis over the lease term.

Right-of-use assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at the commencement date. The Company's lease payments are typically fixed or contain fixed escalators. The Company's leases typically include certain lock-in periods and renewal options to extend the lease, but does not consider options to extend the lease it is not reasonably certain to exercise. The Company elected the practical expedient to not separate the lease and non-lease components of its leases and currently has no leases with options to purchase the leased property.

The components of lease expense were as follows and are included in general and administrative expense (unaudited and in thousands):

	Three Months Ended March 31,	
	2022	2023
Operating lease cost	$ 609	$ 572
Short-term lease cost	134	99
Variable lease costs	143	161
Total lease expense	$ 886	$ 832

Supplemental balance sheet information related to leases were as follows (in thousands, except lease term and discount rate):

	Balance Sheet Caption	December 31, 2022	March 31, 2023
Operating leases:			
Operating lease assets	Operating lease assets	$ 4,011	$ 4,709
Current lease liabilities	Other current liabilities	$ 1,930	$ 2,064
Noncurrent lease liabilities	Noncurrent operating lease liabilities	$ 2,170	$ 2,723
Weighted average remaining lease term (years):			
Operating leases		2.67	3.11
Weighted average discount rate:			
Operating leases		6.11 %	6.24 %

Supplemental cash flow information related to leases were as follows (unaudited and in thousands):

	Three Months Ended March 31,	
	2022	2023
Supplemental cash flow information:		
Cash paid for amounts included in the measurement of lease liabilities	$ 674	$ 599

The Company's current lease terms range from one to five years and may include options to extend the lease by one to four years.

Remaining maturities on lease liabilities as of March 31, 2023 is as follows (unaudited and in thousands):

	Operating leases
2023 (April - December)	1,725
2024	1,435
2025	1,057
2026	635
2027	254
Thereafter	151
Total lease payments	5,257
Less: interest	470
Present value of lease liabilities	$ 4,787

As of March 31, 2023, the Company does not have any leases that have not yet commenced.

Note 17. Related party transactions

The Company follows ASC 850, *Related Party Disclosures*, for the identification of related parties and disclosure of related party transactions. A party is considered to be related to the Company if the party directly or indirectly or through one or more intermediaries, controls, is controlled by, or is under common control with the Company. Related parties also include principal owners of the Company, its management, members of the immediate families of principal owners of the Company and its management and other parties with which the Company may deal.

For the three-month period ended March 31, 2022 and 2023, the Company did not have any material related party transactions to disclose (unaudited).

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of financial condition and results of operation should be read in conjunction with the consolidated financial statements and related notes thereto of Cambium Networks Corporation ("Cambium", "we", "our", or "us") included elsewhere in this Quarterly Report on Form 10-Q and with the financial statements and related notes and Management's Discussion and Analysis in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed February 27, 2023. Results for the three-month period ended March 31, 2023 are not necessarily indicative of the results that may be expected for any period in the future.

Overview

Cambium Networks is a global technology company that designs, develops, and manufactures wireless broadband and Wi-Fi networking infrastructure solutions for a wide range of applications, including broadband access, wireless backhaul, Industrial Internet of Things (IIoT), public safety communications, and Wi-Fi access. Our products are used by businesses, governments, and service providers to build, expand and upgrade broadband networks. Our product lines fall into three broad, interrelated categories: Fixed Wireless Broadband (FWB), Enterprise networking, and Subscription and Services. The FWB portfolio spans point-to-point (PTP) and point-to-multi-point (PMP) architectures over multiple standards, including IEEE 802.11 and 3GPP (Third Generation Partnership Program) and frequency bands, including licensed, unlicensed, and lightly licensed spectrum. The Enterprise portfolio includes Wi-Fi access points, wireless aware switches, and other networking devices.

The Subscription and Services portfolio includes network planning and design as well as cloud or on-premises network management and control. The latter capability, delivered through subscription to cnMaestro™ X, forms the foundation of our ONE Network, a cloud-based network management architecture that allows users to remotely configure, monitor, and manage their wireless network. It provides a single, centralized view of all network devices, including both FWB and Enterprise, as well as real-time performance and usage data, and allows users to make changes to the network configuration and settings. Advanced services offered in conjunction with this platform include application visibility and control, which is used to optimize end-user experiences; integrated security gateway and SD-WAN for small and medium businesses; and automated and intelligent network optimization.

Trends impacting our business

We have continued to work closely with our contract manufacturers and supply chain partners to ramp production following a period of delayed component sourcing and workforce disruptions, including additional incremental purchase commitments, and have begun to see some reduction in customer order lead times. We have increased our inventory of certain key components to alleviate component shortages and extended our demand planning and purchase commitments to mitigate delays in component sourcing, and the risk of future supply chain disruptions. We continue to see inflation pressure in our supply chain, and scarcity of some materials needed to build our products. While we have increased our inventory of key components, technology shifts could result in this increased inventory becoming excess or obsolete before it is deployed, as new product development relies on different components.

We believe that we are at the start of the next wave of high-performance fixed wireless broadband deployments for our PMP solutions, and expect to release our new gigabit solutions, including our market-leading 6 GHz products, and an acceleration in the growth of our 28GHz cnWave 5G fixed products and 60 GHz cnWave products. We anticipate final FCC approval for outdoor use of the 6 GHz spectrum by the end of the year, which is expected to drive PMP revenue growth in future quarters, and our PTP business is expected to benefit from growth in defense and security deployments globally. Our enterprise business continues to expand with both new products and the ability to reach new customers and markets, and we expect to release our first fiber product this year. As we gain traction with customers on the release of our new products and solutions, customer may delay or reduce purchases of older versions of these products and solutions.

We continue to monitor the impact of macroeconomic factors, including a potential global recession, inflationary pressures, the recent and ongoing crisis among some U.S. banking institutions, and growing political tensions as a result of the Russia-Ukraine conflict, as well as the escalating tensions between China and Taiwan, and associated tensions between the U.S. and China. While none of these have been material to our business or results of operations as of the date hereof, the full impact of the escalation of any of these factors on our business and results of operations remains uncertain. We also believe that our customers continue to grapple with the impact of these macroeconomic factors on their businesses and future investment plans, resulting in business uncertainty and a more constrained approach to forecasts and orders. In addition, any prolonged economic disruptions or further deterioration in the global economy could have a negative impact on demand from our customers in future periods. Accordingly, current results and financial condition discussed herein may not be indicative of future operating results and trends.

The impact of reverse globalization, including a more nationalistic trend globally leading to increasing government requirements for domestically produced products or limiting the sourcing of components and other products from China and elsewhere, has led us to limit our reliance on third-party manufacturers in China and begin moving manufacturing to other locations, which could cause disruptions in our supply operations. We believe that any extended or renewed economic disruptions or deterioration in the global economy could have a negative impact on demand from our customers in future periods. Accordingly, current results and financial condition discussed herein may not be indicative of future operating results and trends.

Financial results for the three-month period ended March 31, 2023

- Total revenue was $77.4 million, an increase of 25.1% year-over-year
- Gross margin was 51.2%
- Total costs of revenues and operating expenses were $73.8 million
- Operating income was $5.6 million
- Net income was $4.3 million

Basis of presentation

Revenues

Our revenues are generated primarily from the sale of our products, which consist of hardware with essential embedded software. Our revenues also include amounts for software products, extended warranty on hardware products and subscription services. We generally recognize product revenues at the time of shipment, provided that all other revenue recognition criteria have been met. Revenues are recognized net of estimated stock returns, volume-based rebates and cooperative marketing allowances that we provide to distributors. We recognize subscription services revenue ratably over the term in which services are provided and our performance obligation is satisfied. We provide a standard warranty on our hardware products, with the term depending on the product, and record a liability for the estimated future costs associated with potential warranty claims. In addition, we also offer extended warranties for purchase and represents a future performance obligation for us. The extended warranty is included in deferred revenues and is recognized on a straight-line basis over the term of the extended warranty.

Cost of revenues and gross profit

Our cost of revenues is comprised primarily of the costs of procuring finished goods from our third-party manufacturers, third-party logistics and warehousing provider costs, freight costs and warranty costs. We outsource our manufacturing to third-party manufacturers located primarily in Mexico, China, Israel and Taiwan. Cost of revenues also includes costs associated with supply operations, including personnel related costs and allocated overhead costs, provision for excess and obsolete inventory, third-party license costs and third-party costs related to services we provide. Cost of revenues also includes amortization of capitalized software development costs associated with products marketed to be sold.

Gross profit has been and will continue to be affected by various factors, including changes in product mix. The margin profile of products within each of our core product categories can vary significantly depending on the operating performance, features and manufacturer of the product. Gross margin will also vary as a function of changes in pricing due to competitive pressure, our third-party manufacturing and other production costs, cost of shipping and logistics, provision for excess and obsolete inventory and other factors. We expect our gross margins will fluctuate from period to period depending on the interplay of these various factors.

Operating expenses

We classify our operating expense as research and development, sales and marketing, and general and administrative expense. Personnel costs are the primary component of each of these operating expense categories, which consist of personnel costs, such as salaries, sales commissions, benefits, bonuses and share-based compensation expense. In addition, we separate depreciation and amortization in their own category.

Research and development

In addition to personnel-related costs, research and development expense consists of costs associated with design and development of our products, product certification, travel, recruiting and shared facilities and shared IT costs. We generally recognize research and development expense as incurred. For certain of our software projects under development, we capitalize the development cost during the period between determining technological feasibility of the product and commercial release. We amortize the capitalized development cost upon commercial release, generally over three years, and is included in cost of revenues. We typically do not capitalize costs related to the development of first-generation product offerings as technological feasibility generally coincides with general availability of the software.

Sales and marketing

In addition to personnel-related costs for sales, marketing, service and product line management personnel, sales and marketing expense consists of our training programs, trade shows, marketing programs, promotional materials, demonstration equipment, national and local regulatory approval on our products, travel and entertainment, recruiting and shared facilities and shared IT costs.

General and administrative

In addition to personnel-related costs, general and administrative expense consists of professional fees, such as legal, audit, accounting, information technology and consulting costs, insurance, shared facilities and shared IT costs, and other supporting overhead costs.

Depreciation and amortization

Depreciation and amortization expense consist of depreciation related to fixed assets such as computer equipment, furniture and fixtures, and testing equipment, as well as amortization related to acquired and internal use software and definite lived intangibles.

Provision for income taxes

Our provision for income taxes consists primarily of income taxes in the jurisdictions in which we conduct business. Management assesses our deferred tax assets in each reporting period, and if it is determined that it is not more likely than not to be realized, we will record a valuation allowance in that period.

Results of operations

The following table presents the consolidated statements of operations, as well as the percentage relationship to total revenues for items included in our consolidated statements of operations (in thousands):

	Three Months Ended March 31,	
(in thousands)	**2022**	**2023**
Statements of Operations Data:		
Revenues	$ 61,896	$ 77,401
Cost of revenues	32,730	37,741
Gross profit	29,166	39,660
Operating expenses		
Research and development	12,942	14,262
Sales and marketing	10,429	11,670
General and administrative	6,544	6,667
Depreciation and amortization	1,446	1,496
Total operating expenses	31,361	34,095
Operating (loss) income	(2,195)	5,565
Interest expense, net	497	597
Other expense, net	77	154
(Loss) income before income taxes	(2,769)	4,814
(Benefit) provision for income taxes	(1,201)	538
Net (loss) income	**$ (1,568)**	**$ 4,276**

	Three Months Ended March 31, 2022	Three Months Ended March 31, 2023
Percentage of Revenues:		
Revenues	100.0%	100.0%
Cost of revenues	52.9%	48.8%
Gross margin	47.1%	51.2%
Operating expenses		
Research and development	20.8%	18.4%
Sales and marketing	16.8%	15.1%
General and administrative	10.6%	8.6%
Depreciation and amortization	2.3%	1.9%
Total operating expenses	50.6%	44.0%
Operating (loss) income	(3.5)%	7.2%
Interest expense, net	0.8%	0.8%
Other expense, net	0.1%	0.2%
(Loss) income before income taxes	(4.4)%	6.2%
(Benefit) provision for income taxes	(1.9)%	0.7%
Net (loss) income	(2.5)%	5.5%

Comparison of three-month period ended March 31, 2022 to the three-month period ended March 31, 2023

Revenues

(dollars in thousands)	Three Months Ended March 31, 2022	Three Months Ended March 31, 2023	Change $	Change %
Revenues	$ 61,896	$ 77,401	$ 15,505	25.1%

Revenues increased $15.5 million, or 25.1%, to $77.4 million for the three-month period ended March 31, 2023 from $61.9 million for the three-month period ended March 31, 2022, with the largest increase in our enterprise product category driven by improved supply and increased demand as well as the absence of COVID lockdowns in China in the first quarter of 2022 that enabled us to manufacture product without interruption in operations. Revenues also increased in our point-to-point product category driven by increased demand for backhaul products partially offset by lower demand in our point-to-multi-point products ahead of a product transition to new gigabit solutions in our product portfolio. Revenues benefited from the increase in the number of our channel partners, which consists of almost 13,000 channel partners as of March 31, 2023.

Revenues by product category

(dollars in thousands)	Three Months Ended March 31, 2022	Three Months Ended March 31, 2023	Change $	Change %
Point-to-Multi-Point	$ 30,926	$ 22,292	$ (8,634)	(27.9)%
Point-to-Point	14,714	18,008	3,294	22.4%
Enterprise	15,508	35,656	20,148	129.9%
Other	748	1,445	697	93.2%
Total revenues by product category	$ 61,896	$ 77,401	$ 15,505	25.1%

Point-to-Multi-Point

Our PMP revenues decreased $8.6 million, or 27.9%, from the three-month period ended March 31, 2022 to 2023, and represented 50% and 29% of our total revenues over the same periods, respectively. Our decreases in point-to-multi-point revenues were due to lower demand from service providers ahead of a product transition to new gigabit solutions in our product portfolio in Europe, Middle East, Africa, Caribbean and Latin America and Asia Pacific regions, partially offset by increased demand in North America.

Point-to-Point

PTP revenues increased $3.3 million, or 22.4%, from the three-month period ended March 31, 2022 to 2023 mostly driven by increased revenues in North America as a result of increased demand for defense products from the federal government and backhaul for service providers.

Enterprise

Enterprise revenues increased $20.1 million, or 129.9%, from the three-month period ended March 31, 2022 to 2023. Our Wi-Fi product category has been renamed Enterprise to more accurately represent the products and services included in this product category. Enterprise revenues increased in all but the Asia Pacific region, driven mostly by increased demand for our Wi-Fi 6/6E products and improvements in available product supply to meet demand due to the absence of the COVID lockdowns in China in the first quarter of 2022 which resulted in the shut down of manufacturing and distribution operations.

Revenues by geography

	Three Months Ended March 31,		Change	
(dollars in thousands)	**2022**	**2023**	**$**	**%**
North America	$ 28,321	$ 47,593	$ 19,272	68.0 %
Europe, Middle East, Africa	20,332	19,708	(624)	(3.1)%
Caribbean and Latin America	5,084	3,685	(1,399)	(27.5)%
Asia Pacific	8,159	6,415	(1,744)	(21.4)%
Total revenues by geography	$ 61,896	$ 77,401	$ 15,505	25.1 %

Revenues increased in North America and decreased in all other regions from the three-month period ended March 31, 2022 to March 31, 2023. North America revenues increased $19.3 million, or 68%, with increases in all product lines, mostly driven by higher enterprise revenues due to improved supply and increased demand as well as the absence of the COVID lockdowns in China in the first quarter of 2022 that enabled us to manufacture product without interruption in operations. Europe, Middle East, Africa revenues decreased slightly by $0.6 million, or 3.1%, mostly related to decreased PMP revenues mostly offset by higher enterprise revenues due to improved supply and increased demand and PTP revenues due to increased demand for defense products. Caribbean and Latin America revenues decreased $1.4 million, or 27.5%, mostly due to lower enterprise revenues. Asia Pacific revenues decreased $1.7 million, or 21.4%, mostly driven by decreased PMP and PTP revenues due to lower demand throughout the region partially offset by higher enterprise revenues due to improved supply and increased demand.

Cost of revenues and gross margin

	Three Months Ended March 31,		Change	
(dollars in thousands)	**2022**	**2023**	**$**	**%**
Cost of revenues	$ 32,730	$ 37,741	$ 5,011	15.3 %
Gross margin	47.1 %	51.2 %		410 bps

Cost of revenues increased $5.0 million, or 15.3%, to $37.7 million for the three-month period ended March 31, 2023 from $32.7 million for the three-month period ended March 31, 2022. The increase in cost of revenues was primarily due to increased revenues partially offset by decreased production costs due to decreases in component charges as a result of increased availability of components.

Gross margin increased to 51.2% for the three-month period ended March 31, 2023 from 47.1% for the three-month period ended March 31, 2022. The increase reflects increased revenues from higher margin products and the impact of price increases along with lower production costs due to improvements in component availability reducing component costs, partially offset by the increase in our excess and obsolescence reserve.

Operating expenses

(dollars in thousands)	Three Months Ended March 31, 2022	Three Months Ended March 31, 2023	Change $	Change %
Research and development	$ 12,942	$ 14,262	$ 1,320	10.2 %
Sales and marketing	10,429	11,670	1,241	11.9 %
General and administrative	6,544	6,667	123	1.9 %
Depreciation and amortization	1,446	1,496	50	3.5 %
Total operating expenses	$ 31,361	$ 34,095	$ 2,734	8.7 %

Research and development

Research and development expense increased $1.3 million, or 10.2%, to $14.3 million for the three-month period ended March 31, 2023 from $12.9 million for the three-month period ended March 31, 2022. As a percentage of revenues, research and development expenses decreased to 18.4% in 2023 from 20.8% in 2022 over the same period. The increase in research and development expense was primarily due to $1.1 million higher staff-related costs due to increased headcount along with $0.6 million higher corporate bonus expense due to higher financial performance and $0.3 million higher share-based compensation expense. These increases were partially offset by $0.5 million higher capitalized software cost due to an increase in projects eligible for capitalization and $0.2 million lower homologation and regulatory expense due to the timing of projects.

Sales and marketing

Sales and marketing expense increased $1.2 million, or 11.9%, to $11.7 million for the three-month period ended March 31, 2023 from $10.4 million for the three-month period ended March 31, 2022. As a percentage of revenues, sales and marketing expense decreased to 15.1% in 2023 from 16.8% in 2022 over the same period. The increase in sales and marketing expense was primarily due to $0.8 million higher staff-related costs and $0.3 million higher travel-related spend as restrictions on travel and in person conferences imposed by the COVID pandemic continue to lessen in parts of the world and $0.1 million higher share-based compensation expense.

General and administrative

General and administrative expense increased $0.1 million, or 1.9%, to $6.7 million for the three-month period ended March 31, 2023 from $6.5 million for the three-month period ended March 31, 2022. As a percentage of revenues, general and administrative expense decreased to 8.6% in 2023 from 10.6% in 2022 over the same period. The increase in general and administrative expense was primarily due to $0.2 million higher corporate bonus expense due to higher financial performance and $0.1 million higher share-based compensation expense mostly offset by $0.1 lower insurance expense and $0.1 million lower legal expense.

Depreciation and amortization

Depreciation and amortization expense remained flat from the three-month period ended March 31, 2022 to the three-month period ended March 31, 2023.

Interest expense, net

(dollars in thousands)	Three Months Ended March 31, 2022	Three Months Ended March 31, 2023	Change $	Change %
Interest expense, net	$ 497	$ 597	$ 100	20.1 %

Interest expense increased $0.1 million, or 20.1%, to $0.6 million for the three-month period ended March 31, 2023 from $0.5 million for the three-month period ended March 31, 2022. The increase was primarily due to an increase in the interest rate on the term loan partially offset by increase in interest income earned.

Other expense, net

(dollars in thousands)	Three Months Ended March 31, 2022	2023	Change $	%
Other expense, net	$ 77	$ 154	$ 77	100.0 %

Other expense, net increased from expense of $0.1 million for the three-month period ended March 31, 2022 to $0.2 million for the three-month period ended March 31, 2023, primarily due to foreign currency fluctuations.

Provision for income taxes

(dollars in thousands)	Three Months Ended March 31, 2022	2023	Change $	%
(Benefit) provision for income taxes	$ (1,201)	$ 538	$ 1,739	(144.8)%
Effective income tax rate	43.4 %	11.2 %		

Our provision for income taxes was $0.5 million for the three-month period ended March 31, 2023 and a benefit for income taxes of $1.2 million for the three-month period ended March 31, 2022. The effective income tax rates were 11.2% and 43.4% over the same periods, respectively, and reflect the application of our expected annual tax rate to pre-tax results for each of the periods as well as discrete tax impacts that arise during the periods. In the three-month period ended March 31, 2022, the effective income tax rate of 43.4% was different from the statutory rate of 21.0% primarily due tax benefits arising on Research and Development tax credits, Foreign Derived Intangible Income, and revaluing of UK deferred tax assets at a higher future tax rate. In the three-month period ended March 31, 2023, our effective income tax rate of 11.2% was different from the statutory rate of 21.0% primarily due to Foreign Derived Intangible Income and tax benefits arising on Research and Development tax credits.

Liquidity and Capital Resources

As of March 31, 2023, we had a cash balance of $38.7 million. Our primary liquidity needs are: (i) to fund normal operating expenses; (ii) to meet interest and principal requirements of our outstanding indebtedness; and (iii) to fund capital expenditures. We believe these needs will be satisfied over at least the next 12 months using existing cash and using cash flow generated by our operations. Our future capital requirements may vary materially from those currently planned and will depend on many factors, including our rate of revenue growth, the timing and extent of spending to support development efforts, the timing of new product introductions, market acceptance of our products and overall economic conditions. We expect to regularly assess market conditions and may take measures, including raising additional equity or incurring additional debt if and when our board of directors determines that doing so is in our best interest.

Cash Flows

The following table sets forth summarized cash flow data for the periods indicated (in thousands):

Cash flows from operating activities

	Three Months Ended March 31, 2022	2023
Cash used in operating activities	$ (19,225)	$ (5,959)
Cash used in investing activities	$ (1,782)	$ (3,106)
Cash provided by (used in) financing activities	$ 104	$ (417)

Net cash used in operating activities for the three-month period ended March 31, 2022 of $19.2 million consisted primarily of net loss of $1.6 million, share-based compensation expense of $2.4 million and adjustments for depreciation and amortization and other non-cash impacts of $2.0 million along with an increase in deferred tax assets of $1.4 million and changes in operating assets and liabilities that resulted in net cash outflows of $20.7 million. The changes in operating assets and liabilities consisted primarily of a $12.1 million decrease in accounts payable as a result of timing of purchases and payments, a $10.3 million decrease in accrued employee compensation primarily due to the payment of the 2021 corporate bonus net of the 2022 corporate bonus accrual and $6.5 million increase in inventories due to lower revenue growth. This was partially offset by $6.2 million lower receivables due to lower sales in the first quarter of 2022 and $2.1 million higher accrued liabilities primarily related to inventory in transit.

Net cash used in operating activities for the three-month period ended March 31, 2023 of $6.0 million consisted of net income of $4.3 million, share-based compensation expense of $2.9 million and adjustments for depreciation and amortization and other non-cash impacts of $3.3 million, an increase in deferred tax assets of $1.5 million and changes in operating assets and liabilities that resulted in net cash outflows of $14.9 million. The changes in operating assets and liabilities consisted primarily of a $12.6 million increase in inventories due to management's plan to build inventory in response higher revenue expectations, a $9.0 increase in accounts receivable reflecting the impact of higher sales and the timing of collections and $1.5 million decrease in accounts payable due to timing or invoices and payments. The uses of cash were partially offset by $7.7 million increase in cash provided by all other assets and liabilities, mostly driven by the increase in inventory related accruals, accrued sales returns and accrued income taxes along with $1.1 million reduction in prepaid expenses, mostly due to lower vendor prepayments.

Cash flows from investing activities

Our investing activities for all periods presented consisted of capital expenditures for property, equipment and software in support of the growth of our business.

Cash flows from financing activities

During the three-month period ended March 31, 2022, net cash provided of $0.1 million was primarily due to proceeds received of $0.1 million from the exercise of share options offset by $42 thousand for taxes paid from shares withheld in net settlement of taxes due on vesting of restricted shares issued to our employees.

During the three-month period ended March 31, 2023, net cash used of $0.4 million was primarily due to $0.7 million repayment of principal due under the term loan facility with Bank of America and $0.1 million for taxes paid from shares withheld in net settlement of taxes due on vesting of restricted shares issued to our employees partially offset by proceeds received of $0.4 million from the exercise of share options.

Debt

As of March 31, 2023, we had $27.4 million outstanding on our term credit facility and had $45.0 million available under our revolving credit facility with Bank of America. The effective interest rate on the term credit facility at March 31, 2023 was 7.12%. The Company is required to make scheduled quarterly principal payments of $0.7 million under the term credit facility. Our term credit facility matures on November 17, 2026, at which time the outstanding principal will be due. Refer to Note 7 – Debt, to our unaudited condensed consolidated financial statements in Part I of this Form 10-Q for additional information.

Contractual Obligations and Commercial Commitments

For the three-month period ended March 31, 2023, there has been no material change to the contractual obligations and commercial commitments disclosed in Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

Off-balance sheet arrangements

We do not engage in transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as variable interest entities, structured finance, or special purpose entities, as part of our ongoing business. Accordingly, our operating results, financial condition and cash flows are not subject to off-balance sheet risks.

Significant Accounting Estimates

Our consolidated financial statements and the related notes thereto are prepared in accordance with U.S. GAAP. The preparation of these financial statements requires our management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expense and related disclosures. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these judgments and estimates under different assumptions or conditions and any such differences may be material. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management’s judgments and estimates.

During the three-month period ended March 31, 2023, there were no significant changes to our critical accounting policies and estimates. Please refer to Management’s Discussion and Analysis of Financial Condition and Results of Operations contained in Part II, Item 7 of our Annual Report on Form 10-K for our fiscal year ended December 31, 2022, filed on February 27, 2023, for a more complete discussion of our critical accounting policies and estimates.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Excluding the impact of changes in interest rates and the uncertainty in the global financial markets, there have been no material changes to our market risk for the three-month period ended March 31, 2023. We conduct business in all parts of the world and are thereby exposed to market risks related to fluctuations in foreign currency exchange rates. The U.S. dollar is the single largest currency in which our revenue contracts are denominated. Any decline in the value of local foreign currencies against the U.S. dollar results in our products and services being more expensive to a potential foreign customer. In those instances where our goods and services have already been sold, receivables may be more difficult to collect. Additionally, in jurisdictions where the revenue contracts are denominated in U.S. dollars and operating expenses are incurred in the local currency, any decline in the value of the U.S. dollar will have an unfavorable impact to operating margins. We have not entered into any foreign currency hedging transactions. We do not purchase or hold any derivative financial instruments for speculation or arbitrage.

We do not hold any cash in any investment accounts and all cash is deposited with financial institutions that management believes are of high credit quality. The Company's cash consists primarily of U.S. dollar denominated demand accounts.

We had $27.4 million of debt outstanding on our term loan facility and $0.0 million of debt outstanding on our revolving credit facility as of March 31, 2023 under our BofA Credit Agreement. The Company is exposed to interest rate risk from fluctuations in the US Dollar London Interbank Offered Rate, or LIBOR, that is a component of the interest rate used to calculate interest expense on the debt. Interest accrues on the outstanding principal amount of the term loan on a quarterly basis and is equal to the selected rate per annum determined by reference to the 1-month, 3-month or 6-month US Dollar LIBOR rate as selected by the Company, plus an applicable margin between 1.75% and 2.25% as determined by our financial performance as measured by the consolidated leverage ratio. At March 31, 2023, the applicable margin was 1.75% and the effective interest rate on the term loan was 7.12%. A hypothetical 100-basis point increase in interest rates, and assuming a constant applicable margin, would result in an additional $0.3 million in interest expense related to the external debt per year.

In July 2017, the head of the United Kingdom Financial Conduct Authority, or FCA, which regulates LIBOR, announced it will no longer compel banks to submit rates for the calculation of LIBOR after 2021. On December 31, 2021, the 1-week and 2-month US Dollar LIBOR rates ceased, and the remaining five US Dollar LIBOR tenors (overnight, 1-month, 3-month, 6-month and 12-month) will cease on June 30, 2023. The Company's current term loan with Bank of America was borrowed as a Eurodollar loan which is indexed to the Eurodollar Rate (the rate equal to LIBOR). The BofA Credit Agreement contemplates the discontinuation of LIBOR and provides that a benchmark replacement rate shall be determined by reference to other applicable rates and additionally allows the Company to switch to a Base Rate loan, as defined in the BofA Credit Agreement. The Company does not believe there will be a material effect on the consolidated financial statements or impact our ability to borrow under the current credit agreement.

There have been no other material changes in our market risk since December 31, 2022.

Item 4. Controls and Procedures.

Evaluation of disclosure controls and procedures

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities and Exchange Act of 1934, as amended, or the Exchange Act), as of March 31, 2023, the end of the period covered by this Quarterly Report on Form 10-Q. Based on such evaluation, our principal executive officer and principal financial officer have concluded that, as of such date, our disclosure controls and procedures are effective at a reasonable assurance level.

Changes in internal control

There were no changes in our internal control over financial reporting identified in management’s evaluation pursuant to Rules 13a-15(e) and 15d-15(e) of the Exchange Act during the period covered by this Quarterly Report on Form 10-Q that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on effectiveness of controls and procedures

None.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

Third parties may from time to time assert legal claims against us. Our industry is characterized by vigorous protection and pursuit of intellectual property rights. A number of companies hold a large number of patents that may cover technology necessary to our products. We have in the past received and expect to continue to receive claims by third parties that we infringe their intellectual property rights. In the opinion of management, we believe we have established adequate accruals pursuant to U.S. generally accepted accounting principles for any expected future liability with respect to pending lawsuits, claims and proceedings, where the nature and extent of any such liability can be reasonably estimated based on presently available information. However, there can be no assurance that the final resolution of any existing or future lawsuits, claims or proceedings will not have a material adverse effect on our business, results of operations, financial conditions, or cash flows.

For additional information, see Note 14 – Commitments and contingencies in the Notes to the Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q and Part I, Item 3. Legal Proceedings in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

Item 1A. Risk Factors.

There have been no material changes to the risk factors as disclosed in Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 except as discussed below. Additional risk and uncertainties, including risks and uncertainties not presently known to us, or that we currently deem immaterial, could also have an adverse effect on our business, financial condition and/or results of operations.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Not applicable.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

We have filed the exhibits listed on the accompanying Exhibit Index, which is incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Description
31.1*	Certification of Chief Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

* Filed herewith.

+ Indicates management contract or compensatory plan

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.

	Cambium Networks Corporation
Date: May 9, 2023	By: /s/ Atul Bhatnagar
	Atul Bhatnagar
	President and Chief Executive Officer
Date: May 9, 2023	By: /s/ Andrew P Bronstein
	Andrew P. Bronstein
	Chief Financial Officer

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Atul Bhatnagar, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cambium Networks Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 9, 2023

By: /s/ Atul Bhatnagar

Atul Bhatnagar
Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Andrew Bronstein, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cambium Networks Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 9, 2023

By: /s/ ANDREW P. BRONSTEIN

Andrew P. Bronstein
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Cambium Networks Corporation (the “Company”) on Form 10-Q for the period ended March 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 9, 2023

By: /s/ Atul Bhatnagar

Atul Bhatnagar
Chief Executive Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Cambium Networks Corporation (the "Company") on Form 10-Q for the period ended March 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 9, 2023

By: /s/ Andrew P. Bronstein
Andrew P. Bronstein
Chief Financial Officer