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, 2022

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 **(State or other jurisdiction of incorporation or organization)**	**Not Applicable** **(I.R.S. Employer Identification No.)**
c/o Cambium Networks, Inc. **3800 Golf Road, Suite 360** **Rolling Meadows, Illinois 60008** **(Address of principal executive offices, including zip code)**	**(345) 943-3100** **(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 2, 2022, the registrant had 26,827,554 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 impact of continued shutdowns related to COVID-19;
- the impact of the invasion of Ukraine by Russia and related sanctions imposed by Russia, Belarus and certain regions of Ukraine;
- the impact of geopolitical actions, including growing tensions between the U.S. and China;
- 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;
- the impact of continued shortages in supply of key components used in the manufacture of our products;
- 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 including the impact of the COVID-19 pandemic;
- 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;
- 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, 2021	March 31, 2022
ASSETS		
Current assets		
Cash	$ 59,291	$ 38,397
Receivables, net of allowances of $683 and $735	69,773	64,506
Inventories, net	33,777	40,210
Recoverable income taxes	860	468
Prepaid expenses	12,170	12,741
Other current assets	4,718	5,130
Total current assets	180,589	161,452
Noncurrent assets		
Property and equipment, net	10,490	10,732
Software, net	5,867	6,433
Operating lease assets	5,899	5,399
Intangible assets, net	10,777	10,357
Goodwill	9,842	9,842
Deferred tax assets, net	7,604	8,978
Other noncurrent assets	1,200	1,150
TOTAL ASSETS	$ 232,268	$ 214,343
LIABILITIES AND EQUITY		
Current liabilities		
Accounts payable	$ 28,241	$ 16,543
Accrued liabilities	21,948	25,016
Employee compensation	16,601	6,875
Current portion of long-term external debt, net	2,489	3,138
Deferred revenues	6,880	6,964
Other current liabilities	5,981	6,273
Total current liabilities	82,140	64,809
Noncurrent liabilities		
Long-term external debt, net	26,965	26,351
Deferred revenues	5,363	5,647
Noncurrent operating lease liabilities	4,112	3,574
Other noncurrent liabilities	1,551	1,554
Total liabilities	120,131	101,935
Shareholders' equity		
Share capital; $0.0001 par value; 500,000,000 shares authorized at December 31, 2021 and March 31, 2022; 26,892,082 shares issued and 26,735,175 outstanding at December 31, 2021 and 27,000,204 shares issued and 26,825,097 outstanding at March 31, 2022	3	3
Additional paid in capital	124,117	126,437
Treasury shares, at cost, 156,907 shares at December 31, 2021 and 175,107 shares at March 31, 2022	(3,906)	(4,321)
Accumulated deficit	(7,378)	(8,946)
Accumulated other comprehensive loss	(699)	(765)
Total shareholders' equity	112,137	112,408
TOTAL LIABILITIES AND EQUITY	$ 232,268	$ 214,343

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, 2021	Three Months Ended March 31, 2022
Revenues	$ 88,515	$ 61,896
Cost of revenues	44,345	32,730
Gross profit	44,170	29,166
Operating expenses		
Research and development	11,603	12,102
Sales and marketing	10,040	10,148
General and administrative	7,529	7,665
Depreciation and amortization	1,595	1,446
Total operating expenses	30,767	31,361
Operating income (loss)	13,403	(2,195)
Interest expense, net	1,140	497
Other expense, net	42	77
Income (loss) before income taxes	12,221	(2,769)
Benefit for income taxes	(7,639)	(1,201)
Net income (loss)	$ 19,860	$ (1,568)
Earnings (loss) per share		
Basic	$ 0.76	$ (0.06)
Diluted	$ 0.70	$ (0.06)
Weighted-average number of shares outstanding to compute net earnings (loss) per share		
Basic	26,115,615	26,749,675
Diluted	28,517,713	26,749,675
Share-based compensation included in costs and expenses:		
Cost of revenues	$ 19	$ 57
Research and development	517	1,022
Sales and marketing	295	627
General and administrative	579	714
Total share-based compensation	$ 1,410	$ 2,420

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

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

	Three Months Ended March 31,	
	2021	2022
Net income (loss)	$ 19,860	$ (1,568)
Other comprehensive loss		
Foreign currency translation adjustment	(65)	(66)
Comprehensive income (loss)	**$ 19,795**	**$ (1,634)**

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

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

	Three Months Ended March 31, 2021						
	Share Capital						
	Shares	Amount	Additional paid in capital	Treasury shares	Accumulated deficit	Accumulated other comprehensive loss	Total shareholders' equity
Balance at December 31, 2020	26,035	$ 3	$ 109,837	$ (1,090)	$ (44,799)	$ (564)	$ 63,387
Net income	—	—	—	—	19,860	—	19,860
Share-based compensation	—	—	1,259	—	—	—	1,259
Issuance of vested shares	121	—	—	—	—	—	—
Treasury shares withheld for net settlement	(41)	—	—	(2,011)	—	—	(2,011)
Share options exercised	184	—	1,971	—	—	—	1,971
Foreign currency translation	—	—	—	—	—	(65)	(65)
Balance at March 31, 2021	26,299	$ 3	$ 113,067	$ (3,101)	$ (24,939)	$ (629)	$ 84,401

	Three Months Ended March 31, 2022						
	Share Capital						
	Shares	Amount	Additional paid in capital	Treasury shares	Accumulated deficit	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)
Share options exercised	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

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, 2021	Three Months ended March 31, 2022
Cash flows from operating activities:		
Net income (loss)	$ 19,860	$ (1,568)
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation	863	870
Amortization of software and intangible assets	857	920
Amortization of debt issuance costs	137	77
Share-based compensation	1,410	2,420
Deferred income taxes	(6,367)	(1,373)
Provision for inventory excess and obsolescence	(709)	52
Other	(31)	81
Change in assets and liabilities:		
Receivables	(11,700)	6,152
Inventories	3,236	(6,485)
Prepaid expenses	(3,099)	(578)
Accounts payable	(6,777)	(12,109)
Accrued employee compensation	(6,003)	(10,276)
Accrued liabilities	2,221	2,129
Other assets and liabilities	(1,460)	463
Net cash used in operating activities	(7,562)	(19,225)
Cash flows from investing activities:		
Purchase of property and equipment	(814)	(714)
Purchase of software	(798)	(1,068)
Net cash used in investing activities	(1,612)	(1,782)
Cash flows from financing activities:		
Repayment of term loan	(2,500)	—
Taxes paid from shares withheld	(1,563)	(42)
Proceeds from share option exercises	1,971	146
Net cash (used in) provided by financing activities	(2,092)	104
Effect of exchange rate on cash	(24)	9
Net decrease in cash	(11,290)	(20,894)
Cash, beginning of period	62,472	59,291
Cash, end of period	$ 51,182	$ 38,397
Supplemental disclosure of cash flow information:		
Income taxes paid	$ 92	$ 116
Interest paid	$ 773	$ 95

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 October 28, 2011, Cambium acquired the point-to-point ("PTP") and point-to-multi-point ("PMP") businesses from Motorola Solutions, Inc. in an acquisition funded by investment funds affiliated with Vector Capital and Cambium Networks became the renamed entity subsequent to the acquisition. Cambium Networks completed an initial public offering of its ordinary shares and listed its ordinary shares on The NASDAQ Global Market in June 2019.

Cambium Networks Corporation and its wholly owned subsidiaries provide fixed wireless broadband and Wi-Fi networking infrastructure solutions that work for businesses, communities and cities worldwide. Cambium Networks' radios are deployed to connect people, places and things with a unified wireless fabric that spans multiple standards and frequencies of fixed wireless and Wi-Fi, all managed centrally via the cloud. The Company's solutions are deployed in networks by service providers, enterprises, industrial and government connectivity solutions in urban, suburban and rural environments.

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, 2022, and for the three-month periods ended March 31, 2021 and 2022, 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, 2022 and results of operations for the three-month periods ended March 31, 2021 and 2022 and cash flows for the three-month periods ended March 31, 2021 and 2022. The condensed consolidated balance sheet as of December 31, 2021 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 principals 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, 2021 included in the Company's annual report on Form 10-K and filed with the SEC on February 24, 2022. The results of operations for the three-month period ended March 31, 2022 are not necessarily indicative of the operating results to be expected for the full year.

Update to Significant Accounting Policies

There have been no material changes to the Company's significant accounting policies disclosed in the 2021 Form 10-K, Part II, Item 8.

Note 2. Fair value

The fair value of the Company's external debt under its BofA Credit Agreement (as defined below) approximates its carrying value due to the floating interest rate (Level 2 of the fair value hierarchy). The fair value of the Company's BofA Credit Agreement was $30.0 million and $30.0 million as of December 31, 2021 and March 31, 2022, respectively.

The fair value of cash approximates its carrying value (Level 1 of the fair value hierarchy)

Note 3. Balance sheet components

Inventories, net

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

	December 31, 2021	March 31, 2022
		(unaudited)
Finished goods	$ 31,991	$ 38,520
Raw materials	7,353	7,309
Gross inventory	39,344	45,829
Less: Excess and obsolete provision	(5,567)	(5,619)
Inventories, net	$ 33,777	$ 40,210

Accrued liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31, 2021	March 31, 2022
		(unaudited)
Accrued goods and services	$ 12,278	$ 12,479
Accrued inventory purchases	2,218	4,591
Accrued customer rebates	7,355	7,754
Other	97	192
Accrued liabilities	$ 21,948	$ 25,016

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, 2021	Three months ended March 31, 2022
		(unaudited)
Beginning balance	$ 1,714	$ 1,731
Fulfillment of assumed acquisition warranty	(216)	(34)
Provision increase, net	233	63
Ending balance	$ 1,731	$ 1,760

At March 31, 2022, $1.3 million is included in Other current liabilities and $0.5 million is included in Other noncurrent liabilities on the Company’s condensed consolidated balance sheet.

Note 4. Property and equipment

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

	Useful Life	December 31, 2021	March 31, 2022
			(unaudited)
Equipment and tooling	3 to 5 years	$ 29,621	$ 30,534
Computer equipment	3 to 5 years	3,835	3,967
Furniture and fixtures	10 years	844	839
Leasehold improvements	2 to 3 years	457	453
Total cost		34,757	35,793
Less: Accumulated depreciation		(24,267)	(25,061)
Property and equipment, net		$ 10,490	$ 10,732

Total depreciation expense was $0.9 million and $0.9 million for the three-month periods ended March 31, 2021 and 2022, respectively.

Note 5. Software

Software consisted of the following (in thousands):

		December 31, 2021			March 31, 2022		
	Useful Life	Gross carrying amount	Accumulated amortization	Net balance	Gross carrying amount (unaudited)	Accumulated amortization (unaudited)	Net balance (unaudited)
Acquired and Software for internal use	3 to7 years	$ 15,855	$ (14,907)	$ 948	$ 15,873	$ (15,059)	$ 814
Software marketed for external sale	3 years	7,164	(2,245)	4,919	8,208	(2,589)	5,619
Total		$ 23,019	$ (17,152)	$ 5,867	$ 24,081	$ (17,648)	$ 6,433

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 $0.2 million for the three-month periods ended March 31, 2021 and 2022, respectively.

Amortization expense recognized on software to be sold or marketed externally was $0.1 million and $0.3 million for the three-month periods ended March 31, 2021 and 2022, respectively, and is included in cost of revenues on the condensed consolidated statements of operations.

Based on capitalized software assets at March 31, 2022, 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
2022 (April - December)	$ 317	$ 1,254	$ 1,571
2023	229	1,857	2,086
2024	122	1,396	1,518
2025	72	1,091	1,163
2026	68	21	89
Thereafter	6	—	6
Total amortization	$ 814	$ 5,619	$ 6,433

Note 6. Goodwill and Intangible Assets

When the Company acquired the trade assets of Motorola Solutions, Inc.'s wireless point-to-point and point-to-multi-point businesses in 2011, the transaction generated goodwill and certain intangible assets. The goodwill associated with this transaction was recorded by Cambium Networks Corporation and allocated to Cambium Networks, Ltd. and Cambium Networks, Inc. using a revenue and asset allocation method. Although goodwill has been allocated to two operating subsidiaries, the Company operates as one operating segment and one reporting unit and therefore, goodwill is reported, and impairment testing performed, at the Cambium Networks Corporation consolidated level.

There was no change in the carrying amount of goodwill during the three-month period ended March 31, 2022 (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 the coronavirus (or 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.

Qualitative assessments for the quarter did not indicate the existence of impairment indicators. Based on the operating results for the three-month period ended March 31, 2022 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, 2022 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, 2021			March 31, 2022		
	Useful Life	Gross carrying amount	Accumulated amortization	Net balance	Gross carrying amount	Accumulated amortization	Net balance
					(unaudited)	(unaudited)	(unaudited)
Unpatented technology	3 - 7 years	$ 14,660	$ (14,555)	$ 105	$ 14,660	$ (14,600)	$ 60
Customer relationships	5 - 18 years	19,300	(8,628)	10,672	19,300	(9,003)	10,297
Patents	7 years	11,300	(11,300)	—	11,300	(11,300)	—
Trademarks	10 years	5,270	(5,270)	—	5,270	(5,270)	—
Total		$ 50,530	$ (39,753)	$ 10,777	$ 50,530	$ (40,173)	$ 10,357

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 $0.6 million and $0.4 million for the three-month periods ended March 31, 2021 and 2022, respectively.

Based on capitalized intangible assets as of March 31, 2022, estimated amortization expense amounts in future fiscal years are as follows (unaudited and in thousands):

Year ending December 31,	Amortization
2022 (April - December)	$ 1,183
2023	1,498
2024	1,498
2025	1,498
2026	1,498
Thereafter	3,182
Total amortization	$ 10,357

Note 7. Debt

As of March 31, 2022, the Company had $30.0 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, 2021 and March 31, 2022 (in thousands):

	December 31, 2021	March 31, 2022
		(unaudited)
Term loan facility	$ 30,000	$ 30,000
Less debt issuance costs	(546)	(511)
Total debt	29,454	29,489
Less current portion of term facility	(2,625)	(3,281)
Current portion of debt issuance costs	136	143
Total long-term external debt, net	$ 26,965	$ 26,351

Secured credit agreement

The Company is currently operating under is 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 with a six (6) month interest period. 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 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, 2022, the applicable margin was 1.75% and the effective interest rate on the term loan was 2.44%. 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, 2022. 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.

Under the BofA Credit Agreement, commencing on March 31, 2022, 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 principal payment of $0.7 million that was due on March 31, 2022 was paid on April 1, 2022. 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, 2022 is as follows (unaudited and in thousands):

Year ending December 31,		
2022 (April - December)	$	2,625
2023		2,625
2024		2,625
2025		2,625
2026		19,500
Total	$	30,000

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 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, 2022, 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 $1.1 million and $0.5 million for the three-month periods ended March 31, 2021 and 2022, 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, but the remaining five US Dollar LIBOR tenors (overnight and 1-month, 3-month, 6-month and 12-month) will not cease until 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 bench mark 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 applicate rates and additionally allows for the Company to switch to a Base Rate Loan, as defined in the BofA Credit Agreement. The Company will continue to actively assess the related opportunities and risks involved in this transition.

Note 8. 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 $0.6 million and $0.5 million for the three-month periods ended March 31, 2021 and 2022, 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, 2021 and 2022, respectively.

Note 9. Other expense, net

Net other expense was $0.0 million and $0.1 million for the three-month periods ended March 31, 2021 and 2022, respectively, and represents foreign exchange gains and losses.

Note 10. 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 February 25, 2022, 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 its 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, 2022 (unaudited):

	Number of shares
Available for grant at December 31, 2021	1,853,240
Added to 2019 Share Incentive Plan	1,320,000
RSUs granted	(8,606)
Options granted	—
Shares withheld in settlement of taxes and/or exercise price	18,200
Forfeitures	4,916
Available for grant at March 31, 2022	3,187,750

Share-based compensation

The following table shows total share-based compensation expense for the three-month periods ended March 31, 2021 and 2022 (unaudited and in thousands):

	Three Months Ended March 31,	
	2021	2022
Cost of revenues	$ 19	$ 57
Research and development	517	1,022
Sales and marketing	295	627
General and administrative	579	714
Total share-based compensation expense	$ 1,410	$ 2,420

For the three-month periods ended March 31, 2021 and 2022, the Company recorded corresponding income tax benefits of $1.3 million and $0.1 million, respectively.

As of March 31, 2022, the Company estimates the pre-tax unrecognized compensation expense of $15.8 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 2026. 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, 2022 for estimating the forfeitures of share options and restricted share units granted.

Share options

The following is a summary of option activity for the Company's share incentive plans for the three-month period ended March 31, 2022 (unaudited):

	Options	Weighted average exercise price	Weighted Average remaining contractual term (years)	Aggregate intrinsic value
Outstanding at December 31, 2021	2,797,992	$ 12.64	7.9	$ 38,295,799
Options granted	—	$ —	—	$ —
Options exercised	(14,268)	$ 10.23	—	$ —
Options forfeited	(750)	$ 12.00	—	$ —
Outstanding at March 31, 2022	2,782,974	$ 12.66	7.7	$ 32,758,640
Options exercisable at March 31, 2022	1,505,502	$ 11.88	7.6	$ 18,253,275
Options vested and expected to vest at March 31, 2022	2,740,776	$ 12.64	7.7	$ 32,237,845

Share options typically have a contractual term of ten years from grant date.

At March 31, 2022, the aggregate intrinsic value of options exercisable under the Company's share incentive plans was $18.3 million. The Company had 14,268 options exercised during the three-month period ended March 31, 2022.

At March 31, 2022, there was $7.5 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 first quarter of 2025.

The fair value of options granted are estimated on the date of grant using the Black-Scholes option pricing model. The fair value of share options is being amortized on a straight-line basis over the requisite service period of the awards. The fair value of share options is estimated using the following weighted-average assumptions (unaudited):

	Three Months Ended March 31,	
	2021	2022
Expected dividend yield	—	—
Risk-free interest rate	1.14%	N/A
Weighted-average expected volatility	50.9%	N/A
Expected term (in years)	6.5	N/A
Weighted average grant-date fair value per share of options granted	$ 21.36	N/A

For the three-month period ended March 31, 2022 the weighted-average assumptions are not applicable as there were no share options granted in the period.

Restricted shares

The following is a summary of restricted shares activity for the Company's share incentive plan for the three-month period ended March 31, 2022 (unaudited):

	Units	Weighted average grant date fair value
RSU balance at December 31, 2021	547,343	$ 22.47
RSUs granted	8,606	$ 23.80
RSUs vested	(93,854)	$ 28.98
RSUs forfeited	(4,166)	$ 40.25
RSU balance at March 31, 2022	457,929	$ 21.00

During the three-month period ended March 31, 2022, 8,606 RSUs were granted under the Company's 2019 Share Incentive Plan and 93,854 RSUs vested. The Company withheld 18,200 of those shares to pay the employees' portion of the minimum payroll withholding taxes.

As of March 31, 2022, there was $8.3 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 2026.

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, 2022 and runs through June 30, 2022. 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 267,352 additional shares on February 25, 2022.

For both the three-month periods ended March 31, 2021 and 2022, the Company recognized $0.2 million of share-based compensation expense related to the ESPP.

Note 11. Share capital - shares

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

	Number of shares	Par value (in thousands)
Balance at December 31, 2021	26,735,175	$ 3
Issuance of vested shares	93,854	—
Share options exercised	14,268	—
Shares withheld for net settlement of shares issued	(18,200)	—
Balance at March 31, 2022	26,825,097	$ 3

As of March 31, 2022, no dividends have been declared or paid.

Note 12. 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, RSAs, 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,	
	2021	2022
Numerator:		
Net income (loss)	$ 19,860	$ (1,568)
Denominator:		
Basic weighted average shares outstanding	26,115,615	26,749,675
Dilutive effect of share option awards	1,948,192	—
Dilutive effect of restricted share units and restricted share awards	441,581	—
Dilutive effect of employee share purchase plan	12,325	—
Diluted weighted average shares outstanding	28,517,713	26,749,675
Net earnings (loss) per share, basic	$ 0.76	$ (0.06)
Net earnings (loss) per share, diluted	$ 0.70	$ (0.06)

The following outstanding shares of ordinary share equivalents were excluded from the computation of diluted net loss per share for the periods presented as including them would have had an anti-dilutive effect (unaudited and in thousands):

	Three Months Ended March 31,	
	2021	2022
Share options	4	116
Restricted shares (RSUs and RSAs)	12	252
Total	16	368

Note 13. 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 $7.6 million and $1.2 million for the three-month periods ended March 31, 2021 and 2022, with an effective tax rate of (62.5)% and 43.4%, respectively. In the three-month period ended March 31, 2021, the effective tax rate of (62.5)% was primarily due to the Company's release of a valuation allowance against the loss carryforwards in the Company's UK entity and tax benefits arising on employee restricted share vesting and option exercises. For the three-month period ended March 31, 2022, the effective tax rate of 43.4% did not benefit from the release of a valuation allowance, as all of the remaining valuation allowance on the UK NOL was released in the first quarter of 2021. For the three-month period ended March 31, 2022, the Company's 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.

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.

In the first quarter of 2021, management concluded that all of the valuation allowance on the Company's UK entity's deferred tax assets was no longer needed. This was primarily due to a 12-quarter cumulative income through the first quarter of 2021 and the forecast of future taxable income. Accordingly, management recognized in 2021 a non-recurring tax benefit of $7.7 million related to the valuation allowance reversal. As of March 31, 2022, the Company continues to believe it is more likely than not that the net deferred tax assets will be realized by its UK entity.

Note 14. 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.

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 15. 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 16. Revenues from contracts with customers

Revenues consist primarily of revenues from the sale of hardware products with essential embedded software. Revenues also include limited 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,			
	2021		2022	
Point-to-Multi-Point	$ 57,799	65 %	$ 30,926	50 %
Point-to-Point	17,476	20 %	14,714	24 %
Wi-Fi	12,123	14 %	15,508	25 %
Other	1,117	1 %	748	1 %
Total Revenues	$ 88,515	100 %	$ 61,896	100 %

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,			
	2021		2022	
North America	$ 54,195	61 %	$ 28,321	46 %
Europe, Middle East and Africa	18,690	21 %	20,332	33 %
Caribbean and Latin America	10,515	12 %	5,084	8 %
Asia Pacific	5,115	6 %	8,159	13 %
Total Revenues	$ 88,515	100 %	$ 61,896	100 %

Contract balances

The following table summarizes contract balances as of December 31, 2021 and March 31, 2022 (in thousands):

	December 31, 2021	March 31, 2022 (unaudited)
Trade accounts receivable, net of allowance for credit losses	$ 68,788	$ 63,565
Deferred revenue - current	6,880	6,964
Deferred revenue - noncurrent	5,363	5,647
Refund liability	$ 2,516	$ 2,755

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, 2021 and one customer representing more than 10% of trade receivables at March 31, 2022.

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, 2021, deferred revenue (current and noncurrent) of $12.2 million represents the Company’s remaining performance obligations, of which $6.9 million is expected to be recognized within one year, with the remainder to be recognized thereafter. As of March 31, 2022, deferred revenue (current and noncurrent) of $12.6 million represents the Company’s remaining performance obligations, of which $7.0 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, 2022 which was previously included in deferred revenues as of December 31, 2021 was $2.2 million, compared to $1.7 million of revenue recognized during the three-month period ended March 31, 2021, which was previously included in deferred revenues as of December 31, 2020 (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 17. 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,	
	2021	2022
Operating lease cost	$ 664	$ 609
Short-term lease cost	72	134
Variable lease costs	123	143
Total lease expense	$ 859	$ 886

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

	Balance Sheet Caption	December 31, 2021	March 31, 2022 (unaudited)
Operating leases:			
Operating lease assets	Operating lease assets	$ 5,899	$ 5,399
Current lease liabilities	Other current liabilities	$ 2,116	$ 2,119
Noncurrent lease liabilities	Noncurrent operating lease liabilities	$ 4,112	$ 3,574
Weighted average remaining lease term (years):			
Operating leases		3.35	3.17
Weighted average discount rate:			
Operating leases		6.15 %	6.12 %

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

	Three Months Ended March 31,	
	2021	2022
Supplemental cash flow information:		
Cash paid for amounts included in the measurement of lease liabilities	$ 698	$ 674

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, 2022 is as follows (unaudited and in thousands):

	Operating leases
2022 (April - December)	$ 1,836
2023	2,096
2024	1,079
2025	836
2026	410
Thereafter	—
Total lease payments	6,257
Less: interest	564
Present value of lease liabilities	$ 5,693

As of March 31, 2022, the Company does not have any leases that have not yet commenced.

Note 18. 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 periods ended March 31, 2021 and 2022, the Company did not have any 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, 2021, filed February 24, 2022. Results for the three-month period ended March 31, 2022 are not necessarily indicative of the results that may be expected for any period in the future.

Overview

We provide fixed wireless broadband and Wi-Fi networking infrastructure solutions for network operators, including medium-sized wireless internet service providers, enterprises, mobile network operators and government agencies, communities and cities worldwide. Our scalable, reliable, and high-performance solutions enable the creation of a purpose-built wireless fabric that connects people, places and things with a unified wireless fabric that spans multiple standards and frequencies of fixed wireless and Wi-Fi, all managed centrally via the cloud, deployed indoors and outdoors. Our multi-gigabit wireless fabric offers a compelling value proposition to traditional fiber and alternative wireless solutions mobile infrastructure.

Our wireless fabric includes intelligent radios, smart antennas, radio frequency algorithms, wireless-aware switches and our on-premises or cloud-based network management software. Our embedded proprietary RF technology and software enables automated optimization of data flow at the outermost points in the network, which we refer to as the "intelligent edge". This intelligent edge offers network operators increased performance, visibility, control and management, as well as the ability to efficiently transfer large amounts of data back to enterprise data centers for fast and efficient analysis and decision-making even in conditions characterized by a high degree of interfering signals generated both within the network and from outside sources, which we refer to as noise. Our products support licensed and unlicensed spectrum, tailored for many frequency bands. We provide deep technical and operational expertise based on years of deploying networks, resulting in ease of use of our products, and all Cambium Networks solutions are backed by our global organization that provides support services tailored to meet the business needs of our end users.

We were formed in 2011 when Cambium Networks acquired the Point-to-Point, or PTP, and Point-to-Multi-Point, or PMP, businesses from Motorola Solutions. Prior to the acquisition, Motorola Solutions had invested over a decade in developing the technology and intellectual property assets that formed the foundation of our business, having launched the Canopy PMP business in 1999 and having acquired the Orthogon Systems PTP business in 2006. Following the acquisition, we renamed the business Cambium Networks and we leveraged the technology to continue to develop and offer an extensive portfolio of reliable, scalable and secure enterprise-grade fixed wireless broadband PTP and PMP platforms, Wi-Fi, switch and IIoT solutions.

We offer our fixed wireless broadband and Wi-Fi solutions in three categories:

- PTP: We offer PTP solutions designed to operate in licensed and unlicensed spectrum from 220 MHz to 6.05 GHz and in licensed spectrum from 6-38 and 71-86 GHz. In addition, our PTP 700 operates in NATO Band IV from 4.4-5.9 GHz, as well as in the 7 GHz and 8 GHz bands, and meets stringent federal operating, performance and security standards. The mainstay of our backhaul offering is the PTP 670 for commercial applications and PTP 700 for defense and national security applications. In addition, our PTP 820 and PTP 850 series offer carrier-grade microwave backhaul in licensed spectrum, and our PTP 550 offers price-performance leadership in spectral efficiency in sub-6 GHz unlicensed spectrum. In addition to dedicated point-to-point platforms, as technology has evolved, solutions have developed that, while principally supporting point-to-multi-point architectures, also support point-to-point applications, including the 60 GHz cnWave v3000 Client Node and the ePMP Force 425. Revenues from these products are included in the PMP product category in our revenues by product category reporting, as that is their primary application.
- PMP: Our PMP portfolio ranges from our top-of-the-line PMP 450 series to our ePMP solutions for network operators that need to optimize for both price and performance to our cnReach family of narrow-bandwidth connectivity products for industrial communications. The PMP 450 series is optimized for performance in high-density and demanding physical environments, and includes the PMP 450m with integrated cnMedusa massive multi-user multiple input multiple output, or MU-MIMO, technology. The PMP 450 product line also supports the FCC's Citizen Broadband Radio Service, or CBRS. PMP provides a high-quality platform at a more affordable price for less demanding environments. The ePMP 3000 supports 4x4 MU-MIMO and is complemented by a broad portfolio of ePMP Force 300 subscriber radios. The FCC and other regulatory bodies around the world have begun to release the 6 GHz band, ranging from 5825 MHz to 7125 MHz, to unlicensed us in indoor and outdoor applications. We have commenced development on both the PMP 450 and the ePMP platform to take advantage of this new spectrum offering. cnRanger, our Fixed LTE solution, operates in the 2 GHz (Bands 38, 40, 41) and 3 GHz (Bands 42, 43, 48). Like the PMP 450 platform, the 3 GHz cnRanger solution supports the CRBS service, while the 2 GHz bands support the FCC's Educational Broadband Service, or EBS, classification. cnReach products enable IIoT applications, such as supervisory control and data acquisition, or SCADA, processes in the oil and gas, electric utility, water, railroad and other industrial settings. In the fourth quarter of 2020, we began shipping our 60 GHz solution, cnWave, which enables Gbps networking using the 60 GHz band and includes Meta's Terragraph technology. We

commenced commercial shipment of our fixed 5G platform, 28 GHz cnWave, operating from 24.25 to 29.50 GHz, encompassing the 3GPP 5G channels N257, N258 and N261 in March of 2022.

- Wi-Fi: Our Wi-Fi portfolio includes our cnPilot cloud-managed Wi-Fi solutions, our cnMatrix cloud-managed wireless-aware switching solution, our Xirrus Wi-Fi solutions, and our Wi-Fi 6 portfolio of Wi-Fi 6 access points which support both cnMaestro and Xirrus XMS management. cnPilot is for indoor and outdoor enterprise, small business, and home applications and offers a range of Wi-Fi access points and RF technology that enable network optimization based on desired geographic coverage and user density. cnMatrix provides the intelligent interface between wireless and wired networks. cnMatrix's policy-based configuration accelerates network deployment, mitigates human error, increases security, and improves reliability. Xirrus has a portfolio of high-performance enterprise Wi-Fi access points and cloud-based subscription services. In June 2020, we introduced our first Wi-Fi 6 access point, the XV3-8, which supports both cnPilot and Xirrus solutions. In January 2021, we announced our XE series, which incorporates Wi-Fi 6E, support of the 6 GHz band, and we commenced shipment in the first quarter of 2022. Additional Wi-Fi 6 access points are under development and will be released throughout 2022. In the first quarter of 2021, we introduced and began shipping the cnMatrix TX 2020R-P. The TX 2020R-P is the first in a series of switches designed specifically to support PMP and PTP fixed wireless broadband networks, incorporating the cnMatrix enterprise-class feature set and incorporating additional features and services pertinent to network operators deploying fixed wireless broadband networks. The TX 2012R-P was introduced in April of 2021 and with the December 2021 introduction of the TX 2028RF-P, we have a comprehensive portfolio of switches to support our range of PMP and PTP network operators, complimenting the EX series intended to support enterprise Wi-Fi networks.

We generate a substantial majority of our sales through our global channel distribution network, including, as of March 31, 2022, approximately 170 distributors that we sell to directly, together with over 11,200 value added resellers and system integrators supplied by these distributors for further sales to end-users. Our channel partners provide lead generation, pre-sales support and product fulfillment, and with professional services for network design, installation, commissioning and on-going field support. Although we fulfill sales almost exclusively through our channel partners, through our global sales team we engage directly with network operators in our key vertical markets including service providers, enterprises, industrials, defense and national security entities, and state and local governments. Our sales team responds to bids or requests for quotes, typically in collaboration with a channel partner. Our distributors carry inventory of our products for resale, and generally have stock rotation rights only if they simultaneously place an off-setting order for product. As such, we generally recognize revenue from sales to distributors on a sell-in basis, and manage our finished goods inventory to plan for distributor demand.

We outsource production of our products to third-party manufacturers, who are responsible for purchasing and maintaining inventory of components and raw materials and, in certain cases, we resell third-party products on a white-label basis. We believe that this approach gives us the advantages of relatively low capital investment and significant flexibility in scheduling production, managing inventory levels and providing a comprehensive solution to meet network operator demand. The majority of our products are delivered to us at one of three distribution hubs, where we have outsourced the warehousing and delivery of our products to a third-party logistics provider and from which we manage worldwide fulfillment.

Trends impacting our business

Component shortages and increased freight costs

We remain constrained by the global component part shortages, particularly the shortage in available semiconductor chipsets and related components, as the global integrated circuit supply is under pressure as demand surpasses supply capacity, causing foundries to allocate existing supply among their customers. Near term supply chain constraints have continued and in some areas worsened. These supply constraints are occurring at a time of increasing demand for us and others globally, further exacerbating the supply constraint. As a result, we are experiencing increased lead times for the supply of many of our products, impacting our ability to timely supply our customers. In particular, semiconductor chips and merchant silicon and related semiconductor parts are currently in high demand with limited supply, which is resulting in significantly longer than usual lead times and increased costs for these components. We have encountered, and are likely to continue to encounter, shortages and delays in obtaining these and other components, and this could have a material adverse effect on our ability to meet customer orders. Shortages are expected throughout 2022. In addition, such shortages or delays are resulting in increased component and delivery costs, as suppliers raise the cost of components. We have also experienced price increases in base commodities, impacting component pricing generally and in particular for electromechanical commodities. These component shortages and increases in costs have impacted, and are expected to continue to impact, our sales and revenues, and our gross margins and net income. In addition, if we are required to continue to make prepayments to our suppliers to procure inventory, this could further reduce working capital.

Logistics challenges remain as well, as container shortages continue to lengthen availability times of containers and carriage, resulting in increases in relevant freight costs, all at a time when demand across many of our product lines has increased, together with increasing demand for shipment of many other products globally. Ports have increasing lead times with delays becoming commonplace in the container freight market as port delays, worker shortages and the impact of COVID-19 are impacting the ability to import and export goods, particularly from China. Logistics and freight costs are increasing substantially as a result. We are also experiencing increasing rates, resulting in increased use of expedited freight modes due to supply shortages. The use of expedited freight modes has increased our cost of revenues, resulting in a decrease in our gross margins, and is expected to continue in the short term.

COVID-19

The impact of the COVID-19 pandemic, and the disruption to our business and operations as well as the operations of our customers and suppliers, increased over the first quarter of 2022, as China experienced an increase in COVID-19 cases resulting in government shutdowns in Shenzhen, where the Company has some third-party manufacturers, and in Shanghai, where the Company has distribution and warehouse facilities. As a result of these shutdowns, the Company experienced, and is expected to continue to experience, delays in manufacturing, particularly of certain Wi-Fi and ePMP products, and in distribution and warehousing of our products, as well as an increase in costs as the Company deploys alternative methods of distribution. These shutdowns negatively impacted our manufacturing supply as well as our ability to ship finished products to our customers. If these shutdowns continue or increase, our revenues and results of operations will continue to be negatively impacted.

The extent of the continued impact of the COVID-19 pandemic on our operational and financial performance will depend on future developments, including the duration, severity and spread of the pandemic, government shutdowns particularly in China, and related restrictions on travel and transportation and other actions that may be taken by governmental authorities and the impact to the business of our suppliers or customers, all of which are uncertain and cannot be predicted.

With respect to liquidity, we believe our balance sheet will provide us the necessary capital to navigate the COVID-19 pandemic. During 2021, we continued to enforce several initiatives to conserve cash and optimize profitability, including limiting discretionary spending, eliminating non-essential travel, delaying or reducing hiring activities, and deferring certain discretionary capital expenditures. In the first quarter of 2022, we saw a recovery of limited business travel to support our partners, customers and suppliers, and we expect continued recovery throughout 2022.

Impact of war in Ukraine

As a result of the invasion of Ukraine by Russia, and the subsequent sanctions imposed by the governments of the United States, England and the European Union, among others, against Russia, Belarus, the Donetsk People's Republic (DNR) and Luhansk People's Republic (LNR) regions of Ukraine (to complement the existing sanctions in Crimea), certain Russian banks and certain named individuals, the Company has ceased the sale of its products, services and technology in these regions, resulting in an adverse impact to our revenues. If the sanctions continue or increase, or if tensions with Russia escalate, the Company may continue to experience general business uncertainty that negatively impacts demand in several of our markets and may adversely impact the business of our suppliers or customers, all of which are uncertain and cannot be predicted.

Digital transformation and new product introductions

While enterprises and governments continue to look to digital transformation to improve operations by harnessing new technologies, software and applications, our revenues have been impacted by the component shortages and freight and logistics delays referenced above, impacting our ability to manufacture and ship products according to orders. Enterprises seek to gain analytics and improve security and risk, while governments seek to connect more of the unconnected, including people, places (such as schools and government buildings) and things (such as meters, valves, doors, cameras), as well as to enable digital education, digital economy and digital currency. Each of these digital transformation objectives are underpinned by the need for increased connectivity, as employees, customers and others must be able to access the enterprise network securely from anywhere. As a result, we continue to see increased interest in connection with our wireless broadband solutions for customers accessing the CBRS band where we have benefitted from investments we have made over the past few years in fixed wireless infrastructure technologies in such areas as PMP, including CBRS-compatible products in the U.S. We have also seen increases in interest from our new opportunities such as gigabit wireless solutions with our 60 GHz cnWave millimeter wave products, our enterprise Wi-Fi 6, and cloud-enabled wireless switching products which enable higher speed connectivity (gigabits per second) and can be very rapidly deployed with a lot of flexibility to keep pace with the network demand these digital transformations are presenting. In the U.S., the first phase of the Rural Digital Opportunity Fund, or RDOF, launched by the Federal Communications Commission, or FCC, is expected to accelerate the provision of high-speed broadband service to millions of underserved communities in the U.S. over the next ten years, as well as the Infrastructure Investment and Jobs Act and other national and state funded initiatives to extend and expand broadband access to citizens and businesses.

International trade

A substantial portion of our Wi-Fi products are manufactured in China, and over the first quarter of 2022 we were impacted by government shutdowns due to rising COVID-19 cases in China, including shutdowns impacting our third-party manufacturers as well as shutdowns to our third-party distribution and logistics provider, impacting our ability to ship products to our customers. In addition, we continue to monitor tensions between the U.S. and China and their potential impact on our ability to produce and ship our products. Should tensions escalate, our ability to manufacture our products in China could be affected, causing disruption in our supply chain, and requiring us to seek other sources of supply, as well as other locations from which to distribute our products.

Financial results for the three-month period ended March 31, 2022

- Total revenue was $61.9 million, a decrease of 30.1% year-over-year
- Gross margin was 47.1%
- Total costs of revenues and operating expenses were $64.1 million
- Operating loss was $2.2 million
- Net loss was $1.6 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 limited 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, provision for excess and obsolete inventory, third-party license costs and third-party costs related to services we provide. Cost of revenues also includes share-based compensation expense and the amortization of capitalized development costs on software marketed for sale.

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. Generally, our gross margins on backhaul and access point products are greater than those on our customer premise equipment, or CPE, products. Because the ratio of CPE to PTP and PMP access points typically increases as network operators build out the density of their networks, increases in follow-on sales to network operators as a percentage of our total sales typically have a downward effect on our overall gross margins. Finally, 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 and recruiting. 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, which 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. In 2022, we expect research and development costs to continue to increase as COVID restrictions are lifted and we increase the size of our research and development organization as we continue to invest in our future products and services.

Sales and marketing

In addition to personnel 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, and recruiting. In 2022, we expect sales and marketing expense to continue to increase as COVID restrictions are lifted and we increase the size of our sales, marketing, service, and product line management organization in support of our growth, conduct and attend in person marketing events, and, in particular, as we continue to expand our global distribution network.

General and administrative

In addition to personnel costs, general and administrative expense consists of professional fees, such as legal, audit, accounting, information technology and consulting costs, insurance, facilities and other supporting overhead costs. We expect general and administrative expense to remain flat as we continue to enforce several initiatives to conserve cash and improve profitability.

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. As we have expanded our international operations, we have incurred additional foreign tax expense, and we expect this to continue. 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):

(in thousands)	Three months ended March 31, 2021	2022
Statements of Operations Data:		
Revenues	$ 88,515	$ 61,896
Cost of revenues	44,345	32,730
Gross profit	44,170	29,166
Operating expenses		
Research and development	11,603	12,102
Sales and marketing	10,040	10,148
General and administrative	7,529	7,665
Depreciation and amortization	1,595	1,446
Total operating expenses	30,767	31,361
Operating income (loss)	13,403	(2,195)
Interest expense, net	1,140	497
Other expense, net	42	77
Income (loss) before income taxes	12,221	(2,769)
Benefit for income taxes	(7,639)	(1,201)
Net income (loss)	**$ 19,860**	**$ (1,568)**

	Three months ended March 31, 2021	2022
Percentage of Revenues:		
Revenues	100.0 %	100.0 %
Cost of revenues	50.1 %	52.9 %
Gross margin	49.9 %	47.1 %
Operating expenses		
Research and development	13.1 %	19.5 %
Sales and marketing	11.4 %	16.4 %
General and administrative	8.5 %	12.4 %
Depreciation and amortization	1.8 %	2.3 %
Total operating expenses	34.8 %	50.6 %
Operating income (loss)	15.1 %	(3.5)%
Interest expense, net	1.3 %	0.8 %
Other expense, net	0.0 %	0.1 %
Income (loss) before income taxes	13.8 %	(4.4)%
Benefit for income taxes	(8.6)%	(1.9)%
Net income (loss)	22.4 %	(2.5)%

Comparison of three-month period ended March 31, 2021 to the three-month period ended March 31, 2022

Revenues

(dollars in thousands)	Three months ended March 31, 2021	2022	Change $	%
Revenues	$ 88,515	$ 61,896	$ (26,619)	(30.1)%

Revenues decreased $26.6 million, or 30.1%, to $61.9 million for the three-month period ended March 31, 2022 from $88.5 million for the three-month period ended March 31, 2021, with the largest decrease in our point-to-multi-point product category. Revenues for the three-month period ended March 31, 2022 were negatively impacted by global supply and distribution constraints affecting the procurement and shipment of products, namely the Chinese government COVID lockdown in Shenzhen which impacted manufacturing during the middle of March, and a lockdown in Shanghai during the last two weeks in March which closed our distribution and warehousing facility. Although revenues decreased, we continue to increase in the number of channel partners, which consists of over 11,200 channel partners as of March 31, 2022.

Revenues by product category

(dollars in thousands)	Three months ended March 31, 2021	2022	Change $	%
Point-to-Multi-Point	$ 57,799	$ 30,926	$ (26,873)	(46.5)%
Point-to-Point	17,476	14,714	(2,762)	(15.8)%
Wi-Fi	12,123	15,508	3,385	27.9%
Other	1,117	748	(369)	(33.0)%
Total revenues by product category	$ 88,515	$ 61,896	$ (26,619)	(30.1)%

Point-to-Multi-Point

Our PMP revenues decreased $26.9 million, or 46.5%, from the three-month period ended March 31, 2021 to 2022, and represented 65% and 50% of our total revenues over the same periods, respectively. Decreases in point-to-multi-point revenues in North America drove most of the decline as supply constraints due to the lockdowns in China negatively impacted our ability to procure and ship product.

Point-to-Point

PTP revenues decreased $2.8 million, or 15.8%, from the three-month period ended March 31, 2021 to 2022 mostly driven by decreased sales in North America as a result of lower demand for backhaul products.

Wi-Fi

Wi-Fi revenues increased $3.4 million, or 27.9%, from the three-month period ended March 31, 2021 to 2022. Wi-Fi revenues improved in our Europe, Middle East, Africa and Asia Pacific regions with new Wi-Fi 6 and switching products benefitting the portfolio. However, Wi-Fi revenues were negatively impacted in the first quarter of 2022 due to the lockdowns in China impacting our ability to procure and ship product along with the continued semiconductor and other component shortages.

Revenues by geography

(dollars in thousands)	Three months ended March 31, 2021	2022	Change $	%
North America	$ 54,195	$ 28,321	$ (25,874)	(47.7)%
Europe, Middle East, Africa	18,690	20,332	1,642	8.8%
Caribbean and Latin America	10,515	5,084	(5,431)	(51.7)%
Asia Pacific	5,115	8,159	3,044	59.5%
Total revenues by geography	$ 88,515	$ 61,896	$ (26,619)	(30.1)%

Revenues decreased in North America and Caribbean and Latin America regions, with increased revenues in Europe, Middle East, Africa and Asia Pacific from the three-month period ended March 31, 2021 to March 31, 2022. All regions were impacted by supply constraints due to the lockdown in China, negatively impacting our manufacturing as well as our distribution and warehousing facilities. North America revenues decreased $25.9 million, or 47.7%, primarily due to supply constraints impacting PMP revenues along with lower PTP revenues driven by lower demand for backhaul products. Caribbean and Latin America revenues decreased $5.4 million, or 51.7%, mostly due to lower PMP revenues. Europe, Middle East, Africa revenues grew by $1.6 million, or 8.8%, mostly related to higher Wi-Fi revenues. Asia Pacific revenues increased $3.0 million, or 59.5%, mostly due to higher PTP revenues along with higher Wi-Fi revenues as a result of increased and larger sales.

Cost of revenues and gross margin

(dollars in thousands)	Three months ended March 31, 2021	2022	Change $	%
Cost of revenues	$ 44,345	$ 32,730	$ (11,615)	(26.2)%
Gross margin	49.9%	47.1%		(280) bps

Cost of revenues decreased $11.6 million, or 26.2%, to $32.7 million for the three-month period ended March 31, 2022 from $44.3 million for the three-month period ended March 31, 2021. The decrease in cost of revenues was primarily due to decreased revenues. In addition, cost of revenues was impacted by higher duty and freight costs as a result of material shortages and COVID-19 surcharges, as well as increases in freight and logistics charges as a result of cost increases due to container shortages, use of other distribution, shipment and transportation modes, and increases in costs by logistics and freight providers to meet the high global demand.

Gross margin decreased to 47.1% for the three-month period ended March 31, 2022 from 49.9% for the three-month period ended March 31, 2022. The decrease reflects higher production costs due to increases in component charges as a result of component shortages and increases in component costs, and higher logistics costs to meet demand, including costs of alternative distribution, shipment and transportation modes as a result of government shutdowns in China.

Operating expenses

	Three months ended March 31,		Change	
(dollars in thousands)	**2021**	**2022**	**$**	**%**
Research and development	$ 11,603	$ 12,102	$ 499	4.3 %
Sales and marketing	10,040	10,148	108	1.1 %
General and administrative	7,529	7,665	136	1.8 %
Depreciation and amortization	1,595	1,446	(149)	(9.3)%
Total operating expenses	$ 30,767	$ 31,361	$ 594	1.9 %

Research and development

Research and development expense increased $0.5 million, or 4.3%, to $12.1 million for the three-month period ended March 31, 2022 from $11.6 million for the three-month period ended March 31, 2021. As a percentage of revenues, research and development expenses increased to 19.5% in 2022 from 13.1% in 2021 over the same period. The increase in research and development expense was primarily due to $0.5 million higher share-based compensation expense due to employee equity awards issued at the end of the first quarter of 2021 and $0.4 million higher payroll-related costs due to increased headcount. The increase was also driven by $0.4 million higher engineering material costs and $0.3 million higher contractor spend as projects ramp in 2022, offset by lower variable compensation expense of $1.2 million due to lower financial performance.

Sales and marketing

Sales and marketing expense increased $0.1 million, or 1.1%, to $10.1 million for the three-month period ended March 31, 2022 from $10.0 million for the three-month period ended March 31, 2021. As a percentage of revenues, sales and marketing expense increased to 16.4% in 2022 from 11.4% in 2021 over the same period. The slight increase in sales and marketing expense was primarily due to $0.3 million higher share-based compensation expense and $0.3 million higher payroll-related costs due to higher headcount. The increase was also driven by $0.2 million higher marketing-related spend due to increased trade show and marketing-related spend and $0.2 million higher travel-related spend as restrictions on travel and conferences imposed by the COVID-19 pandemic are lessening in parts of the world. These increases were mostly offset by $0.9 million lower variable compensation expense due to lower financial performance.

General and administrative

General and administrative expense increased $0.2 million, or 1.8%, to $7.7 million for the three-month period ended March 31, 2022 from $7.5 million for the three-month period ended March 31, 2021. As a percentage of revenues, general and administrative expense increased to 12.4% in 2022 from 8.5% in 2021 over the same period. The slight increase in general and administrative expense was primarily due to $0.2 million higher payroll-related costs due to headcount additions along with $0.2 million of higher business tax expense, $0.1 million higher share-based compensation expense and $0.1 million higher legal fees. These increases were mostly offset by $0.5 million lower variable compensation expense due to lower financial performance.

Depreciation and amortization

Depreciation and amortization expense decreased $0.2 million, or 9.3%, to $1.4 million for the three-month period ended March 31, 2022 from $1.6 million for the three-month period ended March 31, 2021. The decrease in depreciation and amortization was primarily driven by the amortization of finite-lived intangibles being fully amortized in the fourth quarter of 2021.

Interest expense, net

(dollars in thousands)	Three months ended March 31, 2021	2022	Change $	%
Interest expense, net	$ 1,140	$ 497	$ (643)	(56.4)%

Interest expense decreased $0.6 million, or 56.4%, to $0.5 million for the three-month period ended March 31, 2022 from $1.1 million for the three-month period ended March 31, 2021. The decrease was primarily due to a reduction in the interest rate on the term loan from 5.5% to 2.22% along with lower term loan principal balance as a result of the excess cash flow payment of $19.6 million made in May 2021.

Other expense, net

(dollars in thousands)	Three months ended March 31, 2021	2022	Change $	%
Other expense, net	$ 42	$ 77	$ 35	83.3%

Other expense, net changed from $0.0 million for the three-month period ended March 31, 2021 to $0.1 million for the three-month period ended March 31, 2022, primarily due to foreign currency fluctuations.

Provision for income taxes

(dollars in thousands)	Three months ended March 31, 2021	2022	Change $	%
Benefit for income taxes	$ (7,639)	$ (1,201)	$ 6,438	(84.3)%
Effective income tax rate	(62.5)%	43.4%		

Our benefit for income taxes was $1.2 million for the three-month period ended March 31, 2022 and $7.6 million for the three-month period ended March 31, 2021. The effective income tax rates were 43.4% and (62.5)% 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, 2021, the effective income tax rate of (62.5)% was primarily due to the release of a valuation allowance against the loss carryforwards in our UK entity and tax benefits arising on employee restricted share vesting and option exercises. For the three-month period ended March 31, 2022, our effective income 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 revaluing of UK deferred tax assets at a higher future tax rate.

Liquidity and Capital Resources

As of March 31, 2022, we had a cash balance of $38.4 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, 2021	2022
Cash used in operating activities	$ (7,562)	$ (19,225)
Cash used in investing activities	$ (1,612)	$ (1,782)
Cash (used in) provided by financing activities	$ (2,092)	$ 104

Net cash used in operating activities for the three-month period ended March 31, 2021 of $7.6 million consisted primarily of net income of $19.9 million, an increase in deferred income taxes of $6.4 million, adjustments for depreciation and amortization and other impacts of $1.1 million, share-based compensation expense of $1.4 million, and changes in operating assets and liabilities that resulted in net cash outflows of $23.6 million. The changes in operating assets and liabilities consisted primarily of a $11.7 million increase in accounts receivable as a result of higher sales in 2021, a $6.8 million reduction in accounts payable related to first quarter 2021 payments of inventory purchases made in the fourth quarter of 2020, a $6.0 million decrease in accrued employee compensation primarily due to the payment of the 2020 corporate bonus net of the accrual for the 2021 corporate bonus, and a $3.0 million increase in prepaid expenses due to a prepayment made to a vendor for inventory to be received in the second quarter of 2021. This was partially offset by a $3.2 million decrease in inventories due to strong sales in the first quarter of 2021, and $2.2 million increase in accrued liabilities, primarily the result of higher inventory purchases in transit.

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.

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, 2021, net cash used of $2.1 million was primarily due to $2.5 million repayment of principal due under the prior Silicon Valley Bank term loan facility, $1.6 million taxes paid from shares withheld in net settlement of shares, offset by $2.0 million of proceeds received from share option exercises.

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.

Debt

As of March 31, 2022, we had $30.0 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, 2022 was 2.44%. Commencing on March 31, 2022, we had scheduled quarterly principal payments of $0.7 million due under the facility. The March 31, 2022 scheduled principal payment was made on April 1, 2022. Our term loan 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, 2022, 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, 2021.

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, 2022, 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, 2021, filed on February 24, 2022, 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, 2022. 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 $30.0 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, 2022 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, 2022, the applicable margin was 1.75% and the effective interest rate on the term loan was 2.44%. 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, but the remaining five US Dollar LIBOR tenors (overnight, 1-month, 3-month, 6-month and 12-month) will not cease until 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 matures on November 17, 2026, which is after the cessation of all tenors of the US Dollar LIBOR rate. 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 will continue to actively assess the related opportunities and risks involved in this transition.

For a discussion of current market conditions resulting from the business shut downs and other restrictions resulting from government efforts to combat the impact of the COVID-19 pandemic, refer to Part I, Item 2, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and to Part II, Item 1A, “Risk Factors”.

There have been no other material changes in our market risk since December 31, 2021.

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, 2022, 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, 2021.

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, 2021 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.

The invasion of Ukraine by Russia and the resulting sanctions by governments against Russia, Belarus and certain regions of Ukraine could adversely affect our business, financial condition and results of operations.

On February 24, 2022, Russia invaded Ukraine, following its February 21, 2022, recognition of the Donetsk People's Republic (DNR) and the Luhansk People's Republic (LNR). As a result of Russia's military action in the region, the United States, the United Kingdom, the European Union, Canada, Switzerland, and Japan among other countries, have imposed several sanctions against Russia, Belarus, the DNR and LNR regions of the Ukraine (to complement the existing sanctions in Crimea), certain Russian banks and certain named individuals. Although we cannot predict the length, impact or outcome of the ongoing military conflict in Ukraine, the conflict may lead to significant market and other disruptions, including significant volatility in commodity prices and supply of energy resources, instability in financial markets, supply chain interruptions, political and social instability, changes in consumer or purchaser preferences as well as increase in cyberattacks and espionage.

As a result of the sanctions imposed by the United States, United Kingdom and European Union, including sanctions imposing additional export restrictions on select products, we are no longer able to sell or distribute our products or services to the DNR, LNR or Crimea regions of Ukraine, and are very limited in our ability to sell or distribute our products, including hardware and software, or supply services to Russia or Belarus. We cannot predict how long these restrictions will continue. These actions will have an adverse impact on our revenues and results of operations. In addition, the situation is rapidly evolving, and additional sanctions, export controls or other measures against Russia, Belarus and other countries, regions, officials, individuals or industries may be imposed. Such sanctions and other measures, as well as the existing and potential further responses from Russia or other countries to such sanctions, tensions and military actions, could adversely affect the global economy and financial markets and could adversely affect our business, financial condition and results of operations.

In addition, we retain contractors in Ukraine to provide engineering design services for select products. If these contractors are unable to continue providing such engineering design services, our ability to release new or enhanced products may be adversely impacted, curtailed or delayed. If we are unable to release new or updated versions of these products, our sales may be adversely impacted, we may be unable to keep up with advances in technology or functionality, and we may lose customers to competitors who are able to release technologically advanced products, which could adversely affect our business, financial condition and results of operations.

We face risks related to actual or threatened health epidemics and other outbreaks, which could significantly disrupt our manufacturing, sales and other operations.

Our business has been and may continue to be adversely impacted by the effects of a widespread outbreak of contagious disease, such as COVID-19. The COVID-19 pandemic has and could continue to impact our supply operations; for example, due to recent outbreaks of COVID-19 in China, regions where we manufacture some of our products in China have been shut down, causing an inability to manufacture our products and a reduction in the capacity of our supply chain. In addition, closures by the Chinese government in Shanghai have resulted in closures of our third-party logistics and warehousing supplier, adversely impacting our ability to ship product. These shutdowns in China have, and may continue to, adversely impact our revenues, business, financial condition and results of operations. If continued shutdowns cause any of our suppliers to cease operating, we may have to move production to an alternate supplier, and as a result, we have sought and may continue to seek alternate sources of supply which may be more expensive, unavailable or may result in delays in shipments to us and from our supply chain and subsequently to our customers. In addition, constraints on supply operations as a result of COVID-19 have resulted and could continue to result in component part shortages due to global capacity constraints, such as the current global capacity constraint we are facing in the supply of component parts, particularly of chipsets and other semiconductor components, further impacting our ability to manufacture our products and meet demand. These restrictions and shortages have and may continue to cause lead times for our products to increase, making it difficult to meet demand.

In an effort to halt the outbreak of COVID-19, if China or other governments continue to place significant restrictions on travel, leading to extended business closures, such as the recent closures at our third-party manufacturers in China, our business will be adversely impacted. Our suppliers and third-party manufacturers could continue to be disrupted by worker absenteeism, quarantines, office and factory closures, and shutdowns could continue to lead to disruptions to ports and other shipping infrastructure, or other travel or health-related restrictions and such restrictions could spread to other locations where we outsource manufacture or distribution of our products if the virus and its variants continues to spread or resurge. Our supply chain operations have been and could continue to be affected or curtailed by the outbreak of COVID-19.

Any future pandemic could have a similar impact on our supply chain, which would adversely affect our business, operations and customer relationships. We may need to seek alternate sources of supply which may be more expensive, unavailable or may result in delays in shipments to us from our supply chain and subsequently to our customers. Further, if our distributors' or end user customers' businesses are similarly affected, they might delay or reduce purchases from us, which could adversely affect our results of operations.

In addition, freight and logistics constraints caused in part by restrictions imposed by governments to combat the COVID-19 pandemic and additionally due to container and carriage shortages, have resulted in increased costs and constrained available transport, for us and our channel partners, all at a time when global demand has increased.

The extent to which the COVID-19 pandemic or any other pandemic will impact our business and financial results going forward will be dependent on future developments such as the length and severity of the crisis, the potential resurgence of COVID-19 or other pandemic and its variants in the future, future government actions in response to the crisis, the acceptance and effectiveness of the COVID-19 vaccines and the overall impact of the COVID-19 pandemic on the global economy and capital markets, among many other factors, all of which remain highly uncertain and unpredictable. We cannot at this time quantify or forecast the business impact of COVID-19, and there can be no assurance that the COVID-19 pandemic or other health crisis will not have a material and adverse effect on our business, financial results and financial condition.

We require third-party components, including components from limited or sole source suppliers, to build our products. The unavailability of these components has and could continue to substantially disrupt our ability to manufacture our products and fulfill sales orders.

We rely on third-party components to build our products, and we generally rely on our third-party manufacturers to obtain the components necessary for the manufacture of our products. If we underestimate our requirements or our third-party suppliers are not able to timely deliver components, our third-party manufacturers may have inadequate materials and components required to produce our products. This could result in an interruption in the manufacture of our products, delays in shipments and deferral or loss of revenues.

We currently are, and will likely continue to experience shortages in available supply of required components, as well as an increase in the costs of components. For example, as a result of increased global demand for some components used in our products, particularly semiconductor-related components and including components provided by Qualcomm, foundries have experienced capacity shortages and have responded by allocating existing supply among their customers, including us. This capacity shortage, brought in part by shutdowns due to COVID-19 and in part by an increased global demand, has resulted in supply shortages that have caused increased lead times for many of our products and an increase in cost to manufacture our products. In addition, a global increase in demand for bandwidth has resulted in additional demand for products such as ours. Unpredictable price increases for such components has also occurred and may continue. We and our third-party manufacturers generally rely on purchase orders rather than long-term contracts with suppliers of required components. As a result, our third-party manufacturers have not been able to secure sufficient components, or at reasonable prices or of acceptable quality to build our products in a timely manner, adversely impacting our ability to meet demand for our products, and these constraints are expected to continue. As a result, we have and may need to continue to build inventory, increasing our costs and our use of cash. In addition, if our component suppliers cease manufacturing needed components, we could be required to redesign our products to incorporate components from alternative sources or designs, a process which would cause significant delays in the manufacture and delivery of our products.

We currently depend on a limited number of suppliers for several critical components for our products, and in some instances, we use sole or single source suppliers for our components to simplify design and fulfillment logistics. Neither we nor our third-party manufacturers carry substantial inventory of our product components. Many of these components are also widely used in other product types. Shortages, such as those we are currently experiencing, are possible and our ability to predict the availability of such components may be limited. In the event of a shortage or supply interruption from our component suppliers, we or our third-party manufacturers may not be able to develop alternate or second sources in a timely manner, on commercially reasonable terms or at all, and the development of alternate sources may be time-consuming, difficult and costly. Suppliers allocating their existing short supplies may allocate an insufficient quantity of supplies to us which would result in delays in lead times for manufacture of our products and our inability to timely meet customer demand for our products. Any resulting failure or delay in shipping products could result in lost revenues and a material and adverse effect on our operating results.

We outsource manufacturing to third-party manufacturers operating outside of the U.S., subjecting us to risks of international operations.

Our third-party manufacturers predominantly operate outside of the U.S. causing us to face risks to our business based on changes in tariffs, trade barriers, export regulations, political conditions and contractual restrictions. For example, our cost of goods in the Wi-Fi and switch products, as well as most of our ePMP products, has been adversely affected by U.S. tariffs on goods produced for us in China and later imported into the United States. Our products manufactured in China and elsewhere have and may continue to be adversely affected by the outbreak of diseases such as COVID-19, as a result of government shutdowns or other restrictions on our manufacturing processes by our third-party manufacturers in China as well as on our third party logistics and warehousing supplier, impacting our ability to distribute products from our distribution centers. Products that we have manufactured for us in China, Mexico, and elsewhere may also be subject to any uncertainty of trade relations between such countries and the United States, which could cause the cost of our products manufactured there to rise, or result in our inability to continue to manufacture in such country, resulting in a need to find alternative sources of manufacture, which could result in the delay of manufacture and supply of our products, increase our cost of manufacture, and cause a delay in our shipments to customers and a delay or cancellation of orders. If tensions between the United States and China increase, or if the United States or the United Kingdom or other countries impose restrictions or sanctions on our ability to do business in China or elsewhere, our ability to manufacture and distribute our products and our future operating results and financial condition could be materially affected to the extent any of these actions occur.

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
10.39*+	Offer Letter, dated as of April 10, 2022, between Cambium Networks, Inc. and Andrew Bronstein
10.40*+	Separation Agreement, dated as of April 27, 2022, between Cambium Networks, Inc. and Stephen Cumming
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 6, 2022	By: /s/ ATUL BHATNAGAR **Atul Bhatnagar** **President and Chief Executive Officer**
Date: May 6, 2022	By: /s/ ANDREW BRONSTEIN **Andrew Bronstein** **Chief Financial Officer**

Exhibit 10.39

April 10, 2022

Andrew Bronstein
3175 Doe Brook Road
P.O. Box 737
Worcester, PA 19490

Dear Andrew,

I am pleased to extend you an offer of employment with Cambium Networks, Inc. ("Cambium" or the "Company") as the Chief Financial Officer of Cambium Networks Corporation (the "Parent"), commencing April 13, 2022. Your principal place of employment will be Chicago, Illinois, with travel commensurate with your position. This letter (this "Agreement") outlines certain terms of your employment should you choose to accept this offer.

- **Base Salary**. You will receive an annualized base salary of $400,000, paid in accordance with the Company's standard payroll practices (currently paid biweekly), subject to applicable withholding and other required deductions.

- **Annual Cash Incentive Bonus**. You will be eligible to receive an annual cash incentive bonus based upon the achievement of annual performance goals or objectives established and measured by the Compensation Committee (the "Committee") of Parent's Board of Directors (the "Board") in its sole discretion. You shall have a target annual incentive bonus opportunity equal to 70% of your annual base salary, payable in accordance with the Company's annual cash incentive bonus program, as may be amended from time to time (but in no event shall any actual bonus be paid later than March 15th of the calendar year immediately following the year for which such compensation is earned). Actual bonus awards may pay below or above your target opportunity, including a zero payout, based on the achievement of the applicable performance goals or objectives and your individual performance. For the 2022 performance year, you will receive a guaranteed minimum payout equal to your target opportunity, without proration provided that you remain employed with the Company through the payment date of the 2022 bonus, which shall be no later than March 15, 2023.

- **Initial Equity Awards**. Subject to approval by the Committee, you will be eligible for equity awards of (i) a nonqualified share option to acquire 200,000 ordinary shares of Parent (the "Initial Options") and (ii) restricted share units to acquire 40,000 ordinary shares of Parent (the "Initial RSUs"), in each case, under the Cambium Networks Corporation 2019 Share Incentive Plan (the "Plan") and with the effective date of such grants to be the later of (i) the date of Committee approval and (ii) your commencement of employment with the Company. The Initial Options and Initial RSUs shall, in each case, vest twenty-five percent (25%) on the one-year anniversary of the grant date (the “initial vesting date”), with the remaining 75% vesting on a quarterly basis over the next 36 months following the initial vesting date, subject to your continued employment with the Company on the applicable vesting date. Notwithstanding any language in any award agreement to the contrary, if a “Change in Control” (as defined in the Plan) occurs and within one year following such Change in Control, your employment with the Company (a) is terminated by the Company without Cause or (b) you resign for Good Reason (in each case as defined in the award agreement, and collectively defined as a “Qualifying Termination”), then all of the unvested Initial Options and Initial RSUs granted to you under this Agreement shall vest in full upon your termination date; provided that in the case of clause (b), you provide the Company with notice of the event giving rise to your right to terminate employment within 30 days of the initial occurrence of the event, the Company has 30 days to cure such event and, if uncured, you terminate your employment within 60 days following the expiration of the cure period. Notwithstanding the foregoing or anything in the award agreement to the contrary, a Qualifying Termination may be delayed, at the request of the surviving corporation in such a Change in Control, if the surviving corporation requests that you provide services to the Company (or its successor) for a period of up to six months following the consummation of a Change in Control and, subject to your provision of services to the Company (or its successor) during the period requested by the surviving corporation, the Initial Options and Initial RSUs shall vest upon the earlier to occur of (x) the six-month anniversary of the Change in Control and (y) the termination of such services by the surviving corporation. In the event of such a delay of the Qualifying Termination, the notices applicable to clause (b) as described above will be suspended, provided that you have given the initial notice of the Good Reason. You will receive a stock option award agreement and RSU award agreement following your commencement of employment with the Company.

- **Severance.** In the event your employment is terminated by the Company without cause prior to a Change in Control, you shall receive six months of base salary continuation during the six-month period following your termination of employment, with such payments to occur in equal monthly installments; provided, however, in the event your employment is (a) terminated by the Company (or its successor) without cause within 12 months following a Change in Control, or (b) is terminated by you following a Qualifying Termination (which may be delayed by the surviving corporation for a period of up to six months from such Change in Control, as described above), provided that in the case of clause (b), you provide the Company with notice of the event giving rise to your right to terminate employment within 30 days of the initial occurrence of the event, the Company has 30 days to cure such event and, if uncured, you terminate your employment within 60 days following the expiration of the cure period, you shall receive (i) one-year of base salary, payable in equal monthly installments during the 12-month period following your termination, (ii) a pro-rata portion of your annual bonus for the fiscal year in which your termination occurs based on actual results for such year (determined by multiplying the amount of such bonus which would be due for the full fiscal year by a fraction, the numerator of which is the number of days during the fiscal year of termination that you were employed by the Company and the denominator of which is 365) payable at the same time bonuses for such year are paid to other senior executives of the Company (but no later than March 15th following the conclusion of the fiscal year in which the bonus is earned); and (iii) subject to your timely election of continuation coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, continued participation in the Company's group health plan (to the extent permitted under applicable law and the terms of such plan) which covers you (and your eligible dependents) for a period of twelve (12) months at the Company's expense. The severance benefits shall be subject to your execution and non-revocation of a customary release of claims in favor of the Company within the period specified by the Company (but in any event not to exceed 52 days following your termination) and any payments that would be paid to you prior to the effectiveness of the release shall be delayed and paid to you in one installment on the 60th day following your termination of employment. The payments under this paragraph are subject to your continued compliance with your Confidentiality, Invention Assignment, Non-Competition, and Non-Solicitation Agreement, as described below.

- **Employee Benefits.** You will be eligible to participate in the Company's standard employee benefits, including medical, dental, life, 401(k), accidental life and dismemberment, and disability benefits, as in effect from time-to-time. Further information about the Company's current benefits offerings is available in your Welcome Packet. Participation in any benefit program is not to be regarded as assurance of continued employment for any particular period of time.

- **Company Policies**. You acknowledge that during your employment with the Company you will be subject to Company policies including, without limitation, any clawback policy, insider trading policy, and stock ownership guidelines.

As a Cambium employee, you will be expected to maintain the confidentiality of all proprietary and other confidential information of the Company and, as a condition of your employment, will be asked to enter into a Confidentiality, Invention Assignment, Non-Competition, and Non-Solicitation Agreement. Among other things, it requires that you hold in confidence any proprietary information received as an employee of Cambium and to assign to us any inventions that you make while employed by the Company. For the avoidance of doubt, nothing contained in this Agreement or the Confidentiality, Invention Assignment, Non-Competition, and Non-Solicitation Agreement limits your ability to report possible violations of law or regulation to, or file a charge or complaint with any federal, state or local governmental agency or commission ("Government Agencies"). Further, nothing in this Agreement or the Confidentiality, Invention Assignment, Non-Competition, and Non-Solicitation Agreement shall limit your ability under applicable law to (i) disclose in confidence trade secrets to federal, state, and local government officials, or to an attorney, for the sole purpose of reporting or investigating a suspected violation of law, (ii) disclose trade secrets in a document filed in a lawsuit or other proceeding, but only if the filing is made under seal and protected from public disclosure or (iii) communicate with any Government Agencies or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including providing documents or other information, without notice to the Company.

It is the Company's policy not to infringe upon the proprietary information, trade secrets, or confidential information of third parties. In addition, it is the Company's policy not to interfere with third parties' contractual or business relations. Accordingly, by signing this Agreement you represent and warrant that you are not subject to any non-disclosure agreement (including any agreement concerning trade secrets or confidential information owned by any other party), non-compete agreement, non-solicitation agreement, and/or any other agreement that would prevent you from performing your duties for Parent or the Company and/or restrict your activities at Parent or the Company.

Neither this Agreement nor the Confidentiality, Invention Assignment, Non-Competition, and Non-Solicitation Agreement constitute a contract of employment for any specific period of time, but instead will create an “employment at will” relationship, meaning that either you or the Company may terminate the employment relationship at any time, for any lawful reason. In addition, nothing in this Agreement prohibits the Company from terminating or modifying any of its compensation or benefits programs at any time. The offer of employment as described in this Agreement is contingent on satisfactory completion of a criminal background check, an education verification to be administered by the Human Resources department and your completion of other required and customary onboarding documentation.

This Agreement is intended to comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended (the “Code”), and shall be interpreted and construed consistently with such intent. The payments to you pursuant to this Agreement are also intended to be exempt from Section 409A of the Code to the maximum extent possible, under either the separation pay exemption pursuant to Treasury regulation §1.409A-1(b)(9)(iii) or as short-term deferrals pursuant to Treasury regulation §1.409A-1(b)(4), and for such purposes, each installment paid to you under this Agreement shall be considered a separate payment. In the event the terms of this Agreement would subject you to taxes or penalties under Section 409A of the Code (“409A Penalties”), the Company and you shall cooperate diligently to amend the terms of the Agreement to avoid such 409A Penalties, to the extent possible; provided that in no event shall the Company be responsible for any 409A Penalties that arise in connection with any amounts payable under this Agreement. To the extent any amounts under this Agreement are payable by reference to your “termination of employment” such term and similar terms shall be deemed to refer to your “separation from service,” within the meaning of Section 409A of the Code. Notwithstanding any other provision in this Agreement, if you are a “specified employee,” as defined in Section 409A of the Code, as of the date of your separation from service, then to the extent any amount payable under this Agreement (a) constitutes the payment of nonqualified deferred compensation, within the meaning of Section 409A of the Code, (b) is payable upon your separation from service and (c) under the terms of this Agreement would be payable prior to the six-month anniversary of your separation from service, such payment shall be delayed until the earlier to occur of (i) the six-month anniversary of the separation from service or (ii) the date of your death. In addition, each payment of nonqualified deferred compensation, within the meaning of Section 409A of the Code, which is conditioned upon your execution of a release and which is to be paid during a designated period that begins in a first taxable year and ends in a second taxable year shall be paid in the second taxable year.

Please confirm your acceptance of this Agreement in the space indicated and return this Agreement to me by April 12, 2022. Unless we agree otherwise, this offer will expire if not accepted by that date. Should you have any questions about this Agreement, please do not hesitate to contact me.

I look forward to having you join the team and to your contributions to the success of Cambium.

Sincerely,

/s/ Atul Bhatnagar

Atul Bhatnagar
President & CEO

ACCEPTED AND AGREED

April 12, 2022
Date

/s/ Andrew Bronstein
Signature

Andrew P. Bronstein
Print Name

SEPARATION AND GENERAL RELEASE AGREEMENT

This Separation and General Release Agreement (the “Agreement”) is made by and between Stephen Cumming (the “Employee”) and Cambium Networks, Inc. (“Cambium” or the “Company”) (collectively, the “Parties”).

WHEREAS, the Company and Employee have agreed to terminate Employee’s employment with the Company Group (as defined below) and, in accordance with the terms of the Employee’s Offer Letter dated June 14, 2018, as amended effective March 19, 2020 (the “Offer Letter”), the Company desires to provide the Employee with certain separation benefits and to resolve any claims that Employee has or may have against the Company and its affiliated persons and entities; and

WHEREAS, the Company desires to confirm certain post-employment obligations that Employee has to the Company and/or its parent company, Cambium Networks, Ltd. or affiliates (collectively the “Company Group”), including with respect to confidential information and inventions, pursuant to his Offer Letter and his Confidentiality, Invention Assignment, Non-Competition, and Non-Solicitation Agreement, signed by Employee on July 10, 2018 (the “Confidentiality Agreement”); and

WHEREAS, the Parties desire to resolve any and all issues between them with respect to the Employee’s employment at the Company Group and his termination from such employment.

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is acknowledged hereby, and in consideration of the mutual covenants and undertakings set forth herein, the Parties agree as follows:

1. **Termination Date**. The Parties acknowledge and agree that the Employee’s employment as Chief Financial Officer with the Company Group will terminate on April 13, 2022, provided that the Employee will remain employed through April 27, 2022 to provide transition consulting services to the Company (the “Termination Date”).

2. **Wages and Salary**. The Employee has received or will receive on the Termination Date payment for all wages (including, but not limited to, base salary, bonuses and commissions, overtime pay, incentive payments, and all accrued but unused paid time off) and benefits through and including the Termination Date that Employee earned during his employment with the Company Group. Employee understands and acknowledges that, apart from the terms and conditions of this Agreement, he shall not be entitled to any additional payments or benefits from the Company Group other than those expressly set forth in this Agreement. The Company shall reimburse Employee for all reasonable business expenses incurred in the performance of his services to the Company Group, upon receipt of supporting material for such expenses. In addition, Employee’s health care coverage shall terminate on April 30, 2022. Employee is eligible for continued health care coverage at his own expense pursuant to COBRA as will be more fully explained in a notice to be provided. Employee is not obligated to sign this Agreement in order to be paid accrued wages or to be eligible for COBRA coverage.

3. **<u>Consideration</u>.**

(a) In exchange for and in consideration of the covenants and promises contained herein, including the Employee's release of all claims against Cambium and the Released Parties as set forth in this Agreement, and in accordance with the terms and conditions of the Offer Letter, Cambium will provide the Employee with a total payment in an amount equal to six (6) months' base salary equivalent to Employee's base salary as of the Termination Date less applicable withholdings and deductions to be paid in one lump sum promptly after the Termination Date (but in no event later than sixty (60) days following the Termination Date).

(b) In the event that Employee timely elects to obtain continued group health insurance coverage in accordance with federal law (COBRA), the Company will reimburse Employee, on a monthly basis, for the cost of the premiums for such coverage following the Termination Date, through the earlier of six months or the date on which Employee first becomes eligible to obtain other group health insurance coverage, subject to the Employee's continued copayment of premiums at the same level and cost to the Employee as if the Employee were an employee of the Company (excluding, for purposes of calculating cost, and employee's ability to pay premiums with pre-tax dollars); thereafter, Employee may continue to receive such continued group health insurance coverage at his own expense in accordance with COBRA.

(c) In exchange for and in consideration of the covenants and promises contained herein, including the Employee's release of all claims against Cambium and the Released Parties as set forth in this Agreement and the Employee's compliance with this Agreement, each outstanding and unvested restricted share unit awards granted to the Employee under the Cambium Networks Corporation 2019 Share Incentive Plan (the "Plan") shall vest in full as of the Termination Date, with the restricted share units to be settled within 30 days following the Termination Date. Any portions of any outstanding and unvested share options awarded to Employee that are not vested as of the Termination Date shall be forfeited on the Termination Date. Notwithstanding anything otherwise set forth in the award agreement for any share options held by Employee, any share options that are vested as of the Termination Date may thereafter be exercised by Employee through and including December 31, 2022. Any vested share option that is not exercised by Employee on or prior to December 31, 2022 shall be forfeited as provided in the award agreement for such option.

(d) The Employee acknowledges and agrees that unless the Employee enters into this Agreement, the Employee would not otherwise be entitled to receive the consideration set forth in Paragraph 3(a), (b), and (c) above.

(e) The Employee further acknowledges and agrees that: (i) the Employee shall not receive, and is not entitled to receive, any other payments, benefits or remuneration of any kind from the Company Group or the Released Parties, except as set forth in this Agreement, and (ii) the consideration set forth in Paragraphs 2, 3 and 4 of this Agreement constitute full accord and satisfaction for all amounts due and owing to the Employee, including all salary, wages, incentive compensation, commissions, paid time off, reimbursements or other payments, benefits or remuneration of any kind which may have been due and owing to the Employee.

(f) All payments made by the Company shall be subject to any mandatory deductions and withholdings.

4. **Indemnification and Insurance.** Subject to applicable law, the Employee will be provided indemnification to the maximum extent permitted by the Company's Bylaws and Certificate of Incorporation, including coverage, if applicable, under any directors and officers insurance policies, with such indemnification determined by the Board or any of its committees in good faith based on principles consistently applied (subject to such limited exceptions as the Board may approve in cases of hardship) and on terms no less favorable than those provided to any other Company executives, officers or directors. The rights to indemnification conferred hereby shall include, to the extent permitted by applicable law, the right to be paid by the Company the legal fees and other costs, expenses and disbursements incurred in defending any action, suit, proceeding or investigation with respect to which the Employee is entitled to indemnification in advance of its final disposition subject to receipt by the Company of an undertaking by the Employee to repay such amount, or a portion thereof, if it shall ultimately be adjudicated that the Employee is not entitled to be indemnified by the Company pursuant hereto or as otherwise permitted by law, but such repayment by the Employee shall only be in an amount ultimately adjudicated to exceed the amount for which the Employee was entitled to be indemnified. The advances to be made pursuant to such right shall be paid by the Company to the Employee promptly following receipt by the Company of invoices or other evidence reasonably satisfactory to the Company.

5. **General Release.** In consideration for the severance benefits outlined in this Agreement, to which Employee is not otherwise entitled, Employee, and anyone claiming through Employee or on Employee's behalf, hereby generally and completely releases and waives each and every past, present, and future parent, division, subsidiary, partnership, owner, trustee, fiduciary, administrator, member, shareholder, investor, associate, affiliate, predecessor, successor and related company, and all of their current or former agents, officers, directors, partners, representatives, attorneys, contractors, insurance companies, administrators, successors, assigns, current and former employees, plan administrators, insurers, and any other persons acting by, through, under, or in concert with any of the persons or entities listed in this subsection, the predecessors, successors, and assigns of each entity listed above, and each of them ("Released Parties"), from any and all claims, rights, debts, liabilities, demands, causes of action, obligations, and damages, known or unknown, suspected or unsuspected, arising as of or prior to the date of Employee's signature to this Agreement, under federal, state, local, or common law, including but not limited to claims in any way related to Employee's employment with the Released Parties, Employee's separation from employment, the terms and conditions of Employee's employment, any claims for breach of contract (express, implied or otherwise), including, but not limited to, any payments or benefits under any Cambium severance plan, stock option plan, or equity plan; the Illinois Wage Payment and Collection Act; the Illinois Human Rights Act; the Illinois Minimum Wage Law; and all claims under the Civil Rights Act of 1866, Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Employee Retirement Income Security Act of 1974, the Equal Pay Act, the Lilly Ledbetter Fair Pay Act of 2009, the Family and Medical Leave Act, the Genetic Information Nondiscrimination Act, the Fair Credit Reporting Act, the Americans with Disabilities Act, the Worker Adjustment and Retraining Notification Act, the Age Discrimination In Employment Act, the Older Workers Benefit Protection Act, the California Labor Code, the California Business and Professions Code, all California Wage Orders, the California Fair Employment and Housing Act, the California Family Rights Act, the California Civil Code, the California Government Code, and/or the laws prohibiting discrimination, harassment, and/or retaliation in any state in which you are employed, and any and all federal, state, and local employment laws, as well as any and all common law tort or contract theories under federal, state or local laws ("Released Claims").

(a) *Exceptions.* Notwithstanding anything in this Agreement to the contrary, nothing in this Agreement prohibits Employee (or his attorney) from confidentially or otherwise communicating or filing a charge or complaint with a governmental or regulatory entity, participating in a governmental or regulatory entity investigation, or giving other disclosures to a governmental or regulatory entity concerning suspected violations of the law, in each case without receiving prior authorization from or having to disclose any such conduct to the Company, or from responding if properly subpoenaed or otherwise required to do so under applicable law. Nothing in this Agreement shall be construed to affect the Equal Employment Opportunity Commission's ("Commission"), National Labor Relations Board's, the Occupational Safety and Health Administration's, and the Securities and Exchange Commission's, or any federal, state, or local governmental agency or commission's ("Governmental Agencies") or any state agency's independent right and responsibility to enforce the law, nor does this Agreement affect Employee's right to file a charge or participate in an investigation or proceeding conducted by either the Commission or any such Governmental Agency, although this Agreement does bar any claim that Employee might have to receive monetary damages in connection with any Commission or Governmental Agency proceeding concerning matters covered by this Agreement. This Agreement does not limit Employee's right to receive an award or bounty for information provided to any Governmental Agencies, including under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 ("Dodd-Frank"). Further, nothing in this Agreement prohibits Employee from testifying in an administrative, legislative or judicial proceeding regarding alleged criminal conduct or harassment, when Employee has been required or requested to attend a proceeding pursuant to court order, subpoena, or written request from an administrative agency or the legislature. Moreover, nothing in this Agreement prevents the disclosure of factual information relating to claims of sexual assault, harassment, discrimination, failure to prevent harassment or discrimination, or retaliation against a person for reporting an act of harassment or discrimination, as those claims are defined under the California Fair Employment and Housing Act, to the extent the claims are filed in a civil or administrative action, and to the extent such disclosures are protected by law.

(b) Execution of this Agreement does not bar any claim that arises hereafter, including (without limitation) a claim for breach of this Agreement, any claim to indemnity under section 2802 of the California Labor Code, any rights Employee may have under COBRA, any rights Employee may have under any ERISA-covered employee benefit plan, and does not release Employee's eligibility for indemnification in accordance with applicable laws, the articles, charter and bylaws of the Company.

(c) Employee acknowledges that he has been advised or has had an opportunity to seek advice by legal counsel and he is, by this Agreement, waiving claims pursuant to California Civil Code Section 1542 or the laws of other states similar hereto, and he expressly waives such rights as quoted below:

"A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS THAT THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY."

Employee hereby expressly waives any rights he may have under any other statute or common law principles of similar effect.

(d) *Release of Claims Under the Age Discrimination in Employment Act.* The Employee specifically releases the Released Parties from any and all claims, actions, causes of action, obligations for damages (including but not limited to compensatory, exemplary and punitive damages), losses, expenses, attorneys' fees or costs, back pay, loss of earnings, debts, reinstatement, for causes of action that he may have as of the date on which this Agreement is executed (the "Execution Date") arising under the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. 621, *et seq.* and its state or local equivalent ("ADEA"). The Employee further agrees that:

i. his waiver of rights under this Agreement is knowing and voluntary and in compliance with the Older Workers Benefit Protection Act of 1990 ("OWBPA");

ii. he understands the terms of this Agreement;

iii. the consideration provided in this Agreement represents consideration over and above that to which he would be entitled, that the consideration would not have been provided had he not signed this Agreement, and that the consideration is in exchange for the signing of this Agreement;

iv. the Employee is hereby advised in writing to consult with his attorney prior to executing this Agreement, and he affirms he has done so;

v. the Employee has been given a period of twenty-one days (21) within which to consider this Agreement;

vi. following the Execution Date, the Employee has seven (7) days in which to revoke this Agreement as to claims under the ADEA, only, by written notice as provided in Paragraph 12 of this Agreement;

vii. this Paragraph 5(d) does not waive rights or claims that may arise under the ADEA after the Execution Date.

(e) The Employee hereby waives any right that the Employee may have to seek or to share in any relief, monetary or otherwise, relating to any claim released herein, whether such claim was initiated by the Employee or not.

6. <u>Non-Disclosure</u>. Subject to the exceptions set forth in Paragraph 5 above, the Employee promises not to discuss or disclose the terms of this agreement or the amount or nature of the consideration provided to him under this Agreement to any person other than his immediate family members and his attorney(s) and/or financial advisor(s), should one be consulted, provided that those to whom he may make such disclosure agree to keep said information confidential and not disclose it to others. the terms of this Agreement, including all related facts, circumstances, statements and documents, shall not be admissible or submitted as evidence in any litigation, in any forum, for any purpose, other than to secure enforcement of the terms and conditions of this agreement, or as may otherwise be required by law. Notwithstanding anything contained in this section to the contrary, neither Employee nor any other person shall be prohibited from making truthful statements in connection with any litigation, arbitration, deposition or other legal proceeding, or as may be required by law, any subpoena or any governmental or quasi-governmental authority. nothing in this Agreement prevents employee from discussing or disclosing information about unlawful acts in the workplace, such as harassment or discrimination or any other conduct that employee has reason to believe is unlawful. The U.S. Defend Trade Secrets Act of 2016 provides that: (a) an individual shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney, and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (b) an individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade in the court proceeding, if the individual (A) files any document containing the trade secret under seal, and (B) does not disclose the trade secret, except pursuant to court order. Nothing in this Agreement prohibits or creates liability for any such protected conduct.

7. Continuing Obligations.

(a) *Confidential Information*. Subject to the exceptions set forth above, the Employee hereby acknowledges and agrees to adhere to his continuing contractual and legal obligations to the Company Group with respect to the nondisclosure, nonuse and protection of the Company Group's confidential information, including as expressly set forth in Paragraph 1 of the Confidentiality Agreement.

(b) *Inventions*. The Employee hereby acknowledges and agrees to adhere to his continuing contractual and legal obligations to the Company Group with respect to inventions and work product, including as expressly set forth in Paragraph 2 of the Confidentiality Agreement.

(c) *Non-Solicitation*. The Employee hereby acknowledges and agrees to adhere to his continuing contractual and legal obligations to the Company Group with respect to non-solicitation, including as expressly set forth in Paragraph 3 of the Confidentiality Agreement.

(d) *Return of Property*. The Employee agrees and acknowledges that all written materials, records, documents, electronic files and any other tangible items made by the Employee or coming into his possession during his employment by the Company Group concerning the business or affairs of the Company Group are the sole property of Cambium. The Employee represents and warrants that, as of the Termination Date: (i) he has returned to the Company all such Company Group property (and any copies thereof), including, but not limited to, all identification cards, keys, credit cards, documents, computers, cell phones, and disks, as well as all materials containing confidential information, in any form; and (ii) he has destroyed (and not retained) any of the Company Group's confidential information on his personal computer (or any other personal electronic device in his possession, custody or control); provided, however, that the Employee shall be entitled to retain the mobile telephone and laptop issued to him by the Company, following disconnection by the Company's IT staff of all Company Group property on such laptop and mobile telephone. Employee shall be entitled to port the mobile telephone number to his own service.

(e) *Mutual Non-Disparagement*. For the twelve (12) month period following the Termination Date, (i) the Employee will not knowingly disparage or make any derogatory statements regarding the Company Group, its directors, or its officers, and (ii) the Company will not knowingly disparage or make any derogatory statements regarding the Employee; provided, however, that the Company's obligations under this Paragraph 7(e) shall be limited to communications by its senior corporate executives on the executive staff and members of the Board of the Company or its direct or indirect parent; provided, further, that the foregoing restrictions shall not apply to any statements by the Employee or the Company that are made truthfully in response to a subpoena or as otherwise required by applicable law or other compulsory legal process. Notwithstanding anything contained in this section to the contrary, neither employee nor any other person shall be prohibited from making truthful statements in connection with any litigation, arbitration, deposition or other legal proceeding, or as may be required by law, any subpoena or any governmental or quasi-governmental authority. Nothing in this Agreement prevents Employee from discussing or disclosing information about unlawful acts in the workplace, such as harassment or discrimination or any other conduct that employee has reason to believe is unlawful.

(f) *Blue-Penciling*. If, at the time of enforcement of any of the provisions of Paragraph 7 of this Agreement (or the provisions of the Offer Letter or the Confidentiality Agreement), it shall be adjudged that the duration, scope, geographic area or other restrictions stated therein are unreasonable under circumstances then existing, the Employee and the Company agree that the maximum duration, scope, geographic area or other restrictions deemed reasonable under such circumstances by such court shall be substituted for the stated duration, scope, geographic area or other restrictions.

(g) *Survival; Reasonableness*. The Employee acknowledges and agrees that the provisions of Paragraph 7 of this Agreement (and the provisions of the Offer Letter and the Confidentiality Agreement) survive the termination of his employment and remain binding. The Employee further acknowledges and agrees that the provisions of Paragraph 7 of this Agreement (and the provisions of the Offer Letter and the Confidentiality Agreement) are reasonable and necessary to protect the legitimate business interests of the Company Group.

(h) *Transition Cooperation*. In consideration for the payments and agreements set forth herein, including but not limited to the accelerated equity vesting provided under Paragraph 3(c), Employee will cooperate in the transition of his work related to the business issues and projects Employee was involved in while employed by the Company Group and Employee will be available to provide such transitional assistance as may be requested by the Company, provided there is no interference with any other employment Employee may then have.

8. **Section 409A Compliance**. The Company intends that income provided to Employee pursuant to this Agreement will not be subject to taxation under Section 409A of the Internal Revenue Code of 1986, as amended, and the guidance promulgated thereunder ("Section 409A"). The provisions of this Agreement shall be interpreted and construed in favor of being exempt from or satisfying any applicable requirements of Section 409A. However, the Company does not guarantee any particular tax effect for income provided to Employee pursuant to this Agreement. In any event, except for the Company's responsibility to withhold applicable income and employment taxes from compensation paid or provided to the Employee, the Company shall not be responsible for the payment of any applicable taxes incurred by the Employee on compensation paid or provided to the Employee pursuant to this Agreement. In the event that any compensation to be paid or provided to Employee pursuant to this Agreement is subject to the restrictions on payments to "specified employees" (as defined in Section 409A), then the Company may delay such payment for the minimum period required in order to comply with such provisions and avoid the imposition of any additional taxes or interest under Section 409A. Each payment under this Agreement shall be considered a separate payment for purposes of Section 409A.

9. **Entire Agreement.** The Employee acknowledges and agrees that this Agreement reflects the entire agreement between the Parties regarding the subject matter hereof and fully supersedes any and all prior agreements and understandings between the Parties hereto, except for the Offer Letter and Confidentiality Agreement, each of which remains valid and binding and shall continue in full force and effect. There is no other agreement except as stated herein. The Employee acknowledges that the Company Group has made no promises to the Employee other than those contained in this Agreement.

10. **Modification.** This Agreement may not be changed unless the change is in writing and signed by the Employee and an authorized representative of the Company.

11. **General Provisions.** The failure of any party to insist on strict adherence to any term hereof on any occasion shall not be considered a waiver or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term hereof. The language and all parts of this Agreement shall in all cases be construed as a whole according to its fair meaning, and not strictly for or against any of the Parties, regardless of who drafted it. This Agreement may be signed in counterparts, and may be delivered by facsimile or electronic mail. The invalidity of any provision of this Agreement shall not affect the validity of any other provision hereof.

12. **Review Period.** The Employee understands that the Company has given him a period of twenty-one (21) calendar days to review and consider this Agreement before signing it (the "Review Period"). The Employee further understands that he may use as much of this period as he wishes prior to signing this Agreement and should Employee sign and return the Agreement prior to the expiration of the review Period, he waives any remaining portion thereof. The Employee acknowledges and agrees that he must sign and return the original Agreement to Cambium, c/o Vice President, Human Resources, 3800 Golf Road, Suite 360, Rolling Meadows, Illinois 60008 ("Cambium's Representative"), no later than the expiration of the Review Period and that, if he fails to do so, the entire Agreement shall be null and void and the Parties shall have no obligations under the Agreement to one another. The Employee acknowledges that, to the extent that he decides to sign this Agreement prior to the expiration of the above period, such decision was knowing and voluntary on his part.

13. **Revocation Period.** The Employee may revoke this Agreement within seven (7) calendar days of the date on which he signs it (the "Revocation Period") by delivering a written notice of revocation to Cambium, c/o Cambium's Counsel, 3800 Golf Road, Suite 360, Rolling Meadows, Illinois 60008, no later than the close of business on the seventh day after the Execution Date. This Agreement shall not be effective or enforceable and no payments will be made hereunder until: (a) the Employee has signed and returned this Agreement to the Company within the review period set forth above, (b) the Revocation Period has expired without the Employee exercising his revocation right (the "Effective Date").

14. **Choice of Law.** This Agreement shall in all respects be interpreted, enforced and governed in accordance with and pursuant to the laws of California, without regard to its conflicts or choice of law principles.

15. **<u>Arbitration</u>.** The Parties agree that any and all disputes between the Employee and Cambium arising out of, relating to or concerning this Agreement or the Employee's employment shall be submitted exclusively to confidential, final and binding arbitration before the American Arbitration Association. The Parties hereby agree to arbitrate any disputes, in California, under the American Arbitration Association's then existing Employment Arbitration Rules which can be found athttps://adr.org/sites/default/files/EmploymentRules_Web_2.pdf, and both parties specifically consent to personal jurisdiction in such forum. Each party shall pay its own expenses of arbitration and the expenses of the arbitrator shall be equally shared by the Parties to the arbitration. Nothing herein shall prevent the Company from seeking and obtaining injunctive relief from a court with respect to any violation or potential violation of any of the provisions of Paragraph 7 of this Agreement. The Parties specifically waive their respective right to a trial by jury for any dispute, claim, controversy, or cause of action arising out of, relating to or concerning this Agreement.

16. **<u>Legal Counsel</u>.** The Employee is hereby advised of his right to consult with an attorney before signing this Agreement, which includes a general release and a jury trial waiver. The Employee hereby acknowledges the Employee's right to consult with an attorney.

THE EMPLOYEE ACKNOWLEDGES THAT HE HAS CAREFULLY READ THIS AGREEMENT, UNDERSTANDS IT, AND IS VOLUNTARILY ENTERING INTO IT OF HIS OWN FREE WILL, WITHOUT DURESS OR COERCION, AFTER DUE CONSIDERATION OF ITS TERMS AND CONDITIONS.

CAMBIUM NETWORKS, INC.	**STEPHEN CUMMING**
By: /s/ Atul Bhatnagar__________	By: /s/ Stephen Cumming________
Name: Atul Bhatnagar__________	Date: 4/27/2022__________________
Title: President and CEO________	
Date:4/27/2022_________________	

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 6, 2022

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 6, 2022

By: /s/ Andrew Bronstein
Andrew 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, 2022 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 6, 2022

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, 2022 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 6, 2022

By: /s/ ANDREW BRONSTEIN
Andrew Bronstein
Chief Financial Officer