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 June 30, 2019
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 001-15751

eMAGIN CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	**56-1764501**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

700 South Drive, Suite 201, Hopewell Junction, NY 12533
(Address of principal executive offices) (Zip Code)

(845) 838-7900
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $.001 Par Value Per Share	EMAN	NYSE American

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 ☑

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: 49,173,773 shares of common stock, $0.001 par value, were outstanding as of August 1, 2019.

eMagin Corporation
Form 10-Q
For the Quarter ended June 30, 2019

Table of Contents

STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This Quarterly Report on Form 10-Q, or Report, contains forward-looking statements that are based on our management's belief and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.

In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue" or the negative of these terms or other comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect our results. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed in the section entitled "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 and elsewhere in this Report. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance. You should read this Report and the documents that we reference in this Report and have filed with the Securities and Exchange Commission, or the SEC, as exhibits to this Report, completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements.

In particular, forward-looking statements in this Report include statements about:

- our ability to generate sufficient cash flows and obtain the additional financing we need in order to continue as a going concern;
- our ability to generate additional revenue or secure additional external financing when, or if, required, in order to continue our current operations;
- our ability to manufacture our products on a timely basis and at a competitive cost;
- our ability to successfully remediate manufacturing issues that have resulted in production delays and successfully integrate new equipment on our manufacturing line;
- our ability to achieve our yield improvement initiatives;
- our ability to manufacture our products on a timely basis and at a competitive cost;
- our ability to successfully reduce expenses;
- our ability to meet our obligations as they become due;
- our needs for additional financing, as well as our ability to obtain such additional financing;
- our anticipated cash needs and our estimates regarding our capital requirements;
- our ability to maintain our relationships with customers and vendors;
- our ability to protect our intellectual property;
- our ability to successfully develop and market our products to customers;
- our ability to generate customer demand for our products in our target markets;
- the development of our target markets and market opportunities, including the consumer market;
- technological developments in our target markets and the development of alternate, competing technologies in them;
- the rate of acceptance of AR/VR systems and products in the consumer and commercial marketplace;
- our potential exposure to product liability claims;
- our ability to meet customers' delivery schedules;
- market pricing for our products and for competing products;
- the concentration of a significant ownership percentage in our Company in a relatively small number of stockholders and the ability of one or more of such stockholders to exert substantial control over our affairs;
- changes in demand by OEM customers for advanced microdisplays, limited availability of suppliers and foundries, high costs of raw materials, pricing pressure brought by the marketplace or governmental customers and other factors that impact the commercial, military and consumer markets in which we operate;
- increasing competition;
- provisions in certain of our organizational documents, commercial agreements and our military contracts that may prevent or delay an acquisition of, partnership with, or investment in, our Company and our ability to develop original equipment manufacturer and mass production partnerships; and
- our efforts to settle purchase commitments remaining from our consumer night vision business.

The forward-looking statements in this Report represent our views as of the date of this Report. We anticipate that subsequent events and developments may cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. Therefore, these forward-looking statements do not represent our views as of any date other than the date of this Report.

In this Report, references to "eMagin Corporation," "eMagin," "the Company," "we," "us," and "our company" refer to eMagin Corporation and our wholly owned subsidiary, Virtual Vision, Inc. References to "Consumer Night Vision Business" refers to our consumer night vision products business.

ITEM 1. Condensed Consolidated Financial Statements

eMAGIN CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

	June 30, 2019 (unaudited)		December 31, 2018	
ASSETS				
Current assets:				
Cash and cash equivalents	$	3,705	$	3,359
Accounts receivable, net		2,733		3,186
Unbilled accounts receivable		21		224
Inventories		8,368		8,582
Prepaid expenses and other current assets		896		875
Total current assets		15,723		16,226
Equipment, furniture and leasehold improvements, net		8,785		8,921
Operating lease right- of- use assets		3,953		—
Intangibles and other assets		200		269
Total assets	$	28,661	$	25,416
LIABILITIES AND SHAREHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	$	1,856	$	2,024
Accrued compensation		1,782		1,634
Revolving credit facility, net		945		—
Finance lease liability - current portion		15		—
Common stock warrant liability		166		1,497
Other accrued expenses		1,543		1,827
Deferred revenue		133		38
Operating lease liability - current portion		689		—
Other current liabilities		322		427
Total current liabilities		7,451		7,447
Finance lease liability-long term		32		—
Operating lease liability-long term		3,384		—
Total liabilities	$	10,867	$	7,447
Commitments and contingencies (Note 8)				
Shareholders' equity:				
Preferred stock, $.001 par value: authorized 10,000,000 shares:				
Series B Convertible Preferred stock, (liquidation preference of $5,659) stated value $1,000 per share, $.001 par value: 10,000 shares designated and 5,659 issued and outstanding as of June 30, 2019 and December 31, 2018		—		—
Common stock, $.001 par value: authorized 200,000,000 shares, issued 49,325,839 shares, outstanding 49,171,773 shares as of June 30, 2019 and issued 45,323,339 shares, outstanding 45,161,273 shares as of December 31, 2018		49		45
Additional paid-in capital		258,333		254,736
Accumulated deficit		(240,088)		(236,312)
Treasury stock, 162,066 shares as of June 30, 2019 and December 31, 2018		(500)		(500)
Total shareholders' equity		17,794		17,969
Total liabilities and shareholders' equity	$	28,661	$	25,416

See notes to Condensed Consolidated Financial Statements.

eMAGIN CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share data)
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Revenues:				
Product	$ 4,958	$ 6,216	$ 10,465	$ 12,079
Contract	403	850	1,008	1,854
Total revenues, net	5,361	7,066	11,473	13,933
Cost of revenues:				
Product	4,898	3,971	9,324	8,330
Contract	238	299	588	827
Impairment of Consumer Night Vision inventory	—	2,690	—	2,690
Total cost of revenues	5,136	6,960	9,912	11,847
Gross profit	225	106	1,561	2,086
Operating expenses:				
Research and development	1,300	1,720	2,897	3,351
Selling, general and administrative	1,777	2,031	3,716	4,943
Total operating expenses	3,077	3,751	6,613	8,294
Loss from operations	(2,852)	(3,645)	(5,052)	(6,208)
Other income (expense):				
Change in fair value of common stock warrant liability	536	(1,427)	1,330	(924)
Interest expense, net	(21)	(30)	(55)	(72)
Other income, net	—	37	—	58
Total other income	515	(1,420)	1,275	(938)
Loss before provision for income taxes	(2,337)	(5,065)	(3,777)	(7,146)
(Provision) benefit for income taxes	—	—	—	—
Net loss	$ (2,337)	$ (5,065)	$ (3,777)	$ (7,146)
Less net income allocated to participating securities	—	—	—	—
Net loss allocated to common shares	$ (2,337)	$ (5,065)	$ (3,777)	$ (7,146)
Loss per share, basic and diluted	$ (0.05)	$ (0.11)	$ (0.08)	$ (0.16)
Weighted average number of shares outstanding:				
Basic and Diluted	48,817,940	45,111,273	46,979,505	43,691,117

See notes to Condensed Consolidated Financial Statements.

eMAGIN CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF SHAREHOLDER'S EQUITY
(In thousands, except share and per share data)
(unaudited)

	Six Month Period Ended June 30, 2019							
	Preferred Shares	Preferred Stock	Common Shares	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Treasury Stock	Total Shareholders' Equity
Balance, December 31, 2018	**5,659**	**$ —**	**45,323,339**	**$ 45**	**$ 254,736**	**$ (236,312)**	**$ (500)**	**$ 17,969**
Stock based compensation	—	—	—	—	193	—	—	193
Net loss	—	—	—	—	—	(1,439)	—	(1,439)
Balance, March 31, 2019	**5,659**	**$ —**	**45,323,339**	**$ 45**	**$ 254,929**	**$ (237,751)**	**$ (500)**	**$ 16,723**
Public offering of common shares, net of offering costs	—	—	4,000,000	4	3,299	—	—	3,303
Exercise of common stock options	—	—	12,500	—	8	—	—	8
Stock based compensation	—	—	—	—	97	—	—	97
Net loss	—	—	—	—	—	(2,337)	—	(2,337)
Balance, June 30, 2019	**5,659**	**$ -**	**49,335,839**	**$ 49**	**$ 258,333**	**$ (240,088)**	**$ (500)**	**$ 17,794**

	Six Month Period Ended June 30, 2018							
	Preferred Shares	Preferred Stock	Common Shares	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Treasury Stock	Total Shareholders' Equity
Balance, December 31, 2017	**5,659**	**$ —**	**35,182,589**	**$ 35**	**$ 244,726**	**$ (226,769)**	**$ (500)**	**$ 17,492**
Exercise of common stock options	—	—	49,937		63	—	—	63
Exercise of common stock warrants	—	—	30,000	-	46	—	—	46
Public offering of common shares, net of offering costs	—	—	10,010,813	10	9,255	—	—	9,265
Stock based compensation	—	—	—	—	205	—	—	205
Net loss	—	—	—	—	—	(2,081)	—	(2,081)
Balance, March 31, 2018	**5,659**	**$ —**	**45,273,339**	**$ 45**	**$ 254,295**	**$ (228,850)**	**$ (500)**	**$ 24,990**
Stock based compensation	—	—	—	—	130	—	—	130
Net loss	—	—	—	—	—	(5,065)	—	(5,065)
Balance, June 30, 2018	**5,659**	**$ -**	**45,273,339**	**$ 45**	**$ 254,425**	**$ (233,915)**	**$ (500)**	**$ 20,055**

See notes to Condensed Consolidated Financial Statements

eMAGIN CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(unaudited)

	Six Months Ended June 30,	
	2019	**2018**
Cash flows from operating activities:		
Net loss	$ (3,777)	$ (7,146)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	988	991
Change in fair value of common stock warrant liability	(1,330)	924
Impairment of Consumer Night Vision inventory		2,690
Impairment of Consumer Night Vision tooling		76
Stock-based compensation	290	335
Amortization of operating lease right-of-use assets	314	—
Changes in operating assets and liabilities:		
Accounts receivable	453	1,047
Unbilled accounts receivable	203	(541)
Inventories	214	(444)
Prepaid expenses and other current assets	(72)	209
Deferred revenues	96	(765)
Change in operating lease liabilities	(291)	—
Accounts payable, accrued expenses, and other current liabilities	(242)	138
Net cash used in operating activities	(3,154)	(2,486)
Cash flows from investing activities:		
Purchase of equipment	(833)	(849)
Net cash used in investing activities	(833)	(849)
Cash flows from financing activities:		
Borrowings (repayments) under revolving line of credit, net	1,022	(3,808)
Proceeds from public offering, net	3,303	12,171
Proceeds from warrant exercise, net	—	46
Proceeds from exercise of stock options	8	63
Net cash provided by financing activities	4,333	8,472
Net increase in cash and cash equivalents	346	5,137
Cash and cash equivalents, beginning of period	3,359	3,526
Cash and cash equivalents, end of period	$ 3,705	$ 8,663
Cash paid for interest	$ 32	$ 30
Cash paid for income taxes	$ —	$ —

See notes to Condensed Consolidated Financial Statements.

Note 1: Summary of Significant Accounting Policies

The Business

eMagin Corporation (the "Company") designs, develops, manufactures and markets OLED (organic light emitting diode)–on-silicon microdisplays and virtual imaging products which utilize OLED microdisplays. The Company's products are sold mainly in North America, Asia, and Europe.

Basis of Presentation

In the opinion of management, the accompanying unaudited condensed consolidated financial statements of eMagin Corporation and its subsidiary reflect all adjustments, including normal recurring accruals, necessary for a fair presentation. All significant intercompany balances and transactions have been eliminated in consolidation. Certain information and footnote disclosure normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to instructions, rules and regulations prescribed by the SEC. The Company believes that the disclosures provided herein are adequate to make the information presented not misleading when these unaudited condensed consolidated financial statements are read in conjunction with the audited consolidated financial statements contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2018. The results of operations for the periods ended June 30, 2019 are not necessarily indicative of the results to be expected for the full year. The consolidated condensed financial statements as of December 31, 2018 are derived from audited financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

Use of estimates

In accordance with accounting principles generally accepted in the United States of America, management utilizes certain estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, management evaluates its estimates and judgments related to, among others, allowance for doubtful accounts, warranty reserves, inventory reserves, stock-based compensation expense, deferred tax asset valuation allowances, litigation and other loss contingencies. Management bases its estimates and judgments on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from those estimates.

Reclassifications

Certain immaterial prior period amounts have been reclassified to conform to current period presentation with no impact on previously reported net income, assets or shareholders' equity.

Intangible Assets – Patents

Acquired patents are recorded at purchase price as of the date acquired and amortized over the expected useful life which is generally the remaining life of the patent.

The total intangible amortization expense was approximately $9 thousand and $14 thousand for the three and six month periods ended June 30, 2019 and 2018, respectively.

Product warranty

The Company generally offers a one-year product replacement warranty. The standard policy is to repair or replace the defective products. The Company accrues for estimated returns of defective products at the time revenue is recognized based on historical activity as well as for specific known product issues. The determination of these accruals requires the Company to make estimates of the frequency and extent of warranty activity and estimate future costs to replace the products under warranty. If the actual warranty activity and/or repair and replacement costs differ significantly from these estimates, adjustments to cost of revenue may be required in future periods.

The following table provides a summary of the activity related to the Company's warranty liability included in other current liabilities, (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Beginning balance	$ 321	$ 362	$ 423	$ 468
Warranty accruals and adjustments	39	55	(39)	(17)
Warranty claims	(43)	(35)	(67)	(69)
Ending balance	$ 317	$ 382	$ 317	$ 382

Net Loss per Common Share

Basic loss per share is computed using the weighted average number of common shares outstanding during the period, and excludes any dilutive effects of common stock equivalent shares such as stock options, warrants, and convertible preferred stock. Diluted loss per share is computed using the weighted average number of common shares outstanding and potentially dilutive common stock equivalent shares outstanding during the period. Common stock equivalent shares are excluded from the computation if their effect is anti-dilutive.

The Company's Series B Convertible Preferred stock ("Preferred Stock – Series B") is considered a participating security as the preferred stock participates in dividends with the common stock, which requires the use of the two-class method when computing basic and diluted earnings per share. The Preferred Stock – Series B is not required to absorb any net loss. Although the Company paid a one-time special dividend in 2012, the Company does not expect to pay dividends on its common or preferred stock in the near future.

The following table sets forth the computation of basic and diluted earnings per share for the three and six months ended June 30, 2019 and 2018 (in thousands, except per share and share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Net Loss	$ (2,337)	$ (5,065)	$ (3,777)	$ (7,146)
Weighted average common shares outstanding - Basic	48,817,940	45,111,273	46,979,505	43,691,117
Dilutive effect of stock options	—	—	—	—
Weighted average common shares outstanding - Diluted	48,817,940	45,111,273	46,979,505	43,691,117
Net loss per share:				
Basic	$ (0.05)	$ (0.11)	$ (0.08)	$ (0.16)
Diluted	$ (0.05)	$ (0.11)	$ (0.08)	$ (0.16)

The following table sets forth the potentially dilutive common stock equivalents for the three and six month periods ended June 30, 2019 and 2018 that were not included in diluted EPS as their effect would be anti-dilutive:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Options	4,832,468	4,817,370	4,832,468	4,817,370
Warrants	19,295,773	9,055,773	19,295,773	9,055,773
Convertible preferred stock	7,545,333	7,545,333	7,545,333	7,545,333
Total potentially dilutive common stock equivalents	31,673,574	21,418,476	31,673,574	21,418,476

Fair Value of Financial Instruments

Cash, cash equivalents, accounts receivable, short-term investments and accounts payable are stated at cost, which approximates fair value, due to the short-term nature of these instruments. The revolving credit facility is also stated at cost, which approximates fair value because the interest rate is based on a market based rate plus a margin.

We have categorized our assets and liabilities that are valued at fair value on a recurring basis into a three-level fair value hierarchy in accordance with GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets and liabilities (Level 1) and lowest priority to unobservable inputs (Level 3).

Assets and liabilities recorded in the balance sheets at fair value are categorized based on a hierarchy of inputs as follows:

Level 1 – Unadjusted quoted prices in active markets of identical assets or liabilities.
Level 2 – Quoted prices for similar assets or liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.
Level 3 – Unobservable inputs for the asset or liability.

The common stock warrant liability is currently the only financial asset or liability recorded at fair value on a recurring basis, and is considered a Level 3 liability. The fair value of the common stock warrant liability is included in current liabilities on the Condensed Consolidated Balance Sheets, as the warrants are currently exercisable.

The following table shows the reconciliation of the Level 3 warrant liability measured and recorded at fair value on a recurring basis, using significant unobservable inputs (in thousands):

	Estimated Fair Value
	(unaudited)

Balance as of January 1, 2019	$	1,496
Change in fair value of warrant liability, net		(1,330)
Balance as of June 30, 2019	$	166

The fair value of the liability for common stock purchase warrants at issuance and at June 30, 2019 was estimated using the Black Scholes option pricing model based on the market value of the underlying common stock at the measurement date, the remaining contractual term of the warrants from 2.9 to 3.5 years, risk-free interest rates of 1.74%, no expected dividends and expected volatility of the price of the underlying common stock ranging from 40.1% to 46.2%.

Concentrations

The Company purchases principally all of its silicon wafers, which are a key ingredient in its OLED production process, from two suppliers located in Taiwan and Korea.

For the three and six month periods ended June 30, 2019, one customer accounted for 11% and no single customer was over 10% of net revenues, respectively. For the three and six months ended June 30, 2018, there were no other customers individually accounting for over 10% of net revenues. As of June 30, 2019, three customers accounted for 13%, 13% and 12%, respectively of the Company's consolidated accounts receivable balance and no other single customer accounted for over 10% of the consolidated accounts receivable. As of June 30, 2018 one customer accounted for 11% of the consolidated accounts receivable.

Liquidity and Going Concern

The accompanying consolidated financial statements have been prepared on a going concern basis, which assumes that the Company will continue to operate as a going concern and which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. For the six months ended June 30, 2019, the Company incurred a net loss of $3.8 million and used cash in operating activities of $3.2 million. As of June 30, 2019, the Company had $3.7 million of cash, $0.9 million of outstanding indebtedness under its revolving credit asset based lending facility (the "ABL Facility"), and borrowing availability under its ABL Facility of $1.0 million. For the year ended December 31, 2018, the Company incurred a net loss of $9.5 million and used cash in operating activities of $6.4 million.

Due to continuing losses, the Company's financial position, and uncertainty regarding the Company's ability to borrow under its ABL Facility, the Company may not be able to meet its financial obligations as they become due without additional financing or sources of capital. The Company's ABL Facility expires on December 31, 2019 and, while relations with the lender are positive and the facility upon its expiration renews automatically for another year unless terminated pursuant to its terms, there is no assurance the lender will renew or extend this facility, or continue to make funds available during 2019 and beyond at present availability levels, or at all. Therefore, in accordance with applicable accounting guidance, and based on the Company's current financial condition and availability of funds, there is substantial doubt about the Company's ability to continue as a going concern through twelve months from the date these financial statements were issued.

The Company has taken actions to increase revenues and to reduce expenses and is considering financing alternatives, but there can be no assurance that the Company will be successful in sufficiently increasing revenues, reducing expenses or securing additional financing to meet its operating needs. The Company's plans with regard to these matters include the following actions: 1) focus production and engineering resources on improving manufacturing yields and increasing production volumes, 2) reduce discretionary and other expenses, and 3) considering financing and/or strategic alternatives.

Based on the Company's current projections and the anticipated availability of the ABL Facility, the Company estimates it will have sufficient liquidity to fund operations through December 2019. However. there can be no assurance the Company's plans will be achieved, or that the Company will be able to continue to borrow under its ABL Facility, secure additional financing, and/or pursue strategic alternatives on terms acceptable to the Company, or at all.

Recently adopted accounting pronouncements

The Company's accounting policies are the same as those described in Note 1 to the Company's consolidated financial statements in its 2018 Form 10-K with the exception of the accounting policies related to leases.

In August 2018, the SEC adopted the final rule under SEC Release No. 33-10532 - *Disclosure Update and Simplification*, amending certain disclosure requirements that were redundant, duplicative, overlapping, outdated or superseded. In addition, the amendments expanded the disclosure requirements on the analysis of stockholders' equity for interim financial statements. Under the amendments, an analysis of changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement. The analysis should present a reconciliation of the beginning balance to the ending balance of each period for which a statement of comprehensive income is required to be filed. This final rule was effective on November 5, 2018. The Company adopted the guidance on January 1, 2019, and such adoption did not have a material impact on its financial statements.

In February 2016, the FASB issued guidance which requires lessees to recognize a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term and, a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis for all leases (with the exception of short-term leases). Under the new guidance, leases previously defined as operating leases will be presented on the balance sheet. As a result, these leases will be recorded as an asset and a corresponding liability at the present value of the total lease payments. The asset will be decremented over the life of the lease on a pro-rata basis resulting in lease expense while the liability will be decremented using the interest method (i.e. principal and interest). The Company adopted the guidance effective January 1, 2019. The Company elected the transition package of three practical expedients permitted under the transition guidance and elected the optional transition method that allows for a cumulative-effect adjustment in the period of adoption, without a restatement of prior periods. Further, the Company elected a short-term lease exception policy, permitting the Company to not apply the recognition requirements of this standard to short-term leases (i.e. leases with terms of 12 months or less) and an accounting policy to account for lease and non-lease components as a single component for certain classes of assets. As a result of the adoption, the Company adjusted its beginning balance for the quarter ended March 31, 2019 by recording operating lease

ROU assets and liabilities through a cumulative-effect adjustment. The adoption impacted the accompanying condensed balance sheet, but did not have an impact on the condensed statements of operations and comprehensive loss.

At the inception of a contractual arrangement, the Company determines whether the contract contains a lease by assessing whether there is an identified asset and whether the contract conveys the right to control the use of the identified asset in exchange for consideration over a period of time. If both criteria are met, the Company calculates the associated lease liability and corresponding ROU assets upon lease commencement using a discount rate based on a credit-adjusted secured borrowing rate commensurate with the term of the lease. The Company records lease liabilities within current or noncurrent liabilities based upon the length of time associated with the lease payments. The operating lease ROU assets includes any lease payments made and excludes lease incentives and initial direct costs incurred, if any, and are recorded as noncurrent assets. Lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option.

Leases with an initial term of 12 months or less are not recorded on the accompanying condensed balance sheet. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

The impact of the adoption of ASC 842 on the accompanying condensed balance sheet as of January 1, 2019 was as follows (in thousands.

	December 31, 2018	Adjustments Due to the Adoption of ASC 842	January 1, 2019
Right of Use Assets (1)			
Operating lease - right of use asset	$ —	$ 4,267	$ 4,267
Operating lease liabilities			
Current	$ —	$ 964	$ 964
Noncurrent	$ —	$ 3,432	$ 3,432

(1) Operating lease right-of-use assets includes deferred rent of $129 thousand.

Recently issued accounting pronouncements

In August 2018, the FASB issued guidance which adds, amends and removes certain disclosure requirements related to fair value measurements. Among other changes, this standard requires certain additional disclosure surrounding Level 3 assets, including changes in unrealized gains or losses in other comprehensive income and certain inputs in those measurements. This new guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Certain amended or eliminated disclosures in this standard may be adopted early, while certain additional disclosure requirements in this standard can be adopted on its effective date. In addition, certain changes in the standard require retrospective adoption, while other changes must be adopted prospectively. The Company is currently evaluating this new standard and its impact on our consolidated financial statements.

Note 1A: Impairment of Consumer Night Vision Business Assets

During the quarter ended June 30, 2018 the Company made a decision to exit the business associated with its two consumer night vision products, BlazeSpark and BlazeTorch (the “Consumer Night Vision Business”). The Company’s decision was based on lower than anticipated sales and an assessment performed during the quarter of the anticipated level of additional engineering, marketing and financial resources necessary to modify the products for an expanded market. As a result, the Company concluded an impairment had occurred and wrote-down $2.7 million of related Consumer Night Vision Business inventory, which includes an accrual of $1.4 million of inventory purchased by a contract manufacturer in anticipation of future production, and $0.1 million of production tooling, which are reflected in cost of revenues in the accompanying Consolidated Statements of Operations.

Note 2: Revenue Recognition

All of the Company’s revenues are earned from contracts with customers and are classified as either Product or Contract revenues. Contracts include written agreements and purchase orders, as well as arrangements that are implied by customary practices or law.

Product revenue is generated primarily from contracts to produce, ship and deliver OLED microdisplays. The Company’s performance obligations are satisfied, control of its products is transferred, and revenue is recognized at a single point in time when control transfers to the Company’s customer for product shipped. Our customary terms are FOB our factory and control is deemed to transfer upon shipment. The Company has elected to treat shipping and other transportation costs charged to customers as fulfillment activities and are recorded in both revenue and cost of sales at the time control is transferred to the customer. As customers are invoiced at the time control transfers and the right to consideration is unconditional at that time, the Company does not maintain contract asset balances for product revenue. Additionally, the Company does not maintain contract liability balances for product revenues, as performance obligations are satisfied prior to customer payment for product. The Company generally offers a one-year product warranty, for replacement of product only, and does not allow returns. The Company offers industry standard payment terms that typically require payment from our customers from 30 to 60 days after title transfers.

The Company also recognizes revenues under the over time method from certain research and development (“R&D”) activities (contract revenues) under both firm fixed-price contracts and cost-type contracts. Progress and revenues from research and development activities relating to firm fixed-price contracts and cost-type contracts are generally recognized on an input method of accounting as costs are incurred. Under the input method, revenue is recognized based on efforts expended to date (e.g., the costs of resources consumed or labor hours worked, or machine hours used) relative to total efforts intended to be expended. Contract costs include all direct material, labor and subcontractor costs and an allocation of allowable indirect costs as defined by each contract, as periodically adjusted to reflect revised agreed upon rates. These rates are subject to audit by the other party. Any changes in estimate related to contract accounting are accounted for prospectively over the remaining life of the contract. Under the over time method, billings may not correlate directly to the revenue recognized. Based upon the terms of the specific contract, billings may be in excess of the revenue recognized, in which case the amounts are included in deferred revenues as a liability on the Condensed Consolidated Balance Sheets. Likewise, revenue recognized may exceed customer billings in which case the amounts are reported as unbilled receivables. Unbilled revenues are expected to be billed and collected within one year. The incidental costs related to obtaining product sales contracts are non-recoverable from customers and, accordingly, are expensed as incurred.

The Company adopted the provisions of ASC No. 606, *Revenue from Contracts with Customers,* and related amendments ("ASC 606") on January 1, 2018 using the modified retrospective adoption method with the cumulative effect of initially applying the guidance recognized at the date of initial application. During 2017, the Company analyzed its revenue recognition policies under ASC 606 and then current revenue recognition policies and determined that the performance obligations, transaction price, allocation of transaction price, recognition of contract costs and timing of revenue recognition would not be materially impacted by adopting ASC 606. Accordingly, there was no modified retrospective adoption adjustment necessary as of January 1, 2018.

Disaggregation of Revenue

The Company's sells its products directly to original equipment manufacturers or OEM's and military contractors in a diverse range of industries encompassing the military, industrial, medical, and consumer market sectors. R&D activities are performed for both military customers and U.S. Government defense related agencies. Product and Contract revenues are disclosed on the Condensed Consolidated Statements of Operations. Additional disaggregated revenue information for the three and six-month periods ended June 30, 2019 and 2018 were as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
	(unaudited)		**(unaudited)**	
North and South America	$ 2,855	$ 4,065	$ 6,253	$ 7,013
Europe, Middle East, and Africa	2,152	2,446	4,479	4,890
Asia Pacific	354	555	741	2,030
Total	$ 5,361	$ 7,066	$ 11,473	$ 13,933

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
	(unaudited)		**(unaudited)**	
Military	$ 3,027	$ 5,658	$ 7,245	$ 10,595
Commercial, including industrial and medical	776	510	1,113	994
Consumer	324	329	745	1,102
Multiple	1,234	569	2,370	1,242
	$ 5,361	$ 7,066	$ 11,473	$ 13,933

Accounts Receivable from Customers Accounts receivable, net of allowances, associated with revenue from customers were approximately $2.7 million and $3.2 million as of June 30, 2019 and December 31, 2018, respectively.

Contract Assets and Liabilities
Unbilled Accounts Receivables (Contract Assets) - Pursuant to the over time revenue recognition model, revenue may be recognized prior to the customer being invoiced. An unbilled accounts receivable is recorded to reflect revenue that is recognized when the proportional performance method is applied and such revenue exceeds the amount invoiced to the customer. Unbilled receivables are disclosed on the Condensed Consolidated Balance Sheet as of June 30, 2019.

Customer Advances and Deposits (Contract Liabilities)
The Company recognizes a contract liability when it has billed and received consideration from the customer pursuant to the terms of a contract but has not yet recognized the related revenue. These billings in excess of revenue are classified as deferred revenue on the Condensed Consolidated Statements of Operations.

Total contract assets and liabilities consisted of the following amounts (in thousands):

	June 30, 2019	December 31, 2018
	(unaudited)	
Unbilled Receivables (contract assets)	$ 21	$ 224
Deferred Revenue (contract liabilities)	(133)	(38)
Net contract asset (liability)	$ (112)	$ 186

In the three and six months periods ended June 30, 2019, the Company recognized no revenue and revenue of $38 thousand, respectively, related to its contract liabilities that existed at December 31, 2018. In the three and six month periods ended June 30 2018, the Company recognized revenue of $188 thousand and $765 thousand, respectively, related to its contract liabilities that existed at December 31, 2017.

Remaining Performance Obligations. The Company has elected the practical expedient, which allows disclosure of remaining performance obligations only for contracts with an original duration of greater than one year. Such remaining performance obligations primarily relate to engineering and design services. As of June 30, 2019, the aggregate amount of the transaction price allocated to remaining performance obligations was 105 thousand. The Company expects to recognize revenue on all of its remaining performance obligations over the next 12 months.

Note 3: Accounts Receivable, net

The majority of the Company's commercial accounts receivable are due from OEM's. Credit is extended based on an evaluation of a customer's financial condition and, generally, collateral is not required.

Accounts receivable consisted of the following (in thousands):

	June 30, 2019 (unaudited)	December 31, 2018
Accounts receivable	$ 2,872	$ 3,325
Less allowance for doubtful accounts	(139)	(139)
Accounts receivable, net	$ 2,733	$ 3,186

Note 4: Inventories, net

The components of inventories are as follows (in thousands):

	June 30, 2019 (unaudited)	December 31, 2018
Raw materials	$ 3,132	$ 3,701
Work in process	1,744	1,033
Finished goods	4,218	4,888
Total inventories	9,094	9,622
Less inventory reserve	(726)	(1,040)
Total inventories, net	$ 8,368	$ 8,582

Note 5: Line of Credit

On December 21, 2016, the Company entered into the ABL Facility with a lender that provides for up to a maximum amount of $5 million based on a borrowing base equivalent to 85% of eligible accounts receivable plus the lesser of $2 million or 50% of eligible inventory. The interest on the ABL Facility is equal to the Prime Rate plus 3% but may not be less than 6.5% with a minimum monthly interest payment of $2 thousand. The Company is also obligated to pay the lender a monthly administrative fee of $1 thousand and an annual facility fee equal to 1% of the maximum amount borrowable under the facility. The ABL Facility will automatically renew on December 31, 2019 for a one-year term unless written notice to terminate the agreement is provided by either party. In conjunction with entering into the financing, the Company incurred $228 thousand of debt issuance costs including lender and legal costs that will be amortized over the life of the ABL Facility. In accordance with recently issued accounting guidance, any revolving credit facility balances outstanding are presented net of these unamortized debt issuance costs on the accompanying Condensed Consolidated Balance Sheet.

The ABL Facility is secured by a lien on all receivables, property and the proceeds thereof, credit insurance policies and other insurance relating to the collateral, books, records and other general intangibles, inventory and equipment, proceeds of the collateral and accounts, instruments, chattel paper, and documents. Collections received on accounts receivable are directly used to pay down the outstanding borrowings on the credit facility.

The ABL Facility contains customary representations and warranties, affirmative and negative covenants and events of default. The Company is required to maintain a minimum tangible net worth of $13 million and a minimum working capital balance of $4 million at all times. As of June 30, 2019, the Company had $0.9 million in borrowings outstanding, had unused borrowing availability of $1.0 million and was in compliance with all financial debt covenants.

Interest expense for the three and six month periods ended June 30, 2019 include the amortization of debt issuance costs of $21 thousand, and $41 thousand, respectively.

Note 6: Stock-based Compensation

The Company uses the fair value method of accounting for share-based compensation arrangements. The fair value of stock options is estimated at the date of grant using the Black-Scholes option valuation model. Stock-based compensation expense is reduced for estimated forfeitures and is amortized over the vesting period using the straight-line method.

The following table summarizes the allocation of non-cash stock-based compensation to our expense categories for the three and six month periods ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Cost of revenues	$ 6	$ 20	$ 14	$ 34

Research and development		21		22		45		45
Selling, general and administrative		70		87		231		256
Total stock compensation expense	$	97	$	129	$	290	$	335

At June 30, 2019, total unrecognized compensation costs related to stock options was approximately $0.4 million, net of estimated forfeitures. Total unrecognized compensation cost will be adjusted for future changes in estimated forfeitures and is expected to be recognized over a weighted average period of approximately 1.3 years.

The following key assumptions were used in the Black-Scholes option pricing model to determine the fair value of stock options granted:

	Six Months Ended June 30,	
	2019	**2018**
	(unaudited)	
Dividend yield	0 %	0 %
Risk free interest rates	2.48 %	2.16-2.59 %
Expected volatility	41.7 to 49.2 %	46.4 to 50.0 %
Expected term (in years)	3.5 to 4.0	3.5 to 4.75

The Company does not expect to pay dividends in the near future. Therefore, the Company used an expected dividend yield of 0%. The risk-free interest rate used in the Black-Scholes option pricing model is based on applicable yield available at the date of the option grant on U.S. Treasury securities with an equivalent term. Expected volatility is based on the weighted average historical volatility of the Company's common stock for the equivalent term. The expected term of the options represents the period that the Company's stock-based awards are expected to be outstanding and was determined based on historical experience and vesting schedules of similar awards.

A summary of the Company's stock option activity for the six months ended June 30, 2019 is presented in the following table (unaudited):

	Number of Shares		Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (In Years)		Aggregate Intrinsic Value
Outstanding at December 31, 2018	4,678,420	$	2.81			
Options granted	515,558		0.92			
Options exercised	(12,500)		0.70			
Options forfeited	—		—			
Options cancelled or expired	(349,010)		1.79			
Outstanding at June 30, 2019	4,832,468	$	2.69	3.20	$	—
Vested or expected to vest at June 30, 2019	4,828,703	$	2.69	3.78	$	—
Exercisable at June 30, 2019	4,644,289	$	2.70	3.16	$	—

(1) The expected to vest options are the result of applying the pre-vesting forfeiture rate assumptions to total unvested options.

The aggregate intrinsic value in the table above represents the difference between the exercise price of the underlying options and the quoted price of the Company's common stock. During the three and six months ended June 30, 2019 the aggregate intrinsic value of options exercised was $2 thousand. The Company issues new shares of common stock upon exercise of stock options.

Note 7: Income Taxes

The Company's effective tax rate is calculated quarterly based upon current assumptions relating to the full year's estimated operating results and various tax-related items. The Company's effective tax rate for the three and six month periods ended June 30, 2019 and 2018 was 0%. The difference between the effective tax rate of 0% and the U.S. federal statutory rate of 21% for the three and six month periods ended June 30, 2019 and 2018 was primarily due to recognizing a full valuation allowance on deferred tax assets.

As of June 30, 2019, the Company determined that, based on all available evidence, both positive and negative, including the Company's latest forecasts and cumulative losses in recent years, it was more likely than not that none of its deferred tax assets would be realized and therefore it continued to record a full valuation allowance.

The Company's net operating loss carryforward amounts expire through 2037 and are subject to certain limitations that may occur due to a change in the ownership provisions under Section 382 of the Internal Revenue Code and similar state provisions.

Due to the Company's operating loss carryforwards, all tax years remain open to examination by the major taxing jurisdictions to which the Company is subject. In the event that the Company is assessed interest or penalties at some point in the future, it will be classified in the financial statements as tax expense.

Note 8: Commitments and Contingencies

Equipment Purchase Commitments

The Company has committed to equipment purchases of approximately $0.4 million at June 30, 2019.

Litigation

From time to time, the Company may become subject to various legal proceedings that are incidental to the ordinary conduct of is business. In March 2019, the Company received a demand letter seeking payment of $0.9 million of outstanding invoices relating to purchased inventory from Suga Electronics Limited, or Suga, a contract manufacturer located in China, which manufactured product sold by our consumer night vision business. The Company has responded to the demand letter, and requested that Suga provide substantiation of purchased inventory. As disclosed in the financial statements of our Annual Report on Form 10-K for the year ended December 31, 2018, during the quarter ended June 30, 2018, the Company made a decision to exit the consumer night vision business and accrued approximately $1.0 million related to invoices received for inventory purchased by Suga in anticipation of future production. While the Company believes that it has adequately accrued for the losses and is in discussions to resolve related claims by the contract manufacturers, there is the risk that additional losses or litigation related expenses may be incurred above the amounts accrued for as of June 30, 2019, if the Company fails to resolve these claims in a timely and/or favorable manner.

Note 9: Common Stock Warrants

The Company accounts for common stock warrants pursuant to applicable accounting guidance contained in ASC 815, "Derivatives and Hedging - Contracts in Entity's Own Equity" and makes a determination as to their treatment as either equity instruments or a warrant liability based on an analysis of the underlying warrant agreements.

Liability classified warrants

During January 2018, in conjunction with a registered equity offering and a concurrent private placement that closed in February 2018, the Company issued warrants to purchase an aggregate of 4,004,324 common shares at an exercise price of $1.55. As of June 30, 2019, related warrants to purchase 3,974,324 shares of common stock remain outstanding. The warrants have alternative settlement provisions that, at the option of the holder, provide for physical settlement or if, at the time of settlement there is no effective registration statement, a cashless exercise as defined in the warrant agreement.

Based on analysis of the underlying warrant agreement and applicable accounting guidance, the Company concluded that these registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. Accordingly, these warrants were classified on the Condensed Consolidated Balance Sheet as a current liability upon issuance and will be revalued at each subsequent balance sheet date.

The fair value of the liability for common stock purchase warrants is estimated using the Black Scholes option pricing model based on the market value of the underlying common stock at the measurement date, the contractual term of the warrant, risk-free interest rates, expected dividends and expected volatility of the price of the underlying common stock.

The Company determined that, based on the Black Sholes methodology, the liability for the January and February 2018 common stock warrants had a fair value as of June 30, 2019 of $0.1 million. In addition, warrants the Company issued during 2017 that were classified as liabilities had a fair value of $0.1 million as of June 30, 2019. The combined changes in fair value as of June 30, 2019 was reflected as income from change in the fair market value of common stock warrant liability of $0.5 million and $1.3 million, respectively, in the Condensed Consolidated Statement of Operations for the three and six month period ended June 30, 2019.

Equity classified warrants

As described in Note 11. Shareholders Equity, in April 2019 in connection with registered direct offerings of Common Shares, the Company issued the following warrants:

- Warrants to purchase up to 6,000,000 share of Company Common Shares at an exercise price of $0.78 per share expiring five and one half years from date of issuance
- Pre-funded Warrants to purchase up to 4,000,000 shares of Company Common shares at an initial purchase price of $0.49 per share, and an exercise price of $0.01 per share, expiring five and one half years from date of issuance
- Warrants issued to the placement agent to purchase up to 240,000 shares of Company Common Shares at an exercise price of $0.55 per common shares expiring five years from date of issuance.

The three groups of warrants listed above all share similar terms, and the exercise price of the Warrant Shares are subject to adjustment in the event of any stock dividends and splits, reverse stock splits, stock dividends, recapitalizations, reorganizations or similar transactions. The Warrants will be exercisable on a "cashless" basis in certain circumstances, including in the event a registration statement is not in effect at time of exercise. All of the above warrant agreements contain a clause specifying that in the event there is no effective registration in effect for the underlying warrant shares to be issued at time of exercise, in no circumstance will the Company be required to net cash settle the warrants.

Based on the Company's analysis of the terms and conditions of the above warrants, the Company has concluded that they meet the conditions outlined in applicable accounting guidance to be classified as equity instruments. As a result, the Company has accounted for the exercise price paid by investors for purchase of the pre-funded warrants as additional paid in capital on the accompanying Balance Sheets as of June 30, 2019.

Note 10: Leases

The Company leases office and manufacturing facilities in Hopewell Junction, NY under a non-cancelable operating lease agreement. The lease for these facilities, as amended, expires in May 2024 and does not contain a renewal option. The lease agreement does not contain any residual value guarantees, or material restrictive covenants.

The Company also leases an office facility for its design group in Santa Clara, California, that expires on October 31, 2019. Because the remaining term is less than one year, the Company has elected not to apply the recognition requirement of the new leasing standard to this lease.

The Company's operating leases generally do not provide an implicit rate, and therefore the Company uses its incremental borrowing rate as the discount rate when measuring operating lease liabilities. The incremental borrowing rate represents an estimate of the interest rate the

Company would incur at lease commencement to borrow an amount equal to the lease payments on a collateralized basis over the term of a lease within a particular currency environment. The Company used incremental borrowing rates as of January 1, 2019 for operating leases that commenced prior to that date.

On May 2, 2019 the Company entered into a three year finance lease commitment for phone equipment. Finance leases are include in Equipment, furniture and leasehold improvements, net, Finance lease liability – current portion, Finance lease liability – long term in our consolidated Balance Sheet.

The components of lease expense were as follows (in thousands):

	Three Months Ended June 30, 2019 (unaudited)	Six Months Ended June 30, 2019 (unaudited)
Finance Lease Cost:		
Amortization of right-of-use assets	$ 3	$ 3
Interest on lease liabilities	1	1
Operating lease cost	246	503
Short-term lease cost	14	28
Total Lease Cost	**$ 264**	**$ 535**

Other Information

Cash paid for amounts included in the measurement lease liabilities:

Operating cash flows from operating leases	$ 251	$ 501
Financing cash flows from finance leases	$ 2	$ 2
Right-of-use assets obtained in exchange for new finance lease liabilities	$ 50	$ 50
Right-of-use assets obtained in exchange for new operating lease liabilities	$ -	$ -

	June 30, 2019
Finance lease right-of-use assets	47
Operating lease right-of-use assets	3,953
Finance lease liability, current	15
Finance lease liability, non-current	32
Operating lease liabilities, current	689
Operating lease liabilities, non-current	3,384
Weighted average remaining lease terms - finance leases	2.92 years
Weighted average remaining lease terms - operating leases	5.17 years
Weighted average discount rate - Finance leases	10.91%
Weighted average discount rate - operating leases	8.50%

Future annual minimum lease payments and finance lease commitments as of June 30, 2019 were as follows (in thousands):

	Operating Leases	Finance Leases
2019 (excluding the six months ended June 30, 2019)	$ 501	$ 10
2020	1,002	19
2021	1,002	19
2022	1,014	7
2023	1,022	-
Thereafter	426	-
Total undiscounted future minimum lease payments	4,967	55
Less imputed interest	894	8
Lease liability	$ 4,073	$ 47

The Company adopted ASU 2016-02 on January 1, 2019 as noted above, and as required, the following disclosure is provided for periods prior to adoption. Future annual minimum lease payments and finance lease commitments as of December 31, 2018 were as follows (in thousands):

	Operating Leases	Finance Leases
2019	$ 1,002	$ -
2020	1,002	-
2021	1,002	-
2022	1,014	-
2023	1,022	-
Thereafter	426	-
Total minimum lease payments	$ 5,468	$ -

Note 11: Shareholders' Equity

April 2019 Equity Raises

On April 9, 2019, the Company closed a registered direct offering of 4 million shares of common stock at a purchase price per share of $0.50, for gross proceeds of approximately $2.0 million before deducting placement agent fees and other offering expenses. The Company also issued unregistered warrants to the investor to purchase up to 3 million shares of common stock at an exercise price of $0.78 per share. The warrants are exercisable six months following issuance and will expire five and one-half years from the issuance date.

On April 11, 2019, the Company closed an additional $2.0 million registered direct offering consisting of immediately exercisable pre-funded warrants to purchase up to 4 million shares of our common stock at a purchase price of $0.49 per warrant and an exercise price of $0.01 per share. In a concurrent private placement, the Company also issued to the investor in the registered direct offering unregistered warrants to purchase up to 3 million shares of the Company's common stock at an exercise price of $0.78 per share. The unregistered warrants are exercisable six months following issuance and will expire five and one-half years from the issuance date.

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

The following discussion should be read in conjunction with our financial statements and notes thereto. Our fiscal year ends December 31. This document contains certain forward-looking statements including, among others, anticipated trends in our financial condition and results of operations and our business strategy. These forward-looking statements are based largely on our current expectations and are subject to a number of risks and uncertainties. Please see "Statement Regarding Forward-Looking Information" and Part II, Item 1A, "Risk Factors". Actual results could differ materially from these forward-looking statements. Important factors to consider in evaluating such forward-looking statements include changes in external factors or in our internal budgeting process which might impact trends in our results of operations, unanticipated working capital or other cash requirements, changes in our business strategy or an inability to execute our strategy due to unanticipated changes in the industries in which we operate, and various competitive market factors that may prevent us from competing successfully in the marketplace. Forward-looking statements do not represent our views as of any date other than the date of this Report.

Business

We design, develop, manufacture and market organic light emitting diode, or OLED miniature displays, which we refer to as OLED-on-silicon microdisplays, virtual imaging products that utilize OLED microdisplays, and related products. We also perform research in the OLED field. Our virtual imaging products integrate OLED technology with silicon chips to produce high-resolution microdisplays which, when viewed through a magnifying headset, create virtual images that appear comparable in size to that of a computer monitor or a large-screen television. Our products enable our original equipment manufacturer, or OEM, customers in the military and commercial markets to develop and market improved or new electronic products.

We believe that our OLED microdisplays offer a number of significant advantages over comparable liquid crystal microdisplays, including higher contrast, greater power efficiency, less weight, more compact size, and negligible image smearing. Using our active matrix OLED technology, many computer and electronic system functions can be built directly into the OLED microdisplay silicon backplane, resulting in compact, high resolution and power efficient systems. Already proven in military and commercial systems, our product portfolio of OLED microdisplays deliver high-resolution, virtual images that perform effectively even in extreme temperatures and high-vibration conditions.

During the fourth quarter of 2018, equipment issues led to lower yields and decreased production volumes which resulted in a lower gross margin and reduced display revenues. In addition, delays in the qualification of a new, high brightness XLS display type led to the inability to fulfill associated customer orders during the quarter. Although we qualified the XLS display type and began implementing remedial production measures during the fourth quarter of 2018, manufacturing issues continued into the second quarter of 2019, resulting in shipments for the second quarter of fiscal 2019 that were less than forecast and yields and production volumes that were below pre-fourth quarter 2018 levels. As a result, we are accelerating the implementation of our remedial measures, although additional technical changes may be necessary before we see a return to pre-fourth quarter 2018 production yields. There can be no assurance as to the effectiveness of any remedial measures we implement or that yields and production volumes will return to the levels previously achieved.

Some of the ongoing specific measures we have implemented and are accelerating include the following:

- daily collaboration between our R&D team and our manufacturing engineers to identify and resolve yield and production issues;
- extending the on-site engagement of an operating engineer from our OLED deposition tool vendor to work with our staff to improve the throughput of this equipment, which is a key component of our display manufacturing process; and
- enhancing our maintenance practices to improve machine performance and minimize unscheduled downtime and increasing our maintenance staff to provide coverage during all operating shifts.

We do not anticipate these measures will result in significant additional expense levels in future quarters because the additional maintenance staff and on site engineers costs are already included in our second quarter results and the other ongoing measures utilize internal resources for which we believe the incremental expenses are not substantial.

We believe these measures are beginning to have a positive effect on our operating performance. During the first month of the current quarter we produced 25% more displays than we did in the first month of the previous quarter. We have reduced the incidence of several types of display defects, and yields are beginning to recover and return to the upward trend we were achieving as part of our long-term yield improvement plan.

We have also implemented spending reductions and controls to reduce our overall cost structure. These measures reduced our overall spending as evidenced by the reduction during the second quarter of our R&D and SG&A expenses both year-over-year and sequentially quarter-to-quarter. As a result of these measures, and additional measure we may take in the third quarter of 2019, we expect to see continued reductions in spending going forward.

As of June 30, 2019, we had cash and working capital of $3.7 million and $8.3 million, respectively, and borrowings outstanding and borrowing availability under the ABL Facility of $0.9 million and $1.0 million, respectively. This is in comparison with cash and working capital of $3.4 million and $8.8 million, respectively, no borrowings outstanding and borrowing availability under the ABL Facility of $4.1 million at December 31, 2018. Net cash used in operating activities for the six months ended June 30, 2019 was $3.2 million, compared to $2.5 million for the six months ended June 30, 2018.

The Company has taken actions to increase revenues and to reduce expenses and is considering financing alternatives, but there can be no assurance that the Company will be successful in sufficiently increasing revenues, reducing expenses or securing additional financing to meet its operating needs. The Company's plans with regard to these matters include the following actions: 1) focus production and engineering resources on improving manufacturing yields and increasing production volumes, 2) reduce discretionary and other expenses, and 3) considering financing and/or strategic alternatives. Based on the Company's current projections and the anticipated availability of the ABL Facility, the Company estimates it will have sufficient liquidity to fund operations through December 2019. However, there can be no assurance the Company's plans will be achieved, or that the Company will be able to continue to borrow under its ABL Facility, or secure additional financing and/or pursue strategic alternatives on terms acceptable to the Company, or at all.

In addition, even if the Company successfully generates additional funds through the sale of additional equity securities, borrowings or alternative financing, there can be no assurances that the revenue or capital infusion will be sufficient to enable the Company to develop its business to a level where it will be profitable or generate positive cash flow. If the Company raises additional funds through the issuance of equity or convertible debt securities, the percentage ownership of its stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If the Company incurs additional debt, a substantial portion of its operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for its operational business activities. The terms of any debt securities issued could also impose significant restrictions on the Company's operations. In addition, broad market and industry factors may seriously harm the market price of the Company's common stock, regardless of its operating performance, and may adversely impact its ability to raise additional funds.

CRITICAL ACCOUNTING POLICIES

Please refer to the information provided under the heading "Critical Accounting Policies and Estimates" included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 29, 2019, for a discussion of our critical accounting policies. There were no material changes to such policies in the first six months of 2019. New accounting policies adopted during the quarter are described in Note 1, "Summary of Significant Accounting Policies," to our unaudited consolidated financial statements included in this report.

RESULTS OF OPERATIONS

THREE AND SIX MONTHS ENDED JUNE 30, 2019 COMPARED TO THREE AND SIX MONTHS ENDED JUNE 30, 2018

Revenues

	Three Months Ended June 30,			Six Months Ended June 30,		
	2019	2018	Change	2019	2018	Change
	(in thousands)			(in thousands)		
Product	$ 4,958	$ 6,216	$ (1,258)	$ 10,465	$ 12,079	$ (1,614)
Contract	$ 403	$ 850	$ (447)	$ 1,008	$ 1,854	$ (846)
Total revenue, net	$ 5,361	$ 7,066	$ (1,705)	$ 11,473	$ 13,933	$ (2,460)

Revenues for the three and six months ended June 30, 2019 were $5.4 million and $11.5 million, respectively, as compared to revenues of $7.1 million and $13.9 million, respectively for the three and six months ended June 30, 2018.

Product revenue is comprised primarily of sales of displays as well as sales of other hardware. For the three and six months ended June 30, 2019, product revenue decreased by $1.3 million and $1.6 million, respectively, from the comparable prior year periods. The decrease in display revenues during the three and six months ended June 30, 2019 was primarily due to manufacturing challenges that began in the fourth quarter of 2018 and continued through the second quarter of 2019, which affected yields and throughput and resulted in lower than planned shipments during the period.

Contract revenue is comprised of revenue from research and development ("R&D"), commercial contracts and non-recurring engineering ("NRE") contracts. For the three and six months ended June 30, 2019, contract revenue decreased by $0.4 million and $0.8 million respectively, compared to the same periods last year. The decrease in contract revenue for the three and six months ended June 30 2019 was primarily due to the completion of several government contracts during 2018.

Cost of Revenues

	Three Months Ended June 30,			Six Months Ended June 30,		
	2019	2018	Change	2019	2018	Change
	(in thousands)			(in thousands)		
Product	$ 4,898	$ 3,971	$ 927	$ 9,324	$ 8,330	$ 994
Contract	$ 238	$ 299	$ (61)	$ 588	$ 827	$ (239)
Impairment of Consumer Night Vision inventory	—	2,690	$ (2,690)	-	2,690	$ (2,690)
Total cost of revenues	$ 5,136	$ 6,960	$ (1,824)	$ 9,912	$ 11,847	$ (1,935)

Total cost of revenues is comprised of costs of product and contract revenues. Cost of product revenue includes materials, labor and manufacturing overhead, warranty costs and depreciation related to our products. Total cost of revenues for the three and six months ended June 30, 2018 includes a $2.7 million impairment of Consumer Night Vision inventory recorded during the second quarter of 2018. Excluding the effects of the Consumer Night Vision impairment, total cost of revenues for the three months and six months ended June 30, 2019 increased by $0.9 million and $0.8 million, respectively, compared to the prior year's periods primarily due to the impact of lower yields in the 2019 periods.

The following table outlines product and contract total gross profit and related gross margins for the three and six month periods ended June 30, 2019 and 2018 (dollars in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	($ in thousands)		($ in thousands)	
Product revenues gross profit	$ 60	$ 2,245	$ 1,141	$ 3,749
Product revenues gross margin	1 %	36 %	11 %	31 %
Contract revenues gross profit	$ 165	$ 551	$ 420	$ 1,027
Contract revenues gross margin	41 %	65 %	42 %	55 %
Impairment of Consumer Night Vision inventory	—	(2,690)		(2,690)
Total gross profit	$ 225	$ 106	$ 1,561	$ 2,086
Total gross margin	4 %	2 %	14 %	15 %

Total gross profit is a function of revenues less cost of revenues. Gross profit for the three and six months ended June 30, 2018 includes an impairment charge of $2.7 million related to Consumer Night Vision inventory taken upon the exit from that business during the second quarter of 2018. Excluding the impairment charge the total gross profit for the three and six month periods ended June 30, 2019 decreased $2.6 million and 3.2 million, respectively, as compared to the prior year period primarily reflecting decreased product revenue gross profit. Excluding the impairment charge, total gross margin was 4% and 14% for the three months periods ended June 30, 2019 compared to total gross margin of 40% and 34% for the comparable 2018 periods, respectively.

The product gross profit and gross margins for the three and six months ended June 30, 2019 decreased compared to the prior year period due to decreases in revenues, and increases in operating expenses, primarily due to increased headcount and depreciation and the residual impact of certain fourth quarter 2018 production issues.

For the three and six month periods ended June 30, 2019, contract revenue gross profit was $0.2 million and $0.4 million, compared to $0.6 million and $1.0 million, respectively, for the prior years. Decreased contract revenue gross profit in the three and six months periods ended June 30, 2019 was primarily due to the decrease in contract revenues, partially offset by the contribution of several military related contracts at favorable margins.

Operating Expenses

	Three Months Ended June 30,			Six Months Ended June 30,		
	2019	2018	Change	2019	2018	Change
	($ in thousands)			($ in thousands)		
Research and development expense	$ 1,300	$ 1,720	$ (420)	$ 2,897	$ 3,351	$ (454)
Percentage of net revenue	24 %	24 %		25 %	24 %	
Selling, general and administrative expense	$ 1,777	$ 2,031	$ (254)	$ 3,716	$ 4,943	$ (1,227)
Percentage of net revenue	33 %	29 %		32 %	35 %	
Total operating expenses	$ 3,077	$ 3,751	$ (674)	$ 6,613	$ 8,294	$ (1,681)
Percentage of net revenue	57 %	53 %		58 %	60 %	

Research and Development ("R&D"). R&D expenses are company-funded and include salaries and related benefits, development materials and other costs specifically allocated to the development of new technologies, microdisplay products and processes, OLED materials and subsystems. R&D related costs associated with fulfilling contracts are categorized as contract cost of revenues. R&D expenses of $1.3 million and $2.9 million for the three and six months ended June 30, 2019 decreased by $0.4 million and $0.5 million, respectively, compared to the three and six months ended June 30, 2018, which on a percentage basis was 24% of revenues and 25% of revenues, respectively for the period. R&D costs in the current year reflect work performed on the Company's dPd technology including product development and process development associated with the manufacture of our direct patterned displays as well as resources expended on improving manufacturing processes.

Selling, General and Administrative ("SG&A). SG&A expenses consist principally of salaries and related benefits, professional services fees and marketing, general corporate and administrative expenses. SG&A expenses for the three and six month periods ended June 30, 2019, decreased $0.3 million and $1.2 million, respectively, compared to the prior year periods, reflecting higher expenses in the prior year's period related to spending on professional services, legal and travel associated with negotiations with prospective consumer electronics and volume manufacturing partners. SG&A for the six-month period ended June 30, 2018 also included an allocation of approximately $240 thousand of transaction fees incurred in the January 2018 offering which were associated with the fair value of the warrant liability and, accordingly, expensed in SG&A.

Other Income, net. Other income, net consists of changes in the fair value of warrant liability, interest income earned on cash balances and interest expense. Income related to the change in fair value of warrant liability was $0.5 million and $1.3 million, for the three and six month periods ended June 30, 2019, respectively. This non-cash expense is associated with a decrease in the liability related to registered warrants issued in May 2017 and January 2018. We are required to revalue warrants classified on our balance sheet as a liability at the end of each reporting period and reflect a gain or loss from the change in fair value in the period in which the change occurred. We calculate the fair value of the warrants outstanding using the Black-Scholes model.

Liquidity and Capital Resources

As of June 30, 2019, we had cash and working capital of $3.7 million and $8.3 million, respectively, and borrowings outstanding and borrowing availability under the ABL Facility of $0.9 million and $1.0 million, respectively. This is in comparison with cash and working capital of $3.4 million and $8.8 million, respectively, no borrowings outstanding and borrowing availability under the ABL Facility of $4.1 million at December 31, 2018.

Cash flow used in operating activities during the six months ended June 30, 2019 was $3.2 million, attributable to a net loss of $3.8 million partially offset by non-cash income and expenses of $0.1 million and a net change in operating assets and liabilities of $0.8 million. Cash flow used in operating activities during the six months ended June 30, 2018 was $2.5 million.

Cash used in investing activities during the six months ended June 30, 2019 was $0.8 million related to equipment purchases primarily to improve manufacturing yields and production capacity and to advance the Company's dPd technology. As of June 30, 2019, we had outstanding commitments to purchase approximately $0.4 million in capital expenditures, and expect to make additional capital expenditures during 2019 to improve our manufacturing and R&D capabilities. Cash used in investing activities during the six months ended June 30, 2018 was $0.8 million for equipment purchases.

Cash provided by financing activities during the six months ended June 30, 2019 was $4.3 million from net borrowings under our credit facility of $1.0 million and equity financing with net proceeds of $3.3 million. Cash provided by financing activities during the six months ended June 30, 2018 was $8.5 million.

Going concern

For the six months ended June 30, 2019, we incurred a net loss of $3.8 million and used cash in operating activities of $3.2 million. As of June 30, 2019, we had $3.7 million of cash, $0.9 million of outstanding debt, and borrowing availability under our ABL Facility of $1.0 million. For the year ended December 31, 2018, we incurred a net loss of $9.5 million and used cash in operating activities of $6.4 million.

Due to continuing losses, our financial position, and uncertainty regarding our ability to borrow under the ABL Facility, we may not be able to meet our financial obligations as they become due without additional financing or sources of capital. Our ABL Facility expires on December 31, 2019 and, while relations with the lender are positive and the facility upon its expiration renews automatically for another year unless terminated pursuant to its terms, there is no assurance the lender will renew or extend this facility, or continue to make funds available during 2019 and beyond at present availability levels, or at all. Therefore, in accordance with applicable accounting guidance, and based on the Company's current financial condition and availability of funds, there is substantial doubt about the Company's ability to continue as a going concern through twelve months from the date this report is filed.

The Company has taken actions to increase revenues and to reduce expenses and is considering financing alternatives, but there can be no assurance that we will be successful in sufficiently increasing revenues, reducing expenses or securing additional financing to meet its operating needs. The Company's plans with regard to these matters include the following actions: 1) focus production and engineering resources on improving manufacturing yields and increasing production volumes, 2) reduce discretionary and other expenses, and 3) considering financing and/or strategic alternatives.

Based on our current projections and the anticipated availability of the ABL Facility, we estimate the Company will have sufficient liquidity to fund operations through December 2019. However, there can be no assurance that our plans will be achieved, or that we will be able to continue to borrow under our ABL Facility, secure additional financing and/or pursue strategic alternatives on terms acceptable to us, or at all.

April 2019 Equity Raises

On April 9, 2019, we announced the closing of a registered direct offering of 4 million shares of our common stock at a purchase price per share of $0.50, for gross proceeds of approximately $2.0 million before deducting placement agent fees and other offering expenses. We also issued unregistered warrants to the investor to purchase up to 3 million shares of common stock at an exercise price of $0.78 per share. The warrants are exercisable six months following issuance and will expire five and one-half years from the issuance date.

On April 9, 2019, we announced the closing of an additional $2.0 million registered direct offering consisting of immediately exercisable pre-funded warrants to purchase up to 4 million shares of our common stock at a purchase price of $0.49 per warrant and an exercise price of $0.01 per share. In a concurrent private placement, we also issued to the investor in the registered direct offering unregistered warrants to purchase up to 3 million shares of the Company's common stock at an exercise price of $0.78 per share. The unregistered warrants are exercisable six months following issuance and will expire five and one-half years from the issuance date.

We used $1.6 million of the aggregate $3.3 million in net proceeds from these offerings to repay outstanding borrowings under our ABL Facility, and the remaining net proceeds are being used for working capital and other general corporate purposes.

2018 Underwritten Public Offering and Concurrent Private Placement

On January 25, 2018, we entered into an underwriting agreement to issue and sell 9,807,105 shares of Company Common Stock, together with warrants to purchase 3,922,842 shares of Common Stock with an initial exercise price of $1.55 per share (at a public offering price of $1.35 per fixed combination consisting of one share of Common Stock and associated warrant to purchase four tenths of one share of Common Stock). These share and warrant amounts include the exercise of an overallotment option by the underwriter to purchase 1,279,187 additional shares of Common Stock and additional warrants to purchase 511,674 shares of Common Stock. The Common Stock and Warrants were registered on a Form S-1. The offering closed on January 29, 2018 and the Company received net proceeds after underwriting discounts and expenses of $11.9 million.

In a concurrent private placement, certain of our directors and officers purchased an aggregate of 203,708 shares of Common Stock, together with warrants to purchase up to 81,487 shares of Common Stock at the public offering price per fixed combination. The sale of these shares of common stock and warrants was not registered under the Securities Act and is subject to a 180-day lock-up. The private placement closed on February 15, 2018, and the Company received net proceeds of $0.3 million.

ABL Facility

On December 21, 2016, we entered into an asset based revolving credit facility with a lender that provides for up to a maximum amount of $5 million based on a borrowing base equivalent of 85% of eligible accounts receivable plus the lesser of $2 million or 50% of eligible inventory. The interest on the ABL Facility is equal to the Prime Rate plus 3% but may not be less than 6.5% with a minimum monthly interest payment of $2,000. We are obligated to pay the lender a monthly administrative fee of $1,000 and an annual facility fee equal to 1% of the maximum amount borrowable under the facility. The ABL Facility will automatically renew on December 31, 2019 for a one-year term unless written notice to terminate the Financing Agreement is provided by either party.

The ABL Facility is secured by a lien on all receivables, property and the proceeds thereof, credit insurance policies and other insurance relating to the collateral, books, records and other general intangibles, inventory and equipment, proceeds of the collateral and accounts, instruments, chattel paper, and documents. The ABL Facility contains customary representations and warranties, affirmative and negative covenants and events of default, including a provision that we maintain a minimum tangible net worth of $13 million and a minimum working capital balance of $4 million. As of June 30, 2019, we had $0.9 million in borrowings outstanding, had unused borrowing availability of $1.0 million and were in compliance with all financial debt covenants.

Off-Balance Sheet Arrangements

We have no off balance sheet arrangements that are reasonably likely to have a current or future effect on our financial condition, revenues, results of operations, liquidity or capital expenditures.

ITEM 3. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

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, evaluated the effectiveness of our disclosure controls and procedures as defined in Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") as of the end of the period covered by this Report on Form 10-Q.

Our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met. Because of inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected. Based on our evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective.

Changes in Internal Control Over Financial Reporting

During the quarter ended June 30, 2019, we implemented new controls as part of our efforts to adopt ASU 2016-02. We implemented new controls related to the adoption process, including reviewing agreements for potential lease elements, and gathering the necessary data to properly account for leases under ASC 842. There were no other changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

ITEM 1. Legal Proceedings

From time to time, we may become subject to various legal proceedings that are incidental to the ordinary conduct of our business. In March 2019, we received a demand letter seeking payment of $0.9 million of outstanding invoices relating to purchased inventory from Suga Electronics Limited, or Suga, a contract manufacturer located in China, which manufactured product sold by our consumer night vision business. We have responded to the demand letter, and requested that Suga provide substantiation of purchased inventory. On August 1, 2019 the Company was notified by Suga that they intend to pursue arbitration. As disclosed in the financial statements of the Company's Annual Report on Form 10-K for the year ended December 31, 2018, during the quarter ended June 30, 2018, we made a decision to exit the consumer night vision business and accrued approximately $1.0 million related to invoices received for inventory purchased by Suga in anticipation of future production. While we believe that we have adequately accrued for the losses and are in discussions to resolve related claims by the contract manufacturers, there is the risk that additional losses or litigation related expenses may be incurred above the amounts accrued for as of June 30, 2019, if we fail to resolve these claims in a timely and/or favorable manner

ITEM 1A. Risk Factors

We operate in a rapidly changing environment that involves a number of risks that could materially affect our business, financial condition or future results, some of which are beyond our control. In addition to the other information set forth in this Report and the risks discussed below, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018 as filed with the Securities and Exchange Commission, which could materially affect our business, financial condition or future results.

Risks Related To Our Financial Position

There is substantial doubt about our ability to continue as a going concern. If we are unable to continue as a going concern, our securities will have little or no value.

Our independent registered public accounting firm has issued a report for our financial statements at December 31, 2018 that includes an explanatory paragraph referring to our recurring losses from operations and our footnote expressing substantial doubt in our ability to continue as a going concern without additional capital becoming available. As a result of our historical losses and current financial condition, there is substantial doubt about our ability to continue as a going concern through.

Our ability to continue as a going concern is dependent upon our uncertain ability to generate sufficient cash flows from operations, obtain equity and/or debt financing and reduce expenditures. Specifically, we have incurred substantial net losses in the past and we may incur further losses in the future. Our net losses were approximately $2.3 million and $3.8 million in the three months and six months ended June 30, 2019, compared to $5.1 and $7.1 million in the three months and six months ended June 30, 2018. As of June 30, 2019, we had an accumulated deficit of $240.1 million. We can give no assurances that our losses will not continue in the future or that we will ever be profitable in the future. Our prior losses and potential continuing or future losses have had, and would continue to have, an adverse effect on our financial condition. In order for us to achieve profitability, we must, among other things, generate sufficient cash flows and obtain the additional financing we need in order to continue as a going concern; generate additional revenue; manufacture our products on a timely basis and at a competitive cost; remediate the manufacturing issues that have resulted in production delays and integrate new equipment on our manufacturing line; meet our yield improvement initiatives; and successfully reduce expenses. If we are unable to successfully take these and other necessary steps, we may never operate profitably, and, even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future. As of June 30, 2019, we had cash and working capital of $3.7 million and $8.3 million, respectively, and borrowings outstanding and borrowing availability under the ABL Facility of $0.9 million and $1.0 million, respectively. This is in comparison with cash and working capital of $3.4 million and $8.8 million, respectively, no borrowings outstanding and borrowing availability under the ABL Facility of $4.1 million at December 31, 2018.

Our cash position as of June 30, 2019 reflects the receipt of approximately $3.3 million in net proceeds from equity raises conducted in April 2019, of which $1.6 million were applied to repayment of our ABL facility. However, our ongoing operations may require us to raise additional funds, and there are no assurances that such financing will be available on terms acceptable to us, or at all. Our financial statements do not include any adjustments that may result from the outcome of this uncertainty. If we are unable to reduce our expenditures or generate additional funds in the future through sales of our products, financings, government grants, loans or from other sources or transactions, we will exhaust our resources and will be unable to maintain our currently planned operations. If we cannot continue as a going concern, our stockholders would likely lose most or all of their investment in us.

Our financial condition is limited. If we are unable to generate additional revenue or secure additional external financing when, or if, required, we may have to curtail our operations or cease our development plans and operations.

Our ability to continue current operations and to execute on our plans is dependent on our ability to generate sufficient cash flows from operations, raise additional capital or refinance our indebtedness to meet our obligations. We have recently experienced a production issue which we anticipate may continue to negatively affect our products shipped, backlog and accounts receivables for the fourth quarter of 2018 and the first and second quarters of 2019. Since the maximum amount of the borrowing base under our ABL Facility is based, in part, on our eligible accounts receivables, our borrowing ability could also be negatively impacted by any decrease in our accounts receivables. As of the June 30, 2019, we had $0.9 million in borrowings outstanding, and unused borrowing availability of $1.0 million, under our ABL Facility.

We incurred net losses of approximately $2.3 million and $3.8 million in the three months and six months ended June 30, 2019, compared to $5.1 and $7.1 million in the three months and six months ended June 30, 2018. As of June 30, 2019, we had an accumulated deficit of $240.1 million.

As of June 30, 2019, we had cash and working capital of $3.7 million and $8.3 million, respectively, and borrowings outstanding and borrowing availability under the ABL Facility of $0.9 million and $1.0 million, respectively. This is in comparison with cash and working capital of $3.4 million and $8.8 million, respectively, no borrowings outstanding and borrowing availability under the ABL Facility of $4.1 million at December 31, 2018. Net cash used in operating activities for the six months ended June 30, 2019 was $3.2 million, compared to $2.5 million for the six months ended June 30, 2018.

If we are unable to meet our obligations as they become due, we may not be able to continue our current operations.

Our ability to continue current operations and to execute on our plans is dependent on our ability to generate sufficient cash flows from operations, maintain our relationships with vendors and customers, secure alternative financing or refinance our indebtedness to meet our obligations. If adequate funds are not available to us on a timely basis, or at all, we may have to reduce current operations and delay capital expenditures in order to conserve cash.
Based on our current operating plan, working capital levels, financial projections, and our ability to borrow under our ABL Facility, we may not be able to meet our financial obligations as they become due after December 2019. However, there can be no assurance that our plans will be achieved.

If we do not achieve our current financial projections we will be unable to maintain our currently planned operations after December 2019, and we may violate one or more of our financial covenants under our ABL Facility. Although relations with the lender under our ABL Facility are positive, there can be no assurance that the lender will grant a future covenant waiver or continue to lend to us at present availability levels, or at all. In addition, there can be no assurance that we will be able to renew or extend our ABL Facility when it matures on December 31, 2019. We have no additional committed external sources of funds and additional financing may not be available when we need it or on terms that are favorable to us, if at all. In addition, we may seek additional capital, or consider strategic alternatives.

We cannot provide assurance that any actions by us to raise additional funds would be successful or, if such efforts were successful, that we would generate sufficient funds to meet our financial obligations and allow us to continue current operations or that these actions would be permitted (i) under the terms of our existing or future debt agreements or (ii) by the holders of a majority of the then-outstanding Series B Convertible Preferred Stock, whose approval, pursuant to the Certificate of Designations governing our Series B Convertible Preferred Stock, is required in order for us to take certain actions. If we do not have enough cash to fund our operations to profitability and if we are unable to secure additional capital, we may be required to seek strategic alternatives, including but not limited to a potential business combination, a sale of our company or our business, or a reduction and/or cessation our operations.

Risks Related To Manufacturing

Several steps of our production processes are dependent upon certain critical machines and tools which have in the past, and could in the future, result in delivery interruptions and reduced revenues.

We currently have equipment that is critical to our manufacturing operations for which there is no redundancy. If we experience any significant disruption in the operation of our manufacturing facility or a serious failure of a critical piece of equipment, we may be unable to supply microdisplays to our customers in a timely manner. Interruptions in our manufacturing could be caused by equipment problems, the introduction of new equipment into the manufacturing process or delays in the delivery of new manufacturing equipment. Lead-time for delivery, installation, testing, repair and maintenance of manufacturing equipment can be extensive. We have experienced production interruptions and/or delays in the past, including in the first and second quarters of fiscal 2019 and no assurance can be given that we will not lose potential sales or be unable to meet production orders due to future production delays or interruptions in our manufacturing line. For example, in the fourth quarter of fiscal 2018 and six months ended June 30, 2019, production yields and output were negatively impacted by delays due to the failure of certain production equipment in our manufacturing line. These issues also led to a lower gross margin and reduced display revenue. Although we began implementing remedial measures during the fourth quarter of 2018, manufacturing delays have continued into the second quarter of 2019, resulting in shipments for the second quarter of fiscal 2019 that were less than forecast and yields and production volumes that were below pre-fourth quarter 2018 levels. As a result, we are accelerating the implementation of our remedial measures, although additional technical changes may be necessary before we see a return to pre-fourth quarter 2018 production yields. There can be no assurance as to the effectiveness of any remedial measures we implement or that yields and production volumes will return to the levels previously achieved.

Variations in our production yields impact our ability to reduce our costs and cause our margins to decline and our operating results to suffer.

Our products are manufactured using technologies and processes that are highly complex. The number of usable items, or yield, from our production processes may fluctuate as a result of many factors, including but not limited to the following:

- variability in our manufacturing process and repeatability;
- changes in manufacturing personnel due to turnover or employee absences;
- production challenges associated with the introduction of new display types;
- contamination of the manufacturing environment or equipment;
- equipment failure, power outages, or modification to our manufacturing processes;
- lack of consistency and adequate quality and quantity of component parts and other raw materials;
- defects in packaging either within or without our control;
- any transitions or changes in our production process, planned or unplanned;
- certain customer requirements outside of our normal specifications; and
- changes in the mix of display types produced from period to period.

Variations in our production yields impact our costs and cause our margins to decline and our operating results to suffer. For example, in the fourth quarter of fiscal 2018 and the first and second quarters of fiscal 2019, we experienced low yields and an adverse impact on our gross margins and operating results due to equipment failures that began in the fourth quarter of 2018. During the fourth quarter of 2018, delays in the process qualification of a product type on our higher volume deposition tool and an equipment issue led to lower yields and loss of production. These issues also led to lower gross margin and reduced display revenue. Although we began implementing remedial measures during the fourth quarter of 2018, manufacturing delays have continued into the second quarter of 2019, resulting in shipments for the second quarter of fiscal 2019 that were less than forecast and yields and production volumes that were below pre-fourth quarter 2018 levels. As a result, we are accelerating the implementation of our remedial measures although additional technical changes may be necessary before we see a return to pre-fourth quarter 2018 production yields. There can be no assurance as to the effectiveness of any remedial measures we implement or that yields and production volumes will return to the levels previously achieved.

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

None.

ITEM 3. Defaults Upon Senior Securities

None.

ITEM 4. Mine Safety Disclosures

Not applicable.

ITEM 5. Other Information

None.

ITEM 6. Exhibits

3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to an appendix to the Company’s Definitive Proxy Statement filed on September 21, 2006).
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation (incorporated by reference to an appendix to the Company’s Definitive Proxy Statement filed on October 26, 2010).
3.3	Bylaws of the Company (incorporated by reference to exhibit 99.3 to the Company’s Definitive Proxy Statement filed on June 14, 2001).
4.1	Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 of the Registrant’s current report on Form 8-K filed on December 23, 2008).
4.2	Form of Letter Agreement (incorporated by reference to Exhibit 4.1 to the Company’s Current Report on Form 8-K filed on August 24, 2016).
4.3	Form of common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 to the Registrant’s current report on Form 8-K filed on December 18, 2015).
4.4	Form of Common Stock Purchase Warrant issued to the Warrant Holders in the Transaction (incorporated by reference to Exhibit 4.2 to the Company’s Current Report on Form 8-K filed on August 24, 2016).

4.5	Common Stock Purchase Warrant issued on March 24, 2017 to the holder of an unsecured line of credit (incorporated by reference to exhibit 4.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 filed on November 9, 2017).
4.6	Form of Common Stock Purchase Warrant issued to the Warrant Holders in conjunction with an issuance of common shares on May 19, 2017 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on May 24, 2017).
10.1	Form of Strategic Bonus Agreement (incorporated by reference to exhibit 10.2 to the Company's Annual Report on form 10-K/A for the year ended December 31, 2018 filed on April 30, 2019).
31.1	Certification by Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (1)
31.2	Certification by Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (1)
32.1	Certification by Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (2)
32.2	Certification by Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (2)
101.INS	XBRL Instance Document (1)
101.SCH	XBRL Taxonomy Extension Schema Document (1)
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document (1)
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document (1)
101.LAB	XBRL Taxonomy Extension Label Linkbase Document (1)
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document (1)

(1) Filed herewith.
(2) Furnished herewith.

SIGNATURES

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

eMAGIN CORPORATION

Date: August 13, 2019	By: /s/ Andrew G. Sculley Andrew G. Sculley *Chief Executive Officer* *Principal Executive Officer*
Date: August 13, 2019	By: /s/ Jeffrey P. Lucas Jeffrey P. Lucas *President and Chief Financial Officer* *Principal Accounting and Financial Officer*

EXHIBIT 31.1

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

I, Andrew G. Sculley, certify that:

1. I have reviewed this quarterly report on Form 10-Q of eMagin Corporation.

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

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

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

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

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

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

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

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

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

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

Dated: August 13, 2019

By: /s/ Andrew G. Sculley
Andrew G. Sculley
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

**CERTIFICATION OF PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER
PURSUANT TO SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

I, Jeffrey P. Lucas, certify that:

1. I have reviewed this quarterly report on Form 10-Q of eMagin Corporation.

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

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

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

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

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

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

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

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

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

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

Dated: August 13, 2019

By: /s/ Jeffrey P. Lucas

Jeffrey P. Lucas
President and Chief Financial Officer
(Principal Accounting and Financial Officer)

EXHIBIT 32.1

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

In connection with the Quarterly Report of eMagin Corporation (the “Company”) on Form 10-Q for the quarter ended June 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Andrew G. Sculley, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. section 1350 and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Dated: August 13, 2019

By: /s/ Andrew G. Sculley
Andrew G. Sculley
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 32.2

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

In connection with the Quarterly Report of eMagin Corporation (the "Company") on Form 10-Q for the quarter ended June 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jeffrey P. Lucas, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. section 1350 and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Dated: August 13, 2019

By: /s/ Jeffrey P. Lucas
Jeffrey P. Lucas
President and Chief Financial Officer
(Principal Accounting and Financial Officer)