AMBARELLA INC
Form 10-Q
December 07, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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 October 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number: 001-35667

AMBARELLA, INC.

(Exact name of registrant as specified in its charter)

Cayman Islands	98-0459628
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

3101 Jay Street

Santa Clara, California	95054
(Address of principal executive offices)	(Zip Code)

(408) 734-8888

(Registrant's telephone number, including area code)

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

The number of ordinary shares, $0.00045 par value, of the Registrant, outstanding as of December 3, 2018 was 32,051,011 shares.

AMBARELLA, INC.

QUARTERLY REPORT ON FORM 10-Q

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PART I – FINANCIAL INFORMATION

ITEM 1. Financial Statements

AMBARELLA, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands, except share and per share data)

(unaudited)

	October 31, 2018	January 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$212,338	$346,672
Marketable securities	136,279	87,919
Accounts receivable, net	32,417	31,294
Inventories	23,328	23,383
Restricted cash	11	9
Prepaid expenses and other current assets	3,309	4,006
Total current assets	407,682	493,283
Property and equipment, net	6,746	6,449
Deferred tax assets, non-current	3,927	3,642
Intangible assets, net	11,222	14,417
Goodwill	26,601	26,601
Other non-current assets	2,470	2,257
Total assets	$458,648	$546,649
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	11,134	19,815
Accrued and other current liabilities	25,615	32,178
Income taxes payable	755	936
Deferred revenue, current	405	307
Total current liabilities	37,909	53,236
Other long-term liabilities	9,600	11,226
Total liabilities	47,509	64,462
Commitments and contingencies (Note 14)		
Shareholders' equity:		
Preference shares, $0.00045 par value per share, 20,000,000 shares authorized and no shares issued and outstanding at October 31, 2018 and January 31, 2018, respectively	—	—
Ordinary shares, $0.00045 par value per share, 200,000,000 shares authorized at October 31, 2018 and January 31, 2018, respectively;	14	15

32,149,520 shares issued and outstanding at October 31, 2018; 33,489,614 shares issued and outstanding at January 31, 2018		
Additional paid-in capital	175,906	221,186
Accumulated other comprehensive loss	(185)	(279)
Retained earnings	235,404	261,265
Total shareholders' equity	411,139	482,187
Total liabilities and shareholders' equity	$458,648	$546,649

See accompanying notes to condensed consolidated financial statements.

AMBARELLA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except share and per share data)

(unaudited)

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
Revenue	$57,286	$89,062	$176,698	$224,827
Cost of revenue	22,701	32,448	69,208	82,445
Gross profit	34,585	56,614	107,490	142,382
Operating expenses:				
Research and development	31,653	29,796	95,446	83,936
Selling, general and administrative	12,354	11,700	38,098	35,406
Total operating expenses	44,007	41,496	133,544	119,342
Income (loss) from operations	(9,422)	15,118	(26,054)	23,040
Other income, net	993	319	2,517	696
Income (loss) before income taxes	(8,429)	15,437	(23,537)	23,736
Provision for income taxes	592	3,713	2,367	6,145
Net income (loss)	$(9,021)	$11,724	$(25,904)	$17,591
Net income (loss) per share attributable to ordinary shareholders:				
Basic	$(0.28)	$0.35	$(0.79)	$0.53
Diluted	$(0.28)	$0.34	$(0.79)	$0.51
Weighted-average shares used to compute net income (loss) per share attributable to ordinary shareholders:				
Basic	32,171,890	33,128,761	32,908,614	33,203,432
Diluted	32,171,890	34,358,893	32,908,614	34,538,968

See accompanying notes to condensed consolidated financial statements.

AMBARELLA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(unaudited, in thousands)

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
Net income (loss)	$(9,021)	$11,724	$(25,904)	$17,591
Other comprehensive income (loss), net of tax:				
Unrealized gains (losses) on investments	26	(34)	94	(46)
Other comprehensive income (loss), net of tax	26	(34)	94	(46)
Comprehensive income (loss)	$(8,995)	$11,690	$(25,810)	$17,545

See accompanying notes to condensed consolidated financial statements.

AMBARELLA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(unaudited, in thousands)

	Nine Months Ended October 31,	
	2018	2017
Cash flows from operating activities:		
Net income (loss)	$(25,904)	$17,591
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation of property and equipment	1,901	1,306
Amortization of intangible assets	3,454	2,018
Amortization/accretion of marketable securities	(311)	152
Stock-based compensation	44,937	42,075
Other non-cash items, net	358	93
Changes in operating assets and liabilities:		
Accounts receivable	(1,123)	(8,601)
Inventories	55	(952)
Prepaid expenses and other current assets	700	380
Deferred tax assets	(285)	(762)
Other assets	(213)	10
Accounts payable	(8,681)	6,253
Accrued liabilities	(5,192)	(2,460)
Income taxes payable	(181)	1,879
Deferred revenue	140	(2,206)
Other long-term liabilities	843	3,518
Net cash provided by operating activities	10,498	60,294
Cash flows from investing activities:		
Purchase of investments	(139,816)	(53,786)
Sales of investments	50,618	8,500
Maturities of investments	40,928	34,460
Purchase of property and equipment	(2,380)	(2,402)
Net cash used in investing activities	(50,650)	(13,228)
Cash flows from financing activities:		
Stock repurchase	(96,419)	(51,505)
Proceeds from exercise of stock options and employee stock purchase plan	4,722	4,961
Payment for intangible asset	(2,483)	(2,460)
Net cash used in financing activities	(94,180)	(49,004)
Net decrease in cash, cash equivalents and restricted cash	(134,332)	(1,938)
Cash, cash equivalents and restricted cash at beginning of period	346,681	322,880
Cash, cash equivalents and restricted cash at end of period	$212,349	$320,942
Supplemental disclosure of cash flow information:		
Cash paid for income taxes	$1,263	$762
Supplemental disclosure of noncash investing and financing activities:		
Unpaid liabilities related to intangible and fixed assets additions	$299	$10,731

See accompanying notes to condensed consolidated financial statements.

AMBARELLA, INC.

Notes to Condensed Consolidated Financial Statements

(Unaudited)

1. Organization and Summary of Significant Accounting Policies

Organization

Ambarella, Inc. (the “Company”) was incorporated in the Cayman Islands on January 15, 2004. The Company is a leading developer of low-power, high-definition (HD) and Ultra HD video compression and image processing solutions, and computer vision solutions. The Company combines its processor design capabilities with its expertise in video and image processing, algorithms and software to provide a technology platform that is designed to be easily scalable across multiple applications and enable rapid and efficient product development. The Company’s system-on-a-chip, or SoC, designs fully integrated high-definition video processing, image processing, analysis, audio processing and system functions onto a single chip, delivering exceptional video and image quality, differentiated functionality and low power consumption. Currently the Company is combining advanced computer vision technology with its state-of-the-art video to enable the next generation of intelligent cameras, advanced driver assistance systems (ADAS) and autonomous vehicles.

The Company sells its solutions to leading original design manufacturers, or ODMs, and original equipment manufacturers, or OEMs, globally.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared by the Company in accordance with the instructions to Form 10-Q pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”) and, therefore, do not include all information and notes normally provided in audited financial statements. The accounting policies are described in the “Notes to Consolidated Financial Statements” in the Annual Report on Form 10-K for the 2018 fiscal year filed with the SEC on March 30, 2018 (the “Form 10-K”) and updated, as necessary, in this Form 10-Q. The year-end condensed consolidated balance sheet data presented for comparative purposes was derived from audited financial statements, but does not include all disclosures required by generally accepted accounting principles in the United States (“U.S. GAAP”). In the opinion of management, all adjustments (consisting of normal recurring accruals and adjustments) considered necessary for a fair statement have been included. The results of operations for any interim period are not necessarily indicative of, nor comparable to, the results of operations for any other interim period or for a full fiscal year. These unaudited condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes contained in the Form 10-K.

Basis of Consolidation

The Company’s fiscal year ends on January 31. The condensed consolidated financial statements of the Company and its subsidiaries have been prepared in conformity with U.S. GAAP. All intercompany transactions and balances have been eliminated upon consolidation.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the reported periods. Actual results could differ from those estimates.

On an ongoing basis, management evaluates its estimates and assumptions, including those related to (i) the collectability of accounts receivable; (ii) write down of excess and obsolete inventories; (iii) intangible assets and goodwill; (iv) the estimated useful lives of long-lived assets; (v) impairment of long-lived assets and financial instruments; (vi) warranty obligations; (vii) the valuation of stock-based compensation awards and financial instruments; (viii) the probability of performance objectives achievement; (ix) the realization of tax assets and estimates of tax liabilities, including reserves for uncertain tax positions; and (x) the recognition and disclosure of contingent liabilities. These estimates and assumptions are based on historical experience and on various other factors which the Company believes to be reasonable under the circumstances. The Company may engage third-party valuation specialists to assist with estimates related to the valuation of financial instruments, assets and stock awards associated with various contractual arrangements. Such estimates often require the selection of appropriate valuation methodologies and significant judgment. Actual results could differ from these estimates under different assumptions or circumstances and such differences could be material.

Concentration of Risk

The Company's products are manufactured, assembled and tested by third-party contractors located primarily in Asia. The Company does not have long-term agreements with these contractors. A significant disruption in the operations of one or more of these contractors would impact the production of the Company's products which could have a material adverse effect on its business, financial condition and results of operations.

A substantial portion of the Company's revenue is derived from sales through its distributors, Wintech Microelectronics Co., Ltd., or Wintech, which serves as its non-exclusive sales representative in Asia other than Japan, and directly to one ODM customer, Chicony Electronics Co., Ltd., or Chicony. Termination of the relationships with these customers could result in a temporary or permanent loss of revenue. Furthermore, any credit issues from these customers could impair their abilities to make timely payment to the Company. See Note 15 for additional information regarding revenue and credit concentration with these customers.

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents, marketable securities and accounts receivable. The Company maintains its cash primarily in checking accounts with reputable financial institutions. Cash deposits held with these financial institutions may exceed the amount of insurance provided on such deposits. The Company has not experienced any losses on deposits of its cash. In order to limit the exposure of each investment, the cash equivalents and marketable securities consist primarily of money market funds, certificates of deposit, asset-backed securities, commercial paper, U.S. government securities and debt securities of corporations which management assesses to be highly liquid. The Company does not hold or issue financial instruments for trading purposes.

The Company performs ongoing credit evaluations of its customers and adjusts credit limits based upon payment history and customers' credit worthiness. The Company regularly monitors collections and payments from its customers.

Cash Equivalents and Marketable Securities

The Company considers all highly liquid investments with original maturities of less than three months at the time of purchase to be cash equivalents. Investments that are highly liquid with original maturities at the time of purchase greater than three months are considered marketable securities.

The Company classifies these investments as "available-for-sale" securities carried at fair value, based on quoted market prices of similar assets, with the unrealized gains or losses reported, net of tax, as a separate component of shareholders' equity and included in accumulated other comprehensive loss in the condensed consolidated balance sheets. The amortization of premiums and accretion of discounts and the realized gains and losses are both recorded in other income, net, in the condensed consolidated statements of operations. The Company reviews its investments for possible other-than-temporary impairments on a regular basis. If any loss on investment is believed to be other-than-temporary, a charge will be recorded and a new cost basis in the investment will be established. In evaluating whether a loss on a security is other-than-temporary, the Company considers the following factors: (i) general market conditions, (ii) the duration and extent to which the fair value is less than cost and (iii) the Company's intent and ability to hold the investment.

For securities in an unrealized loss position which is deemed to be other-than-temporary, the difference between the security's then-current amortized cost basis and fair value is separated into (i) the amount of the impairment related to the credit loss (i.e., the credit loss component) and (ii) the amount of the impairment related to all other factors (i.e., the non-credit loss component). The credit loss component is recognized in earnings. The non-credit loss component is recognized in accumulated other comprehensive loss. Due to the relative short term nature of the investments, there have been no other-than-temporary impairments recorded to date.

Restricted Cash

Amounts included in restricted cash represent those required to be set aside to secure certain transactions in a foreign entity. As of October 31, 2018 and January 31, 2018, the restricted cash was immaterial. The following table presents cash, cash equivalents and restricted cash reported on the condensed consolidated balance sheets and the sums are presented on the condensed consolidated statements of cash flows:

	As of October 31, 2018	January 31, 2018	October 31, 2017	January 31, 2017
	(in thousands)			
Cash and cash equivalents	$212,338	$346,672	$320,933	$322,872
Restricted cash	11	9	9	8
Total as presented in the consolidated statements of cash flows	$212,349	$346,681	$320,942	$322,880

Inventories

The Company records inventories at the lower of cost or net realizable value. The cost includes materials and other production costs and is computed using standard cost on a first-in, first-out basis. Inventory reserves are recorded for estimated obsolescence or unmarketable inventories based on forecast of future demand and market conditions. Any adjustments to reduce the cost of inventories to their net realizable value are recognized in earnings in the current period. Once inventory is written down, a new accounting cost basis is established and, accordingly, any associated reserve is not released until the inventory is sold or scrapped. There were no material inventory losses recognized for the three and nine months ended October 31, 2018 and 2017, respectively.

Noncancelable Internal-Use Software License

The Company accounts for a noncancelable on premise internal-use software license as the acquisition of an intangible asset and the incurrence of a liability to the extent that all or a portion of the software licensing fees are not paid on or before the license acquisition date. The intangible asset and related liability are recorded at net present value and interest expense is recorded over the payment term.

Goodwill and In-Process Research and Development

Goodwill and in-process research and development (“IPR&D”) are required to be tested for impairment at least annually in the fourth fiscal quarter or sooner whenever events or changes in circumstances indicate that the assets may be impaired. The Company has a single reporting unit for goodwill impairment test purposes based on its business and reporting structure.

The Company does not amortize goodwill. Acquired IPR&D is capitalized at fair value as an intangible asset and amortization commences upon completion of the underlying projects. When a project underlying reported IPR&D is completed, the corresponding amount of IPR&D is reclassified as an amortizable purchased intangible asset and is amortized over its estimated useful life. As of October 31, 2018, there was no IPR&D amortized.

Revenue Recognition

Effective February 1, 2018, the Company adopted Accounting Standards Codification (“ASC”) Topic 606, Revenue from Contracts with Customers (“ASC 606”), using the modified retrospective method applied to those contracts that were not completed as of February 1, 2018. Results for reporting periods beginning after February 1, 2018 are presented under ASC 606. Prior period amounts are not adjusted and continue to be reported in accordance with the Company’s historic accounting under ASC Topic 605, Revenue Recognition (“ASC 605”). The most significant impacts of this new guidance for the Company relate to the determination of transaction price and the timing of revenue recognition for transactions with its distributors. As a result, the Company now recognizes product revenue upon shipment and transfer of control to distributors (known as “sell-in” revenue recognition) rather than shipment to the end customers (known as “sell-through” revenue recognition) based on its estimate of the consideration it expects to receive. Revenue recognition is evaluated through the following five steps: (i) identification of the contract, or contracts, with a customer; (ii) identification of the performance obligations in the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations in the contract; and (v) recognition of revenue when or as a performance obligation is satisfied.

The sale of semiconductor products accounts for the substantial majority of the Company’s consolidated revenue. Sales agreements with customers are renewable periodically and contain terms and conditions with respect to payment, delivery, warranty, supply and other rights. The Company considers an accepted customer purchase order, governed by sales agreement, to be the contract with the customer. For each contract, the Company considers the promise to transfer tangible products to be the identified performance obligation. Product sales contracts may include volume-based tiered pricing or rebates that are fulfilled in cash or product. In determining the transaction price, the Company accounts for the right of returns, cash rebates, commissions and other pricing adjustments as variable consideration and estimates these amounts based on the expected amount to be provided to customers and reduces the revenue recognized. The Company estimates sales returns and rebates based on the Company’s historical patterns of return and pricing credits. As the Company’s standard payment terms are 30 days to 60 days, the contracts have no financing component. Under ASC 606, the Company estimates the total consideration to be received by using the expected value method for each contract, computes weighted average selling price for each unit shipped in cases where there is a material right due to the presence of volume-based tiered pricing, allocates the total consideration between the identified performance obligations, and recognizes revenue when control of its goods and services is transferred to its customers. The Company considers product control to be transferred at shipment or delivery because the Company has a present right to payment at that time, the customer has legal title to the asset, the Company has transferred physical possession of the asset, and the customer has significant risk and rewards of ownership of the asset.

The Company also enters into fixed-price engineering service agreements with certain customers. These agreements may include multiple performance obligations, such as software development services, licensing of intellectual property and post-contract customer support, or PCS. These multiple performance obligations are highly interdependent, highly interrelated, are typically not sold separately and do not have standalone selling prices. They are all inputs to generate one combined output which is incorporating the Company’s SoC into the customer’s product. Accordingly, the Company determines that they are not separately identifiable and shall be treated as a single performance obligation. Customers usually pay based on milestones achieved. Because payments received do not correspond directly with the value of the Company’s performance to date, for fixed-price engineering services arrangements, revenue is recognized using the time-based straight line method, which best depicts the Company’s performance toward complete satisfaction of the performance obligation based on the nature of such professional services. Revenues from engineering service agreements were not material for the three and nine months ended October 31, 2018 and 2017, respectively.

Cost of Revenue

Cost of revenue includes cost of materials, cost associated with packaging and assembly, testing and shipping, cost of personnel, stock-based compensation, logistics and quality assurance, warranty cost, royalty expense, write-downs of inventories and allocation of overhead.

Income Taxes

The Company records income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in its financial statements or tax returns. In estimating future tax consequences, generally all expected future events other than enactments or changes in the tax law or rates are considered. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount expected to be realized.

The Company applies authoritative guidance for the accounting for uncertainty in income taxes. The guidance requires that tax effects of a position be recognized only if it is “more likely than not” to be sustained based solely on its technical merits as of the reporting date. Upon estimating its tax positions and tax benefits, the Company considers and evaluates numerous factors, which may require periodic adjustments and which may not reflect the final tax liabilities. The Company adjusts its financial statements to reflect only those tax positions that are more likely than not

to be sustained under examination.

As part of the process of preparing condensed consolidated financial statements, the Company is required to estimate its taxes in each of the jurisdictions in which it operates. The Company estimates actual current tax exposure together with assessing temporary differences resulting from differing treatment of items, such as accruals and allowances not currently deductible for tax purposes. These differences result in deferred tax assets, which are included in the condensed consolidated balance sheets. In general, deferred tax assets represent future tax benefits to be received when certain expenses previously recognized in the condensed consolidated statements of operations become deductible expenses under applicable income tax laws, or loss or credit carryforwards are utilized.

In assessing whether deferred tax assets may be realized, the Company considers whether it is more likely than not that some portion or all of deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income.

The Company makes estimates and judgments about its future taxable income based on assumptions that are consistent with its plans and estimates. Should the actual amounts differ from estimates, the amount of valuation allowance could be materially impacted. Any adjustment to the deferred tax asset valuation allowance would be recorded in the condensed consolidated income statement for the periods in which the adjustment is determined to be required.

Net Income (Loss) Per Ordinary Share

Basic earnings (losses) per share is computed by dividing net income (loss) available to ordinary shareholders by the weighted-average number of ordinary shares outstanding during the period. Diluted earnings (losses) per share is computed by dividing net income (loss) available to ordinary shareholders by the weighted-average number of ordinary shares outstanding during the period increased to include the number of additional ordinary shares that would have been outstanding if the potentially dilutive securities had been issued. Potentially dilutive securities include outstanding stock options, shares to be purchased under the Company's employee stock purchase plan, unvested restricted stock and restricted stock units. The dilutive effect of potentially dilutive securities is reflected in diluted earnings (losses) per share by application of the treasury stock method.

Comprehensive Income (Loss)

Comprehensive income (loss) includes unrealized gains or losses from available-for-sale securities that are excluded from net income (loss).

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-02, Leases (Topic 842). In July 2018, the FASB issued ASU 2018-11, Leases (Topic 842): Targeted Improvement. Under these standards, the Company is required to adopt the lease standard on February 1, 2019 and expects to use the modified retrospective approach with a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Upon adoption date, the Company will recognize right-of-use assets and corresponding liabilities related to substantially all of its operating lease arrangements. The Company is in the process of data gathering, determining the scope of impact, designing system solution and assessing available practical expedients and policy elections offered by the standard. The Company is also evaluating its processes and internal controls to meet the new standard's requirements. Although the Company has not completed the assessment, it does not expect that the adoption of this new guidance will have a material impact to the Company's consolidated statements of operations and cash flows.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments – Credit Losses (Topic 326), to introduce a new impairment model for recognizing credit losses on financial instruments based on an estimate of current expected credit losses ("ECL"). Under the new model, an entity is required to estimate ECL on available-for-sale (AFS) debt securities only when the fair value is below the amortized cost of the asset and is no longer based on an impairment being "other-than-temporary". The new model also requires the impairment calculation on an individual security level and requires an entity use present value of cash flows when estimating the ECL. The credit-related losses are required to be recognized through earnings and non-credit related losses are reported in other comprehensive income. The ASU will be effective for public entities in fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The new guidance will require modified retrospective application to all outstanding instruments, with a cumulative effect adjustment recorded to opening retained earnings as of the beginning of the first period in which the guidance becomes effective. The Company does not believe the adoption of this new guidance will have a material impact on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, Intangibles – Goodwill and Other (Topic 350): Simplifying the Test of Goodwill Impairment, to eliminate the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge. Instead, entities will record an impairment charge based on the excess of a reporting

unit's carrying amount over its fair value. This new guidance will be applied prospectively and is effective for annual and interim periods beginning after December 15, 2019. The Company does not believe the adoption of this new guidance will have a material impact on its financial position, results of operations and disclosures.

In March 2017, the FASB issued ASU 2017-08, Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization On Purchased Callable Debt Securities, to shorten the amortization period for the premium to the earliest call date instead of the contractual life of the instrument. This new guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Entities will be required to apply the new guidance using the modified retrospective method with a cumulative-effect adjustment to retained earnings upon the adoption date. The Company does not believe the adoption of this new guidance will have a material impact on its financial position, results of operations and disclosures.

In February 2018, the FASB issued ASU 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, to permit entities to have the option to reclassify tax effects stranded in accumulated other comprehensive income as a result of tax reform to retained earnings. The FASB also gives entities the option to apply the guidance retrospectively or in the period of adoption. The guidance is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. Early adoption in any period is permitted. The Company has not early adopted this guidance and believes that the adoption of this new guidance will not have an impact on its financial position and disclosures.

In June 2018, the FASB issued ASU 2018-07, Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting, to align the measurement and classification guidance for share-based payments to nonemployees with the guidance for share-based payments to employees, with certain exceptions. This new guidance is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. Early adoption is permitted, including in an interim period, but not before an entity adopts the new revenue guidance. The Company has early adopted this new guidance which did not have significant impact on its financial position, results of operations and disclosures.

In August 2018, the FASB issued 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement. Under this new guidance, the entities will no longer be required to disclose the amount of and the reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, but will be required to disclose the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements. The guidance is effective for fiscal years beginning after December 15, 2019 and for the interim periods within those fiscal years. Early adoption is permitted. The Company does not believe the adoption of this new guidance will have a material impact on its financial position, results of operations and disclosures.

In August 2018, the FASB issued 2018-15, Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract. Under this new guidance, the entities are required to capitalize implementation costs related to a hosting arrangement that is a service contract and amortize the costs over the term of the hosting arrangement, beginning when the module or component of the hosting arrangement is ready for its intended use. The guidance is effective for fiscal years beginning after December 15, 2019 and for the interim periods within those fiscal years. Early adoption is permitted. The Company does not believe the adoption of this new guidance will have a material impact on its financial position, results of operations and disclosures.

2. Revenue Recognition

Effective February 1, 2018, the Company adopted ASC 606 using the modified retrospective method applied to those contracts which were not completed as of February 1, 2018. Results for reporting periods beginning after February 1, 2018 are presented under ASC 606. Prior period amounts are not adjusted and continue to be reported in accordance with the Company's historic accounting under ASC 605. The Company recognizes revenue when control of its goods and services is transferred to its customers. The Company considers product control to be transferred at a point in time upon shipment or delivery because the Company has a present right to payment at that time, the customer has legal title to the asset, the Company has transferred physical possession of the asset, and the customer has significant risk and rewards of ownership of the asset. The majority of the Company's product revenue is derived from sales through its distributors. As a result, sales of products are recognized upon shipment and transfer of control to distributors (known as "sell-in" revenue recognition) rather than shipment to the end customers (known as "sell-through" revenue recognition).

The cumulative effects of adjustments on the condensed consolidated balance sheet on February 1, 2018 upon the adoption of ASC 606 were as follows:

	Balance as of January 31, 2018	Adjustment	Opening Balance as of February 1, 2018
	(in thousands)		
Deferred revenue, current	$307	$ (43)	$264
Retained earnings	$261,265	$ 43	$261,308

The following table summarizes the impacts of adopting the new revenue standard on our condensed consolidated balance sheets, statements of operations and statements of cash flows as of and for the three and nine months ended October 31, 2018:

	October 31, 2018		
	As Reported	Impact of Adoption	Amounts under ASC 605
	(in thousands)		
Condensed Consolidated Balance Sheets			
Liabilities:			
Accounts payable	11,134	(142)	10,992
Accrued and other current liabilities	25,615	(46)	25,569
Income taxes payable	755	194	949
Deferred revenue, current	405	5,276	5,681
Other long-term liabilities	9,600	1	9,601
Equity:			
Retained earnings	$235,404	(5,283)	$230,121

	Three Months Ended October 31, 2018		
	As Reported	Impact of Adoption	Amounts under ASC 605
	(in thousands, except per share data)		
Condensed Consolidated Statements of Operations			
Revenue	$57,286	$ 727	$58,013
Cost of revenue	22,701	234	22,935
Gross profit	34,585	493	35,078
Loss from operations	(9,422)	493	(8,929)
Loss before income taxes	(8,429)	493	(7,936)
Provision for income taxes	592	(71)	521
Net loss	$(9,021)	$ 564	$(8,457)
Net loss per share:			
Basic	$(0.28)	$ 0.02	$(0.26)
Diluted	$(0.28)	$ 0.02	$(0.26)

	Nine Months Ended October 31, 2018		
	As Reported	Impact of Adoption	Amounts under ASC 605
	(in thousands, except per share data)		
Condensed Consolidated Statements of Operations			
Revenue	$176,698	$ (7,583)	$169,115
Cost of revenue	69,208	(2,537)	66,671
Gross profit	107,490	(5,046)	102,444
Loss from operations	(26,054)	(5,046)	(31,100)

Loss before income taxes	(23,537)	(5,046)	(28,583)
Provision for income taxes	2,367	194	2,561
Net loss	$(25,904)	$ (5,240)	$(31,144)
Net loss per share:			
Basic	$(0.79)	$ (0.16)	$(0.95)
Diluted	$(0.79)	$ (0.16)	$(0.95)

The impact of adoption on the comprehensive loss is the same as the impact on net loss.

	Nine Months Ended October 31, 2018		
	As Reported	Impact of Adoption	Amounts under ASC 605
	(in thousands)		
Condensed Consolidated Statements of Cash Flows			
Cash flow from operating activities:			
Net loss	$(25,904)	$ (5,240)	$(31,144)
Accounts payable	(8,681)	(142)	(8,823)
Accrued liabilities	(5,192)	(46)	(5,238)
Income taxes payable	(181)	194	13
Deferred revenue	140	5,233	5,373
Other long-term liabilities	$843	$ 1	$844

The impacts of adoption of the new revenue standard were primarily attributable to distributor revenues recognized using the sell-through method under ASC 605, while such revenues are recognized using the sell-in method under ASC 606.

Practical Expedients

- The Company elects not to disclose the value of unsatisfied or partially unsatisfied performance obligations due to original expected contract duration of one year or less.
- For contracts that were modified before the adoption date, the Company elects to reflect the aggregate effect of all modifications that occur before the adoption date when identifying performance obligations, determining the transaction price, and allocating the transaction price to performance obligations.
- The Company also elects to exclude amounts collected from customers for all sales taxes from the transaction price.

Contract Assets

Timing of revenue recognition may differ from the timing of invoicing to the Company's customers. The Company records contract assets when revenue is recognized prior to invoicing. The contract assets are primarily related to the Company’s engineering service agreements and rights to consideration for performance obligations delivered but not billed at the reporting date. The contract assets are reclassified to receivables when the billing occurs. As of February 1, 2018, the contract assets were not material. All of the contract assets were either reclassified to receivables or recognized as cash receipts as of October 31, 2018.

Contract Liabilities (Deferred Revenues)

Contract liabilities are primarily related to the portion of transaction price that exceeds the weighted average selling price for products sold to date under tiered-pricing contracts which contain material rights. These contract liabilities are expected to be recognized over the course of the contract when products are delivered for future pricing below the weighted average selling price of the contract. The timing of recognition of these contract liabilities is dependent on the timing and size of future orders under the contract. For the three and nine months ended October 31, 2018, the Company did not recognize any material revenue adjustment related to performance obligations satisfied in prior periods released from these contract liabilities.

Contract liabilities are also recorded when cash payments are received in advance of performance for engineering service agreements. The contract liabilities related to these agreements are expected to be recognized when the performance is delivered. For the three and nine months ended October 31, 2018, the Company did not recognize any material revenue released from these contract liabilities as a result of performance obligations satisfied in the current period.

As of October 31, 2018 and February 1, 2018, the contract liabilities were not material. Additionally, the transaction price allocated to unsatisfied, or partially unsatisfied, purchase orders for contracts that are greater than a year was not material as of October 31, 2018 and February 1, 2018.

3. Financial Instruments and Fair Value

The Company invests a portion of its cash in debt securities that are denominated in United States dollars. During the three months ended October 31, 2018, the Company invested an additional $100.0 million in debt securities. The investment portfolio consists of money market funds, certificates of deposit, asset-backed securities, commercial paper, U.S. government securities, and debt securities of corporations. All of the investments are classified as available-for-sale securities and reported at fair value in the condensed consolidated balance sheets as follows:

	As of October 31, 2018			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
Money market funds	$9,472	$ —	$ —	$9,472
Certificates of Deposit	6,004	—	—	6,004
Commercial paper	87,756	—	—	87,756
Corporate bonds	70,169	1	(175)	69,995
Asset-backed securities	9,547	—	(9)	9,538
U.S. government securities	20,681	—	(2)	20,679
Total cash equivalents and marketable securities	$203,629	$ 1	$ (186)	$203,444

	As of January 31, 2018			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
Money market funds	$13,788	$ —	$ —	$13,788
Commercial paper	5,480	—	—	5,480
Corporate bonds	53,175	—	(196)	52,979
Asset-backed securities	11,048	—	(44)	11,004
U.S. government securities	18,495	—	(39)	18,456
Total cash equivalents and marketable securities	$101,986	$ —	$ (279)	$101,707

	As of October 31, 2018	January 31, 2018
	(in thousands)	
Included in cash equivalents	$67,165	$ 13,788
Included in marketable securities	136,279	87,919
Total cash equivalents and marketable securities	$203,444	$ 101,707

The contractual maturities of the investments at October 31, 2018 and January 31, 2018 were as follows:

	As of October 31, 2018	January 31, 2018
	(in thousands)	
Due within one year	$171,284	$ 63,476
Due within one to three years	32,160	38,231

Total cash equivalents and marketable securities	$203,444	$ 101,707

The unrealized losses on the available-for-sale securities were caused by fluctuations in market value and interest rates as a result of the economic environment. As the decline in market value was attributable to changes in market conditions and not credit quality, and because the Company neither intended to sell nor was it more likely than not that it will be required to sell these investments prior to a recovery of par value, the Company did not consider these investments to be other-than temporarily impaired as of October 31, 2018 and January 31, 2018, respectively.

The following fair value hierarchy is applied for disclosure of the inputs used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows:

Level 1—Inputs are unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2—Inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the assets or liabilities, either directly or indirectly through market corroboration, for substantially the full term of the financial instruments.

Level 3—Unobservable inputs based on the Company's own assumptions used to measure assets and liabilities at fair value. The inputs require significant management judgment or estimation.

The Company measures the fair value of money market funds and certificates of deposit using quoted prices in active markets for identical assets and classifies them within Level 1. The fair value of the Company's investments in other debt securities are obtained based on quoted prices for similar assets in active markets and are classified within Level 2.

The following table presents the fair value of the financial instruments measured on a recurring basis as of October 31, 2018 and January 31, 2018:

	As of October 31, 2018			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Money market funds	$9,472	$9,472	$—	$ —
Certificates of Deposit	6,004	6,004		
Commercial paper	87,756	—	87,756	—
Corporate bonds	69,995	—	69,995	—
Asset-backed securities	9,538	—	9,538	—
U.S. government securities	20,679	—	20,679	—
Total cash equivalents and marketable securities	$203,444	$15,476	$187,968	$ —

	As of January 31, 2018			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Money market funds	$13,788	$13,788	$—	$ —
Commercial paper	5,480	—	5,480	—
Corporate bonds	52,979	—	52,979	—
Asset-backed securities	11,004	—	11,004	—
U.S. government securities	18,456	—	18,456	—
Total cash equivalents and marketable securities	$101,707	$13,788	$87,919	$ —

4. Inventories

Inventories at October 31, 2018 and January 31, 2018 consisted of the following:

	As of October 31, 2018	January 31, 2018
	(in thousands)	
Work-in-progress	$12,483	$ 12,073

Finished goods	10,845	11,310
Total	$23,328	$ 23,383

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5. Property and Equipment, Net

Depreciation expense was approximately $0.6 million and $0.4 million for the three months ended October 31, 2018 and 2017, respectively. Depreciation expense was approximately $1.9 million and $1.3 million for the nine months ended October 31, 2018 and 2017, respectively. Property and equipment at October 31, 2018 and January 31, 2018 consisted of the following:

	As of October 31, 2018	January 31, 2018
	(in thousands)	
Computer equipment and software	$8,752	$ 8,611
Machinery and equipment	5,322	4,761
Furniture and fixtures	971	917
Leasehold improvements	2,303	2,092
Construction in progress	491	—
	17,839	16,381
Less: accumulated depreciation and amortization	(11,093)	(9,932)
Total property and equipment, net	$6,746	$ 6,449

6. Intangible Assets

Intangible assets primarily consist of $4.1 million of IPR&D from the acquisition of VisLab S.r.l., or VisLab, in June 2015 and $7.1 million of noncancelable software licenses, net of amortization expense. Acquired IPR&D is capitalized at fair value and the amortization commences upon completion of the underlying projects. When a project underlying reported IPR&D is completed, the corresponding amount of IPR&D is reclassified as an amortizable purchased intangible asset and is amortized over its estimated useful life. As of October 31, 2018, there was no IPR&D amortized. The Company will determine the project incorporating the VisLab IPR&D to be completed when a related chip begins mass production to address the level 3 and above advanced driving assistance systems markets.

The Company enters into certain internal-use noncancelable software license agreements with third parties from time-to-time. The licenses have been capitalized as intangible assets, and the corresponding future payments have been recorded as liabilities at net present value. As of October 31, 2018, $4.5 million was recorded in accrued and other current liabilities and $2.0 million was recorded in other long-term liabilities in the condensed consolidated balance sheets.

The carrying amounts of intangible assets as of October 31, 2018 and January 31, 2018 were as follows:

	As of October 31, 2018			As of January 31, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
	(in thousands)					
In-process research and development	$4,100	$ —	$4,100	$4,100	$ —	$4,100

Internal-use software licenses	13,663	(6,541)	7,122	13,404	(3,087)	10,317
Total acquired intangible assets	$17,763	$ (6,541)	$11,222	$17,504	$ (3,087)	$14,417

The amortization expense related to these software licenses was approximately $1.2 million and $0.9 million for the three months ended October 31, 2018 and 2017, respectively. The amortization expense for the nine months ended October 31, 2018 and 2017 was approximately $3.5 million and $2.0 million, respectively. The estimated future amortization expense of these software licenses as of October 31, 2018 is as follows:

Fiscal Year	As of October 31, 2018 (in thousands)
2019	$ 1,151
2020	4,599
2021	1,372
2022	—
2023	—
Thereafter	—
Total future amortization expenses:	$ 7,122

There were no intangible asset impairments for the three and nine months ended October 31, 2018 and 2017, respectively.

7. Goodwill

On June 25, 2015, the Company completed the acquisition of VisLab, a privately-held Italian company that develops computer vision and intelligent control systems for automotive and other commercial applications, including advanced driver assistance systems and several generations of autonomous vehicle driving systems, for $30.0 million in cash. As a result, there was $25.3 million attributed to goodwill, $4.1 million attributed to intangible assets and $0.6 million attributed to net assets acquired. A deferred tax liability of $1.3 million related to the intangible assets was recorded to account for the difference between financial reporting and tax basis at the acquisition date, with an addition to goodwill. The Company does not amortize goodwill. There were no goodwill impairments for the three and nine months ended October 31, 2018 and 2017, respectively.

8. Accrued and Other Current Liabilities

Accrued and other current liabilities at October 31, 2018 and January 31, 2018 consisted of the following:

	As of October 31, 2018	January 31, 2018
	(in thousands)	
Accrued employee compensation	$11,705	$ 15,977
Accrued warranty	—	1,750
Accrued rebates	371	584
Accrued product development costs	6,668	6,669
Software license liabilities, current	4,536	4,346
Other accrued liabilities	2,335	2,852
Total accrued and other current liabilities	$25,615	$ 32,178

The warranty liabilities were paid off during the first quarter of the current fiscal year.

9. Other Long-Term Liabilities

Other long-term liabilities at October 31, 2018 and January 31, 2018 consisted of the following:

As of

	October 31, 2018	January 31, 2018
	(in thousands)	
Unrecognized tax benefits, including interest	$6,271	$ 5,352
Deferred tax liabilities, non-current	1,293	1,293
Software license liabilities, non-current	2,015	4,484
Other long-term liabilities	21	97
Total other long-term liabilities	$9,600	$ 11,226

10. Capital Stock

Preference shares

After completion of the Company's initial public offering in 2012, a total of 20,000,000 preference shares, with a $0.00045 par value per share, were authorized. There were no preference shares issued and outstanding as of October 31, 2018 and January 31, 2018, respectively.

Ordinary shares

As of October 31, 2018 and January 31, 2018, a total of 200,000,000 ordinary shares were authorized.

On March 30, 2018, the Company added 1,507,032 ordinary shares to the ordinary shares reserved for issuance, pursuant to an "evergreen" provision contained in the 2012 Equity Incentive Plan, or EIP. Pursuant to such provision, on February 1st of each fiscal year, the number of ordinary shares reserved for issuance under the EIP is automatically increased by a number equal to the lesser of (i) 3,500,000 ordinary shares, (ii) four and one half percent (4.5%) of the aggregate number of ordinary shares outstanding on January 31st of the preceding fiscal year, or (iii) a lesser number of shares that may be determined by the Company's Board of Directors.

On March 30, 2018, the Company added 418,620 ordinary shares to the ordinary shares reserved for issuance, pursuant to an "evergreen" provision contained in the Amended and Restated 2012 Employee Stock Purchase Plan, or ESPP. Pursuant to such provision, on February 1st of each fiscal year, the number of ordinary shares reserved for issuance under the ESPP is automatically increased by a number equal to the lesser of (i) 1,500,000 ordinary shares, (ii) one and one quarter percent (1.25%) of the aggregate number of ordinary shares outstanding on such date, or (iii) an amount determined by the Company's Board of Directors or a duly authorized committee of the Board of Directors.

As of October 31, 2018 and January 31, 2018, the following ordinary shares were reserved for future issuance under the EIP and ESPP:

	As of October 31, 2018	January 31, 2018
Shares reserved for options, restricted stock and restricted stock units under EIP	6,173,834	5,561,653
Shares reserved for ESPP	1,833,574	1,561,841

Shares repurchased

On June 4, 2018, the Company's Board of Directors authorized the repurchase of up to an additional $100.0 million of the Company's ordinary shares over a twelve-month period commencing June 5, 2018. Repurchases may be made from time-to-time through open market purchases, 10b5-1 plans or privately negotiated transactions subject to market conditions, applicable legal requirements and other relevant factors. The repurchase program does not obligate the Company to acquire any particular amount of ordinary shares, and it may be suspended at any time at the Company's discretion. The repurchase program is funded using the Company's working capital and any repurchased shares are recorded as authorized but unissued shares. There were 825,191 shares repurchased during the three months ended October 31, 2018 for approximately $30.8 million in cash and 2,381,832 shares repurchased during the nine months ended October 31, 2018 for approximately $96.4 million in cash. As of October 31, 2018, a total of 3,881,716 shares have been repurchased for approximately $171.3 million in cash since the inception of the repurchase program in June 2016 and recorded as a reduction to equity. As of October 31, 2018, there was approximately $35.4 million available for repurchases through June 4, 2019.

11. Stock-based Compensation

The following table presents the classification of stock-based compensation for the periods indicated:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
	(in thousands)			
Stock-based compensation:				
Cost of revenue	$310	$343	$942	$978
Research and development	9,720	8,906	27,847	25,532
Selling, general and administrative	5,582	5,419	16,148	15,565
Total stock-based compensation	$15,612	$14,668	$44,937	$42,075

As of October 31, 2018, total unrecognized compensation cost related to unvested stock options was $5.1 million and is expected to be recognized over a weighted-average period of 2.66 years. Total unrecognized compensation cost related to unvested restricted stock units was $112.2 million and is expected to be recognized over a weighted-average period of 2.94 years. Total unrecognized compensation cost related to unvested restricted stock awards was $1.4 million and is expected to be recognized over a weighted-average period of 0.60 years.

The following table sets forth the weighted-average assumptions used to estimate the fair value of stock options and employee stock purchase plan awards for the periods indicated:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
Stock Options:				
Volatility	53 %	53 %	54 %	53 %
Risk-free interest rate	2.78 %	1.78 %	2.75 %	2.02 %
Expected term (years)	5.45	6.08	5.40	6.07
Dividend yield	0 %	0 %	0 %	0 %
Employee stock purchase plan awards:				
Volatility	44 %	50 %	45 %	45 %
Risk-free interest rate	2.35	1.17 %	2.15 %	1.03 %
Expected term (years)	0.5	0.5	0.5	0.5
Dividend yield	0 %	0 %	0 %	0 %

Starting from fiscal year 2019, the Company calculates expected volatility for stock options based on its own historical stock price for a period commensurate with the expected term. In the prior fiscal year, the Company calculated expected volatility for stock options based on the weighted average of historical volatilities of its own stock price and the stock prices of similar companies that are publicly available for a period commensurate with the expected term. The Company calculates expected volatility for ESPP based on its own historical stock price for a period commensurate with the offering period.

The following table summarizes stock option activities for the period indicated:

	Option Outstanding					
	Shares	Weighted-Average Exercise Price	Weighted-Average Grant-date Fair Value	Total Intrinsic Value Of Options Exercised (in thousands)	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 31, 2018	1,611,344	$ 24.56				
Granted	97,600	42.81	$ 21.83			
Exercised	(207,770)	5.12		$ 8,196		
Forfeited	(16,732)	54.28				
Expired	(9,007)	47.55				
Outstanding at October 31, 2018	1,475,435	28.03			4.68	$ 20,331
Exercisable at October 31, 2018	1,254,926	$ 24.13			3.96	$ 20,327

The intrinsic value of options outstanding and exercisable is calculated based on the difference between the fair market value of the Company's ordinary shares on the reporting date and the exercise price. The closing price of the Company's ordinary shares on October 31, 2018 was $34.78, as reported by The NASDAQ Global Market. The intrinsic value of exercised options is calculated by the difference between the fair market value of the Company's ordinary shares on the exercise date and the exercise price.

The following table summarizes restricted stock and restricted stock units activities for the period indicated:

	Shares	Weighted-Average Grant-Date Fair Value
Unvested at January 31, 2018	2,103,281	$ 56.45
Granted	1,319,200	39.94
Vested	(742,338)	53.25
Forfeited	(35,330)	51.72
Unvested at October 31, 2018	2,644,813	$ 49.18

As of October 31, 2018, the aggregate intrinsic value of unvested restricted stock and restricted stock units was $92.0 million.

12. Net Income (Loss) Per Ordinary Share

The following table sets forth the computation of basic and diluted net income (loss) per ordinary share for the periods indicated:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
	(in thousands, except share and per share data)			
Numerator:				
Net income (loss)	$(9,021)	$11,724	$(25,904)	$17,591
Denominator:				
Weighted-average ordinary shares - basic	32,171,890	33,128,761	32,908,614	33,203,432
Effect of potentially dilutive securities:				
Employee stock options	—	913,496	—	967,903
Restricted stock and restricted stock units	—	311,430	—	363,476
Employee stock purchase plan	—	5,206	—	4,157
Weighted-average ordinary shares - diluted	32,171,890	34,358,893	32,908,614	34,538,968
Net income (loss) per ordinary share:				
Basic	$(0.28)	$0.35	$(0.79)	$0.53
Diluted	$(0.28)	$0.34	$(0.79)	$0.51

The following weighted-average potentially dilutive securities were excluded from the computation of diluted net income (loss) per ordinary share as their effect would have been antidilutive:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
Options to purchase ordinary shares	1,247,117	290,648	1,172,152	274,629
Restricted stock and restricted stock units	2,243,272	1,224,115	1,494,860	977,904
Employee stock purchase plan	58,530	36,076	35,204	20,675
	3,548,919	1,550,839	2,702,216	1,273,208

13. Income Taxes

The following table provides details of income taxes for the periods indicated:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017

	(in thousands)			
Income (loss) before income taxes	$(8,429)	$15,437	$(23,537)	$23,736
Provision for income taxes	592	3,713	2,367	6,145
Effective tax rate	(7.0)%	24.1 %	(10.1)%	25.9 %

On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was enacted into law in the United States. The new tax legislation contains several provisions that will impact the Company, including the reduction of the corporate income tax rate from 35% to 21%, acceleration of business asset expensing, and a reduction in the amount of executive pay that may qualify as a tax deduction, among others. Income tax expense recorded for the three and nine months ended October 31, 2018 includes the impact of the new tax legislation as currently interpreted by the Company.

Due to the complexities of the new tax legislation, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 118 ("SAB 118") which allows for the recognition of provisional amounts during a measurement period. The measurement period begins in the reporting period that includes the Tax Act's enactment date and ends when the additional information is obtained, prepared, or analyzed to complete the accounting requirements under ASC Topic 740. The measurement period should not extend beyond one year from the enactment date. The Company recorded provisional estimates for the fiscal year ended January 31, 2018 for the following: the revaluation of deferred tax assets and liabilities to reflect the 21 percent corporate tax rate, whether to elect to expense or depreciate new capital equipment, and the US state tax impact to the aforementioned items.

The Company has completed its analysis of the impact of the Tax Act for the fiscal year ended January 31, 2018 and recorded adjustments to the provisional amounts on its financial statements in the three and nine months ended October 31, 2018, which reduced the Company's effective tax rate. The Company recorded an increase to deferred tax assets of approximately $83,000 and a decrease to long term tax liability of approximately $170,000, with a corresponding decrease to income tax expense of approximately $252,000 related to the reduction of the corporate tax rate. The income tax benefit was primarily the result of the clarifying guidance issued by the IRS in regards to the corporate alternative minimum tax rate for fiscal year taxpayers.

The decreased income tax expense for the three and nine months ended October 31, 2018 was primarily due to a reduction in the U.S. statutory rate from 35% to 21%, which was partially offset by a decrease in the proportion of profits generated in lower tax jurisdictions and losses incurred in jurisdictions for which the Company was not able to recognize a related tax benefit.

The Company files federal and state income tax returns in the United States and in various foreign jurisdictions. The tax years 2013 to 2017 remain open to examination by U.S. federal tax authorities. The tax years 2008 to 2017 remain open to examination by U.S. state tax authorities. The tax years 2012 to 2017 remain open to examination by foreign tax authorities. Fiscal years outside of the normal statute of limitations remain open to audit by tax authorities due to tax attributes generated in those earlier years, which have been carried forward and may be audited in subsequent years when utilized.

The Company regularly assesses the likelihood of adverse outcomes resulting from potential tax examinations to determine the adequacy of its provision for income taxes. These assessments can require considerable estimates and judgments. As of October 31, 2018, the gross amount of unrecognized tax benefits was approximately $36.2 million. If the estimates of income tax liabilities prove to be less than the ultimate assessment, then a further charge to expense could be required. If events occur and the payment of these amounts ultimately proves to be unnecessary, the reversal of the liabilities could result in tax benefits being recognized in the period in which the Company determines the liabilities are no longer necessary. The Company does not anticipate significant changes to its uncertain tax positions during the next twelve months.

14. Commitments and Contingencies

The Company leases its principal and other facilities under operating lease agreements. Net operating lease expense for the three months ended October 31, 2018 and 2017 was approximately $1.2 million, respectively. Net operating lease expense for the nine months ended October 31, 2018 and 2017 was approximately $3.5 million and $4.1 million,

respectively. Future annual minimum payments under these operating leases with initial lease terms in excess of one year are as follows:

Fiscal Year	As of October 31, 2018 (in thousands)
2019	$ 817
2020	3,103
2021	1,264
2022	378
2023	129
Total future annual minimum lease payments	$ 5,691

Contract Manufacturer Commitments

The Company’s components and products are procured and built by independent contract manufacturers based on sales forecasts. These forecasts include estimates of future demand, historical trends, analysis of sales and marketing activities, and adjustment of overall market conditions. The Company regularly issues purchase orders to independent contract manufacturers which are cancelable only upon agreement between the Company and the third-party manufacturers. As of October 31, 2018 and January 31, 2018, total manufacturing purchase commitments were approximately $21.8 million and $24.3 million, respectively.

Indemnification

The Company, from time to time, in the normal course of business, indemnifies certain vendors with whom it enters into contractual relationships. The Company has agreed to hold the other party harmless against third-party claims in connection with the Company's future products. The Company also indemnifies certain customers against third-party claims related to certain intellectual property matters. It is not possible to determine the maximum potential amount of liability under these indemnification obligations due to the limited history of prior indemnification claims and the unique facts and circumstances that are likely to be involved in each particular claim. The Company has not made payments under these obligations and no liabilities have been recorded for these obligations in the condensed consolidated balance sheets as of October 31, 2018 and January 31, 2018, respectively.

15. Segment Reporting

The Company operates in one reportable segment related to the development and sales of low-power, high-definition (HD), Ultra HD video compression, image processing and computer vision solutions. The Chief Executive Officer of the Company has been identified as the Chief Operating Decision Maker (the "CODM") and manages the Company's operations as a whole. For the purpose of evaluating financial performance and allocating resources, the CODM reviews financial information presented on a consolidated basis accompanied by information by customer and geographic region.

Geographic Revenue

The following table sets forth the Company's revenue by geographic region based on bill-to location for the periods indicated:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
	(in thousands)			
Taiwan	$28,300	$45,026	$100,650	$139,494
Asia Pacific	20,971	19,000	55,372	43,050
Europe	5,734	20,908	13,191	29,252
North America other than United States	1,531	2,582	5,040	7,566
United States	750	1,546	2,445	5,465
Total revenue	$57,286	$89,062	$176,698	$224,827

As of October 31, 2018, substantially all of the Company's property and equipment, net, were located in the United States, Asia Pacific region and Europe with approximate net amounts of $2.3 million, $3.0 million and $1.5 million, respectively.

Major Customers

The customers representing 10% or more of revenue and accounts receivable were Wintech and Chicony, which accounted for approximately 49% and 23% of total revenue for the three months ended October 31, 2018,

respectively, and accounted for approximately 57% and 16% of total revenue for the nine months ended October 31, 2018, respectively. For the three months ended October 31, 2017, the customers representing 10% or more of revenue and accounts receivable were Wintech, GoPro, Inc., or GoPro, a direct OEM customer, and Chicony, which accounted for approximately 51%, 21% and 12% of total revenue, respectively. For the nine months ended October 31, 2017, the only customer representing 10% or more of revenue and accounts receivable was Wintech, which accounted for approximately 62% of total revenue. Accounts receivable with Wintech and Chicony was approximately $12.7 million and $13.3 million as of October 31, 2018, respectively.

16. Related-Party Transactions

The Company considers an entity to be a related party if it owns more than 10% of the Company’s total voting stock at the end of each reporting period or if an officer or employee of an entity also serves on the Company’s board of directors or if it is a significant shareholder and has material business transactions with the Company.

The Company enters into software license agreements with Cadence Design Systems, Inc. (“Cadence”) from time to time. The Chief Executive Officer of Cadence, who is also the President and a Director of Cadence, was a member of the Company’s Board of Directors until June 7, 2017. In March 2017, the Company entered into a noncancelable software license agreement with Cadence. Under this agreement, the Company committed to pay an aggregate amount of $10.3 million through January 2020. As of October 31, 2018, the unpaid liabilities associated with this agreement were approximately $4.3 million. The Company paid $0.9 million and $1.7 million to Cadence for the three months ended October 31, 2018 and 2017, respectively. The Company paid $2.6 million and $2.7 million to Cadence for the nine months ended October 31, 2018 and 2017, respectively. License expenses related to the agreements with Cadence included in research and development expense were approximately $0.8 million for the three months ended October 31, 2018 and 2017, respectively. License expenses related to these agreements were approximately $2.5 million and $2.4 million for the nine months ended October 31, 2018 and 2017, respectively.

17. Subsequent Events

From November 1, 2018 to December 6, 2018, the Company repurchased a total of 104,160 shares for approximately $3.5 million in cash. As of December 6, 2018, the Company had repurchased a total of 3,985,876 shares for approximately $174.8 million in cash and there was approximately $31.9 million available for repurchases under the repurchase program through June 4, 2019.

ITEM 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q, and the consolidated financial statements and notes thereto for the fiscal year ended January 31, 2018 and management’s discussion and analysis of our financial condition and results of operations included in our Annual Report on Form 10-K for the 2018 fiscal year filed with the Securities and Exchange Commission, or SEC, on March 30, 2018.

This Quarterly Report on Form 10-Q, including this “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, includes a number of forward-looking statements that involve many risks and uncertainties. Forward-looking statements are identified by the use of the words “would,” “could,” “will,” “may,” “expect,” “believe,” “shou “anticipate,” “if,” “future,” “intend,” “plan,” “estimate,” “predict,” “potential,” “target,” “seek,” “project,” “forecast,” “continu and similar words and phrases, including the negatives of these terms, or other variations of these terms, that denote future events. Such statements include, but are not limited to, statements concerning our market opportunity and our ability to compete in such markets, our product strategy, our ability to develop and introduce new solutions, our future financial and operating performance, our sales and marketing strategy, our investment strategy, research and development, our customer and supplier relationships and inventory levels, industry trends, our cash needs and capital requirements, our expectations about taxes and operating expenses, the availability of third-party components and economic conditions. These statements reflect our current views with respect to future events and our potential financial performance and are subject to risks and uncertainties that could cause our actual results and financial position to differ materially and adversely from what is projected or implied in any forward-looking statements included in this Quarterly Report on Form 10-Q. These factors include, but are not limited to: risks associated with revenue being generated from new customers or design wins, neither of which is assured; our ability to retain and expand customer relationships and to achieve design wins; the commercial success of our customers’ products; our growth strategy; fluctuations in our operating results; our ability to anticipate future market demands and future needs and preferences of our customers; our ability to introduce new and enhanced solutions; the expansion of our current markets and our ability to successfully enter new markets; anticipated trends and challenges, including competition, in the markets in which we operate or seek to operate; our expectations regarding computer vision; our ability to effectively generate and manage growth; our ability to retain key employees; the potential for intellectual property disputes or other litigation; the risks described under Item 1A of Part II — “Risk Factors,” Item 2 of Part I — “Management’s Discussion and Analysis of Financial Condition and Results of Operations”; the risks described elsewhere in this Quarterly Report on Form 10-Q and those discussed in other documents we file with the SEC. We make these forward-looking statements based upon information available on the date of this Quarterly Report on Form 10-Q, and we have no obligation (and expressly disclaim any such obligation) to update or alter any forward-looking statements, whether as a result of new information or otherwise except as otherwise required by securities regulations.

Overview

We are a leading developer of semiconductor processing solutions for video that enable high-definition, or HD, video capture, analysis, sharing, and display. A device that captures video includes four primary components: a lens, an image sensor, a video processor and storage memory. The video processor converts raw video input into a format that can be stored, analyzed and distributed efficiently and, in some cases, analyzes the video data to automate processes. We combine our processor design capabilities with our expertise in video, image processing and computer vision algorithms and software to provide a technology platform that is designed to be easily scalable across multiple applications and enable rapid and efficient product development. Our system-on-a-chip, or SoC, designs fully integrate HD video processing, image processing and analysis, audio processing and system functions onto a single chip, delivering exceptional video and image quality, differentiated functionality and low power consumption.

We sell our solutions to leading original design manufacturers, or ODMs, and original equipment manufacturers, or OEMs, globally. We refer to ODMs as our customers and OEMs as our end customers, except as otherwise indicated

or as the context otherwise requires. In the camera market, our solutions enable the creation of high-quality video content in wearable cameras, automotive cameras, Internet Protocol, or IP, security cameras, for both professional use and home security and monitoring, unmanned aerial vehicle cameras, also referred to as UAVs or drones, and virtual reality cameras, also referred to as 360° cameras. In the infrastructure market, our solutions efficiently manage IP video traffic, broadcast encoding, transcoding and IP video delivery applications. We have also recently introduced, and continue to develop, solutions to address emerging markets, such as the incorporation of computer vision functionality for OEM automotive advanced driving assistance systems and robotics markets.

Our sales cycles typically require a significant investment of time and a substantial expenditure of resources before we can realize revenue from the sale of our solutions, if any. Our typical sales cycle consists of a multi-month sales and development process involving our customers' system designers and management along with our sales personnel and software engineers. If successful, this process culminates in a customer's decision to use our solutions in its system, which we refer to as a design win. Our sales efforts are typically directed to the OEM of the product that will incorporate our video and image processing solution, but the eventual design and incorporation of our SoC into the product may be handled by an ODM on behalf of the OEM. Volume production may begin within six to 18 months after a design win, depending on the complexity of our customer's product and other factors upon which we may have little or no influence. Once one of our solutions has been incorporated into a customer's design, we believe that our solution is likely to remain a component of the customer's product for its life cycle because of the time and expense associated with redesigning a product or substituting an alternative solution. Conversely, a design loss to a competitor will likely preclude any opportunity for us to generate future revenue from such customer's product. Even if we obtain a design win and our SoC remains a component through the life cycle of a customer's product, the volume and timing of actual sales of our SoCs to the customer depend upon the production, release and market acceptance of that product, none of which are within our control. A portable consumer device typically has a product life cycle of six to 18 months, while an IP security camera typically has a product life cycle of 12 to 24 months. We anticipate that OEM automotive products will have life cycles longer than 2 years.

Financial Highlights and Trends

- We recorded revenue of $57.3 million and $176.7 million for the three and nine months ended October 31, 2018, respectively. This represented decreases of 35.7% and 21.4% for the three and nine months ended October 31, 2018, respectively, as compared to the same periods in the prior fiscal year. The decrease in revenue was primarily attributable to declines in revenue from wearable camera markets, including sports camera, virtual reality and non-sports wearable camera markets. The decrease was also attributable to lower revenue from the drone market as a result of Dajiang Innovation Technology Inc., or DJI, the major customer in the drone market, shifting its consumer-based drones to competitive solutions, as well as continued weakness from smaller drone customers. The declines in revenue in the wearable camera and drone markets were partially offset by revenue growth in the automotive and IP security camera markets. The revenue growth in the automotive camera market was primarily due to a significant increase in shipments of OEM automotive video recorders in the Japan and China regions, offset by lower revenue from the automotive aftermarket. In the IP security market, the consumer IP security camera market demonstrated strong growth, led by expansion of revenues from the home security and monitoring market in the North America region. Revenue in the professional IP security camera market was down slightly for the three and nine months ended October 31, 2018 compared to the same periods in the prior fiscal year, which was primarily due to a decline in orders from a major China customer, partially offset by increased revenue from non-China customers.
- We recorded operating losses of $9.4 million and $26.1 million for the three and nine months ended October 31, 2018, respectively, as compared to operating income of $15.1 million and $23.0 million for the three and nine months ended October 31, 2017, respectively. The decreases in operating income were primarily due to decreased revenue and increased expenses incurred primarily in support of new applications in the automotive OEM market as well as the development of computer vision based solutions. The increase in expenses related primarily to increased research and development headcount, chip tape-out fees and increased stock-based compensation expense.
- We generated cash flows from operating activities of $10.5 million for the nine months ended October 31, 2018, as compared to $60.3 million for the nine months ended October 31, 2017. The decreased cash flows from operating activities were primarily due to decreased net income as a result of decreased revenue and increased operating expenses. The decrease in cash flows from operating activities also was attributable to decreased liabilities associated with the timing of payments to suppliers, partially offset by increased cash receipts associated with the timing of payments from customers.
- On June 4, 2018, our Board of Directors authorized the repurchase of up to an additional $100.0 million of our ordinary shares over a twelve-month period commencing June 5, 2018. We repurchased 825,191 shares for approximately $30.8 million in cash during the three months ended October 31, 2018 and 2,381,832 shares for approximately $96.4 million in cash during the nine months ended October 31, 2018. As of October 31, 2018, we had

repurchased a total of 3,881,716 shares for approximately $171.3 million in cash since the inception of the repurchase programs in June 2016 and approximately $35.4 million remained available for repurchases under the current repurchase program through June 4, 2019. Repurchases are funded using working capital and any repurchased shares are recorded as authorized but unissued shares.

Factors Affecting Our Performance

Design Wins. We closely monitor design wins by customer and end market. We consider design wins to be critical to our future success, although a design win may not successfully materialize into revenue, and even if it does result in revenue, the amount generated by each design win can vary significantly. Our long-term sales expectations are based on forecasts from customers and internal estimations of customer demand factoring in the expected time to market for end customer products incorporating our solutions and associated revenue potential. Our ability to accurately forecast demand, however, can be adversely affected by a number of factors, including inaccurate forecasting by our customers, miscalculations by our customers of their inventory requirements, changes in market conditions, adverse changes in our product order mix and fluctuating demand for our customers' products.

Pricing, Product Cost and Margin. Our pricing and margins depend on the volumes and features of the solutions we provide to our customers. Additionally, we make significant investments in new solutions for both cost improvements and new features that we expect to drive revenue and maintain margins. In general, solutions incorporated into more complex configurations, such as those used in high-performance camera or infrastructure applications, have higher prices and higher gross margins as compared to solutions sold into lower-performing, more competitive camera applications. Our average selling price can vary by market and application due to market-specific supply and demand, the maturation of products launched in previous years and the launch of new products.

We continually monitor the cost of our solutions. As we rely on third-party manufacturers for our products, we maintain a close relationship with these suppliers to continually monitor production yields, component costs and design efficiencies.

Shifting Consumer Preferences. Our revenue is subject to consumer preferences, regarding form factor and functionality, and how those preferences impact the video and image capture electronics that we support. For example, improved smartphone video capture capabilities, and the rapid adoption of smartphones by consumers, led to the decline of pocket video cameras aimed at the video and image capture market. The current video and image capture market is now characterized by a greater volume of more specialized video and image capture devices that are less likely to be replaced with smartphones, such as wearable, IP security, UAV and automotive cameras. This increasing specialization of video capture devices has changed our customer base and end markets and has impacted our revenue. In the future, we expect further changes in the market to continue to impact our business performance.

Continued Concentration of Revenue by End Market. Historically, our revenue has been significantly concentrated in a small number of end markets. In fiscal year 2010, the majority of our revenue came from the pocket video, camcorder and infrastructure markets. Since that time, we have developed technologies to provide solutions for new markets as they emerged, such as the wearable, IP security, UAV and automotive camera markets. Since fiscal year 2013, the wearable sports and professional IP security markets have been our largest end markets and sales into these markets collectively generated the majority of our revenue. We believe, however, that expansion into new markets is required to facilitate revenue growth and customer diversification as wearable camera and UAV camera markets have recently slowed. While we will continue to expand our end market exposure, such as to home security and monitoring cameras, non-sports wearable cameras, UAVs, automotive, virtual reality cameras and robotics applications, we anticipate that sales to a limited number of end markets will continue to account for a significant percentage of our total revenue for the foreseeable future. Our end market concentration may cause our financial performance to fluctuate significantly from period to period based on the success or failure of products that our SoCs are designed into as well as the overall growth or decline in the video capture markets in which we compete. In addition, we derive a significant portion of our revenue from a limited number of ODMs who build products on behalf of a limited number of OEMs and from a limited number of OEMs to whom we ship directly. We believe that our operating results for the foreseeable future will continue to depend on sales to a relatively small number of customers.

Ability to Capitalize on Connectivity Trends. Mobile connected devices are ubiquitous today and play an increasingly prominent role in consumers' lives. The constant connectivity provided by these devices has created a demand for

connected electronic peripherals such as video and image capture devices. Our ability to capitalize on these trends by supporting our end customers in the development of connected peripherals that seamlessly cooperate with other connected devices and allow consumers to distribute and share video and images with online media platforms is critical for our success. We have added wireless communication functionality into our solutions for wearable, IP security, UAV and automotive cameras. The combination of our compression technology with wireless connectivity enables wireless video streaming and uploading of videos and images to the Internet. Our solutions enable IP security camera systems to stream video content to either cloud infrastructure or connected mobile devices, and our solutions for wearable and UAV cameras allow consumers to quickly stream or upload video and images to social media platforms.

Ability to Capitalize on Computer Vision Trends. We expect that computer vision functionality will become an increasingly important requirement in many of our current and future markets, including IP security, wearable, UAV, automotive and robotics markets. As a result, we believe that our ability to develop advanced computer vision technology, enable and support customer product development in emerging applications such as advanced driver-assistance systems, object detection, people recognition and machine learning, and gain customer acceptance of our technology platform and solutions, will be critical to our future success.

Sales Volume. A typical camera design win that successfully launches into the marketplace can generate a wide range of sales volumes for our solutions, depending on the end market demand for our customers' products. This can depend on several factors, including the reputation of the end customer, market penetration, product capabilities, size of the end market that the product addresses and our end customers' ability to sell their products. In certain cases, we may provide volume discounts on sales of our solutions, which may be offset by lower manufacturing costs related to higher volumes. In general, our customers with greater market penetration and better branding tend to develop products that generate larger volumes over the product life cycle.

Customer Product Life Cycle. We estimate our customers' product life cycles based on the customer, type of product and end market. In general, products launched in the camera market have shorter life cycles than those sold into the infrastructure market. We typically commence commercial shipments from six to 18 months following a design win; however, in some markets, more lengthy product and development cycles are possible, depending on the scope and nature of the project. A portable consumer device typically has a product life cycle of six to 18 months, and an IP security camera typically has a product life cycle of 12 to 24 months. We anticipate that product development and product life cycles will typically be longer in the OEM automotive and robotics markets. In the infrastructure market, the product life cycle can range from 24 to 60 months.

Results of Operations

The following table sets forth a summary of our statement of operations for the periods indicated:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
	(dollars in thousands)			
Revenue	$57,286	$89,062	$176,698	$224,827
Cost of revenue	22,701	32,448	69,208	82,445
Gross profit	34,585	56,614	107,490	142,382
Operating expenses:				
Research and development	31,653	29,796	95,446	83,936
Selling, general and administrative	12,354	11,700	38,098	35,406
Total operating expenses	44,007	41,496	133,544	119,342
Income (loss) from operations	(9,422)	15,118	(26,054)	23,040
Other income, net	993	319	2,517	696
Income (loss) before income taxes	(8,429)	15,437	(23,537)	23,736
Provision for income taxes	592	3,713	2,367	6,145
Net income (loss)	$(9,021)	$11,724	$(25,904)	$17,591

The following table sets forth operating results as a percentage of revenue of each line item for the periods indicated:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2018	2017	2018	2017
Revenue	100 %	100 %	100 %	100 %

Cost of revenue	40	36	39	37
Gross profit	60	64	61	63
Operating expenses:				
Research and development	55	33	54	37
Selling, general and administrative	22	13	22	16
Total operating expenses	77	46	76	53
Income (loss) from operations	(17)	18	(15)	10
Other income, net	2	—	1	—
Income (loss) before income taxes	(15)	18	(14)	10
Provision for income taxes	1	4	1	3
Net income (loss)	(16)%	14 %	(15)%	7 %

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Revenue

We derive substantially all of our revenue from the sale of HD and Ultra HD video and image processing SoC solutions to OEMs and ODMs, either directly or through our distributors. Our SoC solutions have been primarily used in the camera markets, such as IP security, automotive video recorder, drone and wearable cameras. Although we expect these camera markets to continue to generate revenue for the foreseeable future, we are introducing new SoCs targeting emerging computer vision applications in the IP security, OEM automotive, and robotics markets. We derive a substantial portion of our revenue from sales made indirectly through one of our distributors, Wintech Microelectronics Co., Ltd., or Wintech, and directly to one of our ODM customers, Chicony Electronics Co., Ltd., or Chicony.

We have historically experienced seasonal fluctuations in our quarterly revenue with our third fiscal quarter normally being the highest revenue quarter. This fluctuation has been driven primarily by increased sales in consumer camera markets as our customers build inventories in preparation for the holiday shopping season. Due to experienced declines in demand for our solutions in several consumer camera markets, including wearable camera, virtual reality and drone markets, the seasonal impact on quarterly revenue is not significant in the current fiscal year. More generally, our average selling prices fluctuate based on the mix of our solutions sold in a period which reflects the impact of both changes in unit sales of existing solutions as well as the introduction and sales of new solutions. Our solutions are typically characterized by a life cycle that begins with higher average selling prices and lower volumes, followed by broader market adoption, higher volumes and average selling prices that are lower than initial levels.

The end markets into which we sell our products have seen significant changes as consumer preferences have evolved in response to new technologies. As a result, the composition and timing of our revenue may differ meaningfully during periods of technology or consumer preference changes. We expect shifts in consumer use of video capture to continue to change over time, as computer vision specialized use cases emerge and video capture continues to proliferate.

Cost of Revenue and Gross Margin

Cost of revenue includes the cost of materials such as wafers processed by third-party foundries, costs associated with packaging, assembly and testing, and our manufacturing support operations such as logistics, planning and quality assurance. Cost of revenue also includes indirect costs such as warranty, inventory valuation reserves and other general overhead costs.

We expect that our gross margin may fluctuate from period to period as a result of changes in average selling price, product mix and the introduction of new products by us or our competitors. In general, solutions incorporated into more complex configurations, such as those used in high-performance cameras or infrastructure applications, have higher prices and higher gross margins, as compared to solutions sold into the lower-performance, more competitive camera applications. As semiconductor products mature and unit volumes sold to customers increase, their average selling prices typically decline. These declines may be paired with improvements in manufacturing yields and lower wafer, packaging and test costs, which offset some of the margin reduction that could result from lower selling prices. We believe that our gross margin will decline in the future as we continue to penetrate the highly competitive camera market and, in particular, the IP security market.

Research and Development

Research and development expense consists primarily of personnel costs, including salaries, stock-based compensation and employee benefits. The expense also includes costs of development incurred in connection with our collaborations with our foundry vendors, costs of licensing intellectual property from third parties for product development, costs of development for software and hardware tools, cost of fabrication of mask sets for prototype products, and allocated depreciation and facility expenses. All research and development costs are expensed as

incurred. We expect our research and development expense to increase in absolute dollars as we continue to enhance and expand our product features and offerings and increase headcount for new SoC development and development of computer vision technology, especially for the OEM automotive market.

Selling, General and Administrative

Selling, general and administrative expense consists primarily of personnel costs, including salaries, stock-based compensation and employee benefits for our sales, marketing, finance, human resources, information technology and administrative personnel. The expense also includes professional service costs related to accounting, tax, legal services, and allocated depreciation and facility expenses. We expect our selling, general and administrative expense to increase in absolute dollars as we continue to maintain the infrastructure and expand the size of our sales and marketing organization to support our business strategy of addressing new opportunities with our computer vision technology.

Other Income, Net

Other income consists primarily of interest income from deposits with financial institutions and interest income from investments in debt securities, net of interest expense incurred for intangible assets purchased and gains and losses from foreign currency transactions and remeasurements.

Provision for Income Taxes

We are incorporated and domiciled in the Cayman Islands and also conduct business in several countries such as the United States, China, Taiwan, Hong Kong, Italy, South Korea and Japan, and we are subject to taxation in those jurisdictions. Our worldwide operating income is subject to varying tax rates and our effective tax rate is highly dependent upon the geographic distribution of our earnings or losses and the tax laws and regulations in each geographical region. It is also subject to fluctuation from changes in the valuation of our deferred tax assets and liabilities, tax benefits from excess stock-based compensation deductions; transfer pricing adjustments and the tax effects of nondeductible compensation. We have historically had lower effective tax rates as a substantial percentage of our operations are conducted in lower-tax jurisdictions. If our operational structure was to change in such a manner that would increase the amount of operating income subject to taxation in higher-tax jurisdictions, or if we were to commence operations in jurisdictions assessing relatively higher tax rates, our effective tax rate could fluctuate significantly on a quarterly basis and/or be adversely affected.

Significant judgment is required in evaluating our uncertain tax positions and determining our provision for income taxes. Although we believe our reserves are reasonable, no assurance can be given that the final tax outcome of these matters will not be different from that which is reflected in our historical provision for income taxes and accruals. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will impact the provision for income taxes in the period in which such determination is made. The provision for income taxes includes the impact of uncertain tax position reserves and changes to reserves that are considered appropriate, as well as the related net interest and penalties.

Significant judgment is also required in determining any valuation allowance recorded against deferred tax assets. In assessing the need for a valuation allowance, we consider all available evidence, including past operating results, estimates of future taxable income, and the feasibility of tax planning strategies. In the event that we change our determination as to the amount of deferred tax assets that can be realized, we will adjust our valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made.

On December 22, 2017, the Tax Cuts and Jobs Act, or the Tax Act, was enacted into law in the United States. The new tax legislation makes changes to the corporate tax rate, business-related deductions and taxation of foreign earnings, among others, that are generally effective for taxable years beginning after December 31, 2017. We have completed our accounting related to the tax impact of the Tax Act in the quarter ended October 31, 2018. Refer to Note 13, “Income Taxes”, of Notes to Condensed Consolidated Financial Statements included in this report for details of our evaluation.

Comparison of the Three and Nine Months Ended October 31, 2018 and 2017

Revenue

Three Months Ended October 31,		Change		Nine Months Ended October 31,		Change	
2018	2017	Amount	%	2018	2017	Amount	%

	(dollars in thousands)							
Revenue	$57,286	$89,062	$(31,776)	(35.7)%	$176,698	$224,827	$(48,129)	(21.4)%

The decreased revenue for the three and nine months ended October 31, 2018, as compared to the same periods in the prior fiscal year, was primarily attributable to declines in revenue from wearable camera markets, including sports camera, virtual reality and non-sports wearable camera markets. The decrease was also attributable to lower revenue from the drone market as a result of Dajiang Innovation Technology Inc., or DJI, the major customer in the drone market, shifting its consumer-based drones to competitive solutions, as well as continued weakness from smaller drone customers. The declines in revenue in the wearable camera and drone markets were partially offset by revenue growth in the automotive and IP security camera markets. The revenue growth in the automotive camera market was primarily due to a significant increase in shipments of OEM automotive video recorders in the Japan and China regions, offset by lower revenue from the automotive aftermarket. In the IP security market, the consumer IP security camera market demonstrated strong growth, led by expansion of revenues from the home security and monitoring market in the North America region. Revenue in the professional IP security camera market was down slightly for the three and nine months ended October 31, 2018 compared to the same periods in the prior fiscal year, which was primarily due to a decline in orders from a major China customer, partially offset by increased revenue from non-China customers.

Cost of Revenue and Gross Margin

	Three Months Ended October 31,		Change		Nine Months Ended October 31,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Cost of revenue	$22,701	$32,448	$(9,747)	(30.0)%	$69,208	$82,445	$(13,237)	(16.1)%
Gross profit	34,585	56,614	(22,029)	(38.9)%	107,490	142,382	(34,892)	(24.5)%
Gross margin	60.4 %	63.6 %	—	(3.2)%	60.8 %	63.3 %	—	(2.5)%

Cost of revenue decreased for the three and nine months ended October 31, 2018, as compared to the same periods in the prior fiscal year, primarily due to lower revenue in the wearable camera and drone markets. The cost of revenue decreases were partially offset by increased shipments of SoCs for the IP security camera and automotive OEM markets.

Gross margin decreased for the three and nine months ended October 31, 2018, as compared to the same periods in the prior fiscal year, primarily due to an increase in the percentage of our total revenue that was derived from the lower gross margin IP security camera market combined with a decline in revenue from the higher gross margin drone market.

Research and Development

	Three Months Ended October 31,		Change		Nine Months Ended October 31,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Research and development	$31,653	$29,796	$1,857	6.2%	$95,446	$83,936	$11,510	13.7%

Research and development expense increased for the three and nine months ended October 31, 2018, as compared to the same periods in the prior fiscal year, primarily due to increases in engineering headcount and chip development cost associated with the computer vision technology development for our current markets, as well as new markets such as the automotive OEM and robotics markets. Our engineering headcount increased to 552 at October 31, 2018 compared to 503 at October 31, 2017, which resulted in an increase in salary-related expenses of approximately $1.5 million and $5.5 million for the three and nine months ended October 31, 2018, respectively. The increased research and development expense was also attributable to additional stock-based compensation expense of approximately $0.8 million and $2.3 million for the three and nine months ended October 31, 2018, respectively, as a result of the issuance of options and restricted stock units for newly hired employees and our annual evergreen stock program for existing employees. The SoC development cost was relatively flat for the three months ended October 31, 2018, but increased by approximately $3.4 million for the nine months ended October 31, 2018, as compared to the same periods in the prior fiscal year, due to the timing and number of chips in development.

Selling, General and Administrative

	Three Months Ended October 31,		Change		Nine Months Ended October 31,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Selling, general and administrative	$12,354	$11,700	$654	5.6%	$38,098	$35,406	$2,692	7.6%

Selling, general and administrative expense increased for the three and nine months ended October 31, 2018, as compared to the same periods in the prior fiscal year, primarily due to our selling, general and administrative headcount increasing to 175 at October 31, 2018 compared to 168 at October 31, 2017. The increased headcount resulted in an increase in salary-related expenses of approximately $0.7 million and $1.7 million for the three and nine months ended October 31, 2018, respectively. For the nine months ended October 31, 2018, the increase was also attributable to additional stock-based compensation expense of approximately $0.6 million, as a result of the issuance of options and restricted stock units for newly-hired employees and our annual evergreen stock program for existing employees, and approximately $0.6 million of additional expenditures on outside professional services to support our business.

Other Income, Net

	Three Months Ended October 31,		Change		Nine Months Ended October 31,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Other income, net	$993	$319	$674	211.3%	$2,517	$696	$1,821	261.6%

The increase in other income, net, for the three and nine months ended October 31, 2018 compared to the same periods in the prior fiscal year was primarily due to an aggregate of approximately $0.7 million and $1.8 million, respectively, of additional interest and other income from our deposits and debt security investments. The increase is primarily the result of larger invested balances, interest rate increases and debt securities purchased at discounts. During the three months ended October 31, 2018, we invested an additional $100.0 million in debt securities.

Provision for Income Taxes

	Three Months Ended October 31,		Change		Nine Months Ended October 31,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Provision for income taxes	$592	$3,713	$(3,121)	(84.1)%	$2,367	$6,145	$(3,778)	(61.5)%
Effective tax rate	(7.0)%	24.1%	—	(31.1)%	(10.1)%	25.9%	—	(36.0)%

The quarterly income taxes reflect an estimation of the corresponding fiscal year's annual effective tax rate and include, when applicable, adjustments from discrete tax items arising in that quarter.

The decreased income tax expense for the three and nine months ended October 31, 2018, as compared to the same periods in the prior fiscal year, was primarily due to a reduction in the U.S. statutory rate from 35% to 21%, which was partially offset by a decrease in the proportion of profits generated in lower-tax jurisdictions and losses incurred in jurisdictions for which the Company was not able to recognize a related tax benefit.

Liquidity and Capital Resources

As of October 31, 2018 and January 31, 2018, we had cash, cash equivalents and marketable securities of approximately $348.6 million and $434.6 million, respectively. We invest in highly liquid, short-term marketable securities and hold these investments as available-for-sale securities. As of October 31, 2018, these securities had a fair value of approximately $203.4 million with insignificant unrealized losses caused by fluctuations in market value.

Cash Flows

The following table summarizes our cash flows for the periods indicated:

	Nine Months Ended October 31,	
	2018	2017
	(in thousands)	
Net cash provided by operating activities	$10,498	$60,294
Net cash used in investing activities	(50,650)	(13,228)
Net cash used in financing activities	(94,180)	(49,004)
Net decrease in cash and cash equivalents	$(134,332)	$(1,938)

Net Cash Provided by Operating Activities

Net cash provided by operating activities decreased for the nine months ended October 31, 2018 compared to the same period in the prior fiscal year, primarily due to decreased net income as a result of decreased revenue and increased operating expenses. The decrease also was attributable to decreased liabilities associated with the timing of payments to suppliers, partially offset by increased cash receipts associated with the timing of payments from customers.

Net Cash Used in Investing Activities

Net cash used in investing activities increased for the nine months ended October 31, 2018 compared to the same period in the prior fiscal year, primarily due to approximately $86.0 million of additional investments in debt securities. The increased cash used in investing activities was partially offset by an increase of approximately $48.6 million in cash receipts from the sale and maturity of debt securities.

Net Cash Used in Financing Activities

Net cash used in financing activities increased for the nine months ended October 31, 2018 compared to the same period in the prior fiscal year, primarily due to additional payments of $44.9 million in cash for the repurchase of our ordinary shares under the stock repurchase program.

Stock Repurchase Program

On June 4, 2018, our Board of Directors authorized the repurchase of up to an additional $100.0 million of our ordinary shares over a twelve-month period commencing June 5, 2018. Since the inception of the repurchase programs in June 2016, a total of $225.0 million has been authorized and we have repurchased a total of 3,881,716 shares for approximately $171.3 million in cash. As of October 31, 2018, approximately $35.4 million remained available for repurchases under the current repurchase program through June 4, 2019. Repurchases under the program may be made from time-to-time through open market purchases, 10b5-1 plans or privately negotiated transactions subject to market conditions, applicable legal requirements and other relevant factors. The repurchase program does not obligate us to acquire any particular amount of ordinary shares, and it may be suspended at any time at the company's discretion. Repurchases are funded using working capital and any repurchased shares are recorded as authorized but unissued shares.

Operating and Capital Expenditure Requirements

As of October 31, 2018, we had cash, cash equivalents and marketable securities of approximately $348.6 million. We believe that our existing cash balances will be sufficient to meet our anticipated cash requirements through at least the next 12 months. In the future, we expect our operating and capital expenditures to increase as we increase headcount, expand our business activities, and implement and enhance our information technology platforms. As we expand our operations, we may require more working capital. If our available cash balances are insufficient to satisfy our future liquidity requirements, we may seek to sell equity or convertible debt securities or borrow funds commercially. The sale of equity and convertible debt securities may result in dilution to our shareholders and those securities may have rights senior to those of our ordinary shares. If we raise additional funds through the issuance of convertible debt securities, these securities could contain covenants that would restrict our operations. We may require additional capital beyond our currently anticipated amounts. Additional capital may not be available to us on reasonable terms, or at all.

Our short- and long-term capital requirements will depend on many factors, including the following:

- our ability to generate cash from operations;
- our ability to control our costs;
- the expansion of our research and development of new technologies and products to address new markets and applications;
- the emergence of competing or complementary technologies or products;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights, or participating in litigation-related activities; and
- our acquisition of complementary businesses, products and technologies.

Contractual Obligations, Commitments and Contingencies

Manufacturing Purchase Obligations

As of October 31, 2018, we had purchase obligations with our independent contract manufacturers of $21.8 million.

Except as described above with respect to the manufacturing purchase obligations, there were no other material changes in our contractual obligations, commitments and contingencies from those disclosed in our Annual Report on Form 10-K for the fiscal year ended January 31, 2018. Please see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations – Contractual Obligations, Commitments and Contingencies" in our Annual Report on Form 10-K for the fiscal year ended January 31, 2018 for a description of our contractual obligations.

Off-Balance Sheet Arrangements

As of October 31, 2018, we did not engage in any off-balance sheet arrangements, including the use of structured finance, special purpose entities or variable interest entities.

Recent Authoritative Accounting Guidance

See Note 1 of Notes to Condensed Consolidated Financial Statements for information regarding recently issued accounting pronouncements.

Critical Accounting Policies and Significant Management Estimates

There have been no material changes to our critical accounting policies and estimates as compared to the critical accounting policies and estimates described in our Annual Report on Form 10-K for the 2018 fiscal year filed with the SEC on March 30, 2018, except for the recently adopted accounting guidance on revenue recognition as discussed in Notes 1 and 2 of Notes to Condensed Consolidated Financial Statements.

ITEM 3. Quantitative and Qualitative Disclosures about Market Risk

As of October 31, 2018 and January 31, 2018, we had cash, cash equivalents, marketable securities and restricted cash totaling $348.6 million and $434.6 million, respectively. Our cash is deposited in checking accounts with reputable financial institutions. The cash equivalents and marketable securities consist primarily of investments in debt securities. Our cash is held for working capital purposes. We do not enter into investments for trading or speculative purposes.

Interest Rate Fluctuation Risk

The primary objectives of our investment activities are to preserve principal, provide liquidity and maximize income without significantly increasing risk. Some of the securities we invest in are subject to market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. To minimize this risk, we maintain our portfolio of short-term investments in a variety of debt securities with high liquidity. We do not enter into investments for trading or speculative purposes. A 10% change in interest rates will not have a material impact on our future interest income or investment fair value. The risk associated with fluctuating interest rates is limited to our investment portfolio.

Foreign Currency Risk

To date, all of our product sales and inventory purchases have been denominated in U.S. dollars. We therefore have not had any foreign currency risk associated with these two activities. The functional currency of all of our entities is the U.S. dollar. Our operations outside of the United States incur operating expenses and hold assets and liabilities

denominated in foreign currencies, principally the New Taiwan Dollar and the Chinese Yuan Renminbi. Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates, particularly the exchange rates between the Chinese Yuan Renminbi and the U.S. dollar and between the New Taiwan Dollar and the U.S. dollar. Given that the operating expenses that we incur in currencies other than U.S. dollars have not been a significant percentage of our total revenue, we believe that the exposure to foreign currency fluctuation risk from operating expenses is not material at this time. As we grow our operations, our exposure to foreign currency risk could become more significant. To date, we have not entered into any foreign currency exchange contracts and currently do not expect to enter into foreign currency exchange contracts for trading or speculative purposes.

ITEM 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. The term “disclosure controls and procedures” (as defined in Rules 13a- 15(e) and 15d- 15(e)) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based upon such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of October 31, 2018, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the Company’s fiscal quarter ended October 31, 2018 that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

Inherent Limitations of Disclosure Controls and Internal Control over Financial Reporting

Because of their inherent limitations, our disclosure controls and procedures and our internal control over financial reporting may not prevent material errors or fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. The effectiveness of our disclosure controls and procedures and our internal control over financial reporting is subject to risks, including that the controls may become inadequate because of changes in conditions or that the degree of compliance with our policies or procedures may deteriorate.

PART II – OTHER INFORMATION

ITEM 1. Legal Proceedings

We are not engaged in any material legal proceedings at this time.

ITEM 1A. Risk Factors

Certain factors may have a material adverse effect on our business, financial condition and results of operations. You should consider carefully the risks and uncertainties described below, in addition to other information contained in this Quarterly Report on Form 10-Q, including our unaudited condensed consolidated financial statements and related notes. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business. If any of the following risks actually occurs, our business, financial condition, results of operations, and future prospects could be materially and adversely affected. In that event, the trading price of our ordinary shares could decline, and you could lose part or all of your investment.

Risks Related to Our Business and Our Industry

If our customers do not design our solutions into their product offerings, or if our customers' product offerings are not commercially successful, our business would suffer.

We sell our video and image processing system-on-a-chip, or SoC, solutions to original equipment manufacturers, or OEMs, who include our SoCs in their products, and to original design manufacturers, or ODMs, who include our SoCs in the products that they supply to OEMs. We refer to ODMs as our customers and OEMs as our end customers, except as otherwise indicated or as the context otherwise requires. Our video and image processing SoCs are generally incorporated into our customers' products at the design stage, which is referred to as a design win. As a result, we rely on OEMs to design our solutions into the products that they design and sell. Without these design wins, our business would be significantly harmed. We often incur significant expenditures developing a new SoC solution without any assurance that an OEM will select our solution for design into its own product. Once an OEM designs a competitor's device into its product, it becomes significantly more difficult for us to sell our SoC solutions to that OEM because changing suppliers involves significant cost, time, effort and risk for the OEM.

Even if an OEM designs one of our SoC solutions into its product, we cannot be assured that the OEM's product will be commercially successful over time or at all. For example, in the past we have secured design wins for camera products that were never commercially released by our customer as a result of factors beyond our control. If other products or other product categories incorporating our SoC solutions are not commercially successful or experience rapid decline, our revenue and business will suffer. For example, we have recently experienced declines in demand for our solutions in several consumer camera markets, including wearable cameras, virtual reality cameras and unmanned aerial vehicle, also referred to as UAVs or drones, which has negatively impacted our business and which we expect will continue through at least the end fiscal year 2019.