

EMAGIN CORP  
Form S-1/A  
November 23, 2009

As filed with the Securities and Exchange Commission on November 23, 2009

Registration No. 333- 160147

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON D.C. 20549

AMENDMENT NO. 1  
TO  
FORM S-1

REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

eMagin Corporation  
(Name of small business issuer in its charter)

Delaware  
(State or other Jurisdiction of  
Incorporation or Organization)

3679  
(Primary Standard Industrial  
Classification Code Number)

56-1764501  
(I.R.S. Employer  
Identification No.)

3006 Northup Way, Suite 103,  
Bellevue, WA 98004  
(425)-284-5200

(Address and telephone number of principal executive offices and principal place of business)

Andrew G. Sculley, Chief Executive Officer  
eMagin Corporation  
3006 Northup Way, Suite 103,  
Bellevue, WA 98004  
(425)-284-5200

(Name, address and telephone number of agent for service)

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APPROXIMATE DATE OF PROPOSED SALE TO THE PUBLIC:  
From time to time after this Registration Statement becomes effective.

If any securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

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

Large accelerated filer	<input type="radio"/>	Accelerated Filer	<input type="radio"/>
Non-accelerated filer	<input type="radio"/>	Smaller reporting company	<input checked="" type="radio"/>

## CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered	Proposed offering price per share	Proposed maximum aggregate offering price (1)	Amount of registration fee (2)
Common Stock, \$0.001 par value per share, issuable upon exercise of Warrants	1,682,502	\$ 1.80	\$ 3,028,504	\$ 169.00
Total	1,682,502	1.80	\$ 3,028,504	\$ 169.00

- (1) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(c) and Rule 457(g) under the Securities Act of 1933, using the average of the sale prices as reported on the OTCBB on November 11, 2009 which was \$1.80 per share.
- (2) The registrant previously paid a filing fee in the amount of \$284.00

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

## PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION, DATED NOVEMBER 23, 2009

eMagin Corporation

1,682,502 SHARES OF

COMMON STOCK

This prospectus relates to the resale by the selling stockholders of up to 1,682,502 shares of our common stock issuable upon the exercise of common stock purchase warrants. The selling stockholders may sell common stock from time to time in the principal market on which the stock is traded at the prevailing market price or in negotiated transactions. We will pay the expenses of registering these shares.

Our common stock is listed on the Over-The-Counter Bulletin Board under the symbol "EMAN". The last reported sales price per share of our common stock as reported by the Over-The-Counter Bulletin Board on November 11, 2009 was \$1.84.

Investing in these securities involves significant risks. See "Risk Factors" beginning on page 8.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this Prospectus is truthful or complete. Any representation to the contrary is a criminal offense. You should read this prospectus carefully before you invest.

The date of this prospectus is November \_\_, 2009.

The information in this Prospectus is not complete and may be changed. This Prospectus is included in the Registration Statement that was filed by eMagin Corporation with the Securities and Exchange Commission. The selling stockholders may not sell these securities until the registration statement becomes effective. This Prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the sale is not permitted.

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## PROSPECTUS SUMMARY

The following summary highlights selected information contained in this prospectus. This summary does not contain all the information you should consider before investing in the securities. Before making an investment decision, you should read the entire prospectus carefully, including the “risk factors” section, the financial statements and the notes to the financial statements.

We design, develop, manufacture, and market OLED (organic light emitting diode) on silicon microdisplays, virtual imaging products which 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 smaller than one-inch diagonally which, when viewed through a magnifier, 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 (“OEM”) customers to develop and market improved or new electronic products. We believe that virtual imaging will become an important way for increasingly mobile people to have quick access to high resolution data, work, and experience new more immersive forms of communications and entertainment.

Our first commercial product, the SVGA+ (Super Video Graphics Array of 800x600 picture elements plus 52 added columns of data) OLED microdisplay was initially offered for sampling in 2001, and our first SVGA-3D (Super Video Graphics Array plus built-in stereovision capability) OLED microdisplay was shipped in early 2002. These products are being applied or considered for near-eye and headset applications in products such as entertainment and gaming headsets, handheld Internet and telecommunication appliances, viewfinders, and wearable computers to be manufactured by OEM customers for military, medical, industrial, and consumer applications. We market our products globally.

In 2006 we introduced our OLED-XL technology, which provides longer luminance half life and enhanced efficiency of eMagin's SVGA+ and SVGA-3D product lines. We are in the process of completing development of 2 additional OLED microdisplays, namely the SVGA 3DS (SVGA 3D shrink, a smaller format SVGA display with a new cell architecture with embedded features) and an SXGA (1280 x 1024 picture elements).

In January 2005 we announced the world's first personal display system to combine OLED technology with head-tracking and 3D stereovision, the Z800 3DVisor(tm), which was first shipped in mid-2005. This product was recognized as a Digital Living Class of 2005 Innovators, and received the Consumer Electronics Association's coveted Consumer Electronics Show (CES) 2006 Best of Innovation Awards for the entire display category as well as a Design and Innovations Award for the electronic gaming category. In February 2007 the Z800 3DVisor, as integrated in Chatten Associates' head-aimed remote viewer, was recognized as one of Advanced Imaging's Solutions of the Year.

We believe that our OLED microdisplays offer a number of significant advantages over the more widely used liquid crystal displays, including greatly increased power efficiency, less weight and wider viewing angles. Using our active matrix OLED technology, many computer and electronic system functions can be built directly into the OLED microdisplay, resulting in compact, high resolution, power efficient systems. We have developed our own intellectual property and accumulated over 6 years of manufacturing know-how to create high performance OLED microdisplays.

As the first to exploit OLED technology for microdisplays, and with the support of our partners and the development of our intellectual property, we believe that we enjoy a significant advantage in the commercialization of microdisplays for virtual imaging. We believe we are currently the only company to sell active matrix small molecule OLED-on-silicon microdisplays.

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eMagin Corporation was created through the merger of Fashion Dynamics Corporation ("FDC"), which was organized on January 23, 1996 under the laws of the State of Nevada and FED Corporation ("FED"), a developer and manufacturer of optical systems and microdisplays for use in the electronics industry. FDC had no active business operations other than to acquire an interest in a business. On March 16, 2000, FDC acquired FED. The merged company changed its name to eMagin Corporation. Following the merger, the business conducted by eMagin is the business conducted by FED prior to the merger.

Our website is located at [www.emagin.com](http://www.emagin.com) and our e-commerce site is [www.3dvisor.com](http://www.3dvisor.com). The contents of our website are not part of this Prospectus.

## The Offering

Common stock offered by  
selling stockholders

Up to 1,682,502 shares, consisting of the  
following:

- up to 312,502 shares of common stock issuable upon the exercise of common stock purchase warrants at an exercise price of \$1.13 per share;
- up to 1,000,000 shares of common stock issuable upon the exercise of common stock purchase warrants at an exercise price of \$1.50 per share;
- up to 370,000 shares of common stock issuable upon the exercise of common stock purchase warrants at an exercise price of \$1.30 per share.

Common Stock to be  
outstanding after the offering

18,644,404 shares assuming the full exercise of the warrants of the underlying shares of which are included in this prospectus.\*

Use of Proceeds

We will not receive any proceeds from the sale of the common stock; however, we will receive proceeds from the exercise of our warrants.

Over-The-Counter Bulletin  
Board Symbol

EMAN

\*The information above regarding the common stock to be outstanding after the offering is based on 16,961,902 shares of the Company's common stock outstanding as of November 11, 2009.



## SUMMARY CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with our consolidated financial statements and related notes and “Management’s Discussion and Analysis of Financial Condition and Results of Operations”. The statements of operations data for the years ended December 31, 2008, 2007, and 2006 and the balance sheet data at December 31, 2008 and 2007 are derived from our audited financial statements which are included elsewhere in this registration statement. The statements of operations data for the years ended December 31, 2005 and 2004 and the balance sheet data at December 31, 2006, 2005 and 2004 are derived from our audited financial statements which are not included in this registration statement. The statements of operations data for the nine months ended September 30, 2009 and 2008 and the balance sheet data at September 30, 2009 are derived from our unaudited condensed consolidated interim financial statements filed with the Securities and Exchange Commission on November 12, 2009 which are included elsewhere in the registration statement. The balance sheet data at September 30, 2008 was derived from our unaudited condensed consolidated interim financial statements filed with the Securities and Exchange Commission on November 14, 2008. The historical results are not necessarily indicative of results to be expected for future periods. The following information is presented in thousands, except per share data.

## Consolidated Statements of Operations Data:

	Year Ended December 31,					Nine Months Ended	
	2008	2007	2006	2005	2004	2009	2008
	(thousands)						
Revenue	\$ 18,739	\$ 17,554	\$ 8,169	\$ 3,745	\$ 3,593	\$ 17,103	\$ 13,469
Cost of goods sold	10,673	12,628	11,359	10,219	5,966	7,345	8,110
Gross profit (loss)	8,066	4,926	(3,190 )	(6,474 )	(2,373 )	9,758	5,359
Operating expenses:							
Research and development	2,081	2,949	4,406	4,020	898	1,376	1,614
Selling, general and administrative	6,254	6,591	8,860	6,316	4,428	5,083	4,797
Total operating expenses	8,335	9,540	13,266	10,336	5,326	6,459	6,411
(Loss) income from operations	(269 )	(4,614 )	(16,456 )	(16,810 )	(7,699 )	3,299	(1,052 )
Other (expense) income, net	(1,590 )	(13,874 )	1,190	282	(5,012 )	(376 )	(1,383 )
Net (loss) income	\$ (1,859 )	\$ (18,488 )	\$ (15,266 )	\$ (16,528 )	\$ (12,711 )	\$ 2,923	\$ (2,435 )
(Loss) income per share, basic	\$ (0.13 )	\$ (1.59 )	\$ (1.52 )	\$ (1.94 )	\$ (1.98 )	\$ 0.18	\$ (0.18 )

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(Loss) income per share, diluted	\$ (0.13 )	\$ (1.59 )	\$ (1.52 )	\$ (1.94 )	\$ (1.98 )	\$ 0.12	\$ (0.18 )
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Weighted average number of shares outstanding:

Basic	14,175	11,633	10,058	8,541	6,428	16,134	13,855
Diluted	14,175	11,633	10,058	8,541	6,428	24,471	13,855

Consolidated Balance Sheet Data:

	2008	2007	December 31, 2006	2005 (thousands)	2004	September 30, (unaudited) 2009	2008
Cash and cash equivalents	\$ 2,404	\$ 713	\$ 1,415	\$ 6,727	\$ 13,457	\$ 3,709	\$ 1,272
Working capital (deficit)	\$ 3,300	\$ (4,708)	\$ (305)	\$ 8,868	\$ 14,925	\$ 7,296	\$ (3,555)
Total assets	\$ 10,104	\$ 6,648	\$ 7,005	\$ 14,142	\$ 18,436	\$ 11,814	\$ 9,191
Long-term obligations	\$ ---	\$ 60	\$ 2,229	\$ 56	\$ 22	\$ ---	\$ 38
Total shareholders' equity (capital deficit)	\$ 3,661	\$ (4,170)	\$ (1,164)	\$ 10,401	\$ 16,447	\$ 8,243	\$ (2,888)

ITEM 1A. RISK FACTORS

You should carefully consider the following risk factors and the other information included herein as well as the information included in other reports and filings made with the SEC before investing in our common stock. The following factors, as well as other factors affecting our operating results and financial condition, could cause our actual future results and financial condition to differ materially from those projected. The trading price of our common stock could decline due to any of these risks, and you may lose part or all of your investment.

RISKS RELATED TO OUR FINANCIAL RESULTS

We have a history of losses since our inception and may incur losses in the future.

Our accumulated losses are \$198 million as of September 30, 2009. We have not yet achieved profitability on a full year basis. We had two profitable quarters in 2008 and three profitable quarters in 2009. We can give no assurances that we will continue to be profitable in the future. We cannot assure investors that we will sustain profitability or that we will not incur operating losses in the future.

We may not be able to execute our business plan due to a lack of cash from operations.

Historically, we have not produced positive cash flows from operations. However, we have generated positive cash flows the past five quarters. We anticipate that our cash from operations will be sufficient to meet our requirements over the next twelve months. In the event that cash flow from operations is less than anticipated and we are unable to secure additional funding to cover our expenses, in order to preserve cash, we may have to reduce expenditures and effect reductions in our corporate infrastructure, either of which could have a material adverse effect on our ability to continue our current level of operations. No assurance can be given that if additional financing is necessary, that it will be available, or if available, will be on acceptable terms.

We may be subject to fines, sanctions, and/or penalties of an indeterminable nature as a result of potential violations of federal securities laws.

In July 2006, we entered into a Note Purchase Agreement with Stillwater LLC (“Stillwater”), which provided for the purchase and sale of a 6% senior secured convertible note in principal amount of up to \$500,000 (the “Stillwater Note”) and a warrant to purchase 70% of the number of shares issuable upon conversion of the Stillwater Note, at our sole discretion by delivery of a notice to Stillwater on December 14, 2006. We then filed a registration statement on Form S-3 to register the resale by Stillwater of up to 41,088,445 shares of our common stock. In July 2007, we amended the agreements with Stillwater. Amending the Stillwater agreements without first withdrawing the Registration Statement on Form S-3 may be inconsistent with Section 5 of the Securities Act of 1933, as amended (the “Act”), and we may be subject to fines, sanctions and/or penalties of an indeterminable nature as a result of potential violations of federal securities laws. If we are assessed fines and penalties our business will be materially affected.

The issuance of shares of common stock in connection with the conversion of the Notes may have not have been in compliance with certain state and federal securities laws and any damages that we may have to pay as a result of such issuance could have a material adverse effect on our revenues, profits, results of operations, financial condition and future prospects.

Our operating results have significant fluctuations.

In addition to the variability resulting from the short-term nature of commitments from our customers, other factors contribute to significant periodic quarterly fluctuations in results of operations. These factors include, but are not limited to, the following:

- the receipt and timing of orders and the timing of delivery of orders;
- the inability to adjust expense levels or delays in adjusting expense levels, in either case in response to lower than expected revenues or gross margins;
- the volume of orders relative to our manufacturing capacity;
- product introductions and market acceptance of new products or new generations of products;
- changes in cost and availability of labor and components;
- product mix;
- variation in operating expenses; regulatory requirements, foreign currency fluctuations and changes in duties and tariffs;
- pricing and availability of competitive products and services; and
- changes, whether or not anticipated, in economic conditions.

Accordingly, the results of any past periods should not be relied upon as an indication of our future performance.

## RISKS RELATED TO MANUFACTURING

The manufacture of active matrix OLED microdisplays is new and could result in manufacturing issues or delays.

Ours is an evolving technology and we are pioneers in this active matrix OLED microdisplay manufacturing technique. We cannot assure you that we will be able to produce our products in sufficient quantity and quality to maintain existing customers and attract new customers. In addition, we cannot assure you that we will not experience manufacturing problems which could result in delays in delivery of orders or product introductions.

We are dependent on a single manufacturing line.

We currently manufacture our products on a single manufacturing line. 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. For this reason, some OEMs may also be reluctant to commit a broad line of products to our microdisplays without a second production facility in place. However, we try to maintain product inventory to fill the requirements under such circumstances. Interruptions in our manufacturing could be caused by manufacturing equipment problems, the introduction of new equipment into the manufacturing process or delays in the delivery of new manufacturing equipment. Lead-time for delivery of manufacturing equipment can be extensive. No assurance can be given that we will not lose potential sales or be unable to meet production orders due to production interruptions in our manufacturing line. In order to meet the requirements of certain OEMs for multiple manufacturing sites, we will have to expend capital to secure additional sites and may not be able to manage multiple sites successfully.

We rely on key sole source and limited source suppliers.

We depend on a number of sole source or limited source suppliers for certain raw materials, components, and services. These include circuit boards, graphic integrated circuits, passive components, materials and chemicals, and equipment support. We maintain several single-source supplier relationships, either because alternative sources are not available or because the relationship is advantageous due to performance, quality, support, delivery, capacity, or price considerations. Even where alternative sources of supply are available, qualification of the alternative suppliers and establishment of reliable supplies could result in delays and a possible loss of sales, which could be detrimental to operating results. We do not manufacture the silicon integrated circuits on which we incorporate our OLED technology. Instead, we provide the design layouts to a sole semiconductor contract manufacturer who manufactures the integrated circuits on silicon wafers. Our inability to obtain sufficient quantities of components and other materials or services on a timely basis could result in manufacturing delays, increased costs and ultimately in reduced or delayed sales or lost orders which could materially and adversely affect our operating results.

Our results of operations, financial condition, and business would be harmed if we were unable to balance customer demand and capacity.

As customer demand for our products, particularly new products, changes we must be able to ramp up or adjust our production capacity to meet demand. We are continually taking steps to address our manufacturing capacity needs for our products. If we are not able to increase our capacity or if we increase our capacity too quickly, our business and results of operations could be adversely impacted. If we experience delays or unforeseen costs associated with adjusting our capacity levels, we may not be able to achieve our financial targets. For some of our products, vendor lead times exceed our customers' required delivery time causing us to order to forecast rather than order based on actual demand. Ordering raw material and building finished goods based on forecasts exposes us to numerous risks including potential inability to service customer demand in an acceptable timeframe, holding excess inventory or having unabsorbed manufacturing overhead.

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

All of our products are manufactured using technologies 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 process repeatability and control;
- contamination of the manufacturing environment or equipment;
- equipment failure, power outages, or variations in the manufacturing process;
- lack of consistency and adequate quality and quantity of piece parts and other raw materials;
- defects in packaging either within or outside our control; and
- any transitions or changes in our production process, planned or unplanned.

We could experience manufacturing interruptions, delays, or inefficiencies if we are unable to timely and reliably procure components from single-sourced suppliers.

We maintain several single-source supplier relationships, either because alternative sources are not available or because the relationship is advantageous due to performance, quality, support, delivery, capacity, or price considerations. If the supply of a critical single-source material or component is delayed or curtailed, we may not be able to ship the related product in desired quantities and in a timely manner. Even where alternative sources of supply are available, qualification of the alternative suppliers and establishment of reliable supplies could result in delays and a possible loss of sales, which could harm operating results.

#### RISKS RELATED TO OUR INTELLECTUAL PROPERTY

We have a license agreement with Eastman Kodak regarding the manufacture of OLED microdisplays.

We rely upon Eastman Kodak to protect and enforce key patents held by Eastman Kodak, relating to OLED display technology that we have licensed. Some of Eastman Kodak's key patents have expired and others expire at various times in the future. Our license with Eastman Kodak could terminate if we fail to perform any material term or covenant under the license agreement. Since our license from Eastman Kodak is non-exclusive, Eastman Kodak could also elect to become a competitor itself or to license OLED technology for microdisplay applications to others who have the potential to compete with us. The occurrence of any of these events could have a material adverse impact on our business.

We may not be successful in protecting our intellectual property and proprietary rights.

We rely on a combination of patents, trade secret protection, licensing agreements and other arrangements to establish and protect our proprietary technologies. If we fail to successfully enforce our intellectual property rights, our competitive position could suffer, which could harm our operating results. Patents may not be issued for our current patent applications, third parties may challenge, invalidate or circumvent any patent issued to us, unauthorized parties could obtain and use information that we regard as proprietary despite our efforts to protect our proprietary rights, rights granted under patents issued to us may not afford us any competitive advantage, others may independently develop similar technology or design around our patents, our technology may be available to licensees of Eastman Kodak, and protection of our intellectual property rights may be limited in certain foreign countries. On April 30, 2007, the U.S. Supreme Court, in *KSR International Co. vs. Teleflex, Inc.*, mandated a more expansive and flexible approach towards a determination as to whether a patent is obvious and invalid, which may make it more difficult for patent holders to secure or maintain existing patents. Any future infringement or other claims or prosecutions related to our intellectual property could have a material adverse effect on our business. Any such claims, with or without merit, could be time consuming to defend, result in costly litigation, divert management's attention and resources, or require us to enter into royalty or licensing agreements. Such royalty or licensing agreements, if required, may not be available on terms acceptable to us, if at all. Protection of intellectual property has historically been a large yearly expense for eMagin. We have not been in a financial position to properly protect all of our intellectual property, and may not be in a position to properly protect our position or stay ahead of competition in new research and the protecting of the resulting intellectual property.

In addition to patent protection, we also rely on trade secrets and other non-patented proprietary information relating to our product development and manufacturing activities. We try to protect this information through appropriate efforts to maintain its secrecy, including requiring employees and third parties to sign confidentiality agreements. We cannot be sure that these efforts will be successful or that the confidentiality agreements will not be breached. We also cannot be sure that we would have adequate remedies for any breach of such agreements or other misappropriation of our trade secrets or that our trade secrets and proprietary know-how will not otherwise become known or be independently discovered by others.

RISKS RELATED TO THE MICRODISPLAY INDUSTRY

The commercial success of the microdisplay industry depends on the widespread market acceptance of microdisplay systems products.

The market for microdisplays is emerging. Our success will depend on consumer acceptance of microdisplays as well as the success of the commercialization of the microdisplay market. As an OEM supplier, our customer's products must also be well accepted. At present, it is difficult to assess or predict with any assurance the potential size, timing and viability of market opportunities for our technology in this market.



The microdisplay systems business is intensely competitive.

We do business in intensely competitive markets that are characterized by rapid technological change, changes in market requirements and competition from both other suppliers and our potential OEM customers. Such markets are typically characterized by price erosion. This intense competition could result in pricing pressures, lower sales, reduced margins, and lower market share. Our ability to compete successfully will depend on a number of factors, both within and outside our control. We expect these factors to include the following:

- our success in designing, manufacturing and delivering expected new products, including those implementing new technologies on a timely basis;
- our ability to address the needs of our customers and the quality of our customer service;
- the quality, performance, reliability, features, ease of use and pricing of our products;
- successful expansion of our manufacturing capabilities;
- our efficiency of production, and ability to manufacture and ship products on time;
- the rate at which original equipment manufacturing customers incorporate our product solutions into their own products;
- the market acceptance of our customers' products; and
- product or technology introductions by our competitors.

Our competitive position could be damaged if one or more potential OEM customers decide to manufacture their own microdisplays, using OLED or alternate technologies. In addition, our customers may be reluctant to rely on a relatively small company such as eMagin for a critical component. We cannot assure you that we will be able to compete successfully against current and future competition, and the failure to do so would have a materially adverse effect upon our business, operating results and financial condition.

The display industry may be cyclical.

Our business strategy is dependent on OEM manufacturers building and selling products that incorporate our OLED displays as components into those products. Industry-wide fluctuations could cause significant harm to our business. The OLED microdisplay sector may experience overcapacity, if and when all of the facilities presently in the planning stage come on line, leading to a difficult market in which to sell our products.

Our competitors have many advantages over us.

As the microdisplay market develops, we expect to experience intense competition from numerous domestic and foreign companies including well-established corporations possessing worldwide manufacturing and production facilities, greater name recognition, larger retail bases and significantly greater financial, technical, and marketing resources than us, as well as from emerging companies attempting to obtain a share of the various markets in which our microdisplay products have the potential to compete. We cannot assure you that we will be able to compete successfully against current and future competition, and the failure to do so would have a materially adverse effect upon our business, operating results and financial condition.

Our products are subject to lengthy OEM development periods.

We sell most of our microdisplays to OEMs who will incorporate them into products they sell. OEMs determine during their product development phase whether they will incorporate our products. The time elapsed between initial sampling of our products by OEMs, the custom design of our products to meet specific OEM product requirements, and the ultimate incorporation of our products into OEM consumer products is significant often with a duration of between one and three years. If our products fail to meet our OEM customers' cost, performance or technical

requirements or if unexpected technical challenges arise in the integration of our products into OEM consumer products, our operating results could be significantly and adversely affected. Long delays in achieving customer qualification and incorporation of our products could adversely affect our business.

Our products will likely experience rapidly declining unit prices.

In the markets in which we expect to compete, prices of established products tend to decline significantly over time. In order to maintain our profit margins over the long term, we believe that we will need to continuously develop product enhancements and new technologies that will either slow price declines of our products or reduce the cost of producing and delivering our products. While we anticipate many opportunities to reduce production costs over time, there can be no assurance that these cost reduction plans will be successful, that we will have the resources to fund the expenditures necessary to implement certain cost-saving measures, or that our costs can be reduced as quickly as any reduction in unit prices. We may also attempt to offset the anticipated decrease in our average selling price by introducing new products, increasing our sales volumes or adjusting our product mix. If we fail to do so, our results of operations would be materially and adversely affected.

## RISKS RELATED TO OUR BUSINESS

Our success depends on attracting and retaining highly skilled and qualified technical and consulting personnel.

We must hire highly skilled technical personnel as employees and as independent contractors in order to develop our products. The competition for skilled technical employees is intense and we may not be able to retain or recruit such personnel. We must compete with companies that possess greater financial and other resources than we do, and that may be more attractive to potential employees and contractors. To be competitive, we may have to increase the compensation, bonuses, stock options and other fringe benefits offered to employees in order to attract and retain such personnel. The costs of attracting and retaining new personnel may have a materially adverse effect on our business and our operating results.

Our success depends in a large part on the continuing service of key personnel.

Changes in management could have an adverse effect on our business. We are dependent upon the active participation of several key management personnel and will also need to recruit additional management in order to expand according to our business plan. The failure to attract and retain additional management or personnel could have a material adverse effect on our operating results and financial performance.

The ineffectiveness of our internal control over financial reporting could result in a loss of investor confidence in our financial reports and have an adverse effect on our stock price.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 (“Section 404”), and the rules and regulations promulgated by the SEC to implement Section 404, we included in our Form 10-K an annual report by our management regarding the effectiveness of our internal control over financial reporting. The report includes, among other things, an assessment of the effectiveness of our internal control over financial reporting as of the end of our fiscal year. Our assessment is that although we have made substantial improvements in our internal control over financial reporting, we continue to have material weaknesses. Management will continue to make improvements in this regard.

As of September 30, 2009, even though we made significant improvement, our internal control over financial reporting was ineffective due to the presence of material weaknesses, as more fully described in Item 4T of the Form 10-Q filed with the SEC on November 12, 2009. This could result in a loss of investor confidence in the accuracy and completeness of our financial reports, which may have an adverse effect on our stock price.

Our operating results are substantially dependent on the development and acceptance of new products and technology innovations.

Our future success may depend on our ability to develop new and lower cost solutions for existing and new markets and for customers to accept those solutions. We must introduce new products in a timely and cost-efficient manner, and we must secure production orders for those products from our customers. The development of new products is a highly complex process, and we historically have experienced delays in completing the development and introduction of new products. Some or all of those technologies or products may not successfully make the transition from the research and development lab. Even when we successfully complete a research and development effort with respect to a particular product or technology, it may fail to gain market acceptance. The successful development and introduction of these products depends on a number of factors, including the following:

- achievement of technology breakthroughs required to make commercially viable devices;
- the accuracy of our predictions of market requirements;
- acceptance of our new product designs;
- acceptance of new technology in certain markets;

- the availability of qualified research and development and product development personnel;
- our timely completion of product designs and development;
- our ability and available resources to expand sales;
- our ability to develop repeatable processes to manufacture new products in sufficient quantities and at low enough costs for commercial sales;
- our customers' ability to develop competitive products incorporating our products; and
- acceptance of our customers' products by the market.

If any of these or other factors become problematic, we may not be able to develop and introduce these new products in a timely or cost-effective manner.

If government agencies discontinue or curtail their funding for our research and development programs our business may suffer.

Changes in federal budget priorities could adversely affect our contract revenue. Historically, government agencies have funded a significant part of our research and development activities. When the government changes budget priorities, such as in time of war or for other reasons, our funding has the risk of being redirected to other programs. Government contracts are also subject to the risk that the government agency may not appropriate and allocate all funding contemplated by the contract. In addition our government contracts generally permit the contracting authority to terminate the contract for the convenience of the government. The full value of the contracts would not be realized if they were prematurely terminated. We may be unable to incur sufficient allowable costs to generate the full estimated contract values. Furthermore, the research and development and product procurement contracts of the customers we supply may be similarly impacted. If the government funding is discontinued or reduced, our ability to develop or enhance products could be limited and our business results or operations and financial conditions could be adversely affected.

Our business depends on new products and technologies.

The market for our products is characterized by rapid changes in product, design and manufacturing process technologies. Our success depends to a large extent on our ability to develop and manufacture new products and technologies to match the varying requirements of different customers in order to establish a competitive position and become profitable. Furthermore, we must adopt our products and processes to technological changes and emerging industry standards and practices on a cost-effective and timely basis. Our failure to accomplish any of the above could harm our business and operating results.

We generally do not have long-term contracts with our customers.

Our business has primarily operated on the basis of short-term purchase orders. We receive some longer term purchase agreements, and procurement contracts, but we cannot guarantee that we will continue to do so. Our current purchase agreements can be cancelled or revised without penalty, depending on the circumstances. We plan production primarily on the basis of internally generated forecasts of demand based on communications with customers, and available industry data which makes it difficult to accurately forecast revenues. If we fail to accurately forecast operating results, our business may suffer and the value of your investment in eMagin may decline.

Our business strategy may fail if we cannot continue to form strategic relationships with companies that manufacture and use products that could incorporate our active matrix OLED technology.

Our prospects could be significantly affected by our ability to develop strategic alliances with OEMs for incorporation of our active matrix OLED microdisplay technology into their products. While we intend to continue to establish strategic relationships with manufacturers of electronic consumer products, personal computers, chipmakers, lens makers, equipment makers, material suppliers and/or systems assemblers, there is no assurance that we will be able to continue to establish and maintain strategic relationships on commercially acceptable terms, or that the alliances we do enter in to will realize their objectives. Failure to do so could have a material adverse effect on our business.

Our business depends to some extent on international transactions.

We purchase needed materials from companies located abroad and may be adversely affected by political and currency risk, as well as the additional costs of doing business with foreign entities. Some customers in other countries have longer receivable periods or warranty periods. In addition, many of the foreign OEMs that are the most likely long-term purchasers of our microdisplays expose us to additional political and currency risk. We may find it necessary to locate manufacturing facilities abroad to be closer to our customers which could expose us to various

risks, including management of a multi-national organization, the complexities of complying with foreign laws and customs, political instability and the complexities of taxation in multiple jurisdictions.

Our business may expose us to product liability claims.

Our business may expose us to potential product liability claims. Although no such claims have been brought against us to date, and to our knowledge no such claim is threatened or likely, we may face liability to product users for damages resulting from the faulty design or manufacture of our products. While we plan to maintain product liability insurance coverage, there can be no assurance that product liability claims will not exceed coverage limits, fall outside the scope of such coverage, or that such insurance will continue to be available at commercially reasonable rates, if at all.

Our business is subject to environmental regulations and possible liability arising from potential employee claims of exposure to harmful substances used in the development and manufacture of our products.

We are subject to various governmental regulations related to toxic, volatile, experimental and other hazardous chemicals used in our design and manufacturing process. Our failure to comply with these regulations could result in the imposition of fines or in the suspension or cessation of our operations. Compliance with these regulations could require us to acquire costly equipment or to incur other significant expenses. We develop, evaluate and utilize new chemical compounds in the manufacture of our products. While we attempt to ensure that our employees are protected from exposure to hazardous materials, we cannot assure you that potentially harmful exposure will not occur or that we will not be liable to employees as a result.

Current adverse economic conditions may adversely impact our business, operating results and financial condition.

The current economic conditions and market instability may affect our customers and suppliers. Any adverse financial or economic impact to our customers may impact their ability to pay timely, or result in their inability to pay. It may also impact their ability to fund future purchases, or increase the sales cycles which could lead to a reduction in revenue and accounts receivable. Our suppliers may increase their prices or may be unable to supply needed raw materials on a timely basis which could result in our inability to meet customers' demand or affect our gross margins. Our suppliers may, also, impose more stringent payment terms on us. The timing and nature of any recovery in the credit and financial markets remains uncertain, and there can be no assurance that market conditions will improve in the near future or that our results will not be materially and adversely affected.

#### RISKS RELATED TO OUR STOCK

The substantial number of shares that are or will be eligible for sale could cause our common stock price to decline even if eMagin is successful.

Sales of significant amounts of common stock in the public market, or the perception that such sales may occur, could materially affect the market price of our common stock. These sales might also make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate. As of November 11, 2009, we have outstanding common shares of 16,961,902 plus (i) options to purchase 2,822,916 shares, (ii) warrants to purchase 9,267,821 shares and (iii) convertible preferred stock convertible into 7,652,000 shares of common stock.

We have a staggered board of directors and other anti-takeover provisions, which could inhibit potential investors or delay or prevent a change of control that may favor you.

Our Board of Directors is divided into three classes and our Board members are elected for terms that are staggered. This could discourage the efforts by others to obtain control of eMagin. Some of the provisions of our certificate of incorporation, our bylaws and Delaware law could, together or separately, discourage potential acquisition proposals or delay or prevent a change in control. In particular, our board of directors is authorized to issue up to 10,000,000 shares of preferred stock (less any outstanding shares of preferred stock) with rights and privileges that might be senior to our common stock, without the consent of the holders of the common stock.

Changes in internal controls or accounting guidance could cause volatility in our stock price.

Guidance regarding implementation and interpretation of the provisions of Section 404 continues to be issued by the standards-setting regulators. As a result of the ongoing interpretation of new guidance and the audit testing to be completed in the future, our internal controls over financial reporting may include an unidentified material weakness which would result in receiving an adverse opinion on our internal controls over financial reporting from our independent registered public accounting firm. This could result in significant additional expenditures responding to

the Section 404 internal control audit, heightened regulatory scrutiny and potentially an adverse effect to the price of our stock.

In addition, due to increased regulatory scrutiny surrounding publicly traded companies, the possibility exists that a restatement of past financial results could be necessitated by an alternative interpretation of present accounting guidance and practice. Although management does not currently anticipate that this will occur, a potential result of such interpretation could be an adverse effect on our stock price.



The market price of our common stock may be volatile.

The market price of our common stock has been subject to wide fluctuations. During our four most recently completed fiscal quarters, the closing price of our stock ranged from \$0.34 to \$1.95 and decreased to a low of \$0.21 on October 10, 2008. The market price of our common stock in the future is likely to continue to be subject to wide fluctuations in response to various factors, including, but not limited to, the following:

- variations in our operating results and financial conditions;
- actual or anticipated announcements of technical innovations, new product developments, or design wins by us or our competitors;
- general conditions in the semiconductor and flat panel display industries; and
- worldwide economic and financial conditions.

## FORWARD LOOKING STATEMENTS

We and our representatives may from time to time make written or oral statements that are “forward-looking,” including statements contained in this prospectus and other filings with the Securities and Exchange Commission, reports to our stockholders and news releases. All statements that express expectations, estimates, forecasts or projections are forward-looking statements. In addition, other written or oral statements which constitute forward-looking statements may be made by us or on our behalf. Words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “estimates,” “projects,” “forecasts,” “may,” “should,” variations of such words and similar expressions are intended to identify forward-looking statements. These statements are not guarantees of future performance and involve risks, uncertainties, and assumptions which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in or suggested by such forward-looking statements. Among the important factors on which such statements are based are assumptions concerning our ability to obtain additional funding, our ability to compete against our competitors, our ability to integrate our acquisitions and our ability to attract and retain key employees.

## USE OF PROCEEDS

This prospectus relates to shares of our common stock that may be offered and sold from time to time by the selling stockholders. We will not receive any proceeds from the sale of shares of common stock in this offering. However, we will receive the sale price of any common stock we sell to the selling stockholders upon exercise of the warrants owned by the selling stockholders. We expect to use the proceeds received from the exercise of the warrants, if any, for general working capital purposes. We have not declared or paid any dividends and do not currently expect to do so in the near future.

## MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our common stock is quoted on the OTC Bulletin Board under the symbol “EMAN.OB.” The following table sets forth the high and low sales prices as reported by the NASDAQ Bulletin Board Market for the periods indicated.

	High	Low
Fiscal 2006		
First Quarter	\$ 7.10	\$ 4.60
Second Quarter	\$ 5.70	\$ 2.50
Third Quarter	\$ 3.80	\$ 1.80
Fourth Quarter	\$ 2.50	\$ 1.01
Fiscal 2007		
First Quarter	\$ 1.08	\$ 0.26
Second Quarter	\$ 0.85	\$ 0.42
Third Quarter	\$ 1.64	\$ 0.65
Fourth Quarter	\$ 1.75	\$ 0.85
Fiscal 2008		
First Quarter	\$ 1.47	\$ 0.88
Second Quarter	\$ 1.05	\$ 0.63
Third Quarter	\$ 0.83	\$ 0.52
Fourth Quarter	\$ 0.75	\$ 0.21
Fiscal 2009		
First Quarter	\$ 0.85	\$ 0.32

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Second Quarter	\$ 1.40	\$ 0.60
Third Quarter	\$ 2.08	\$ 0.97
Fourth Quarter (as of November 11, 2009)	\$ 2.00	\$ 1.55

As of November 11, 2009, there were 503 holders of record of our common stock. Because brokers and other institutions hold many of the shares on behalf of shareholders, we are unable to determine the actual number of shareholders represented by these record holders.

#### Dividends

We have never declared or paid cash dividends on our common stock. We currently anticipate that we will retain all future earnings to fund the operation of our business and do not anticipate paying dividends on our common stock in the foreseeable future.

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## SELECTED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with our consolidated financial statements and related notes and “Management’s Discussion and Analysis of Financial Condition and Results of Operations”. The statements of operations data for the years ended December 31, 2008, 2007, and 2006 and the balance sheet data at December 31, 2008 and 2007 are derived from our audited financial statements which are included elsewhere in this registration statement. The statements of operations data for the years ended December 31, 2005 and 2004 and the balance sheet data at December 31, 2006, 2005 and 2004 are derived from our audited financial statements which are not included in this registration statement. The statements of operations data for the nine months ended September 30, 2009 and 2008 and the balance sheet data at September 30, 2009 are derived from our unaudited condensed consolidated interim financial statements filed with the Securities and Exchange Commission on November 12, 2009 which are included elsewhere in the registration statement. The balance sheet data at September 30, 2008 was derived from our unaudited condensed consolidated interim financial statements filed with the Securities and Exchange Commission on November 14, 2008. The historical results are not necessarily indicative of results to be expected for future periods. The following information is presented in thousands, except per share data.

## Consolidated Statements of Operations Data:

	Year Ended December 31,					Nine Months Ended	
	2008	2007	2006	2005	2004	2009	2008
	(thousands)						
Revenue	\$ 18,739	\$ 17,554	\$ 8,169	\$ 3,745	\$ 3,593	\$ 17,103	\$ 13,469
Cost of goods sold	10,673	12,628	11,359	10,219	5,966	7,345	8,110
Gross profit (loss)	8,066	4,926	(3,190 )	(6,474 )	(2,373 )	9,758	5,359
Operating expenses:							
Research and development	2,081	2,949	4,406	4,020	898	1,376	1,614
Selling, general and administrative	6,254	6,591	8,860	6,316	4,428	5,083	4,797
Total operating expenses	8,335	9,540	13,266	10,336	5,326	6,459	6,411
(Loss) income from operations	(269 )	(4,614 )	(16,456 )	(16,810 )	(7,699 )	3,299	(1,052 )
Other (expense) income, net	(1,590 )	(13,874 )	1,190	282	(5,012 )	(376 )	(1,383 )
Net (loss) income	\$ (1,859 )	\$ (18,488 )	\$ (15,266 )	\$ (16,528 )	\$ (12,711 )	\$ 2,923	\$ (2,435 )
(Loss) income per share, basic	\$ (0.13 )	\$ (1.59 )	\$ (1.52 )	\$ (1.94 )	\$ (1.98 )	\$ 0.18	\$ (0.18 )
(Loss) income per share, diluted	\$ (0.13 )	\$ (1.59 )	\$ (1.52 )	\$ (1.94 )	\$ (1.98 )	\$ 0.12	\$ (0.18 )

Weighted  
average  
number of  
shares  
outstanding:

Basic	14,175	11,633	10,058	8,541	6,428	16,134	13,855
Diluted	14,175	11,633	10,058	8,541	6,428	24,471	13,855

Consolidated Balance Sheet Data:

	2008	2007	December 31, 2006	2005	2004	September 30, (unaudited) 2009	2008
	(thousands)						
Cash and cash equivalents	\$ 2,404	\$ 713	\$ 1,415	\$ 6,727	\$ 13,457	\$ 3,709	\$ 1,272
Working capital (deficit)	\$ 3,300	\$ (4,708)	\$ (305)	\$ 8,868	\$ 14,925	\$ 7,296	\$ (3,555)
Total assets	\$ 10,104	\$ 6,648	\$ 7,005	\$ 14,142	\$ 18,436	\$ 11,814	\$ 9,191
Long-term obligations	\$ ---	\$ 60	\$ 2,229	\$ 56	\$ 22	\$ ---	\$ 38
Total shareholders' equity (capital deficit)	\$ 3,661	\$ (4,170)	\$ (1,164)	\$ 10,401	\$ 16,447	\$ 8,243	\$ (2,888)

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### Introduction

The following discussion should be read in conjunction with the 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. (See Part I, Item 1A, "Risk Factors "). These forward-looking statements are based largely on our current expectations and are subject to a number of risks and uncertainties. Actual results could differ materially from these forward-looking statements. Important factors to consider in evaluating such forward-looking statements include (i) changes in external factors or in our internal budgeting process which might impact trends in our results of operations; (ii) unanticipated working capital or other cash requirements; (iii) changes in our business strategy or an inability to execute our strategy due to unanticipated changes in the industries in which we operate; and (iv) various competitive market factors that may prevent us from competing successfully in the marketplace.

### Overview

We design and manufacture miniature displays, which we refer to as OLED-on-silicon-microdisplays, and microdisplay modules for virtual imaging, primarily for incorporation into the products of other manufacturers. Microdisplays are typically smaller than many postage stamps, but when viewed through a magnifier they can contain all of the information appearing on a high-resolution personal computer screen. Our microdisplays use organic light emitting diodes, or OLEDs, which emit light themselves when a current is passed through the device. Our technology permits OLEDs to be coated onto silicon chips to produce high resolution OLED-on-silicon microdisplays.

We believe that our OLED-on-silicon microdisplays offer a number of advantages in near to the eye applications over other current microdisplay technologies, including lower power requirements, less weight, fast video speed without flicker, and wider viewing angles. In addition, many computer and video electronic system functions can be built directly into the OLED-on-silicon microdisplay, resulting in compact systems with lower expected overall system costs relative to alternate microdisplay technologies.

Since our inception in 1996 through 2004, we derived the majority of our revenues from fees paid to us under research and development contracts, primarily with the U.S. federal government. We have devoted significant resources to the development and commercial launch of our products. We commenced limited initial sales of our SVGA+ microdisplay in May 2001 and commenced shipping samples of our SVGA-3D microdisplay in February 2002. As of November 11, 2009, we have a backlog of approximately \$4.6 million in products ordered for delivery through June 30, 2010. This backlog consists of non-binding purchase orders and purchase agreements. These products are being applied or considered for near-eye and headset applications in products such as thermal imagers, night vision goggles, entertainment headsets, handheld Internet and telecommunication appliances, viewfinders, and wearable computers to be manufactured by original equipment manufacturer (OEM) customers. We have also shipped a limited number of our Z800 3Dvisor personal display systems. In addition to marketing OLED-on-silicon microdisplays as components, we also offer microdisplays as an integrated package, which we call Microviewer that includes a compact lens for viewing the microdisplay and electronic interfaces to convert the signal from our customer's product into a viewable image on the microdisplay.

We hold a license from Eastman Kodak for use of their OLED related technology and we have developed a strong portfolio of our own patents, manufacturing know-how and technology to create high performance OLED-on-silicon microdisplays and related optical systems. We believe our technology and intellectual property portfolio, gives us a leadership position in OLED and OLED-on-silicon microdisplay technology. We believe that we are the only company to demonstrate publicly and market full-color small molecule OLED-on-silicon microdisplays.

## Company History

We began as a developmental stage company. As of January 1, 2003, we were no longer classified as a development stage company. We have transitioned to manufacturing our product and intend to significantly increase our marketing, sales, and research and development efforts, and expand our operating infrastructure. Currently, most of our operating expenses are labor related and therefore semi-fixed. If we are unable to generate significant revenues, our net losses in any given period could be greater than expected.

## Critical Accounting Policies

The Securities and Exchange Commission ("SEC") defines "critical accounting policies" as those that require application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. Not all of the accounting policies require management to make difficult, subjective or complex judgments or estimates. However, the following policies could be deemed to be critical within the SEC definition.

## Revenue and Cost Recognition

Revenue on product sales is recognized when persuasive evidence of an arrangement exists, such as when a purchase order or contract is received from the customer, the price is fixed, title and risk of loss to the goods has changed and there is a reasonable assurance of collection of the sales proceeds. We obtain written purchase authorizations from our customers for a specified amount of product at a specified price and consider delivery to have occurred at the time of shipment. We record a reserve for estimated sales returns, which is reflected as a reduction of revenue at the time of revenue recognition. Products sold directly to consumers have a thirty day right of return. Revenue on consumer products is deferred until the right of return has expired.

Revenues from research and development activities relating to firm fixed-price contracts are generally recognized on the percentage-of-completion method of accounting as costs are incurred (cost-to-cost basis). Revenues from research and development activities relating to cost-plus-fee contracts include costs incurred plus a portion of estimated fees or profits based on the relationship of costs incurred to total estimated costs. Contract costs include all direct material and labor 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.

## 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. 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.

## Fair Value of Financial Instruments

eMagin's cash, cash equivalents, accounts receivable, short-term investments, accounts payable and debt are stated at cost which approximates fair value due to the short-term nature of these instruments.

## Stock-based Compensation

eMagin maintains several stock equity incentive plans. The 2005 Employee Stock Purchase Plan (the "ESPP") provides our employees with the opportunity to purchase common stock through payroll deductions. Employees purchase stock semi-annually at a price that is 85% of the fair market value at certain plan-defined dates. As of November 11, 2009, the number of shares of common stock available for issuance was 300,000. As of November 11, 2009, the plan had not been implemented.

The 2003 Stock Option Plan (the "2003 Plan") provides for grants of shares of common stock and options to purchase shares of common stock to employees, officers, directors and consultants. Under the 2003 plan, an ISO grant is granted at the market value of our common stock at the date of the grant and a non-ISO is granted at a price not to be less than 85% of the market value of the common stock. These options have a term of up to 10 years and vest over a schedule determined by the Board of Directors, generally over a five year period. The amended 2003 Plan provides for an annual increase in common stock available for issuance by 3% of the diluted shares outstanding on January 1 of each year for a period of 9 years which commenced January 1, 2005.

The 2008 Incentive Stock Plan ("the 2008 Plan") adopted and approved by the Board of Directors on November 5, 2008 provides for shares of common stock and options to purchase shares of common stock to employees, officers,



directors and consultants. The 2008 Plan has an aggregate of 2,000,000 shares. As of November 11, 2009, there were 498,533 shares of common stock issued to consultants and there were 1,278,841 options granted from the plan.

The Company accounts for the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors by estimating the fair value of stock awards 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.

## Results of Operations

The following table presents certain financial data as a percentage of total revenue for the periods indicated. Our historical operating results are not necessarily indicative of the results for any future period.

	Year Ended December 31,						Nine Months Ended September 30,			
	2008		2007		2006		2009		2008	
	(Unaudited)									
Revenue	100	%	100	%	100	%	100	%	100	%
Cost of goods sold	57		72		139		43		60	
Gross profit (loss)	43		28		(39)	)	57		40	
Operating expenses:										
Research and development	11		17		54		8		12	
Selling, general and administrative	33		38		109		29		36	
Total operating expenses	44		55		163		37		48	
(Loss) income from operations	(1	)	(27	)	(202	)	21		(8	)
Other (expense) income, net	(9	)	(78	)	15		(1	)	(10	)
Net (loss) income	(10	)%	(105	)%	(187	)%	19	%	(18	)%

The following table presents certain financial data for the periods indicated. Our historical operating results are not necessarily indicative of the results for any future period.

	Year ended December 31,						Nine Months Ended September 30,			
	2008		2007		2006		2009		2008	
	(Unaudited)									
	(In thousands, except per share data)									
Revenue	\$	18,739	\$	17,554	\$	8,169	\$	17,103	\$	13,469
Cost of goods sold		10,673		12,628		11,359		7,345		8,110
Gross profit (loss)		8,066		4,926		(3,190)		9,758		5,359
Operating expenses:										
Research and development		2,081		2,949		4,406		1,376		1,614
Selling, general and administrative		6,254		6,591		8,860		5,083		4,797
Total operating expenses		8,335		9,540		13,266		6,459		6,411
(Loss) income from operations		(269)		(4,614)		(16,456)		3,299		(1,052)
Other (expense) income, net		(1,590)		(13,874)		1,190		(376)		(1,383)
Net (loss) income	\$	(1,859)	\$	(18,488)	\$	(15,266)	\$	2,923	\$	(2,435)
Net (loss) income per share, basic	\$	(0.13)	\$	(1.59)	\$	(1.52)	\$	0.18	\$	(0.18)
Net (loss) income per share, diluted	\$	(0.13)	\$	(1.59)	\$	(1.52)	\$	0.12	\$	(0.18)

THREE MONTHS AND NINE MONTHS ENDED SEPTEMBER 30, 2009 COMPARED TO THREE MONTHS AND NINE MONTHS ENDED SEPTEMBER 30, 2008

Revenues

Revenues for the three and nine months ended September 30, 2009 were approximately \$6.1 million and \$17.1 million, respectively, as compared to approximately \$5.2 million and \$13.5 million for the three and nine months ended September 30, 2008, respectively, an increase of approximately 18% and 27%, respectively. Higher revenue for the three and nine month periods was due to increased customer demand and product availability.

For the three and nine months ended September 30, 2009, product revenue increased approximately \$1.1 million and \$3.4 million, respectively, as compared to the three and nine months ended September 30, 2008. The increase was due to higher customer demand and increased product availability for our OLED displays in the first nine months of 2009 as compared to the first nine months of 2008. For the three months ended September 30, 2009, contract revenue decreased approximately \$0.2 million as compared to the three months ended September 30, 2008 and for the nine months ended September 30, 2009 increased approximately \$0.2 million as compared to the nine months ended September 30, 2008. The change in revenue is a result of fluctuations in contract activity.

Cost of Goods Sold

Cost of goods sold includes direct and indirect costs associated with production. Cost of goods sold for the three and nine months ended September 30, 2009 were approximately \$2.6 million and \$7.3 million as compared to approximately \$2.8 million and \$8.1 million for the three and nine months ended September 30, 2008, a decrease of approximately \$0.2 million and \$0.8 million, respectively. Cost of goods sold as a percentage of revenues improved from 54% for the three months ended September 30, 2008 to 43% for the three months ended September 30, 2009. Cost of goods sold as a percentage of revenues improved from 60% for the nine months ended September 30, 2008 to 43% for the nine months ended September 30, 2009. Cost of goods is comprised primarily of material and labor cost. The labor portion of cost of goods is mostly fixed. Improved manufacturing yield, lower royalty expense and lower warranty expense resulted in a lower cost of goods sold percentage.

The following table outlines product, contract and total gross profit and related gross margins for the three and nine months ended September 30, 2009 and 2008 (dollars in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2009	2008	2009	2008
	(unaudited)		(unaudited)	
Product revenue gross profit	\$ 3,264	\$ 1,769	\$ 8,743	\$ 4,109
Product revenue gross margin	62 %	42 %	60 %	37 %
Contract revenue gross profit	\$ 236	\$ 615	\$ 1,015	\$ 1,250
Contract revenue gross margin	28 %	61 %	40 %	54 %
Total gross profit	\$ 3,500	\$ 2,384	\$ 9,758	\$ 5,359
Total gross margin	57 %	46 %	57 %	40 %

The gross profit for the three and nine months ended September 30, 2009 was approximately \$3.5 million and \$9.8 million as compared to approximately \$2.4 million and \$5.4 million for the three and nine months ended September 30, 2008, an increase of \$1.1 million and \$4.4 million, respectively. Gross margin was 57% for the three months ended September 30, 2009 up from 46% for the three months ended September 30, 2008. Gross margin was 57% for the nine months ended September 30, 2009 up from 40% for the nine months ended September 30, 2008. The

increase was mainly attributed to the fuller utilization of our fixed production overhead due to improved yields and a reduction in royalty and warranty expenses. See Note 11 to the September 30, 2009 Condensed Consolidated Financial Statements - Commitments and Contingencies for further discussion on the royalty payments.

The product gross profit for the three and nine months ended September 30, 2009 was approximately \$3.3 million and \$8.7 million as compared to approximately \$1.8 million and \$4.1 million for the three and nine months ended September 30, 2008, an increase of \$1.5 million and \$4.6 million, respectively. Product gross margin was 62% for the three months ended September 30, 2009 up from 42% for the three months ended September 30, 2008. Product gross margin was 60% for the nine months ended September 30, 2009 up from 37% for the nine months ended September 30, 2008. The increase was attributed to the fuller utilization of our fixed production overhead due to improved yields and a reduction in royalty and warranty expenses. See Note 11 to the September 30, 2009 Condensed Consolidated Financial Statements - Commitments and Contingencies for further discussion on the royalty payments.

The contract gross profit for the three and nine months ended September 30, 2009 was approximately \$0.2 million and \$1.0 million as compared to approximately \$0.6 million and \$1.3 million for the three and nine months ended September 30, 2008, a decrease of \$0.4 million and \$0.3 million, respectively. Contract gross margin was 28% for the three months ended September 30, 2009 down from 61% for the three months ended September 30, 2008. Contract gross margin was 40% for the nine months ended September 30, 2009 down from 54% for the nine months ended September 30, 2008. The contract gross margin is dependent upon the mix of costs, internal versus external third party costs, with the external third party costs causing a lower gross margin and reducing the contract gross profit.

#### Operating Expenses

**Research and Development.** Research and development expenses include salaries, development materials and other costs specifically allocated to the development of new microdisplay products, OLED materials and subsystems. Research and development expenses for the three and nine months ended September 30, 2009 were approximately \$0.5 million and \$1.4 million, respectively, as compared to \$0.3 million and \$1.6 million for the three and nine months ended September 30, 2008, an increase of approximately \$0.2 million and a decrease of approximately \$0.2 million, respectively. The increase of \$0.2 million was primarily due to the lower allocation of research and development resources and expenses related to contracts to cost of goods sold offset by the reduction in expense due to the streamlining of the research and development effort in the subsystems area. The decrease of \$0.2 million was primarily related to the reduction in expense due to the streamlining of the research and development effort in the subsystems area.

**Selling, General and Administrative.** Selling, general and administrative expenses consist principally of salaries, fees for professional services including legal fees, as well as other marketing and administrative expenses. Selling, general and administrative expenses for the three and nine months ended September 30, 2009 were approximately \$1.8 million and \$5.1 million, respectively, as compared to approximately \$1.3 million and \$4.8 million for the three and nine months ended September 30, 2008, an increase of approximately \$0.5 million and \$0.3 million, respectively. The increase of \$0.5 million for the three months is primarily related to an increase of personnel costs, non-cash compensation, and professional services. The increase of \$0.3 million for the nine months is primarily related to an increase in personnel costs, non-cash compensation, and tradeshow costs, offset by a decrease in reserve for allowance for bad debts.

**Other Income (Expense), net.** Other income (expense), net consists primarily of interest income earned on investments, interest expense related to the secured debt, and income from the licensing of intangible assets.

For the three and nine months ended September 30, 2009, interest expense was approximately \$76 thousand and \$417 thousand, respectively, as compared to \$508 thousand and \$1.7 million, respectively, for the three and nine months ended September 30, 2008. For the three and nine months ended September 30, 2009, the interest expense associated with debt was \$7 thousand and \$48, respectively, loan fees associated with the new line of credit was \$7 thousand, and the amortization of the deferred costs associated with the debt was \$62 thousand and \$362 thousand, respectively. The breakdown of the interest expense for the three and nine month period in 2008 was as

follows: interest expense associated with debt of approximately \$177 thousand and \$501 thousand, respectively; the amortization of the deferred costs and waiver fees associated with the debt of approximately \$331 thousand and \$1.2 million, respectively; and the amortization of the debt discount associated with the debt of approximately \$0 and \$25 thousand, respectively. The decrease in interest expense for the three and nine months ended September 30, 2009 as compared to the three and nine months ended September 30, 2008 was primarily a result of carrying a lower balance on our line of credit, the repayment and conversion of the 8% Senior Secured Convertible Notes in December 2008, and lower deferred debt issuance costs.

Other income for the three and nine months ended September 30, 2009 was approximately \$1 thousand and \$41 thousand, respectively, as compared to \$84 thousand and \$294 thousand, respectively, for the three and nine months ended September 30, 2008. The other income for the three and nine months ended September 30, 2009 was interest income of approximately \$1 thousand and \$3 thousand, respectively, and for a settlement of a liability, \$0 and \$38 thousand, respectively. Other income for the three and nine months ended September 30, 2008 was interest income of approximately \$2 thousand and \$6 thousand, respectively; \$142 thousand and \$396 thousand, respectively, was income from a gain on the license of intangible assets; \$0 and \$18 thousand, respectively, of income from equipment salvage; and is offset by approximately \$60 thousand and \$126 thousand, respectively, of expense from registration payment arrangements. See Note 11 to the September 30, 2009 Condensed Consolidated Finance Statements: Commitments and Contingencies – Royalty Payments for additional information.

Year Ended December 31, 2008 Compared to Year Ended December 31, 2007

#### Revenues

Revenues increased by approximately \$1.1 million to a total of approximately \$18.7 million for the year ended December 31, 2008 from approximately \$17.6 million for the year ended December 31, 2007, representing an increase of 7%. This increase was primarily due to increased contract revenue from research and development projects. Our contract revenue increased approximately \$1.6 million while our product revenue decreased approximately \$0.5 million. Our current expectation is that total revenue will continue to grow in 2009 if we successfully execute our business plan.

#### Cost of Goods Sold

Cost of goods sold includes direct and indirect costs associated with production of our products. Cost of goods sold for the years ended December 31, 2008 and 2007 was approximately \$10.7 million and \$12.6, respectively, a decrease of \$1.9 million. The decrease included an inventory write-off of approximately \$0.4 million in 2007 related to a non-recurring production issue that occurred during the fourth quarter of 2007. An increase in yield in 2008 accounted for the remaining difference.

Cost of goods sold as a percentage of revenues improved from 72% in 2007 to 57% in 2008. Cost of goods is comprised primarily of material and labor cost. The labor portion of cost of goods is mostly fixed. Increased display production output volume and improved manufacturing yield results in a lower cost of goods sold percentage.

The gross profit was approximately \$8.1 million for the year ended December 31, 2008 and the gross profit was approximately \$4.9 million for the year ended December 31, 2007. The gross margin was 43% for the year ended December 31, 2008 as compared to the gross margin of 28% for the year ended December 31, 2007. The gross margin improvement was attributed primarily to improved manufacturing yield.

#### Research and Development Expenses

Research and development expenses include salaries, development materials and other costs specifically allocated to the development of new microdisplay products, OLED materials and subsystems. Research and development expenses for the year ended December 31, 2008 were approximately \$2.1 million as compared to approximately \$2.9 million for the year ended December 31, 2007, a decrease of \$0.8 million. The 29% decrease was due to the re-deployment of research and development personnel to production contract services which are included in cost of goods sold and to a streamlining of the research and development effort in the subsystems area which resulted in expense reductions.

#### Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of salaries and related expenses for employees in the functional areas of business development, finance, information technology, quality assurance and other corporate expenses. This includes fees for professional services, such as audit and legal fees associated with audit, SEC filings, and other public company related matters, as well as other marketing and administrative expenses. General and administrative expenses decreased by approximately \$0.3 million to a total of approximately \$6.3 million for the year ended December 31, 2008 from \$6.6 million for the year ended December 31, 2007. The 5% decrease was primarily related to a reduction of marketing expenses, personnel costs and other cost reductions.

#### Other (Expense) Income

Other (expense) income, net consists primarily of interest income earned on investments, interest expense related to the secured debt, loss from the change in the derivative liability, loss on the extinguishment of debt and other income from the licensing of intangible assets.

For the year ended December 31, 2008, interest expense was approximately \$2.0 million as compared to \$3.1 million for the year ended December 31, 2007. Interest expense for the year ended December 31, 2008 was comprised of interest associated with debt of approximately \$0.7 million; the amortization of the deferred costs associated with debt of approximately \$1.3 million; the amortization of the debt discount associated with debt of \$25 thousand; and other expenses of approximately \$2 thousand. Interest expense for 2007 consisted of interest expense associated with debt of approximately \$744 thousand; the amortization of the deferred costs associated with debt of approximately \$418 thousand; and the amortization of the debt discount associated with the debt of approximately \$1.9 million. The majority of the decrease in interest expense in 2008 as compared to 2007 was a reduction in the amortization of debt discount associated with debt of \$1.9 million offset by an increase in the amortization of deferred costs associated with debt of \$0.9 million.



For the year ended December 31, 2008, the change in the derivative liability was \$0 compared to a loss of approximately \$853 thousand for the year ended December 31, 2007. The loss on extinguishment of debt was \$0 for the year ended December 31, 2008 as compared to a loss of \$10.7 million for the year ended December 31, 2007. Other income for the year ended December 31, 2008 was approximately \$400 thousand which consisted of interest income of approximately \$11 thousand; approximately \$18 thousand of income from equipment salvage; gain on the license of intangibles of \$557 thousand; and offset by approximately \$186 thousand of liquidated damages expense related to registration payment arrangements as compared to approximately \$815 thousand for the year ended December 31, 2007 which consisted of interest income of approximately \$43 thousand, a gain on the license of intangible assets of \$869 thousand, offset by a write-off of a miscellaneous receivable of \$103 thousand, and other income of \$7 thousand.

#### Year Ended December 31, 2007 Compared to Year Ended December 31, 2006

##### Revenues

Revenues increased by approximately \$9.4 million to a total of approximately \$17.6 million for the year ended December 31, 2007 from approximately \$8.2 million for the year ended December 31, 2006, representing an increase of 115%. This increase was due to increased microdisplay demand and increased production capabilities. Contract revenue increased approximately \$1.2 million while our product revenue increased approximately \$8.2 million. Average price per unit for microdisplays was \$371 in 2007 and \$386 in 2006.

##### Cost of Goods Sold

Cost of goods sold includes direct and indirect costs associated with production of our products. Cost of goods sold for the years ended December 31, 2007 and 2006 was approximately \$12.6 million and \$11.4, respectively, an increase of \$1.3 million. The increase included an inventory write-off of approximately \$0.4 million and an increase in our warranty return reserve of approximately \$0.6 million, both related to a non-recurring production issue that occurred during the fourth quarter of 2007. The non-recurring production issue involved changing a production procedure without adequate testing prior to implementation. The Company has taken steps to ensure any procedural changes in the production process will be thoroughly tested prior to implementation.

Cost of goods sold as a percentage of revenues improved from 139% in 2006 to 72% in 2007. Cost of goods is comprised primarily of material and labor cost. The labor portion of cost of goods is mostly fixed. Increased volume results in a lower cost of goods sold percentage. The improvement in cost of goods sold in 2007 was due primarily to both a streamlining of the Company's workforce in mid-2006 that had a significant full year effect on the fixed portion of cost of goods sold in 2007 and the effect of the revenue increase.

The gross profit was approximately \$4.9 million for the year ended December 31, 2007 and the gross loss was approximately (\$3.2) million for the year ended December 31, 2006. The gross margin was 28% for the year ended December 31, 2007 as compared to the gross loss of (39%) for the year ended December 31, 2006. The gross margin improvement was attributed to fuller utilization of our fixed production overhead due to higher unit production volume.

##### Research and Development Expenses

Research and development expenses included salaries, development materials and other costs specifically allocated to the development of new microdisplay products, OLED materials and subsystems. Research and development expenses for the year ended December 31, 2007 were approximately \$2.9 million as compared to approximately \$4.4 million for the year ended December 31, 2006. The decrease was primarily due to a decrease in research and development personnel and related expenses.

### Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of salaries and related expenses for employees in the functional areas of business development, finance, information technology, quality assurance and other corporate expenses. This includes fees for professional services, such as audit and legal fees associated with audit, SEC filings, and other public company related matters, as well as other marketing and administrative expenses. General and administrative expenses decreased by approximately \$2.3 million to a total of approximately \$6.6 million for the year ended December 31, 2007 from \$8.9 million for the year ended December 31, 2006. The decrease in selling, general and administrative expenses was due primarily to a reduction of personnel and related expenses and a decrease in marketing expenses.

## Other (Expense) Income

Other (expense) income, net consists primarily of interest income earned on investments, interest expense related to the secured debt, loss from the change in the derivative liability, loss on the extinguishment of debt and other income from the licensing of intangible assets.

For the year ended December 31, 2007, interest expense was approximately \$3.1 million as compared to \$1.3 million for the year ended December 31, 2006. Interest expense for 2007 consisted of interest expense associated with debt of approximately \$744 thousand; the amortization of the deferred costs associated with debt of approximately \$418 thousand; and the amortization of the debt discount associated with the debt of approximately \$1.9 million. Interest expense for the year ended December 31, 2006 was comprised of interest associated with debt of approximately \$124 thousand; the amortization of the deferred costs associated with the notes payable of approximately \$221 thousand; and the amortization of the debt discount associated with the debt of approximately \$956 thousand. The increase of \$1.8 million of interest expense in 2007 as compared to 2006 was comprised of an increase in the interest expense associated with debt of \$0.6 million, an increase in the amortization of deferred costs associated with debt of \$0.2 million and an increase in the amortization of the debt discount associated with debt of \$0.9 million and was a result of higher debt balances in 2007.

For the year ended December 31, 2007, the change in the derivative liability was a loss of approximately \$853 thousand as compared to a gain of approximately \$2.4 million ended December 31, 2006. The loss on extinguishment of debt was \$10.7 million for the year ended December 31, 2007 as compared to \$0 for the year ended December 31, 2006.

Other income for the year ended December 31, 2007 was approximately \$815 thousand which consisted of interest income of approximately \$43 thousand, a gain on the license of intangible assets of \$869 thousand, offset by a write-off of a miscellaneous receivable of \$103 thousand, and other income of \$7 thousand as compared to \$91 thousand for the year ended December 31, 2006.

## Liquidity and Capital Resources

As of September 30, 2009, we had approximately \$3.7 million of cash and investments as compared to \$2.4 million as of December 31, 2008. The change in cash and investments was primarily due to cash provided by operations of approximately \$3.5 million offset by cash used for financing and investing activities of approximately \$2.2 million.

## Sources and Uses of Cash

	Year ended December 31,			Nine Months Ended	
	2008	2007	2006	September 30, 2009	September 30, 2008
Cash flow data:				(unaudited)	
Net cash provided by (used in) operating activities	\$ 138	\$ (1,943)	\$ (10,389)	\$ 3,451	\$ (1,908)
Net cash provided by (used in) investing activities	(311)	61	(257)	(492)	(236)
Net cash provided by (used in) financing activities	1,864	1,180	5,334	(1,654)	2,703
Net increase in cash and cash equivalents	1,691	(702)	(5,312)	1,305	559

Cash and cash equivalents, beginning of period	713	1,415	6,727	2,404	713
Cash and cash equivalents, end of period	\$ 2,404	\$ 713	\$ 1,415	\$ 3,709	\$ 1,272

Cash flow provided by operating activities during the nine months ended September 30, 2009 was approximately \$3.5 million, attributable to our net income of approximately \$2.9 million, non-cash expenses of \$1.1 million offset by approximately \$0.6 million from the change in operating assets and liabilities. Cash flow used in operating activities during the nine months ended September 30, 2008 was approximately \$1.9 million primarily attributable to our net loss of \$2.4 million and an increase in accounts receivable of \$1.9 million offset by non-cash expenses of \$2.5 million.

Cash used in investing activities during the nine months ended September 30, 2009 and 2008 was approximately \$492 thousand and \$236 thousand, respectively, used for equipment purchases.

Cash used in financing activities during the nine months ended September 30, 2009 was approximately \$1.7 million to pay down the line of credit. Cash provided by financing activities during the nine months ended September 30, 2008 was approximately \$2.7 million and was comprised of approximately \$1.6 million from the sale of common stock, \$1.8 million from the line of credit, and offset by payments on debt of \$0.7 million.

## Working Capital and Capital Expenditure Needs

As we have reported, our business continues to experience revenue growth. This trend, if it continues, may result in higher accounts receivable levels and may require increased production and/or higher inventory levels. We anticipate that our cash needs to fund these requirements as well as other operating or investing cash requirements over the next twelve months will be less than our current cash on hand and the cash we anticipate generating from operations. We anticipate that we will not require additional funds over the next twelve months other than perhaps for discretionary capital spending. If unanticipated events arise during the next twelve months, we believe we can raise sufficient funds. However, if we are unable to obtain sufficient funds, we may further reduce the size of our organization and/or be forced to reduce and/or curtail our production and operations, all of which could have a material adverse impact on our business prospects.

## Contractual Obligations

The following chart describes the outstanding contractual obligations of eMagin as of November 11, 2009 (in thousands):

	Total	Payments due by period		
		1 Year	2-3 Years	4-5 Years
Operating lease obligations	\$ 5,104	\$ 1,093	\$ 2,262	\$ 1,749
Line of credit	50	50	—	—
Purchase obligations (a)	2,595	2,595	—	—
Other long-term liabilities (b)	625	125	250	250
<b>Total</b>	<b>\$ 8,374</b>	<b>\$ 3,863</b>	<b>\$ 2,512</b>	<b>\$ 1,999</b>

(a) The majority of purchase orders outstanding contain no cancellation fees except for minor re-stocking fees.

(b) This amount represents minimum royalty payments.

## Off-Balance Sheet Arrangements

We do not have any 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.

## Effect of Recently Issued Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“Codification” or “ASC”) became the single source of authoritative nongovernmental U.S. generally accepted accounting principles (“GAAP”) except for additional authoritative rules and interpretive releases issued by the SEC. The Codification did not create any new GAAP standards but incorporated existing accounting and reporting standards into a new topical structure with a new referencing system to identify authoritative accounting standards, replacing the prior references to Statement of Financial Accounting Standards (“SFAS”), Emerging Issues Task Force (“EITF”), FASB Staff Position (“FSP”), etc. Authoritative standards included in the Codification are designated by their ASC topical reference, and new standards will be designated as Accounting Standards Updates (“ASU”), with a year and assigned sequence number. Beginning with the interim report for the quarter ended September 30, 2009, the Company adopted the Codification and it had no effect on its financial position, results of operations, or cash flows.

## Quantitative and Qualitative Disclosures About Market Risk

**Market Rate Risk.** We are exposed to market risk related to changes in interest rates and foreign currency exchanges rates.

**Interest Rate Risk.** We hold our assets in cash and cash equivalents. We do not hold derivative financial instruments or equity securities.

**Foreign Currency Exchange Rate Risk.** Our revenue and expenses are denominated in U.S. dollars. We have conducted some transactions in foreign currencies and expect to continue to do so; we do not anticipate that foreign exchange gains or losses will be significant. We have not engaged in foreign currency hedging to date.

Our international business is subject to risks typical of international activity, including, but not limited to, differing economic conditions; change in political climates; differing tax structures; and other regulations and restrictions. Accordingly, our future results could be impacted by changes in these or other factors.

## BUSINESS

### Recent Developments

We have entered into an agreement effective as of September 1, 2009 (the "Agreement"), with Access Business Finance, LLC ("Access") pursuant to which we may borrow an amount not to exceed \$3,000,000. The Agreement provides that from time to time we may request advances in an amount equal to the lesser of (i) Borrowing Base less the Availability Reserves and (ii) the Maximum Amount. The interest on the notes is equal to the Prime Rate plus 4.00% but may not be less than 7.25%. The term of the Agreement is for one year and will automatically renew for successive one year terms unless, at least 60 days' prior to the end of the current term, we give Access prior written notice of our intent not to renew or if Access, at least ten days prior to the end of the current term, gives us written notice of its intent not to renew. Our obligations under the Agreement are secured by our assets.

As previously reported on a Form 8-K that was filed with the Securities and Exchange Commission on December 23, 2008, pursuant to a Securities Purchase Agreement (the "Securities Purchase Agreement") entered into on December 18, 2008 between the Company and Stillwater on December 22, 2008 (the "Closing"), the Company sold Stillwater for an aggregate purchase price of \$4,033,000 an aggregate of 4,033 shares of its Series B Convertible Preferred Stock (the "Preferred Stock"), which have a stated value of \$1,000 per share, a conversion price of \$0.75 per share and have the rights and preferences set forth in the Certificate of Designations of Series B Convertible Preferred Stock filed with the Secretary of State for the State of Delaware on December 19, 2008 (the "Certificate of Designations"), and warrants to purchase 1,875,467 shares of common stock at \$1.03 per share (the "Warrants"). The Warrants terminate on December 22, 2013.

Pursuant to the terms of the Securities Purchase Agreement, the Company used the proceeds from the sale of the Preferred Stock exclusively to repay \$4,033,000 of its Amended and Restated 8% Senior Secured Convertible Notes (the "Notes") which matured on December 22, 2008.

Pursuant to the Securities Purchase Agreement, the members of the Company's board of directors, and certain executive officers executed lockup agreements pursuant to which, subject to the terms of the lockup agreement, they were restricted from selling the Company's stock that they beneficially own for 180 days from the Closing.

On December 18, 2008, the Company entered into an Exchange Agreement (the "Exchange Agreement") with three holders ("Holders") of its outstanding Notes. Pursuant to the Exchange Agreement, on December 22, 2008, the Holders exchanged \$1,700,000 of their outstanding Notes and accrued and unpaid interest thereon and received 1,706 shares of the Preferred Stock (the amount of the outstanding principal and accrued and unpaid interest due on the Notes exchanged divided by \$1,000).

Pursuant to the Securities Purchase Agreement, the Company filed the Certificate of Designations with the State of Delaware on December 19, 2008. The Certificate of Designations designates 10,000 shares of its Preferred Stock. The Preferred Stock has a stated value of \$1,000 and has a conversion price of \$0.75 per share. The Preferred Stock does not pay interest. The holders of the Preferred Stock are not entitled to receive dividends unless the Company's Board of Directors declared a dividend for holders of its common stock and then the dividend shall be equal to the amount that such holder would have been entitled to receive if the holder converted its Preferred Stock into shares of its common stock. Each share of Preferred Stock has voting rights equal to (i) the number of shares of its common stock issuable upon conversion of such shares of Preferred Stock at such time (determined without regard to the shares of common stock so issuable upon such conversion in respect of accrued and unpaid dividends on such share of Preferred Stock) when the Preferred Stock votes together with its common stock or any other class or series of its stock and (ii) one vote per share of Preferred Stock when such vote is not covered by the immediately preceding clause. The Company may at its option redeem the Preferred Stock by providing the required notice to the holders of the Preferred Stock and paying an amount equal to \$1,000 multiplied by the number of shares for all of

such holder's shares of outstanding Preferred Stock to be redeemed.

The Company also entered into a Registration Rights Agreement with Stillwater to register for resale the shares of the common stock issuable upon conversion of the Preferred Stock sold in the offering and the shares of common stock issuable upon exercise of the warrants. Subject to the terms of the Registration Rights Agreement, the Company is required to file a registration statement (the "Registration Statement") on Form S-1 with the Securities and Exchange Commission (the "SEC") within 30 days following the date that the Company is permitted to file a registration statement by (i) the rules and regulations of the Securities and Exchange Commission and (ii) the agreements set forth on Schedule B to the Registration Rights Agreement, which as of the date of the Exchange Agreement, December 22, 2008 prohibits the Company from filing the initial Registration Statement until certain other registration statements are filed which as of November 11, 2009 have not been completed. After filing the Registration Statement, the Company is to cause such Registration Statement to be declared effective under the Securities Act of 1933, (the "Act") as promptly as possible after the filing thereof, but in no event later than 90 days after the filing date (or no later than 120 days after the filing date in the event of SEC "full review" of the Registration Statement). The Holders of Notes that exchanged their Notes pursuant to the Exchange Agreement received the same registration rights as Stillwater.

Pursuant to the Securities Purchase Agreement, the Company claims an exemption from the registration requirements of the Act for the private placement of these securities pursuant to Section 4(2) of the Securities Act of 1933, as amended (the "Act") and/or Regulation D promulgated thereunder since, among other things, the transaction did not involve a public offering, the investors were accredited investors and/or qualified institutional buyers, the investors had access to information about the Company and their investment, the investors took the securities for investment and not resale, and the Company took appropriate measures to restrict the transfer of the securities.



Securities Purchase Agreement – April 2008

On April 2, 2008, the Company entered into a Securities Purchase Agreement, pursuant to which it sold to certain qualified institutional buyers and accredited investors (the “Investors”) an aggregate of 1,586,539 shares of the Company’s common stock, par value \$0.001 per share (the “Shares”), and warrants to purchase an additional 793,273 shares of common stock, for an aggregate purchase price of \$1,650,000. The purchase price of the common stock was \$1.04 per share and the strike price of the corresponding warrant was \$1.30 per share. The warrants have been repriced to \$1.13 as of December 22, 2008. The warrants expire April 2, 2013.

The Company entered into a Registration Rights Agreement with the Investors to register for resale the Shares sold in the offering and the shares of common stock issuable upon exercise of the warrants. Subject to the terms of the Registration Rights Agreement, the Company is required to file a registration statement on Form S-1 with the Securities and Exchange Commission (the “SEC”) within 45 days of the closing, to use its best efforts to cause the registration statement to be declared effective under the Securities Act of 1933 (the “Act”) as promptly as possible after the filing thereof, but in no event later than 90 days after the filing date and no later than 120 days after the filing date in the event of SEC review of the registration statement.

If the registration statement is not effective within the grace periods (“Event Date”), or the Company cannot maintain its effectiveness (“Event Date”), the Company must pay partial liquidated damages (“damages”) in cash to each Investor equal to 2% of the aggregate purchase price paid by each Investor under the Purchase Agreement on the Event Date and each monthly anniversary of the Event Date (or on a pro-rata basis for any portion of a month) until the registration statement is effective. The Company is not liable for any damages with respect to the registration of the warrants or warrant shares. The maximum damages payable to each Investor is 36% of the aggregate purchase price. If the Company fails to pay the damages to the Investors within 7 days after the date payable, the Company must pay interest at a rate of 15% per annum to each Investor which accrues daily from the date payable until damages are paid in full.

The Company accounted for the registration payment arrangement under the guidance of EITF 00-19-2, “Accounting for Registration Payment Arrangements”, (“EITF 00-19-2”) which requires the contingent obligation to make future payments be recognized and measured in accordance with FASB Statement No. 5, “Accounting for Contingencies”, (“Statement 5”) and FASB Interpretation No. 14, “Reasonable Estimation of the Amount of a Loss”, (“Interpretation 14”). The Company estimated \$399 thousand to be the maximum potential damages that the Company may be required to pay the Investors if the registration statement is not effective within three years of the signing of the agreement. The Company estimated \$186 thousand to be a reasonable estimate of the potential damages that may be due to the Investors based on the anticipated filing date. As a result, the Company recorded a liability of \$186 thousand in the December 31, 2008 consolidated balance sheets and the associated expense in other income (expense) in the consolidated statements of operations for the period ended December 31, 2008.

The Company claims an exemption from the registration requirements of the Act for the private placement of these securities pursuant to Section 4(2) of the Act and/or Regulation D promulgated thereunder since, among other things, the transaction did not involve a public offering, the investors were accredited investors and/or qualified institutional buyers, the investors had access to information about the company and their investment, the investors took the securities for investment and not resale, and the Company took appropriate measures to restrict the transfer of the securities.

This prospectus covers the resale of the 312,502 shares of common stock underlying the Warrants.

Moriah Capital Loan Agreement and Amendments

As previously reported on a Form 8-K that was filed with the Securities and Exchange Commission on August 10, 2007, the Company and Moriah Capital LP (“Moriah”) entered into a Loan and Security Agreement, dated as of August 7, 2007 (the “Loan and Security Agreement”), which was amended as of January 30, 2008 by Amendment No. 1 and on March 18, 2008 by Amendment No. 2 (collectively, the “Original Agreement”).

As previously reported on a Form 8-K that was filed with the Securities and Exchange Commission on August 26, 2008, the Company and Moriah entered into Amendment No. 3 to the Loan and Security Agreement dated August 20, 2008 (the “Amendment No. 3”). Pursuant to Amendment No. 3, the Company issued Moriah an Amended and Restated Convertible Revolving Loan Note (the “Amended Note”). The maturity date of the Amended Note was extended to August 7, 2009 and the maximum amount that the Company can borrow pursuant to the Amended Note was increased to \$3,000,000. The maturity date of the original revolving loan note had previously been extended to August 20, 2008. On August 7, 2009, the maturity date of the Amended Note, the Company repaid the outstanding balance owed on the Amended Note and elected not to renew the Amended Note.

Pursuant to Amendment No. 3, the Company issued Moriah a warrant, which terminates on August 7, 2013, to purchase up to 370,000 shares of the Company's common stock at an exercise price of \$1.30 per share. In connection with Amendment No 3, the Company paid Moriah \$85,000 in fees. As previously reported, pursuant to the Original Agreement, the Company issued Moriah warrants to purchase up to 1,000,000 shares of the Company's common stock at an exercise price of \$1.50 per share.

Pursuant to Amendment No. 3, the Company and Moriah entered into an Amended and Restated Securities Issuance agreement (the "Amended and Restated Securities Issuance Agreement"). In connection with a Securities Issuance Agreement, dated as of August 7, 2007 (the "Original Securities Issuance Agreement"), the Company issued Moriah 162,500 shares of the Company's common stock (the "2007 Shares"). Pursuant to the Amended and Restated Securities Issuance Agreement, Moriah agreed to waive the Company's obligation to buy back the 2007 Shares with respect to 125,000 of such shares and to defer the Company's obligation to buy back 37,500 of such 2007 Shares (collectively, the "Put Waiver"). Pursuant to the Amended and Restated Securities Agreement, the Company is issuing Moriah 485,000 shares of its Common Stock (of which 125,000 shares were issued in consideration for the Put Waiver from Moriah and 360,000 shares were issued in lieu of the issuance to Moriah of the Contingent Issued Shares (as described in the Original Securities Issuance Agreement)). Additionally, pursuant to the Amended and Restated Securities Issuance Agreement, the Company has also granted Moriah a put option pursuant to which Moriah can sell to the Company 162,500 shares of its common stock issued under the Amended and Restated Securities Agreement for \$195,000, pro-rated for any portion thereof (the "2007 Put Price"). The 2007 Put Option shall automatically be deemed exercised by Moriah unless Moriah delivers written notice to the Company at any time between July 1, 2009 and August 1, 2009 that it does not wish to exercise the 2007 Put Option. The Company also granted Moriah a second put option pursuant to which Moriah can sell 360,000 of the shares issued to Moriah pursuant to the Amended and Restated Securities Purchase Agreement to the Company for \$234,000 (the "2008 Put Option"). The 2008 Put Option shall automatically be deemed exercised by Moriah unless Moriah delivers written notice to the Company at any time between July 1, 2009 and August 1, 2009 that Moriah does not wish to exercise the 2008 Put option in whole or in part. Moriah elected not to exercise its put options as a result the put options expired on August 7, 2009.

Pursuant to Amendment No. 3, the Company and Moriah entered into an Amendment to Registration Rights Agreement (the "Amended Registration Rights Agreement"). Pursuant to the Amended Registration Rights Agreement, the Company agreed to use its best efforts to file a registration statement to register the 485,000 shares of the Company's common stock issued pursuant to the Amended and Restated Securities Issuance Agreement and the shares of common stock issuable upon exercise of the Warrant, provided that the Company is permitted under applicable securities rules and regulations and after the certain other registration statements that the Company was obligated to file on behalf of selling shareholders have been declared effective.

On August 19, 2008, the Holders of the Amended Notes and the Investors in the Purchase Agreement consented to the Company's execution of the Amended Note, Amendment No. 3, Amended and Restated Securities Issuance Agreement, and the Amended Registration Rights Agreement. In consideration for the consent, a total of 144,000 shares of common stock were issued to the Holders and Investors based on individual participation in the Amended Notes and Securities Purchase Agreement on September 4, 2008.

The Company claims an exemption from the registration requirements of the Securities Act of 1933, amended (the "Act") for the private placement of the above-referenced securities pursuant to Section 4(2) of the Act since, among other things, these transactions did not involve a public offering and the Company took appropriate measures to restrict the transfer of the securities.

The foregoing description of Amendment No. 3 to the Loan and Security Agreement, the Amended and Restated Revolving Loan Note, the Amended and Restated Securities Issuance Agreement, and the Amendment to the Registration Rights Agreement does not purport to be complete and is qualified in its entirety by reference to the entire text of the agreements.

This prospectus covers the resale of the 1,370,000 shares of common stock underlying the Warrants.

#### General

eMagin Corporation (“eMagin, “we,” “our,” or “us,”) is a leader in OLED (organic light emitting diode) technology. We design, develop, manufacture, and market OLED on silicon microdisplays, virtual imaging products which 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 smaller than one-inch diagonally which, when viewed through a magnifier, 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 (“OEM”) customers to develop and market improved or new electronic products. We believe that virtual imaging will become an important way for increasingly mobile people to have quick access to high resolution data, work, and experience new more immersive forms of communications and entertainment.

We believe our OLED microdisplays offer a number of significant advantages over the more widely used liquid crystal displays, including greatly increased power efficiency, less weight, and wider viewing angles. Using our active matrix OLED technology, many computer and electronic system functions can be built directly into the OLED microdisplay, resulting in compact, high resolution, power efficient systems. We have developed our own intellectual property and accumulated over 6 years of manufacturing know-how to create high performance OLED microdisplays.

As the first to exploit OLED technology for microdisplays, and with the support of our partners and the development of our intellectual property, we believe that we enjoy a significant advantage in the commercialization of microdisplays for virtual imaging. We believe we are currently the only company to sell active matrix small molecule OLED-on-silicon microdisplays.

eMagin Corporation was created through the merger of Fashion Dynamics Corporation ("FDC"), which was organized on January 23, 1996 under the laws of the State of Nevada and FED Corporation ("FED"), a developer and manufacturer of optical systems and microdisplays for use in the electronics industry. Simultaneous with this merger, we changed our name to eMagin Corporation. eMagin is incorporated in the state of Delaware.

We derive the majority of our revenue from sales of our OLED microdisplay products. We also generate revenue from sales of optics, microdisplays combined with optics ("microviewers"), and virtual imaging systems (primarily our Z800 3DVisor™). In addition we earn revenue from non-recurring engineering ("NRE") projects and under government contracts that support some of our research and development programs.

Using our active matrix OLED technology, many computer and video electronic system functions can be built directly into the OLED microdisplay, resulting in compact systems with expected lower overall system costs relative to alternative microdisplay technologies. Already proven in commercialized military and commercial systems, our portfolio of OLED microdisplays deliver high-resolution, flicker-free virtual images, working effectively even in extreme temperatures and high-vibration conditions with greatly increased system level power efficiency, less weight and wider viewing angles.

## Our Technology Platforms

### Small Molecule, Top-Emitting Active Matrix OLED Technology

There are two basic classes of OLED technology, dubbed single molecule or small molecule (monomer) and polymer. Our microdisplays are currently based upon active matrix small molecule OLED technology, which we refer to as active matrix OLED ("AMOLED") because we build the displays directly on silicon chips. Our AMOLED technology uniquely permits millions of individual low-voltage light sources to be built on low-cost, silicon computer chips to produce single color, white or full-color display arrays. AMOLED microdisplays offer a number of advantages over current liquid crystal microdisplays, including lower power requirements, less weight and wider viewing angles. Using our OLED technology, many computer and video electronic system functions can be built directly into the silicon chip, under the OLED film, resulting in very compact, integrated systems with lowered overall system costs relative to alternative technologies.

OLEDs are thin films of stable organic materials that emit light of various colors when a voltage is impressed across them. OLEDs are emissive devices, which mean they create their own light, as opposed to liquid crystal displays, which require a separate light source. As a result, OLED devices use less power and can be capable of higher brightness and fuller color than liquid crystal microdisplays. Because the light they emit is Lambertian, which means that it appears equally bright from most forward directions, a moderate movement in the eye does not change the image brightness or color as it does in other technologies.

We have developed numerous and significant enhancements to OLED technology as well as key silicon circuit designs to effectively incorporate the OLED film on a silicon integrated circuit. For example, we have developed a unique, top-emitting structure for our OLED devices that enables OLED displays to be built on opaque silicon integrated circuits rather than only on glass. Our OLED devices emit full visible spectrum light that is isolated with color filters to create full color images. Our microdisplays have a brightness that can be greater than that of a typical notebook computer and can have a potential useful life of over 50,000 operating hours, in certain applications. New materials and device improvements, such as our recently developed OLED-XL technology, offer potential for even better performance for brightness, efficiency, and lifespan. In addition to our active matrix OLED technology, we

have developed compact optic and lens enhancements which, when coupled with the microdisplay, provide the high quality large screen appearance that we believe a large proportion of the marketplace demands.

We believe that our AMOLED technology provides significant advantages over other microdisplay technologies in our targeted microdisplay markets. We believe these key advantages include:

- Low power consumption for improved battery life and longer system life;
- High-speed performance resulting in clear video images;
- Wide angle light emission resulting in large apparent screen size;
- Wide operating temperature range;
- Good environmental stability (vibration and humidity);
- Low manufacturing cost; and
- Low cost system solutions.

#### Prism Optics

High quality, large view lenses with a wide range for eye positioning are essential for using our displays in near-eye systems. We have developed advanced molded plastic prism lenses which permit our AMOLED microdisplays to provide large field of view images that can be viewed for extended periods with reduced eye-fatigue. We have engaged a firm to manufacture our lenses in order to provide them in larger quantities to our customers and are using them in our own Z800 3DVisor personal display systems.

#### Our Market Opportunities

The growth potential of our selected target market segments have been investigated using information gathered from key industry market research firms, including DisplaySearch, Frost and Sullivan, Fuji-Chimera, McLaughlin Group, Nikkei, and others. Such data was obtained using published reports and data obtained at industry symposia. We have also relied substantially on market projections obtained privately from industry leaders, industry analysts, and current and potential customers.

Most markets involve near-eye imaging applications for products such as viewfinders, such as for digital cameras, or for head-wearable displays. These near-to-eye viewing products have been recently characterized by the McLaughlin Consulting Group as the Personal Viewer Market. The McLaughlin Group forecasts the total Personal Viewer Market to reach as much as 16.0 million units and \$5.7 billion in revenue by 2012.

Head-wearable display products incorporate microdisplays mounted in or on eyeglasses, goggles, simple headbands, helmets, or hardhats, and are often referred to as head-mounted displays (HMDs) or headsets. Head-wearable displays may block out surroundings for a fully immersive experience, or be designed as "see-through" or "see-around" to the user's surroundings. They may contain one (monocular) or two (binocular) displays. Some of the increased current interest is due to accelerating the timetable to adapt such systems to military applications such as night vision and fire and rescue applications. The virtual-imaging markets we are targeting broadly fall into the categories of military, industrial/medical, and consumer though many products serve multiple markets ("dual use"). Within each of these market sectors, we believe that our OLED microdisplays, when combined with compact optic lenses, will become a key component for a number of mobile electronic products.

#### Military/First Responder

Properly implemented, we believe that head-mounted systems incorporating our microdisplays increases effectiveness by allowing hands-free operation and increasing situational awareness with enough brightness to be used in daylight, yet controllable for nighttime light security. As a COTS (commercial off the shelf) component, OLED microdisplays intrinsically demonstrate performance characteristics important to military and other demanding commercial and industrial applications, including high contrast, wide dimming range, shock and vibration resistance and insensitivity to high G-forces. The image does not suffer from flicker or color breakup in vibrating environments, and the

microdisplay's wide viewing angle allows ease of viewing for long periods of time. Most importantly, our OLED's very low power consumption reduces battery weight and increases allowed mission length. The OLED's inherent wide temperature range is especially of interest for military applications because the display can turn on instantly at temperatures far below freezing and can operate at very high temperatures in desert conditions. Our recently announced SXGA OLED-XL™ microdisplay provides power advantages over other microdisplay technologies, particularly liquid crystal displays which require backlights and heaters and cannot provide instant-on capabilities at low temperatures.

Our products' military applications primarily fall into three broad areas: (1) helmet-mounted displays for situational awareness and data, (2) night vision/thermal imaging goggles and viewers, and (3) training and simulation devices. Similar systems are of interest for other military applications as well as for demanding operations such as urban security, homeland defense, fire and rescue.



**Situational Awareness.** Situational awareness products include head mounted displays which are used to display mapping, logistics and status and handheld imagers for border patrol and training. In certain situations these products are combined with a weapon system in order to give the user the capability of selecting targets without direct exposure. Our OLED microdisplays have already been commercially implemented into a number of military situational awareness programs including: US Army Land Warrior Program, U.S. Army Mounted Warrior Program, US Army Remote Viewer Program, Felin Fantassin à Equipements et Liaisons Intégrés Program (French Infantryman with Networked Equipment), and Israeli Advanced Integrated Soldier System, among others.

**Night Vision/Thermal Imaging.** Night Vision Goggles allow the user to see in low light conditions. The most modern versions usually include two different technologies: infrared/thermal, and image intensification. Third and fourth generation military devices usually use some combination of the two modes. Thermal imagers detect infrared energy (heat) and convert it into an electronic signal. The resulting signal needs to be presented on a display. Heat sensed by an infrared camera can be very precisely quantified, or measured, allowing the user to not only monitor thermal performance, but also identify and evaluate the relative severity of heat-related problems. Thermal imaging systems can be stand-alone handheld systems or integrated as part of the aiming mechanism for a larger system. Our OLED microdisplays are typically targeted to uncooled systems, as opposed to systems that require external cooling in order to increase their sensitivity. Advances in sensor technology, both in sensitivity and resolution as well as economic efficiency, have been driving factors in the adoption of thermal technologies for military applications. The power efficiency and environmental ruggedness of our products are strong competitive advantages, particularly in these small hand-held non-cooled systems.

**Training and Simulation.** Our OLED microdisplays and our Z800 3Dvisor have been acquired by OEMs for use with their simulation and training products. The Z800's capability to integrate 360 degree head tracking and stereo vision, as well as its wide field of view are attractive attributes for any simulation or virtual reality system. Examples of commercialized training and simulation products include: Quantum 3D Expedition System, NVIS Virtual Binocular SSV, and Virtually Better's Virtual Iraq.

**Military Market Size.** The McLaughlin Group reports that in 2012 sales of thermal weapons sights are forecast to reach \$525M and sales of enhanced night vision systems are projected to reach \$1.75B, propelled by both higher volumes and higher prices for added capabilities of color, higher resolution, and digital connectivity. Sales of helmet-mounted personal viewers for situational awareness are forecast to reach \$330M in 2012, with growth resulting from higher definition and color displays. Our displays have already been commercialized for situational awareness and night vision/thermal imaging applications by military systems integrators including Elbit, Insight Technologies, Intevac Vision Systems, Nivisys, Oasys Technology, Qioptiq, Rockwell Collins, Saab, Sagem, and Thales, among many others. Night Vision Equipment Corporation's HelmetIR-50™, a lightweight, military helmet mounted thermal imager, which provides hands-free operation and allows viewers to see through total darkness, battlefield obscurants, and even foliage, is the first OLED-equipped product to be listed on the US Government's GSA schedule. Similar systems are of interest for other military applications as well as for related operations such as urban security, fire and rescue.

#### Commercial, Industrial, and Medical

We believe that a wide variety of commercial and industrial markets offer significant opportunities due to increasing demand for instant data accessibility in mobile workplaces. Some examples of potential microdisplay applications include: immediate access to inventory such as parts, tools and equipment availability; instant accessibility to maintenance or construction manuals; routine quality assurance inspection; endoscopic surgery; and real-time viewing of images and data for a variety of applications. As one potential example, a user wearing a HMD while using test equipment, such as oscilloscopes, can view technical data while simultaneously probing printed circuit boards. Current commercial products equipped with our OLED microdisplays in these sectors include those produced by Liteye, FLIR Systems, NordicNeuroLab, VRmagic GmbH, Sensics, and Total Fire Group, among others.

Consumer

We believe that the most significant driver of the longer term near-eye virtual imaging microdisplay market is growing consumer demand for mobile access to larger volumes of information and entertainment in smaller packages. This desire for mobility has resulted in the development of mobile video Personal Viewer products in two general categories: (i) an established market for electronic viewers incorporated in products such as viewfinders for digital cameras and video cameras which may potentially also be developed as personal viewers for cell phones and (ii) an emerging market for headset-application platforms which include accessories for mobile devices, portable DVD systems, electronic games, and other entertainment, and wearable computers.

As our OLED displays are manufactured in increasingly higher volumes at reduced costs, we believe that our OLED microdisplay products will be increasingly well positioned to compete with and displace liquid crystal displays in the rapidly growing consumer market as demand for higher-resolution, and better image quality evolves to meet the wish for more sophisticated Personal Viewers. Examples of potential applications for mobile Personal Viewers include handheld personal computers and mobile devices (such as smartphones, iPods™), whose small, direct view screens are often limitations, but which are now capable of running software applications that would benefit from a larger display accessory and entertainment and gaming video headset systems, which permit individuals to privately view television, including HDTV, video CDs, DVDs and video games on virtual large screens or stereovision.

## Our Products

Our commercial microdisplay products based on our SVGA series OLED microdisplays, first introduced in 2001, have received award recognition including: SID Display of the Year and Electronic Products Magazine Product of the Year. In 2008 we introduced engineering samples of our SXGA OLED microdisplays. We are in the process of completing development of the SVGA 3DS (SVGA 3D shrink, a smaller format SVGA display with new cell architecture with embedded features). In 2006 we introduced our OLED-XL technology, which provides longer luminance half life and enhanced efficiency for all of our microdisplay product lines. These OLED and OLED-XL products are being applied or considered for near-eye and headset applications in products to be manufactured by OEM customers for a wide variety of military, medical, industrial, and consumer applications. We offer our products to OEMs and other buyers as both separate components, integrated bundles coupled with our own optics, or full systems. We also offer engineering support to enable customers to quickly integrate our products into their own product development programs and offer design of customized displays with resolutions or features to meet special customer requirements.

SVGA+ OLED Microdisplay Series (Super Video Graphics Array of 800x600 plus 52 added columns of data). Our 0.62 inch diagonal SVGA+ OLED microdisplays have a resolution of 852x600 triad pixels (1.53 million picture elements). The product was dubbed "SVGA+" because it has 52 more display columns than a standard SVGA display, permitting users to run either (1) standard SVGA (800 x 600 pixels) to interface to the analog output of many portable computers or (2) 852 x 480, using all the data available from a DVD player in a 16:9 wide screen entertainment format. The display also has an internal NTSC monochrome video decoder for low power night vision systems. SVGA+ Rev3 OLED-XL microdisplay, the most power efficient OLED solution for near-eye personal viewer applications, uses less than 115 mW power in monochrome, such as for thermal imaging applications, and lower than 175 mW at 400 cd/m<sup>2</sup> for full color video. This new microdisplay has simpler calibration over temperature and is ideal for demanding binocular luminance and color matching. It also shares all the functional and design characteristics of eMagin's original SVGA OLEDs, responding instantly at temperatures as low as -40 degrees C.

SVGA-3D OLED Microdisplay (Super Video Graphics Array plus built-in stereovision capability). Our 0.59 inch diagonal SVGA-3D OLED microdisplays have a resolution of 800x600 triad pixels (1.44 million picture elements). A built-in circuit provides compatibility with single channel frame sequential stereoscopic vision without additional external components. The SVGA-3D OLED-XL is primarily used as components of our Z800 3DVisor.

SXGA OLED-XL (Super eXtended Graphics Array, 1280 x 1024 ). Our SXGA OLED microdisplay with 0.77 inch diagonal active area provides 3,932,160 sub-pixels in an active area that is only 26% larger than our SVGA+ microdisplay. The 1280 x 1024 triad pixel array comprises triads of vertical sub-pixels stacked side by side to make up each 12 x 12mm color pixel. The SXGA OLED-XL microdisplay offers both analog and digital signal processing, requiring less than 200mW under typical operation. The new SXGA microdisplays provide versatility and flexibility for OEM developers through a FPGA driver design available on a separate, lower power driver board, or as source code for integration into end product electronics for maximum power efficiency. The supported video formats are SXGA, 720p, DVGA (through 1280 x 960 pixel doubling, and both frame sequential and field sequential stereovision. Additional enhancements include increased pixel uniformity, improved color gamut, on-chip temperature sensor and compensation, and compatibility with both analog RGB and digital video signals. On-board circuitry ensures consistent color and brightness over a wide range of operating temperatures.

Lens and Design Reference Kit s. We offer a WF05 prism optic, with mounting brackets or combined with OLED microdisplays to form an optic-display module. We provide Design Reference Kits, which include a microdisplay and associated electronics to help OEMs evaluate our microdisplay products and to assist their efforts to build and test new products incorporating our microdisplays.

Integrated Modules. We provide near-eye virtual imaging modules that incorporate our OLED-on-silicon microdisplays with our lenses and electronic interfaces for integration into OEM products. We have shipped customized modules to several customers, some of which have incorporated our products into their own commercial products.

Z800 3DVisor™ Our Z800 3DVisors™ give users the ability to work with their hands while simultaneously viewing information or video on the display. The Z800 3DVisor enables more versatile portable computing, using a 0.59-inch diagonal microdisplay (SVGA-3D capable of delivering an image that appears comparable to that of a 19-inch monitor at 22 to 24 inches from the eye, or a 105 inch movie screen at 12 foot distance.) Our systems are currently being used for personal entertainment, electronic gaming, and military training and simulation, among other applications. This product has received industry recognition including: Digital Living Class 2005 Innovators, Consumer Electronics Association's Consumer Electronics Show (CES) 2006 Best of Innovation Awards for the entire display category as well as a Design and Innovations Award for the electronic gaming category, and, was recognized as one of Advanced Imaging's Solutions of the Year, as integrated in Chatten Associates' head-aimed remote viewer. We sell the Z800 3DVisor to individual buyers, OEM systems and equipment customers, through distributors, and through our e-commerce website, [www.3dvisor.com](http://www.3dvisor.com). The contents of our e-commerce website are not part of this Report.

## Government Contract Funding

We derive a portion of our revenue from funding that we receive pursuant to research contracts or subcontracts funded by various agencies of the U.S. Government. The revenue that we recognize from these contracts represents reimbursement by various U.S. Government entities. Our recent contracts have been awarded for development of power efficient microdisplay for US Army Night Vision, development of ultra-high resolution display for US Army telemedicine, and development of display technology for US Navy aircraft. Our government contracts require us to conduct the research effort described in the statement of work section of the contract. These contracts may be modified or terminated at the discretion of the government and typically are subject to appropriation and allocation of the required funding on an annual basis. On contracts for which we are the prime contractor, we subcontract portions of the work to various entities and institutions.

## Our Strategy

Our strategy is to strengthen our leadership position as a worldwide supplier of microdisplays and virtual imaging technology solutions for applications in high growth segments of the electronics industry by capitalizing on our experience and expertise in active matrix OLED technology. We aim to provide microdisplay and complementary accessories to enable OEM customers to develop and manufacture new and enhanced electronic products. Some key elements of our strategy to achieve these objectives include the following:

- Strengthen our technology leadership. As the first to exploit AMOLED microdisplays, we believe that we enjoy a significant advantage in bringing this technology to market. By continuing to invest in research and development, and protecting our intellectual property, we expect to further develop performance improvements and provide a competitive edge for our customers who integrate our displays into their end products.
- Optimize microdisplay manufacturing efficiencies while protecting proprietary processes. We intend to reduce our production costs primarily through increasing manufacturing yield and lowering fixed costs through reduced cycle time and increased automation, as well as equipment upgrades. We outsource certain portions of microdisplay production, such as chip fabrication, to minimize both our costs and time to market. We intend to retain the OLED-related processes in-house, where we have a core competency and manufacturing expertise. We also believe that by keeping these processes under tight control we can better protect our proprietary technology and process know-how. This strategy will also enhance our ability to continue to optimize and customize processes and devices to meet customer needs.
- Build and maintain strong design capabilities. We employ in-house design capabilities supplemented by outsourced design services. Building and maintaining this capability will allow us to reduce engineering costs, accelerate the design process and enhance design accuracy to respond to our customers' needs as new markets develop. In addition, we intend to maintain a product design staff capable of rapidly developing prototype products for our customers and strategic partners. Contracting third party design support to meet demand and for specialized design skills will also remain a part of our overall long term strategy.
- Leverage strategic relationships. External relationships play an important role in our research and development efforts. Suppliers, equipment vendors, government organizations, contract research groups, external design companies, customer and corporate partners, consortia, and university relationships all enhance the overall research and development effort and bring us new ideas and solutions. In addition, we participate in industry associations such as Society Information Display, FlexTech Alliance (formerly known as United States Display Consortium), OLED Association, Consumer Electronics Association, and the Association of the United States Army, among others. Furthermore, we have established a CRADA (Cooperative Research and Development Agreement) with the US Army/RDECOM/NVESD for the purpose of evaluating and characterizing new and existing AMOLED microdisplay configurations. We believe that strategic relationships allow us to better determine the demands of the marketplace and, as a

result, allow us to focus our future research and development activities to satisfy our customers' evolving requirements.

### Sales and Marketing

We primarily provide our OLED display and optics components for OEMs to incorporate into their branded products and sell through their own well-established distribution channels. We have traditionally marketed and sold our products to customers through targeted selling, promotions, select advertising and attendance at trade shows. We identify companies with end products and applications for which we believe our products will provide a key differentiator. Marketing efforts focus on identifying prospects and communicating the product performance attributes foremost in the minds of purchasing decision-makers. This approach is intended to ensure the highest possible return on investment for our marketing expense.

We market our products in North America, Asia, and Europe directly from our sales office located in our Bellevue, Washington facility. We also have a local sales representative in Japan. We market our Z800 3DVisor through select value-added resellers and on-line through Amazon and our e-commerce site, [www.3dvisor.com](http://www.3dvisor.com). We intend to continue to expand our global sales, marketing and distribution capabilities.

An OEM design cycle typically requires between 6 and 36 months, depending on the uniqueness of the market, the complexity of the end product, or in the case of military OEM customers, government procurement schedules. Because our microdisplays are the main functional component that defines many of our customers' end products, we work closely with customers to provide technical assistance throughout the product evaluation and integration process.

## Customers

Customers for our products include both large multinational and smaller OEMs. We maintain relationships with OEMs in a diverse range of industries encompassing the military, industrial, medical, and consumer market sectors. During 2008, 61% of our net revenue was to firms based in the United States and 39% was to international firms as compared to 51% domestic revenue and 49% international revenue during 2007. In 2008, we had 10 customers that accounted for more than 63% of our total revenue as compared to 10 customers that accounted for more than 54% of our total revenue in 2007. In 2008, we had 2 customers that accounted for more than 10% of our total revenue as compared to 2007 when we did not have any customers that accounted for more than 10% of our total revenue.

## Backlog

As of November 11, 2009, we had a backlog of approximately \$4.6 million for purchases through June 2010. This backlog primarily consists of non-binding purchase orders and purchase agreements but does not include expected revenue from R&D contracts or expected NRE (non-recurring engineering) programs under development.

The majority of our backlog consists of non-binding purchase orders or purchase agreements for delivery over the next six months. Most purchase orders are subject to rescheduling or cancellation by the customer with no or limited penalties. We believe that the backlog metric is of limited utility in predicting future sales because many of our OEM customers operate on a ship-to-order basis. Variations in the magnitude and duration of purchase orders and customer delivery requirements may result in substantial fluctuations in backlog from period to period.

## Manufacturing Facilities

We are located at IBM's Microelectronics Division facility, known as the Hudson Valley Research Park, located about 70 miles north of New York City in Hopewell Junction, New York. We lease approximately 33,000 square feet of space which houses our own equipment for OLED microdisplay fabrication and research and development, includes a 16,300 square foot class 10 clean room space, additional lower level clean room space, assembly space and administrative offices.

Facilities services provided by IBM include our clean room, pure gases, high purity de-ionized water, compressed air, chilled water systems, and waste disposal support. This infrastructure provided by our lease with IBM provides us with many of the resources of a larger corporation without the added overhead costs. It further allows us to focus our resources more efficiently on our product development and manufacturing goals.

We believe manufacturing efficiency is an important factor for success, especially in the consumer markets. We currently have the equipment needed for profitable production in place. We plan to add equipment to increase capacity and yield over the next two years to meet expected demand for our microdisplays.

## Competition

The industry in which we operate is highly competitive. We face competition from legacy technologies such as cathode ray tubes (CRTs), liquid crystal on silicon microdisplays (LCOS), and transmissive liquid crystal displays (LCDs) as well as from alternative flat panel display technologies such as field emission and virtual scanning retinal displays. There are many large and small companies that manufacture or have in development products based on these technologies.

Currently, in the high resolution microdisplay market, we face competition from liquid crystal microdisplay manufacturers, such as those sold by Kopin. We are not aware of any current manufacturers of high resolution OLED microdisplays that compete with our microdisplay products.

In the future, we believe that our key competition will come from LCOS and small transmissive LCDs. While we believe that OLED technology has the capability to provide higher quality images, greater environmental ruggedness, reduced electronics cost and complexity, and improved power efficiency advantages over either type of liquid crystal based microdisplays, there is no assurance that these benefits will be fully realized or that liquid crystal manufacturers will not suitably improve these parameters to reduce these potential advantages of OLEDs.

To our knowledge, the only other companies that have publicly stated plans to commercially develop OLED microdisplays for near-eye applications are MicroEmissive Displays (MED) in Britain and MicroOLED in France. Though MED had raised substantial funds and created a new production facility, the company ceased business operations in 2008. We may also compete with potential licensees of Universal Display Corporation, Eastman Kodak, or Cambridge Display Technology, among others, each of which potentially can license OLED technology portfolios. If other new OLED-based companies enter our markets with directly relevant display designs and without manufacturing and reliability issues, we will face competition, though we believe that our progress to date in this area gives us a substantial head start.



## Intellectual Property

We believe we have developed a substantial intellectual property portfolio of patents, trade secrets and manufacturing know-how. It is important to protect our investment in technology by obtaining and enforcing intellectual property rights, including rights under patent, trademark, trade secret and copyright laws. We seek to protect inventions we consider significant by applying for patents in the United States and other countries when appropriate. Our intellectual property covers a wide range of materials, device structures, processes, and fabrication techniques, primarily concentrated in the following areas:

- OLED Materials, Structures, and Processes;
- Display Color Processing and Sealing;
- Active Matrix Circuit Methodologies and Designs;
- Lenses and Tracking (Eye and Head);
- Ergonomics and Industrial Design;
- Wearable Computer Interface Methodology; and
- Legacy Field Emission and General Display Technologies.

We believe that, in addition to patent protection, our success is dependent upon non-patentable trade secrets and technical expertise. To protect this information and know-how from unauthorized use or disclosure, we use nondisclosure agreements and other measures to protect our proprietary rights, and we require all employees, and where appropriate, contractors, consultants, advisors and collaborators to enter into confidentiality and non-competition agreements. We believe that our intellectual property portfolio, coupled with our strategic relationships and accumulated manufacturing know-how in OLED, gives us a significant advantage over potential competitors.

## Employees

As of November 11, 2009, we had a total of 66 full time and part time staff. None of our employees are represented by a labor union. We have not experienced any work stoppages and consider our relations with our employees to be good.

## Available Information

Our website address is [www.emagin.com](http://www.emagin.com). We make available free of charge through our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, our Proxy Statements and all amendments to such reports filed under the Securities and Exchange Act after we electronically file such material with, or furnish such material to, the Securities and Exchange Commission (SEC). These reports may be accessed from our website by following the links under "Investors," then "SEC Filings." The information found on our website is not part of this or any other report we file with or furnish to the SEC. We assume no obligation to update or revise any forward-looking statements in this Annual Report or in other reports filed with the SEC, whether as a result of new information, future events or otherwise, unless we are required to do so by law. A copy of this Annual Report and our other reports is available without charge upon written request to Investor Relations, eMagin Corporation, 3006 Northup Way, Suite 103, Bellevue, WA 98004.

We also post on our website the charters of our Audit, Compensation, Governance and Nominating committees, our Codes of Ethics and any amendments of or waiver to those codes of ethics, and other corporate governance materials recommended by the SEC as they occur, as well as earnings press releases and other business-related press releases. Our e-commerce site for sales of our Z800 3DVisor is [www.3dvisor.com](http://www.3dvisor.com). The contents of this website are not part of this Report.

DESCRIPTION OF PROPERTY

Our corporate offices are located in Bellevue, Washington. Our Washington location includes administrative, finance, operations, research and development and sales and marketing functions and consists of leased space of approximately 5,100 square feet. The lease expires in August 2014. Our manufacturing facility is located in Hopewell Junction, New York, where we lease approximately 33,000 square feet from IBM. The NY facility houses our equipment for OLED microdisplay fabrication, assembly operations, research and development, and administrative functions. The lease expires in May 2014. We believe our facilities are adequate for our current and near-term needs.

LEGAL PROCEEDINGS

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. However, litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. We are currently not aware of any such legal proceedings or claims that we believe will have, individually or in the aggregate, a material adverse affect on our business, financial condition or operating results.

## MANAGEMENT

The following table sets forth the names of our directors and executive officers as of November 11, 2009:

Name	Age	Position
Andrew G. Sculley	57	Chief Executive Officer and President
Paul Campbell (4)	53	Chief Financial Officer
Susan K. Jones	57	Chief Business Officer, Secretary
Adm. Thomas Paulsen (Ret.) (2)(3*)	72	Chairman of the Board, Director
Claude Charles (1)(2)(3)(5)	72	Director
Paul Cronson	52	Director
Irwin Engelman (1*)	74	Director
Dr. Jacob Goldman (2*)(3)	87	Director
Brig. Gen. Stephen Seay (Ret.) (1)(3)	62	Director

(1) Audit Committee

(2) Governance & nominating Committee

(3) Compensation Committee

(4) On May 8, 2009, Paul Campbell became the Chief Financial Officer.

(5) As of September 1, 2009, Claude Charles is a member of the Governance & nominating and the Compensation Committees.

\* Committee Chair

Andrew G. Sculley became the Company's Chief Executive Officer and President on June 1, 2008. Mr. Sculley served as the General Manager of Kodak's OLED systems Business Unit and Vice President of Kodak's Display Business from 2004 to 2008. From 2003 to 2006, he served on the Board of Directors of SK Display, a joint venture between Sanyo and Kodak. From 1996 to 2001 Mr. Sculley served as the Manager of Operations, CFO and member of the Board of Directors of Kodak Japan Ltd., where he managed Distribution, Information Technologies, Legal, Purchasing and Finance. Previously, he held positions in strategic planning and finance in Eastman Kodak Company.

Mr. Sculley holds an MBA from Carnegie-Mellon University and an MS in physics from Cornell University. He attended Harvard University's International Senior Management Program while an executive at Kodak.

Paul Campbell became the Company's Chief Financial Officer as of May 8, 2009. Prior to this date, Paul Campbell had served as the Company's Interim Chief Financial Officer since April 15, 2008. Mr. Campbell is a partner with Tatum, LLC ("Tatum"), an executive services firm, since November 2007. Mr. Campbell served as the Chief Financial Officer of four public companies, including Checkers Drive-In Restaurants, Inc, which until 2006 was traded on the Nasdaq and as Chief Financial Officer of Famous Dave's of America, Inc., a publicly held company currently trading on the Nasdaq. Mr. Campbell also served as Chief Financial Officer of Sonus Corporation, a medical device retailer, and of Organic To Go, Inc., an emerging publicly-held food company, from May 2007 through October 2007. From 2001 through April 2007, Mr. Campbell owned and operated Campbell Capital, LLC, a consulting and investment firm in Seattle, Washington providing strategic planning and financing services to small businesses. Mr. Campbell received his Masters of Business Administration from Pepperdine University and his Bachelor of Arts degree in Business Economics from the University of California at Santa Barbara.

Susan K. Jones has served as Executive Vice President and Secretary since 1992, Chief Marketing and Strategy Officer since 2001, and assumed responsibility of Chief Business Officer in 2008. Ms. Jones has more than 30 years of industrial experience, including senior research, management, and marketing assignments at Texas Instruments and Merck, Sharp, & Dohme Pharmaceuticals. Ms. Jones serves on the boards or chairs committees for industry organizations including IEEE, SPIE, and SID. Ms. Jones served as a director of eMagin Corporation from 1993 to 2000 and was a director of Virtual Vision, Inc. Ms. Jones graduated from Lamar University with a B.S. in chemistry and biology, holds more than a dozen patents, and has authored more than 100 papers and talks.

Rear Admiral Thomas Paulsen (ret.) has served as a director since July 2003 and Non-Executive Chairman of the Board since 2007. He served as Interim CEO and President from January 2008 to May 2008. Admiral Paulsen served for over 34 years in the US Navy in Command Control, Communications and Intelligence (C3I), Telecommunications, Network Systems Operations, Computers and Computer Systems Operations until his retirement in 1994 as a Rear Admiral. He then served as Chief Information Officer for Williams Telecommunications. Admiral Paulsen has served as a director of Umbanet, Inc. since 2002. Since 2000, Admiral Paulsen has served on the Board of Governors of the Institute of Knowledge Management, George Washington University. Since 1994, he has served as the Chairman of the Advisory Board and President Emeritus of the Center for Advanced Technologies (CAT) and a Managing Partner on the National Knowledge and Intellectual Property Management Taskforce, a not-for-profit company headquartered in Dallas, Texas, and is a member of the Board of Governors for the Japanese American National Museum, Los Angeles, California.

Claude Charles has served as a director since April of 2000. Mr. Charles has served as President of Azur Capital Limited since 1999. From 1996 to 1998 Mr. Charles was Chairman of Equinox Group Holdings. Prior to 1996, Mr. Charles has also served as a director and in senior executive positions at SG Warburg and Co. Ltd., Peregrine Investment Holdings, Trident International Finance Ltd., and Dow Banking Corporation. Mr. Charles holds a B.S. in economics from the Wharton School at the University of Pennsylvania and a M.S. in international finance from Columbia University. Paul Cronson has served as a director since July of 2003. Mr. Cronson is Managing Director of Larkspur Capital Corporation, which he co-founded in 1992. Larkspur is a broker dealer that is a member of FINRA and advises companies seeking private equity or debt. Mr. Cronson's career in finance began in 1979 at Laidlaw, Adams Peck where he worked in asset management and corporate finance. From 1983 to 1985, Mr. Cronson worked with Samuel Montagu Co., Inc. in London, where he marketed eurobond issuers and structured transactions. Subsequently from 1985 to 1987, he was employed by Chase Investment Bank Ltd., where he structured international debt securities and he developed "synthetic asset" products using derivatives. Returning to the U.S., he joined Peter Sharp Co., where he managed a real estate portfolio, structured financings and assisted with capital market investments until 1992. Mr. Cronson received his BA from Columbia College in 1979, and his MBA from Columbia College in 1982. He is on the Board of the Evelyn Sharp Foundation in New York, a private foundation supporting various not for profit endeavors.

Irwin Engelman has served as a director since May of 2005. He is currently a consultant to various industrial companies and is a director of Sanford C. Bernstein Mutual Funds, a publicly-traded company, and chairman of its audit committee. From November 1999 until April 2002, he served as Executive Vice President and Chief Financial Officer of YouthStream Media Networks, Inc., a media and retailing company serving high school and college markets. From 1992 until April 1999, he served as Executive Vice President and Chief Financial Officer of MacAndrews and Forbes Holdings, Inc., a privately-held financial holding company. From November 1998 until April 1999, he also served as Vice Chairman, Chief Administrative Officer and a director of Revlon, Inc., a publicly-traded consumer products company. From 1978 until 1992, he served as an executive officer of various public companies including International Specialty Products, Inc. (a subsidiary of GAF Holdings Inc.), CitiTrust Bancorporation, General Foods Corporation and The Singer Company. Mr. Engelman received a BBA in Accounting from Baruch College in 1955 and a Juris Doctorate from Brooklyn Law School in 1961. He was admitted practice law in the State of New York in 1962. In addition, he was licensed as a CPA in the State of New Jersey in 1966.

Dr. Jack Goldman joined our board of directors in February of 2003. Dr. Goldman is the retired senior vice-president for R&D and chief technical officer of the Xerox Corporation. While at Xerox, he founded and directed the celebrated Xerox PARC laboratory. Prior to joining Xerox, Dr. Goldman was Director of Ford Motor Company's Scientific Research Laboratory. He also served as Visiting Edwin Webster Professor at MIT. Dr. Goldman presently serves on the Boards of Directors of Umbanet Inc. and Medis Technologies Inc., and he has served on the Boards of Xerox, General Instrument Corp., United Brands, Intermagnetics General, GAF and Bank Leumi USA. He has also been active in government and professional advisory roles including service on the US Dept. of Commerce Technical Advisory Board, chairman of Statutory Visiting Committee of The National Bureau of Standards (National Institute of Standards and Technology), vice-president of the American Association for the Advancement of Science and president of the Connecticut Academy of Science and Engineering.

General Stephen M. Seay was elected to the Board of Directors in January 2006. In his 33-year Army career, General Seay held a wide variety of command and staff positions, most importantly as a soldier's soldier volunteering for deployment on Operation Iraqi Freedom, 2004-2005. Simultaneously, he was Commanding General, Joint Contracting Command-Iraq, Head of Contracting Authority, Operation Iraqi Freedom and Program Executive Officer for Simulation, Training and Instrumentation. He previously served as Program Manager for a joint automation system, headed the Joint Target Oversight Council and was Commanding General, Simulation, Training and Instrumentation Command (STRICOM), Army Materiel Command. Earlier, as a Field Artillery officer, he commanded at all levels, rising to corps artillery commander. He served as Chief of Staff, United States Army, Europe (Forward) and National Security Element, Taszar, Hungary, during Operation Joint Endeavor. He held resource

management, operations research, and acquisition positions during three tours on Department of the Army staff. General Seay holds a Bachelor of Science degree from the University of New Hampshire and a Master of Science degree from North Carolina State University.

## CORPORATE GOVERNANCE

### Code of Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all of our directors, officers and employees, including our principal executive officer, principal financial officer and principal accounting officer. The Code of Business Conduct and Ethics is posted on our website at <http://www.emagin.com/investors>.

We intend to satisfy the disclosure requirement under Item 10 of Form 8-K regarding an amendment to, or waiver from, a provision of this Code of Business Conduct and Ethics by filing a Current Report on Form 8-K with the SEC, disclosing such information.

#### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors and executive officers and persons who own more than 10% of the issued and outstanding shares of eMagin common stock to file reports of initial ownership of common stock and other equity securities and subsequent changes in that ownership with the SEC. Officers, directors and greater than ten percent stockholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file. To our knowledge, based solely on a review of the copies of such reports furnished to us and written representations that no other reports were required, during the fiscal year ended December 31, 2008 all Section 16(a) filing requirements applicable to our officers, directors and greater than 10% beneficial owners were complied with.

#### General Information Concerning the Board of Directors

The Board of Directors of eMagin is classified into three classes: Class A, Class B and Class C. As of December 31, 2008, Irwin Engelman is the only Class A Director, and will hold office until the next Annual Meeting of our stockholders. Paul Cronson, Admiral Thomas Paulsen, and General Stephen Seay are Class B directors who will hold office until the next Annual Meeting. Claude Charles and Dr. Jacob Goldman are Class C directors who will hold office until the next Annual Meeting. There was no Annual Meeting held during 2008. In each case, each director will hold office until his successor is duly elected or appointed and qualified in the manner provided in our Amended and Restated Certificate of Incorporation and our Amended and Restated Bylaws, or as otherwise provided by applicable law.

Our Board of Directors held 19 meetings during 2008. Our independent directors met in executive session on a periodic basis in connection with regular meetings, as well as in their capacity as members of our Audit Committee and Compensation Committee.

Admiral Thomas Paulsen was not an independent director during the period January through May 2008 when he was acting Interim CEO and President. As of June 1, 2008, Admiral Paulsen was an independent director. No change occurred in Admiral Paulsen's compensation as a director of the Company as a result of his accepting this temporary position.

#### Compensation of Directors

Non-management directors receive options under the 2003 and 2008 Stock Option Plans. Under these Plans, a grant of options to purchase 15,000 shares of common stock will automatically be granted on the date a director is first elected or re-elected, or otherwise validly appointed to the Board with an exercise price per share equal to 100% of the market value of one share on the date of grant. Such options granted will expire ten years after the date of grant and will become exercisable in four equal installments commencing on the date of grant and annually thereafter. For calendar years 2007 and 2008, Directors received an annual cash retainer of \$10,000 and an annual stock retainer of 25,000 options, fully vested, at market price on the date of issuance. Directors are also granted options based on committee assignments consisting of options to purchase 5,000 shares per year for members of the Compensation committee, 10,000 shares for the governance committee and 15,000 shares for the audit committee. Each committee chair will receive 5,000 additional shares. In 2008 and 2009 the chairs of the Audit and the Governance and Nominating committees receive additional 10,000 options. In addition, each non-management director receives \$1,000 for each in-person Board meeting, and \$500 for each teleconference meeting or Committee meeting. Directors are eligible for reimbursement for ordinary expenses incurred in connection with attendance at such meetings.

Admiral Thomas Paulsen was not an independent director during the period January through May 2008 when he was acting Interim CEO and President. As of June 1, 2008, Admiral Paulsen was an independent director. No change occurred in Admiral Paulsen's compensation as a director of the Company as a result of his accepting this temporary position.

**Audit Committee.** The Audit Committee is responsible for determining the adequacy of our internal accounting and financial controls, supervising matters relating to audit functions, reviewing and setting internal policies and procedures regarding audits, accounting and other financial controls, reviewing the results of our audit performed by the independent public accountants, and recommending the selection of independent public accountants. The Audit Committee has adopted an Audit Charter, which is posted on our website at <http://www.emagin.com/investors>. The Audit Committee is composed of three Directors, Claude Charles, Irwin Engelman, and General Stephen Seay. The Board has determined that each of the members of the Audit Committee is unrelated, an outside member with no other affiliation with us and is independent. The Board has determined that Mr. Engelman is an "audit committee financial expert" as defined by the SEC. During 2008, the Audit Committee held 4 meetings via teleconference.

**Compensation Committee.** The Compensation Committee determines matters pertaining to the compensation and expense reporting of certain of our executive officers, and administers our stock option, incentive compensation, and employee stock purchase plans. The Compensation Committee is presently composed of four Directors, Jack Goldman, Thomas Paulsen, Claude Charles and Stephen Seay, each of whom the Board has determined to be independent and none of whom has been an employee of the Company, except as noted above. During 2008, the Compensation Committee held 5 meetings in person or through a conference call.



Governance and Nominating Committee. The Governance and Nominating Committee is responsible for considering potential Board members, nominating Directors for election to the Board, implementing the Company's corporate governance and ethics policies, and for all other purposes outlined in the Governance and Nominating Committee Charter, which is posted on our website at <http://www.emagin.com/investors>. The Governance and Nominating Committee is composed of Jack Goldman, Claude Charles and Thomas Paulsen, each of whom the Board has determined to be independent, except as noted above. During 2008, the Governance and Nominating Committee held 2 meetings in person or through a conference call.

#### Nomination of Directors

As provided in its charter and our company's corporate governance principles, the Governance and Nominating Committee is responsible for identifying individuals qualified to become directors. The Governance and Nominating Committee seeks to identify director candidates based on input provided by a number of sources, including (1) the Governance and Nominating Committee members, (2) our other directors, (3) our stockholders, (4) our Chief Executive Officer or Chairman, and (5) third parties such as professional search firms. In evaluating potential candidates for director, the Nominating and Corporate Governance Committee considers the entirety of each candidate's credentials.

Qualifications for consideration as a director nominee may vary according to the particular areas of expertise being sought as a complement to the existing composition of the Board of Directors. However, at a minimum, candidates for director must possess:

- high personal and professional ethics and integrity;
- the ability to exercise sound judgment;
- the ability to make independent analytical inquiries;
- a willingness and ability to devote adequate time and resources to diligently perform Board and committee duties; and
- the appropriate and relevant business experience and acumen.

In addition to these minimum qualifications, the Governance and Nominating Committee also takes into account when considering whether to nominate a potential director candidate the following factors:

- whether the person possesses specific industry expertise and familiarity with general issues affecting our business;
- whether the person's nomination and election would enable the Board to have a member that qualifies as an "audit committee financial expert" as such term is defined by the Securities and Exchange Commission (the "SEC") in Item 401 of Regulation S-K;
- whether the person would qualify as an "independent" director under the listing standards of the OTC Bulletin Board;
- the importance of continuity of the existing composition of the Board of Directors to provide long term stability and experienced oversight; and
- the importance of diversified Board membership, in terms of both the individuals involved and their various experiences and areas of expertise.

#### Shareholder Communications

Shareholders requesting communication with Directors can do so by writing to eMagin Corporation, c/o Corporate Secretary, 3006 Northup Way, Suite 203, Bellevue, WA 98004, or emailing to [sjones@emagin.com](mailto:sjones@emagin.com). At this time we do not screen communications received and would forward any requests directly to the named Director. If no Director was named in a general inquiry, the Secretary would contact either the Chairman or the Chairman of a particular

committee, as appropriate. We do not provide the physical address, email address, or phone numbers of Directors to outside parties without a Director's permission.

## EXECUTIVE COMPENSATION

This section describes the compensation program for our executive officers. In particular, this section focuses on our 2008 compensation program and related decisions.

### Compensation Discussion and Analysis

The objectives of our compensation program are as follows:

- Reward performance that drives substantial increases in shareholder value, as evidenced through both future operating profits and increased market price of our common shares; and
- Attract, hire and retain well-qualified executives.

The compensation level of our executives generally reflects their unique position and incentive to positively affect our future operating performance and shareholder value. Part of the compensation of our executives is from equity compensation, primarily through stock option grants or restricted stock awards. The stock option exercise price is generally the fair market value of the stock on the date of grant. Therefore, a gain is only recognized if the value of the stock increases, which promotes a long term alignment between the interests of the Company's executives and its shareholders. For that reason, stock options are a component of 100% of our employees' salary package.

Specific salary and bonus levels, as well as the amount and timing of equity incentive grants, are determined informally and judgmentally, on an individual-case basis, taking into consideration each executive's unique talents and experience as they relate to our needs. Executive compensation is paid or granted pursuant to each executive's compensation agreement. Compensation adjustments are made occasionally based on changes in an executive's level of responsibility or on changed local and specific executive employment market conditions.

The Board of Directors has established a Compensation Committee, comprised exclusively of independent outside directors which approves all compensation and awards to executive management. The members of the Compensation Committee have extensive executive level experience in other companies and bring a perspective of reasonableness to compensation matters with our Company. In addition, the Compensation Committee compares executive compensation practices of similar companies at similar stages of development.

Generally on its own initiative, at least annually, the Compensation Committee reviews the performance of executives and establishes compensation levels based on the performance evaluation, historical compensation levels of the executives, levels of responsibility and contributions to the Company, and comparable position studies provided by independent sources. With respect to equity compensation, the Compensation Committee approves all option grants, generally based on the recommendation of the president and chief executive officer and has delegated granting authority to the president and chief executive officer or, on occasion, his designee. Executives are eligible to receive bonus compensation at the discretion of the Compensation Committee, which is primarily based on the achievement of certain goals and objectives and the executive's contributions to the Company. Executives also are entitled to participate in the same benefit plans that are available to other Company employees.

#### Compensation for the Chairman

From January through May 2008, Admiral Paulsen served as Interim Chief Executive Officer. Admiral Paulsen receives an annual stipend of \$60,000 for serving as Non-Executive Chairman of the Board, an annual cash retainer of \$10,000 for serving as a director, and meetings fees. No change occurred in Admiral Paulsen's compensation as a result of his accepting the temporary position of Interim Chief Executive Officer and President.

## Summary Compensation Table

The following table sets forth information regarding compensation paid to our principal executive officer, principal financial officer, and our highest paid executive officer, all of whose total annual salary and bonus for the years ended December 31, 2008, 2007 and 2006 exceeded \$100,000.

## SUMMARY COMPENSATION TABLE

Name and principal position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option awards (\$), (a)	Change in pension value and Non-equity non-incentive qualified plan deferred compensation			All Other compensation (\$)	Total (\$)
						(\$)	(\$)	(\$)		
Andrew G. Sculley, President and Chief Executive Officer (1)	2008	161,923	-	-	287,150	-	-	-	-	449,073
	2007	-	-	-	-	-	-	-	-	-
	2006	-	-	-	-	-	-	-	-	-
K.C. Park, Interim President and Chief Executive Officer (2)	2008	105,817	60,000	-	(7) 42,371	-	-	75,000	(8)	283,188
	2007	313,462	-	40,000	(9)	-	-	-	-	353,462
	2006	200,000	-	-	-	-	-	-	-	200,000
Gary Jones, President and Chief Executive Officer (3)	2008	-	-	-	-	-	-	-	-	-
	2007	102,060	-	430,000	(10)	-	-	51,638	(11)	583,698
	2006	368,170	-	-	-	-	-	127,928	(12)	496,098
Paul Campbell, Chief	2008	203,539	-	-	-	-	-	-	-	203,539

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Financial Officer (4)										
	2007	-	-	-	-	-	-	-	-	-
	2006	-	-	-	-	-	-	-	-	-

Michael D. Fowler, Interim Chief Financial Officer (5)										
	2008	84,808	-	-	-	-	-	-	-	84,808
	2007	-	-	-	-	-	-	-	-	-
	2006	-	-	-	-	-	-	-	-	-

John D. Atherly, Chief Financial Officer (6)										
	2008	44,628	-	-	-	-	-	-	-	44,628
	2007	243,000	-	-	-	-	-	-	-	243,000
	2006	242,308	-	-	-	-	-	-	-	242,308

Susan Jones, Executive Vice President, Chief Business Officer, and Secretary										
	2008	329,916	-	-	-	-	-	-	-	-