#### EMAGIN CORP Form S-1/A January 20, 2010

As filed with the Securities and Exchange Commission on January 20, 2010

#### Registration No. 333-160147

#### UNITED STATES SECURITIES AND EXCHANGE COMMISSION

#### WASHINGTON D.C. 20549

AMENDMENT NO. 2 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)

Copies to: Richard A. Friedman, Esq. Sichenzia Ross Friedman Ference LLP 61 Broadway, 32nd Flr. New York, New York 10006 (212) 930-9700 (212) 930-9725 (fax)

#### 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: o

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. o

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. o

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. o

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

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 o Non-accelerated filer o Accelerated Filer o Smaller reporting x company

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# CALCULATION OF REGISTRATION FEE

	Amount to be	Prop maxin offering	mum g price	1	Proposed maximum aggregate offering price	reg	nount of istration	
Title of each class of securities to be registered	registered	per s	hare		(1)	fee (2)		
Common Stock, \$0.001 par value per share, issuable								
upon exercise of Warrants	1,442,116	\$	1.88	\$	2,711,178	\$	151.00	
Total	1,442,116	\$	1.88	\$	2,711,178	\$	151.00	

- (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 January 5, 2010 which was \$1.88 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 JANUARY 20, 2010

#### eMagin Corporation

#### 1,442,116 SHARES OF

#### COMMON STOCK

This prospectus relates to the resale by the selling stockholders of up to 1,442,116 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 January 5, 2010 was \$1.87.

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 January\_\_\_, 2010.

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.

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 and our e-commerce site is www.3dvisor.com. The contents of our website are not part of this Prospectus.

# The Offering

Common stock offered by selling stockholders	Up to 1,442,116 shares, consisting of the following:
	• up to 72,116 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	18,497,569 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 17,055,453 shares of the Company's common stock outstanding as of January 5, 2010.

#### 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 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.

Nine Months Ended Year Ended December 31, September 30, 2005 2008 2007 2006 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 4,797 6,254 6,591 8,860 6,316 4,428 5,083 Total operating expenses 9,540 8,335 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 ) \$(15,266 ) \$(12,711 \$(2,435 ) \$(18,488 ) \$(16,528 ) \$2,923 ) (Loss) income per share, basic \$(0.13 ) \$(1.59 ) \$(1.52 ) \$(1.94 ) \$(1.98 ) \$0.18 \$(0.18) (Loss) income per share, diluted \$(0.18 \$(0.13 ) \$(1.59 ) \$(1.52 ) \$(1.94 ) \$(1.98 ) \$0.12 Weighted average number of shares

Consolidated Statements of Operations Data:

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:

		December 31,									September 30, (unaudited)			
		2008		2007		2006	(	2005 thousands)		2004		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	s'													
deficit)	\$	3,661	\$	(4,170)	\$	(1,164)	\$	10,401	\$	16,447	\$	8,243	\$	(2,888)
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#### 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.

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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 affect 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 January 5, 2010, we have outstanding common shares of 17,055,453 plus (i) options to purchase 2,817,574 shares, (ii) warrants to purchase 9,027,435 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.

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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 \$0.35 to \$1.95 and decreased to a low of \$0.32 on March 2, 2009. 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;
- $\cdot$  general conditions in the semiconductor and flat panel display industries; and
- $\cdot$  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," "estin "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

Second Quarter	\$ 1.40	\$ 0.60
Third Quarter	\$ 2.08	\$ 0.97
Fourth Quarter	\$ 2.00	\$ 1.38
Fiscal 2010		
First Quarter (as of January 5, 2010)	\$ 1.90	\$ 1.80

As of January 5, 2010, 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 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.

		Yea		September 30,					
	2008	2007	2009	2008					
				(thousands	5)				
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	2,001	_,, .,	.,	.,020	070	1,0 / 0	1,011		
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	¢ (0.40					× + • • • •	<b>•</b> (0.40		
share, basic	\$(0.13	) \$(1.59	) \$(1.52	) \$(1.94	) \$(1.98	) \$0.18	\$(0.18)		
(Loss) income per	¢ (0.10				> <b>(1 00</b>	۰. به م	¢ (0.10		
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 Statements of Operations Data:

Nine Months Ended

Consolidated Balance Sheet Data:

		December 31,									Septer (una	ed)		
		2008		2007		2006	(1	2005 (housands)		2004		2009		2008
Cash and cash							(I	.nousanus)						
	¢	<b>a</b> 101	<b></b>	=10	<b></b>	1 41 5	<b>_</b>	6 222	<b></b>	10.455	<b></b>	2 700	¢	1 0 7 0
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 January 5, 2010, we have a backlog of approximately \$6.0 million in products ordered for delivery through December 31, 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