EMAGIN CORP
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eMagin Corporation
7,654,636 SHARES OF
COMMON STOCK

This prospectus relates to the resale by the selling stockholders, who invested in us on January 9, 2004, of up to 7,654,636 shares of our common stock, including up to 4,312,215 shares issuable upon the exercise of common stock purchase warrants. All these securities were previously issued on January 9, 2004. 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.

The selling stockholders may be deemed underwriters of the shares of common stock, which they are offering. We will pay the expenses of registering these shares.

Our common stock is registered under Section 12(g) of the Securities Exchange Act of 1934 and is listed on the American Stock Exchange under the symbol "EMA". The last reported sales price per share of our common stock as reported by the American Stock Exchange on February 4, 2004, was $2.39.

INVESTING IN THESE SECURITIES INVOLVES SIGNIFICANT RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 4.

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.

The date of this prospectus is February 12, 2004.

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.

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.

eMagin Corporation

eMagin Corporation designs, develops, and markets OLED (organic light emitting diode)-on-silicon microdisplays and related information technology solutions. We integrate OLED technology with silicon chips to produce high-resolution microdisplays smaller than one-inch diagonally which, when viewed through a

magnifier, create a virtual image that appears comparable to that of a computer monitor or a large-screen television. We shipped initial samples of our first commercial microdisplay product in March 2001. We are now accepting orders and shipping initial production quantities of our first two commercial microdisplay products. 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 original equipment manufacturer (OEM) customers.

Our principal offices are located at 2070 Route 52, Hopewell Junction, New York 12533, and our telephone number is (845) 892-1900. We are a Delaware corporation.

The Offering

Common stock offered by selling stockholders.....	Up to 7,654,636 shares, including up 4,312,215 shares issuable upon the e of common stock purchase warrants, a full exercise of the warrants. This represents 13.8% of the total number shares to be outstanding following t offering assuming the exercise of al securities being registered.
Common stock to be outstanding after the offering.....	Up to 55,517,595 shares
Use of proceeds.....	We will not receive any proceeds fro of the common stock. However, we wi the exercise price of any common sto the selling stockholder upon exercis warrants. We expect to use the proce received from the exercise of their warrants, if any, for general workin purposes. We have received gross pro $4,200,039 from the sale of the comm
American Stock Exchange Symbol.....	EMA

The above information regarding common stock to be outstanding after the offering is based on 47,862,959 shares of common stock outstanding as of February 2, 2004 and assumes the subsequent issuance of common stock to the selling stockholders and exercise of warrants by our selling stockholders.

Recent Developments

On January 9, 2004, eMagin Corporation and several accredited institutional and private investors entered into a Securities Purchase Agreement whereby such investors purchased an aggregate of 3,333,364 shares of common stock for an aggregate purchase price of $4,200,039.

The shares of common stock were priced at a 20% discount to the average closing price of the stock from December 30, 2003 to January 6, 2004, which ranged from $1.38 to $1.94 per share during the period for an average closing price of $1.26 per share. In addition, the investors received warrants to purchase an aggregate of 2,000,019 shares of common stock (subject to anti-dilution adjustments) exercisable at a price of $1.74 per share for a period of five (5) years. The

warrants were priced at a 10% premium to the average closing price of the stock for the pricing period.

eMagin also issued additional warrants to the investors to acquire an aggregate of 2,312,193 shares of common stock. 1,206,914 of such warrants are exercisable, within 6 months from the effective date of the registration statement covering these securities, at a price of $1.74 per share (a 10% premium to the average closing price of the stock for the pricing period), and 1,105,279 of such warrants are exercisable within 12 months from the effective date of the registration statement covering these securities, at a price of $1.90 per share (a 20% premium to the average closing price of the stock for the pricing period).

This prospectus covers the resale by the investors of the above-referenced common stock and common stock underlying the warrants.

RISK FACTORS

This investment has a high degree of risk. Before you invest you should carefully consider the risks and uncertainties described below and the other information in this prospectus. If any of the following risks actually occur, our business, operating results and financial condition could be harmed and the value of our stock could go down. This means you could lose all or a part of your investment.

Risks Related To Our Financial Results

IF WE CANNOT OPERATE AS A GOING CONCERN, OUR STOCK PRICE WILL DECILNE AND YOU MAY LOSE YOUR ENTIRE INVESTMENT.

Our auditors included an explanatory paragraph in their report on our financial statements for the year ended December 31, 2002 which stated that, due to recurring losses from operations since inception of the Company, there is substantial doubt about our ability to continue as a going concern. Our financial statements for the three months ended September 30, 2003 do not include any adjustments that might result from our inability to continue as a going concern. These adjustments could include additional liabilities and the impairment of certain assets. If we had adjusted our financial statements for these uncertainties, our operating results and financial condition would have been materially and adversely affected.

IF WE DO NOT OBTAIN ADDITIONAL CASH TO OPERATE OUR BUSINESS, WE MAY NOT BE ABLE TO EXECUTE OUR BUSINESS PLAN AND MAY NOT ACHIEVE PROFITABILITY.

In the event that cash flow from operations is less than anticipated and we are unable to secure additional funding to cover these added losses, in order to preserve cash, we would be required to further reduce expenditures and effect further reductions in our corporate infrastructure, either of which could have a material adverse effect on our ability to continue our current level of operations. To the extent that operating expenses increase or we need additional funds to make acquisitions, develop new technologies or acquire strategic assets, the need for additional funding may be accelerated and there can be no assurances that any such additional funding can be obtained on terms acceptable to us, if at all. If we are not able to generate sufficient capital, either from operations or through additional financing, to fund our current operations, we may not be able to continue as a going concern. If we are unable to continue as a going concern, we may be forced to significantly reduce or cease our current operations. This could significantly reduce the value of our securities, which could result in our de-listing from the American Stock Exchange and cause investment losses for our shareholders.

WE MAY NOT BE ABLE TO SATISFY THE AMERICAN STOCK EXCHANGE'S CONTINUED LISTING REQUIREMENTS.

The AMEX staff notified us in June 2003 that we have fallen below Section 1003(a)(i) of the AMEX Company Guide for having shareholders' equity of less than $2,000,000 and losses from continuing operations and/or net losses in two out of the three most recent fiscal years. We were afforded the opportunity to submit a plan of compliance to the AMEX and presented a plan to the AMEX in July 2003. On September 9, 2003, we received notice from the staff of the AMEX that the AMEX had accepted our plan to regain compliance with AMEX's continued listing standards and granted us an extension until December 4, 2004 to regain compliance with those standards. The failure to execute our plan and comply with the AMEX equity requirement could result in a delisting of our common stock.

We will be subject to periodic review by the AMEX staff during the extension period. During this time, we must make progress consistent with the terms of the plan or maintain compliance with the continued listing standards. Other as yet unidentified issues may arise that could adversely affect the financial or the potential listing status of the company.

WE HAVE A HISTORY OF LOSSES SINCE OUR INCEPTION AND MAY INCUR LOSSES FOR THE FORESEEABLE FUTURE.

Accumulated losses excluding non-cash transactions as of September 30, 2003, were $32.5 million and acquisition related non-cash transactions were $101.9 million, which resulted in an accumulated net loss of $134.4 million, the majority of which was related to the March 2000 merger and the subsequent write-down of our goodwill. The non-cash losses were dominated by the amortization and write-down of goodwill and purchased intangibles and write-down of acquired in-process research and development related to the March 2000 acquisition, and also included some non-cash stock-based compensation. We have not yet achieved profitability and we can give no assurances that we will achieve profitability within the foreseeable future as we fund operating and capital expenditures in areas such as establishment and expansion of markets, sales and marketing, operating equipment and research and development. We cannot assure investors that we will ever achieve or sustain profitability or that our operating losses will not increase in the future.

WE WERE PREVIOUSLY PRIMARILY DEPENDENT ON U.S. GOVERNMENT CONTRACTS.

The majority of our revenues to date have been derived from research and development contracts with the U.S. federal government. We cannot continue to rely on such contracts for revenue. We plan to submit proposals for additional development contract funding; however, funding is subject to legislative authorization and even if funds are appropriated such funds may be withdrawn based on changes in government priorities. No assurances can be given that we will be successful in obtaining new government contracts. Our inability to obtain revenues from government contracts could have a material adverse effect on our results of long-term operations, unless substantial product or non-government contract revenue offsets any lack of government contract revenue.

RISKS RELATED TO OUR INTELLECTUAL PROPERTY

We rely on our license agreement with Eastman Kodak for the development of our products, and the termination of this license, Eastman Kodak's licensing of its OLED technology to others for microdisplay applications, or the sublicensing by Eastman Kodak of our OLED technology to third parties, could have a material adverse impact on our business.

Our principal products under development utilize OLED technology that we license from Eastman Kodak. We rely upon Eastman Kodak to protect and enforce key patents held by Eastman Kodak, relating to OLED display technology. Eastman Kodak's patents 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. We may be required to expend significant resources to monitor and police our intellectual property rights. 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.

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 viewfinder microdisplay market sector is well established with entrenched competitors with whom we must compete.

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 services;
- 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 o 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 IS CYCLICAL.

The display industry is characterized by fabrication facilities that require large capital expenditures and long lead times for supplies and the subsequent processing time, leading to frequent mismatches between supply and demand. 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.

COMPETING PRODUCTS MAY GET TO MARKET SOONER THAN OURS.

Our competitors are investing substantial resources in the development and manufacture of microdisplay systems using alternative technologies such as reflective liquid crystal displays (LCDs), LCD-on-Silicon ("LCOS") microdisplays, active matrix electroluminescence and scanning image systems, and transmissive active matrix LCDs.

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.

OUR PRODUCTS ARE SUBJECT TO LENGTHY OEM DEVELOPMENT PERIODS.

We plan to 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. 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. 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 MANUFACTURING

WE EXPECT TO DEPEND ON SEMICONDUCTOR CONTRACT MANUFACTURERS TO SUPPLY OUR SILICON INTEGRATED CIRCUITS AND OTHER SUPPLIERS OF KEY COMPONENTS, MATERIALS AND SERVICES.

We do not manufacture the silicon integrated circuits on which we incorporate our OLED technology. Instead, we expect to provide the design layouts to semiconductor contract manufacturers who will manufacture the integrated circuits on silicon wafers. We also expect to depend on suppliers of a variety of other components and services, including circuit boards, graphic integrated circuits, passive components, materials and chemicals, and equipment support. Our inability to obtain sufficient quantities of high quality silicon integrated circuits or other necessary components, 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.

THE MANUFACTURE OF OLED-ON-SILICON IS NEW AND OLED MICRODISPLAYS HAVE NOT BEEN PRODUCED IN SIGNIFICANT QUANTITIES.

If we are unable to produce our products in sufficient quantity, we will be unable to attract customers. In addition, we cannot assure you that once we commence volume production we will attain yields at high throughput that will result in profitable gross margins or 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 initially expect to 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. 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.

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 retaining or attracting new personnel may have a materially adverse affect on our business and our operating results. In addition, difficulties in hiring and retaining technical personnel could delay the implementation of our business plan.

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, including Gary W. Jones, our chief executive officer. This is especially an issue while the company staffing is small. We will also need to recruit additional management in order to expand according to our business plan. We are currently recruiting a chief financial officer. The failure to attract and retain additional management or personnel could have a material adverse effect on our operating results and financial performance.

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 is operated on the basis of short-term purchase orders and we cannot guarantee that we will be able to obtain long-term contracts for some time. Our current purchase agreements can be cancelled or revised without penalty, depending on the circumstances. In the absence of a backlog of orders that can only be canceled with penalty, we plan production on the basis of internally generated forecasts of demand, 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 the Company 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 OLED-ON-SILICON TECHNOLOGY.

Our prospects will be significantly affected by our ability to develop strategic alliances with OEMs for incorporation of our OLED-on-silicon 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 into will realize their objectives. Failure to do so would 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 a foreign entity. Some customers in other countries have longer receivable periods or warranty periods. In addition, many of the OEMs that are the most likely long-term purchasers of our microdisplays are located abroad exposing 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 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.

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 THE COMPANY 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 February 2, 2004, we have outstanding (i) options to purchase 7,251,574 shares; (ii) warrants to purchase 12,184,061 shares of common stock; and (iii) 12,345,996 shares of common stock underlying convertible

securities.

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 the company. 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.

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 could receive up to $4,200,040 upon exercise of warrants held by the selling stockholders that expire within 12 months of this prospectus. We expect to use the proceeds received from the exercise of the warrants, if any, for general working capital purposes.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our common stock has been traded on the American Stock Exchange under the symbol "EMA" since March 17, 2000. From November 18, 1997 to March 16, 2000 our common stock had been quoted on the OTC Bulletin Board under our prior name "Fashion Dynamics Corp." under the symbol "FSHD." Prior to January 2000, there had been no public trading of FSHD. The table below sets forth, for the periods indicated, the high and low closing prices per share of the common stock as reported on the American Stock Exchange.

		High	Low
2003			
	First Quarter	1.00	0.33
	Second Quarter	0.85	0.50
	Third Quarter	1.99	0.51
	Fourth Quarter	1.74	1.15
2002			
	First Quarter	1.75	0.42
	Second Quarter	0.89	0.20
	Third Quarter	0.54	0.20
	Fourth Quarter	0.40	0.17

As of February 2, 2004, there were 47,862,959 shares of common stock outstanding.

As of February 2, 2004, there were approximately 469 stockholders of record of our common stock, respectively. This does not reflect those shares held beneficially or those shares held in "street" name.

We have not paid cash dividends in the past, nor do we expect to pay cash

dividends for the foreseeable future. We anticipate that earnings, if any, will be retained for the development of our business.

Equity Compensation Plan Information

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a) (b) (c)	Weighted average exercise price of outstanding options, warrants and rights	Number of s remaining av future i
Equity compensation plans approved by security holders	12,148,570	0.53	2,7
Equity compensation plans not approved by security holders	0	0.0	
Total as of 12/31/03	12,148,570	0.53	2,7

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

Some of the information in this Form SB-2 contains forward-looking statements that involve substantial risks and uncertainties. You can identify these statements by forward-looking words such as "may", "will", "expect", "anticipate", "believe", "estimate" and "continue", or similar words. You should read statements that contain these words carefully because they:

- discuss our future expectations;
- contain projections of our future results of operations or of our financial condition; and
- state other "forward-looking" information.

We believe it is important to communicate our expectations. However, there may be events in the future that we are not able to accurately predict or over which we have no control. Our actual results and the timing of certain events could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth under "Risk Factors," "Business" and elsewhere in this prospectus. See "Risk Factors."

Overview

We design and manufacture miniature display modules, which we refer to as OLED-on-silicon-microdisplays, 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, we derived substantially all 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 September 30, 2003, we had recognized an aggregate of approximately $3.4 million from sales of our products, and have a backlog of more than $27 million in products ordered for delivery through 2005. 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 original equipment manufacturer (OEM) customers. We have also shipped a limited number of prototypes of our eGlass II Head-wearable 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. Through our wholly owned subsidiary, Virtual Vision, Inc., we are also developing head-wearable displays that incorporate our Microviewer.

We license our core OLED technology from Eastman Kodak and we have developed our own technology to create high performance OLED-on-silicon microdisplays and related optical systems. We believe our technology licensing agreement with Eastman Kodak, coupled with our own intellectual property portfolio, gives us a leadership position in OLED and OLED-on-silicon microdisplay technology. We are the only company to demonstrate publicly and market full-color OLED-on-silicon microdisplays.

Company History

Our history has been as a developmental stage company. As of January 1, 2003, we are no longer 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. Most of our operating expenses are fixed in the near term. 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 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 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. Revenue is recognized at shipment and we record a reserve for estimated sales returns, which is reflected as a reduction of revenue at the time of revenue recognition.

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. Amounts can be billed on a bi-monthly basis. Billing is based on subjective cost investment factors.

Results of Operations

THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2003 COMPARED TO THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2002

Revenues

Revenues for the three and nine months ended September 30, 2003 were $0.7 million and $1.5 million, respectively, as compared to $0.5 million and $0.9 million for the three and nine months ended September 30, 2002. Current year revenues consisted primarily of product sales and increased by $0.2 million and $0.6 million for the three and nine months ended September 30, 2003, respectively, as compared to the three and nine months ended September 30, 2003. We ended the third quarter with a backlog of over $1.5 million in short term sales orders and $27 million longer term (within 24 months) purchase orders and purchase agreements. There were $0.3 million government R&D contract revenues for both the three and nine months ended September 30, 2003, as compared to $200 and $14,000 for the three and nine months ended September 30, 2002. Government R&D contract revenues will remain significantly lower in 2003 as compared to our historical average as the company focuses on product revenues rather than performing government R&D contracts, although product revenues include sales to government contractors which are funded by government development or procurement contracts.

Costs and Expenses

Cost of Goods Sold. Cost of goods sold includes direct and indirect costs associated with production, inventory consumption and outside commissions. Cost of goods sold for the three and nine months ended September 30, 2003 was $0.4 million and $1.7 million, respectively. We were not in full production in 2002 and had no cost of goods sold to compare against. Gross profit (loss) was $0.4 million and ($0.1) million, respectively, for the three and nine months ended September 30, 2003 due primarily to line stoppages resulting from lack of production materials as well as machinery downtime in the first and second quarters.

Research and Development. Research and development expenses for prior periods

include salaries, development materials, equipment leases and depreciation expenses, electronics, rent, utilities and costs associated with operating our manufacturing facility. In 2003, research and development expenses included salaries, development materials and other costs specifically allocated to the development of new products. Research and development expenses were $600 and $22,000, respectively, for the three and nine months ended September 30, 2003 as compared to $1.0 million and $6.4 million respectively for the three and nine months ended September 30, 2002. Of these amounts, we received $0 in 2003, as compared to $0.3 million and $0.4 million for the three and nine months ended September 30, 2002, respectively, in cost sharing from the U.S. Government. The $1.0 million and $6.4 million decrease in gross expenses for the three and nine months ended September 30, 2003, as compared to the three and nine months ended September 30, 2002, reflects reduction in staffing and reduction in expenditures related to our difficult cash position.

Amortization of Purchased Intangibles. There was no amortization and write down of purchased intangibles expense for the three months ended September 30, 2003 as compared to $0.3 million for the three months ended September 30, 2002. Amortization of purchased intangibles expense for the nine months ended September 30, 2003 was $0.3 million, as compared to $1.0 million for the nine months ended September 30, 2002. This is the result of the purchased intangibles being fully amortized by March 31, 2003.

Gain on Payable Forgiveness. We have completed negotiations with various creditors. We have been mostly successful in obtaining lower negotiated payment requirements from our larger creditors. We have made the negotiated payments on our debt, using the funds from the April 2003 financing. A credit of ($2.8) million and ($4.7) million were recorded as a reduction of expense for the three and nine months ended September 30, 2003, respectively, from these negotiations. This also has the added benefit of removing almost all long term lease payments on machinery.

Stock Based Compensation. Non-cash stock-based compensation expense for the three and nine months ended September 30, 2003 was $1.9 and $2.0 million, respectively, as compared to $0.3 million and $1.3 million, respectively, for the three and nine months ended September 30, 2002. The non-cash stock-based compensation expense for the three and nine months ending September 30, 2003 increased by $1.6 million and $0.7 million, respectively. This increase is primarily due to the difference between the strike price of the options set at the market price when granted in October 2002 and the price of the Company's stock on July 2, 2003 when the options granted in October 2002 were issued under the 2003 Employee Stock Option Plan. Non-cash stock-based compensation costs are the result of amortization of the intrinsic value ascribed for the issuance of stock options at the time of grant. The amortization is done over the vesting period of such options.

Selling, General and Administrative. Selling, general and administrative expenses consist principally of salaries and fees for professional services, legal fees incurred in connection with patent filings and related matters, amortization, as well as other marketing and administrative expenses. Selling, general and administrative expenses, for the three and nine months ended September 30, 2003 were $0.7 million and $2.3 million, respectively, as compared to $1.6 million and $4.9 million for the three and nine months ended September 30, 2002. The $0.9 million and $2.6 million decrease in the three and nine months ended September 30, 2003, respectively, as compared to the three and nine months ended September 30, 2002, was primarily due to the efforts of finding lower cost suppliers and equity agreements for professional fees, legal fees and insurance as well as our concentrated efforts to keep our costs lower. We expect marketing, general and administrative expenses to increase in future periods as we add to our sales staff and make additional investments in marketing

activities.

Other Income (Expense). Other income (expenses) for the three and nine months ended September 30, 2003 were ($0.4) million and ($0.7) million, respectively, as compared to ($0.4) million and ($1.8) million, respectively, for the three and nine months ended September 30, 2002. While the three month comparison ending September 30, 2003 and 2002 remained unchanged, the nine month comparison decreased $1.1 million. The decrease of $1.1 million in expense for this non-cash charge for the nine months ended September 30, 2003 as compared to the nine months ended September 30, 2002 was due primarily to the increase in debt discount from the beneficial conversion of a bridge loan entered into by the company recorded in 2002. We also recorded the receipt of $0.2 million from the sale of old unused equipment in the 2nd quarter of 2003.

Liquidity and Capital Resources

Current Financial Position

We have total liabilities and contractual obligations of $11,098,867 as of September 30, 2003. These contractual obligations, along with the dates on which such payments are due, are described below:

		Payments Due by Period	
Contractual Obligations	Total	One Year or Less	More than One Year
Due to Related Parties	$ --	$ --	$ --
Notes Payable - Related Parties	--	--	--
Convertible Debentures	10,107,207	4,338,319	5,768,888
Accounts Payable and Accrued Expenses	991,660	309,364	682,296
Total Contractual Obligations	$11,098,867	$ 4,647,683	$ 6,451,184

In April 2003, we closed on a $6.0 million financing and in January 2004 we closed on a $4.2 million financing. We estimate that this financing is the minimum amount of funds that we require to support us until we begin realizing profits from production in sufficient amount to become profitable through production alone. No assurance can be given that our estimates will prove to be correct, or that we will generate sufficient revenues to provide positive cash flows from operations. These and other factors raise substantial doubt about our ability to continue as a going concern.

During April 2003, we reached agreements with certain creditors and these agreements were primarily conditioned upon actions to be taken and installment and buyout payments to be made by us through September 30, 2003. After making these payments, we recorded approximately $3.9 million in reduction of expenses in the financial statements ended September 30, 2003.

We currently anticipate that we will continue to experience significant growth in our operating expenses for the foreseeable future and that our operating expenses will be the principal use of our cash. In particular, we expect that salaries for employees engaged in production operations, purchase of inventory

and expenses of increased sales and marketing efforts would be the principle uses of cash. We expect that our cash requirements over the next 12 months will be met by a combination of additional equity or debt financing, and revenues generated by sales. We expect to continue to devote substantial resources to manufacturing, marketing and selling our products.

We have received purchase agreements for our products to be delivered now through 2004 and into early 2005. Management believes that the prospects for growth of product revenue remain high.

Our customer schedules have been necessarily pushed out due to our financing issues, but these shipments are being renegotiated now that the funding is committed. We do not currently anticipate any significant loss of business as a result of our prior financing related product ramp delays, other than the shift in delivery schedules. We must ramp our supplies and staffing quickly and efficiently to meet the anticipated shipping schedules. A significant level of effort will be required.

We are in the early phases of production, although our progress has been impeded by our prior cash position. Anticipated increased shipments in the first quarter were delayed, primarily due to our inability to purchase raw materials. Based on the planned schedule, we have resolved our supplier issues and have been able to produce quantities in the late third quarter of 2003.

Our cash requirements depend on numerous factors, including completion of our product development activities, ability to commercialize our products, timely market acceptance of our products and our customer's product, and other factors. We expect to carefully devote capital resources to continue our development programs directed at commercializing our products in our target markets, hire and train additional staff, expand our research and development activities, develop and expand our manufacturing capacity and begin production activities. Any delays could change the cash requirements of the company. While we believe that we are in position to handle a significant production increase, there can be no assurance that we will not experience some issues relating to yield and throughput risk that could result in production delays.

Year Ended December 31, 2002 Compared to Year Ended December 31, 2001

Revenues

Revenues decreased to $2.1 million for the year ended December 31, 2002 from $5.8 million for the year ended December 31, 2001, representing a decrease of 64%. This decrease was due primarily to the expiration of Government contracts and the concentration of the company on transitioning from research and development to product manufacturing and sales.

Research and Development Expenses

Gross research and development expenses decreased to $7.3 million for the year ended December 31, 2002 from $12.7 million for the year ended December 31, 2001, representing a 43% decrease. Of these amounts, we received $0.3 million in cost sharing from the U.S. government for the year ended December 31, 2002, and $1.6 million for the year ended December 31, 2001. The $5.4 million decrease in gross expenses for the year ended December 31, 2002 reflects reduction in staffing and reduction in expenditures related to the company's difficult cash position.

Amortization and Write-Down of Intangibles

Amortization and write down of goodwill and purchased intangibles expense decreased to $1.3 million for the year ended December 31, 2002 from $50 million for the year ended December 31, 2001. The $48.7 million decrease is primarily the result of the goodwill impairment charge recorded in 2001.

Selling, General and Administrative Expenses

General and administrative expenses decreased to $4.5 million for the year ended December 31, 2002 from $7.4 million for the year ended December 31, 2001. The decrease of $2.9 million in selling, general and administrative expenses was due primarily to changes in personnel costs, patent filings, and legal fees. We expect marketing, general and administrative expense to increase in future periods as we add to our sales staff and make additional investments in marketing activities. In addition, non-cash stock-based compensation expense was $1.6 million for the year ended December 31, 2002 versus $2.8 million for the year ended December 31, 2001. Non-cash stock based compensation reflects the amortization of deferred compensation costs related to the issuance of stock options and warrants.

Other Income (Expense)

Other expenses increased to ($2.3) million for the year ended December 31, 2002 from ($1.4) million for the year ended December 31, 2001. The increase of $0.9 million was due primarily to increased interest expense. Interest expense increase was primarily due to the beneficial conversion of debt totaling approximately $888,000.

EFFECT OF RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

In August 2001, the FASB, issued SFAS, No. 143, "Accounting for Obligations Associated with the Retirement of Long-Lived Assets." SFAS No. 143 addresses financial accounting and reporting for the retirement obligation of an asset. This statement provides that companies should recognize the asset retirement cost at its fair value as part of the cost of the asset and classify the accrued amount as a liability. The asset retirement liability is then accreted to the ultimate payout as interest expense. The initial measurement of the liability would be subsequently updated for revised estimates of the discounted cash outflows. The Statement will be effective for fiscal years beginning after June 15, 2002. On January 31, 2003, eMagin adopted SFAS No. 143. The adoption of this standard did not have a significant impact on eMagin's consolidated financial position, results of operations or cash flows.

In April 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections." This statement eliminates the requirement under SFAS 4 to aggregate and classify all gains and losses from extinguishment of debt as an extraordinary item, net of related income tax effect. This statement also amends SFAS 13 to require that certain lease modifications with economic effects similar to sale-leaseback transactions be accounted for in the same manner as sale-leaseback transactions. In addition, SFAS No. 145 requires reclassification of gains and losses in all prior periods presented in comparative financial statements related to debt extinguishment that do not meet the criteria for extraordinary item in Accounting Principles Board Opinion ("APB") 30. The statement is effective for fiscal years beginning after May 15, 2002 with early adoption encouraged. The Company adopted SFAS No. 145 on January 1, 2003, the adoption had no effect on the financial results of the Company.

On July 30, 2002, The FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." The standard requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of a commitment to an exit or disposal plan. Examples of costs covered by the standard include lease termination costs and certain employee severance costs that are associated with a restructuring, discontinued operation, plant closing, or other exit or disposal activity. eMagin adopted

SFAS No. 146 as of January 1, 2003. Upon adoption of SFAS 146, there was no effect on the company's financial position, cash flows or results of operations.

In November 2002, the EITF reached a consensus on Issue 00-21 ("EITF 00-21"), "Multiple-Deliverable Revenue Arrangements." EITF 00-21 addresses how to account for arrangements that may involve the delivery or performance of multiple products, services, and/or rights to use assets. The consensus mandates how to identify whether goods or services or both that are to be delivered separately in a bundled sales arrangement should be accounted for separately because they are separate units of accounting. The guidance can affect the timing of revenue recognition for such arrangements, even though it does not change rules governing the timing or pattern of revenue recognition of individual items accounted for separately. The final consensus will be applicable to agreements entered into in fiscal periods beginning after June 15, 2003 with early adoption permitted. Additionally, companies will be permitted to apply the consensus guidance to all existing arrangements as the cumulative effect of a change in accounting principle in accordance with APB Opinion No. 20, "Accounting Changes." Upon adoption of EIFT 00-21, there was no effect on the company's financial position, cash flows or results of operations.

16

On April 30, 2003, the FASB issued Statement No. 149 ("SFAS No. 149"), "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." SFAS No. 149 amends and clarifies accounting for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities under Statement No. 133. In particular, this statement clarifies under what circumstances a contract with an initial net investment meets the characteristic of a derivative as discussed in Statement No. 133, and it clarifies when a derivative contains a financing component that warrants special reporting in the statement of cash flows. SFAS No. 149 is effective for contracts entered into or modified after June 30, 2003 and for hedging relationships designated after June 30, 2003 and is to be applied prospectively. Upon adoption of SFAS No. 149, there was no effect on the company's financial position, cash flows or results of operations.

On May 15, 2003, the FASB issued Statement No. 150 ("FAS No. 150"), Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity. FAS No. 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances). FAS No. 150 affects the issuer's accounting for three types of freestanding financial instruments.

- mandatorily redeemable shares, which the issuing company is obligated to buy back in exchange for cash or other assets
- instruments that do or may require the issuer to buy back some of its shares in exchange for cash or other assets; includes put options and forward purchase contracts
- obligations that can be settled with shares, the monetary value of which is fixed, tied solely or predominantly to a variable such as a market index, or varies inversely with the value of the issuers' shares.

FAS No. 150 does not apply to features embedded in a financial instrument that is not a derivative in its entirety. Most of the guidance in FAS No. 150 is effective for all financial instruments entered into or modified after May 31, 2003, and otherwise is effective at the beginning of the first interim period beginning after June 15, 2003. Upon adoption of SFAS No. 150, there was no effect on its financial position, cash flows or results of operations.

17

BUSINESS

Introduction

eMagin Corporation designs, develops, and markets OLED's, or organic light emitting diodes, OLED-on-silicon microdisplays and related information technology solutions. We integrate OLED technology with silicon chips to produce high-resolution microdisplays smaller than one-inch diagonally which, when viewed through a magnifier, create a virtual image that appears comparable to that of a computer monitor or a large-screen television. Our products enable our original equipment manufacturer, or OEM, customers to develop and market improved or new electronic products. Our first commercial product, the SVGA+, or Super Video Graphics Array, plus 52 added columns of data, OLED microdisplay was first offered for sampling in 2001, and our first SVGA-3D, the Super Video Graphics Array plus built-in stereovision capability, OLED microdisplay was first shipped in February 2002. We are now accepting purchase agreements for larger quantities of our first two commercial microdisplay products. 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 in North American, Europe, and Asia.

Our OLED-on-silicon microdisplays offer a number of advantages over current liquid crystal microdisplays, including increased brightness, lower power requirements, less weight and wider viewing angles. Using our active matrix OLED technology, many computer and video electronic system functions can be built directly into the OLED-on-silicon microdisplay, resulting in compact systems with expected lower overall system costs relative to alternate microdisplay technologies. We license fundamental OLED technology from Eastman Kodak and we have developed our own technology to create high performance OLED-on-silicon microdisplays and related optical systems. The worldwide market for OLED displays amounted to $91 million in 2002, will reach $215 million in 2003 and will grow to $3.1 billion in 2009, for a compound annual growth rate of 56 percent from 2003 to 2009, according to iSuppli/Stanford Resources research reported in April 2003.

As the first to exploit OLED technology for microdisplays, and with our partners and intellectual property, we believe that we enjoy a significant advantage in the commercialization of this display technology. We are the only company to announce, publicly show and sell full-color OLED-on-silicon microdisplays.

Our wholly owned subsidiary, Virtual Vision, Inc., provides added value services to our customers by providing non-recurring engineering support for virtual imaging subsystem design and prototyping, as well as by creating standardized optic and electronics interfaces to our displays to accelerate the time to market of our new potential customers.

Industry Overview

The overall flat panel display industry is predicted to grow to over $69 billion in 2005, according to market research by DisplaySearch. Within the flat panel industry there are various sizes and applications of flat panel displays, ranging from wall size signage to calculator and viewfinder displays. Displays are sold as independent products (such as flat TVs) or as components of other systems (such as laptop computers). Our products target one segment of the flat panel industry - near-eye microdisplays.

Near-eye microdisplays are used in small optically magnified devices such as

video headsets, camcorders, viewfinders and other portable devices. Microdisplays are typically of such high resolution that they are only practically viewed with magnifying optics. Although the displays are typically physically smaller than a postage stamp, they can provide a magnified viewing area similar to that of a full size computer screen. For example, when magnified through a lens, a high-resolution 0.5-inch to 0.75-inch diagonal display can appear comparable to a 19 to 21-inch diagonal computer screen at about 2 feet from the viewer or a 60-inch TV screen at about 6 feet. One version of our optics recreates the viewing and sound experience of sitting in the middle seat of a typical movie theater.

The microdisplay market, according to McLaughlin Consulting Group in a report issued in November 2002, is expected to grow on a unit basis at 20% per year, from a base of less than $1 billion in 2002 to more than $1.4 billion by 2006. Another leading industry market research organization, DisplaySearch, projects that the overall microdisplay market is expected to grow to $3.1 billion by 2005.

We believe that the most significant driver of the 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 microdisplay products in two categories: (i) near-eye microdisplays incorporated in products such as viewfinders, digital cameras, video cameras and personal viewers for cell phones and (ii) headset-application platforms which include mobile devices such as notebook and sub-notebook computers, wearable computers, portable DVD systems, games and other entertainment.

Until now, microdisplay technologies have not simultaneously met all of the requirements for high resolution, full color, low power consumption, brightness, lifetime, size and cost which are required for successful commercialization in OEM consumer products. We believe that our new OLED-on-silicon microdisplay product line meets these requirements better than alternate products and will help to enable virtual imaging to emerge as an important display industry segment.

Our Approach: OLED-on-Silicon Microdisplays and Optics

There are two basic classes of organic light emitting diode, or OLED, technology, dubbed molecular and polymer. Our microdisplays are currently based upon active matrix molecular OLED technology, which we call OLED-on-silicon because we build the displays directly on silicon chips. Our OLED-on-silicon 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. OLED-on-silicon microdisplays offer a number of advantages over current liquid crystal microdisplays, including increased brightness, 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 alternate technologies.

We have developed our own proprietary technology to create high performance OLED-on-silicon microdisplays and related optical systems and we license fundamental OLED technology from Eastman Kodak. (See "Intellectual Property" and "Strategic Relationships") We expect that the integration of our OLED-on-silicon microdisplays into mobile electronic products will result in lower overall system costs to our original equipment manufacturer customers.

We believe that our OLED-on-silicon microdisplays represent a new generation of

microdisplay technology. Because our microdisplays generate and emit light, they have a wider viewing angle than competing liquid crystal microdisplays, and because they have the same high brightness at all forward viewing angles, our microdisplays permit a large field-of-view and superior optical image. The wider viewing angle of our display results in the following superior optical characteristics:

- the user does not need to as accurately position the head-wearable display to the eye;
- the image will change minimally with eye movement and appear more natural; and
- the display can be placed further from the eye and not cut off part of the image.

In addition, our OLED-on-silicon microdisplays offer faster response times and use less power than competitive liquid crystal microdisplay systems. We expect that our integrated electronics and unique OLED characteristics, coupled with our lenses, will result in lower overall system costs for OEMs.

Our OLED microdisplay stores, until refreshed, all the color and luminance value information at each of the more than 1.5 million picture elements, or pixels, in the display array, eliminating the flicker or color breakup seen by most other high-resolution microdisplay technologies. Even power efficient frame rates as low 30 Hz can usually be used effectively. Power consumption at the system level is expected to be the lowest of any full-color, full-video SVGA resolution range, large view microdisplay on the market. The OLED's ability to emit light at wide angles allows customers to create large field of view (approx. 40 degrees), wide image capture range images from very compact, low-cost, one-piece optical systems. The display contains the majority of the electronics required for connection to the RGB (red, green, blue signal) port of a portable computer imbedded in its silicon chip backplane, thereby eliminating many other components required by other display technologies such as D-A converters, application-specific integrated circuits (ASICs), light sources, multiple optical elements, and other components. We believe that these features enable our new class of microdisplay to potentially be the most compact, highest image quality, and lowest cost solution for high resolution near-eye applications, once in full production.

We have commercialized two products, our SVGA+ resolution microdisplay , which contains 1.53 million picture elements, and our stereovision-capable SVGA-3D microdisplay, which contains 1.44 million picture elements. We are currently developing a military and industrial oriented ultra-high-luminance monochrome SXGA integrated circuit, which contains 1280x1024 picture elements, that is due for completion in 2004. We sell our OLED-on-silicon microdisplays for use as components by customers who prefer to design and build their own lenses or coupled with our own optics. We also plan to offer OLED processing on our customers' integrated circuits to some OEMs who design their own integrated circuits. We provide Developer Kits, which include a color SVGA+ resolution microdisplay and associated electronics required for OEMs to build and test new products. This developer kit provides OEMs with the first opportunity for evaluation of an OLED-on-silicon microdisplay.

Our Products

We offer our products to Original Equipment Manufacturers and other large volume buyers as both separate components and integrated bundles in a three-tiered platform:

(1) OLED-on-silicon microdisplays for integration into OEM products for consumer, industrial, and military markets;

(2) Microviewer(TM) modules that incorporate our OLED-on-silicon microdisplays with compact lenses and electronic interfaces for integration into OEM products for consumer, industrial, and military markets. These products have been prototyped and are planned;

(3) Head-wearable display systems that will incorporate our Microviewers(TM) for consumer and industrial markets. These products have been prototyped and are planned.

We also plan to offer engineering support and a variety of support products, enabling customers to quickly integrate our products into their own product development programs.

(1) OLED Microdisplay Products

We serve as a component manufacturer by supplying our OLED-on-silicon microdisplays for those customers who have their own lenses or integrated circuits. Our first commercial microdisplay products include:

0.62-inch Diagonal SVGA+ (Super Video Graphics Array plus 52 added columns of data) for Consumer OEMs. This display has a resolution of 852 x 3 x 600 pixels, and was dubbed "SVGA+" because it has 52 more display columns than a standard SVGA display. The design permits 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 SVGA+ can be made as a full-color or monochrome microdisplay primarily for high-performance and large-view consumer OEM products such as games, video/data head-wearable displays, digital cameras, video cameras and other portable electronics applications. The display also has an internal NTSC monochrome video decoder for low power night vision systems. This product is designed to interface with most portable personal computers.

0.59-inch Diagonal SVGA-3D (Super Video Graphics Array plus built-in stereovision capability) for Consumer OEMs. This display has a resolution of 800 x 3 x 600 pixels. The SVGA-3D can be made as a full-color or monochrome microdisplay primarily for high-performance and large-view consumer OEM products such as personal computer games and video/data head-wearable displays, but is also designed to be applicable for digital cameras, video cameras and other portable electronics applications since the 3D feature is optional. A built-in circuit provides compatibility with single channel frame sequential stereoscopic vision without additional external components. In high volumes, the SVGA-3D is priced lower than the SVGA+, so it is likely to be selected whenever the OEM customer does not need monochrome NTSC or the extra columns of resolution.

0.98-inch Diagonal SXGA (Super Extended Video Graphics Array) for Industrial, Medical and Military Applications. We are developing an introductory SXGA microdisplay product as a personal computer-compatible headset display for military, medical, high-end commercial, and industrial applications. This product will have 1280 x 1024 monochrome pixels and will be adaptable to color VGA resolution. The display will have a capability for very high luminance. We expect that this display will be able provide over 30,000 Cd/m2 luminance. For reference, a typical notebook computer operates at 80 Cd/m2 peak luminance. This digital video and data interface product is being designed to exhibit a wide dimming range and high luminance for special military applications. We anticipate that the performance features of the SXGA, such as high-speed digital video and 256 gray levels, have the potential to serve as a catalyst for the development of new applications.

(2) Microviewer(TM) Products Incorporating Lenses

By providing an integrated solution of a complete microdisplay and lens assembly to integrate into OEM customers' end product design, OEM customers can avoid incurring expensive optics design and tooling costs. Different lens and microdisplay specifications can be mixed and matched to be adapted to many end products.

We have developed advanced lens technology for several applications and hold key patents on low cost, high performance lens technology for microdisplay applications. Our lens technology permits our OLED-on-silicon microdisplays to provide large field of view images that can be viewed for extended periods with reduced eye-fatigue.

We intend to sell Microviewer(TM) modules to OEMs for integration with their branded products, or incorporated into eGlass(TM) Personal Viewer(TM) head-wearable displays to be supplied by our subsidiary, Virtual Vision, Inc. Some of our potential customers have stated a preference for Microviewers(TM) over microdisplays since Microviewers(TM) incorporate lenses which save OEMs a step in their manufacturing process and can save them the long time required to develop a high performance lens system.

(3) eGlass(TM) Personal Viewer(TM) Head-Wearable Systems

Personal Viewer(TM) head-wearable systems, such as our eGlass(TM) Personal Viewer(TM), give users the ability to work with their hands while simultaneously viewing information or video on the display. Our head-wearable displays enable more versatile portable computing, capable of delivering an image that appears comparable to that of a 19-inch monitor at 22 to 24 inches from the eye using a 0.59-inch diagonal microdisplay (SVGA-3D). We believe that Personal Viewer head-wearable displays will fill the increasing demand for instant data accessibility in mobile workplaces. We expect to sell the head-wearable displays primarily to OEM systems and equipment customers through direct sales and our e-commerce website which is under development.

We believe that our strategy of offering our products both as separate components and as integrated bundles that include microdisplays and lenses will allow us to address the needs of the largest number of potential customers.

Prior Product and Technology Awards

o Dual Use Technology Achievement Award

March 2002. eMagin and the US Air Force Armstrong Laboratory received first place for the US Air Force and was recognized as one of the best dual use technologies in 2001 recognition across all branches of the Armed Services for the Second Annual Dual Use Science and Technology Achievement Award awarded by the Deputy Under Secretary for Defense, Charles J. Holland. The award recognizes the best dual use programs and honors those responsible for developing and implementing technology beneficial to both military and commercial sectors.

o 2001 Product of the Year

January 17, 2001. eMagin received a 2001 Product-of-the-Year Award from Electronic Products Magazine, honoring eMagin for the development of its first-of-class high-resolution active matrix OLED-on-silicon microdisplay, based on significant advances in technology.

o 2001 U.S. Army Phase II Quality Award

August 21, 2001. eMagin received a 2001 US Army SBIR (Small Business Innovation Research) Phase II Quality Award for the development of high-resolution active matrix OLED microdisplays for incorporation into military head-mounted displays. The annual Quality Awards Program recognizes top quality Army Phase II projects for their technical achievement, contribution to the Army and potential for commercial use. Selected by a distinguished panel of Army and industry experts, eMagin's project was among only five selected to receive a 2001 U.S. Army SBIR Phase II Quality Award through the rigorous Quality Awards competition.

o Display of the Year 2000 Gold Award

June 6, 2001. eMagin was honored by The Information Display Magazine and Society Information Display with the Display of the Year Gold Award for its OLED-on-Silicon microdisplay. The Display of the Year Award was established in 1995 to recognize outstanding products chosen for their innovation and potential impact on current and future display markets. An international committee of distinguished display technologists and leading editors in a four-month process of nominations and voting made the selection.

Our Market Opportunity

The growth potential of our selected target market segments have been investigated using information gathered from key industry market research firms, including Display Search, Frost and Sullivan, Fuji-Chimera, International Data Corporation, Nikkei, SEMI, Stanford Resources-iSuppli 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 potential customers.

We believe that the consumer oriented, virtual-imaging market is characterized by about 20 large OEMs that, collectively, dominate 90% of the market. The non-consumer market consists of niches - industrial, medical, military, arcade games, 3-D CAD/Virtual Reality, and wearable computers. Within each of these market sectors, we believe that our microdisplays, when combined with compact optic lenses, will become a key component for a number of mobile electronic products. We are targeting the following applications:

(1) Near-Eye Viewers for Digital Cameras, Camcorders and Hand-held Internet and Telecommunications Appliances

We believe that our microdisplays will enhance near-eye applications in the following groups of products:

o Digital cameras and camcorders, which typically use direct view displays at low resolution, offer a small visual image, and are difficult to see on sunny days. According to Display Search, 41 million digital cameras and 13 million camcorders are expected to be sold in 2005. Some of these products may incorporate microdisplays as high-resolution viewfinders which would permit individuals to see enlarged, high-resolution proofs immediately upon taking the picture, giving them the opportunity to retake a poor shot.

o Mobile phones and other hand-held Internet and telecommunications appliances which will enable users to access full web and fax pages, data lists and maps in a pocket-sized device. According to the Fuji Chimera Research Institute, an industry market research organization, by 2005 the cellular phone and handheld portable digital assistant markets will grow to 655 million units and 20 million units, respectively. Some of these products may eventually incorporate our microdisplays. In order for the high-resolution wireless telecommunications market to develop, Generation 3 (G3) high-speed data transmission must become widely available. The current cost and limited availability of broadband services has impeded the

development of this market, but several telecommunication companies have prototype programs in progress which incorporate our microdisplay products.

For each of these applications, we anticipate that our microdisplays, combined with compact optic lenses, will offer higher resolution, lower power and system cost and achieve larger images than are currently available in the consumer market. As a result, we believe that we can obtain a sizeable share of the market for the display components of these mobile electronic products.

(2) Head-wearable Display Platforms

Head-wearable displays incorporate microdisplays mounted in or on eyeglasses, goggles, simple headbands, helmets, or hardhats, and are often referred to as 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. These have military, commercial, and consumer applications.

Military

Military demand for head-wearable displays is currently being met with microdisplay technologies that we believe to be inferior to our OLED-on-silicon products. The new generation of soldiers will be highly mobile, and will often need to carry highly computerized communications and surveillance equipment. To enable interaction with the digital battlespace, rugged, yet lightweight and energy efficient technology is required. Currently available microdisplay technologies do not meet the requirements for low power, hands-free, day and night-viewable displays. Our OLED microdisplays demonstrate performance characteristics important to military and other demanding commercial and industrial applications including high brightness and resolution, wide dimming range, wider temperature operating ranges, 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. The OLED's very low power consumption reduces battery weight and increases allowed mission length. Properly implemented, we believe that head-mounted systems incorporating our microdisplays will increase effectiveness by allowing hands-free operation and increasing situational awareness with enough brightness to be used in daylight, yet controllable for nighttime light security. The OLED's 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 OLED microdisplays were selected for several aircraft vehicles and soldier applications, including the US Army Land Warrior 1.0 and 2.0 programs and the US Air Force Joint Strike Fighter, among others. Land Warrior, a core program in the Army's drive to digitize the battlefield, is an integrated digital system that incorporates computerized communication, navigation, targeting and protection systems for use by the twenty-first century infantry soldier. Kaiser Electro-Optics, a Rockwell Collins company and the principal contractor for the US Army's Land Warrior HMD system, and eMagin will apply their respective expertise in HMD and imaging technology to develop rugged, yet lightweight and energy efficient products meeting the requirements of tomorrow's soldier. The US Army expects to initially equip more than 40,000 soldiers with the Land Warrior system. The current overall redesign of the Land Warrior system by General Dynamics and Rockwell Collins has delayed increased volume use of displays beyond small quantities for that program until a future date to be determined.

Our display is also used in Kaiser Electro-Optics, Inc.'s commercially available ProView S035 Monocular HMD. Night Vision Equipment Company supplies a lightweight, military helmet mounted thermal imager incorporating our displays. The US Air Force has selected our OLED microdisplay technology for incorporation into the Strike Helmet 21 system that uses Integrated Panoramic Night Vision Goggles in avionics helmets. The Strike Helmet 21 system is targeted for integration into F-15E aircraft in 2004 time period. We cannot assure that Government will remain on schedule. Similar systems are of interest for other military applications as well as for related operations such as 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 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; and real-time viewing of images and data. Commercial products in these sectors include Sage Technologies, Ltd.'s Helmet Vue (TM) Thermal Imaging System and an upcoming accessory to Antelope Technolgies' MCC Wearable Computing system, which incorporates IBM's wearable PC technology VRmagic GmbH, a leading developer of virtual reality simulators, is using our OLED microdisplays in VRmagic's EYESI (TM) surgical training equipment.

Consumer

We believe that our head-wearable display products will enhance the following consumer products:

- Entertainment and gaming video headset systems, which permit individuals to view television, including HDTV, video CDs, DVDs and video games on virtual large screens or stereovision in private without disturbing others. Even though entertainment and gaming headsets represent an emerging product class, we are seeing demand from OEMs. Headset game systems for portable computers with head tracking and/or stereovision appears to be our predominant high quantity near term market opportunity, with several customers indicating an interest in large production quantities of our displays. Our current SVGA-3D display was designed specifically for this market. We believe that these new headset game systems can provide a game or telepresence experience not otherwise practical using conventional direct view display technology. We expect low cost to be important for success in this field, and expect our product cost to decrease in high quantity production. Recently, eMagin announced that Leadtek Research Inc. (Taiwan) was planning to introduce a consumer HMD during 2004 using eMagin SVGA-3D displays.

- Notebook computers, which can use head-wearable devices to reduce power as well as expand the apparent screen size and increase privacy. Current notebook computers do not use microdisplays. Our products can apply not only to new models of notebook computers, but also as aftermarket attachments to older notebooks still in use. We expect to market our head-wearable displays to be used as plug-in peripherals to be compatible with most notebook computers. We believe that the SVGA-3D microdisplay is well suited for most portable PC headsets. Our microdisplays can be operated using the USB power source of most portable computers. This eliminates added power supplies, batteries, and rechargers and reduces system complexity and cost.

- Handheld personal computers, whose small, direct view screens are often

limitations, but which are now capable of running software applications that would benefit from a larger display. Microdisplays can be built into handheld computers to display more information content on virtual screens without forfeiting portability or adding the cost a larger direct view screen. Microdisplays are not currently used in this market. We believe that GPS viewers and other novel products are likely to develop as our displays become more available.

- Highly compact wearable computers and personal digital assistants, or PDAs using video headsets as screens can be made possible by high-resolution microdisplays. A lightweight pocketsize computer that is under one pound can potentially be created with a foldout keyboard, compact input device, or voice actuation and a headset that provides a near-desktop personal computer experience.

The combination of power efficiency, high resolution, low systems cost, brightness and compact size offered by our OLED-on-silicon microdisplays has not been made available to makers and integrators of existing entertainment and gaming video headset systems, notebook computers and handheld computers. We believe that our microdisplays will catalyze the growth of new products and applications such as lightweight wearable computer systems.

Selected Applications by Market Sector

Sector	Representative Applications
Portable Computer Peripheral	|X| Notebook and SuperSubnotebook computer headsets
	|X| Miniature data viewers
Entertainment	|X| Games
	|X| Headset Television/DVDs
Industrial, Medical, & Administration	|X| Surgery and Dentistry
	|X| Industrial Control and Safety
	|X| Emergency Services
	|X| Inventory and Retail
	|X| Institutional Control
	|X| Maintenance (Industry & Consumer)
	|X| Communications
	|X| Finance
	|X| Education and Training
Military	|X| Communications
	|X| Targeting and Enhanced Vision
	|X| Handheld & Headmount Equipment
	|X| Body worn displays
	|X| Avionics (Helmet mount)
	|X| Ground and Water Vehicles
	|X| Maintenance & Training
	|X| Special Applications
Telecommunications, Handheld, and Small Instruments	|X| Cell Phones/Headset phones
	|X| Handheld & Portable Internet Viewers
	|X| Smart Appliances & Instruments

Advanced Computer Applications	|X|	CAD/CAM
	|X|	Virtual Reality and Simulations
	|X|	Ultra-High Resolution

Our Strategy

Our strategy is to establish and maintain a 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 leadership in both OLED-on-silicon technology and microdisplay lens technology. We aim to provide microdisplay and complimentary 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:

Leverage our superior technology to establish a leading market position. As the first to exploit OLED-on-silicon microdisplays, we believe that we enjoy a significant advantage in bringing this technology to market.

Develop products for large consumer markets via key relationships with OEMs. Our relationships with OEMs whose products use microdisplays have allowed us to identify initial microdisplay products to be produced for entertainment, industrial, and military headsets, to be followed by other applications such as digital cameras, camcorders and hand-held Internet and telecommunications appliances. We target markets which we believe to have long-term growth potential.

Reduce production costs. We intend to reduce our production costs by lowering our fixed costs and improving our manufacturing yields.

Optimize manufacturing efficiencies by outsourcing while protecting proprietary processes. We intend to outsource certain capital-intensive portions of microdisplay production, such as chip fabrication, to minimize both our costs and time to market. We intend to retain the OLED application and OLED sealing processes in-house. We believe that these areas are 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. By performing the processes in-house we can continue to directly make improvements in the processes which will improve device performance. We also retain the ability to customize certain aspects such as color balance, which is known as chromaticity, as well as specialized boards or interfaces, and to adjust other parameters at the customer's request. In the area of lenses and head-wearable displays, we intend to focus on design and development, while working with third parties for the manufacture and distribution of finished products. We intend to prototype new optical systems, provide customization of optical systems, and manufacture limited volumes at our subsidiary, Virtual Vision, but intend to outsource high volume manufacturing operations. There are numerous potential plastics, PC Board, and assembly service companies globally that provide these outsource services.

Build and maintain strong internal design capabilities. As more circuitry is added to OLED-on-silicon devices, the cost of the end product using the display can be decreased; therefore integrated circuit design capability will become increasingly important to us. To meet these requirements, we intend to develop in-house design capabilities. Building and maintaining this capacity 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.

Our Strategic Relationships

Strategic relationships have been an important part of our research and development efforts to date and are an integral part of our plans for commercial product launch. We have forged strategic relationships with major OEMs and strategic suppliers. 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 better meet our customer's requirements. Moreover, we expect to provide microdisplays and Microviewers(TM) to some of these partners, thereby taking advantage of established distribution channels for our products.

Eastman Kodak is a technology partner in OLED development, OLED materials, and a potential future customer for both specialty market display systems and consumer market microdisplays. We license Eastman Kodak's OLED and optics technology portfolio. We have a nonexclusive, perpetual, worldwide license to use Eastman Kodak patented OLED technology and associated intellectual property in the development, use, manufacture, import and sale of microdisplays. The license covers emissive active matrix microdisplays with a diagonal size of less than 2 inches for all OLED display technology previously developed by Kodak. An annual minimum royalty is paid at the beginning of each calendar year and is fully creditable against the royalties we are obligated to pay based on net sales throughout the year. Eastman Kodak and eMagin have engaged in numerous discussions regarding potential product applications for eMagin's microdisplays by Eastman Kodak.

We are working in cooperation with the US Air Force, Ball Aerospace, ITT, and Kaiser Electro-optics, a subsidiary of Rockwell Collins, to complete development and characterization of our high brightness SXGA microdisplay.

We have recently announced the execution of an agreement with a major manufacturing partner to develop two new products: an enhanced version of our SVGA-3D microdisplay with new imbedded features for consumer head-mounted displays and high resolution games, and a new QVGA and/or VGA viewfinder microdisplay for camcorder and digital cameras, web phones, and low end games.

We are a member of the United States Display Consortium, a cooperative agency of display and related technology manufacturers whose charter is to support continued progress of the display industry. We intend to continue to establish additional strategic relationships in the future.

Our Technology Platforms

OLED-on-Silicon Technology

Scientists working at Eastman Kodak invented OLEDs in the early 1980s. 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 means 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 existing technologies. OLED

films may be coated on computer chips, permitting millions of individual low-voltage light sources to be built on silicon integrated circuits to produce single color, white, or full-color display arrays. Many computer and video electronic system functions can be built directly into a silicon integrated circuit as part of the OLED display, resulting in an ultra-compact system. We believe these features, together with the well-established silicon integrated circuit fabrication technology of the semiconductor industry, make our OLED-on-silicon microdisplays attractive for numerous applications.

We believe our technology licensing agreement with Eastman Kodak, coupled with our own intellectual property portfolio, gives us a leadership position in OLED and OLED-on-silicon microdisplay technology. Eastman Kodak provides OLED technology and we provide additional technology advancements that have enabled us to coat the silicon integrated circuits with OLEDs.

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, up-emitting structure for our OLED-on-silicon devices that enables OLED displays to be built on opaque silicon integrated circuits rather than only on glass. Our OLED devices can emit full visible spectrum light that can be isolated with color filters to create full color images. Our microdisplay prototypes 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 in development offer future potential for even better performance for brightness, efficiency, and lifespan. Additionally, we have invested considerable work over several years to develop unique electronics control and drive designs for OLED-on-silicon microdisplays.

In addition to our OLED-on-silicon 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.

Advantages of OLED Technology

We believe that our OLED-on-silicon technology provides significant advantages over existing solutions in our targeted microdisplay markets. We believe these key advantages will include:

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

Low manufacturing cost. Many OLED-on-silicon microdisplays can be built on an 8-inch silicon wafer using existing automated OLED and color filter processing tools. The level of automation used lowers labor costs. Only a minute amount of OLED material is used in each OLED-on-silicon microdisplay so that material costs, other than the integrated circuit itself, are small. The number of displays per silicon wafer may be higher on OLEDs than on liquid crystal

displays, or LCDs, because OLEDs do not require a space-wasting perimeter seal band.

Low cost systems solutions. In general, an OEM using OLED-on-silicon microdisplays will not need to purchase and incorporate lighting assemblies, color converter related Applications Specific Integrated Circuits, or ASICs, or beam splitter lenses as is the case in liquid crystal microdisplays, which also require illumination. Many important display-related system functions can be incorporated into an OLED-on-silicon microdisplay, reducing the size and cost of the system. Non-polarized light from OLEDs permit lenses for many OLED-on-silicon applications that are made of a single piece of molded plastic, which reduces size, weight and assembly cost when compared to the multipiece lens systems used for liquid crystal microdisplays. System cost relative to liquid crystal and liquid crystal on silicon, or LCOS competitive products is thus reduced. Because our displays are power efficient, they typically require less power at the system level than other display technologies at a given display size and brightness.

Wide-angle light emission simplifies optics for large apparent screen size. OLEDs emit light at most forward directions from each pixel. This permits the display to be placed close to the lens in compact optical systems. It also provides the added benefit of less angular dependence on the image quality relative to pupil and eye position when showing a large field of view, unlike reflective LCOS microdisplays. This results in less eye fatigue and makes it relatively easy to Low power consumption for improved battery life and longer system life. OLEDs emit light rather than transmitting it, so no power-consuming backlight or frontlight, as required for liquid crystal displays, is required. OLEDs can be energy efficient because of their high efficiency light generation. Furthermore, OLEDs conserve power by powering only those pixels that are on while liquid crystal on silicon requires light at all pixels all the time. Most optical systems used for our OLEDs are highly efficient, permitting over 80% of the light to reach the eye, whereas reflective technologies such as liquid crystal on silicon require multiple beam splitters to get light to the display, and then into the optical system. This results in typically less than 25% light throughput efficiency in reflective microdisplay systems. Most important, we do not need a power-hungry video frame buffer, as required in liquid crystal frame-sequential color systems. Battery life can therefore be extended.

High brightness for improved viewing. This feature can be of great value to military applications, where there is a need to see the computer image overlaid onto brightly lit real-life backgrounds such as desert sand, water reflections or sunlit clouds. The OLED can be operated over a large luminance range without loss of gray level control, permitting the displays to be used in a range of dark environments to very bright ambient applications. Since military simulation and situation awareness applications, including night vision, typically require large fields of view, the OLED's Lambertian optical characteristics make it an excellent choice.

High-speed performance resulting in clear video images. The OLEDs switch much more rapidly than liquid crystals or most cathode ray tubes, or CRTs. This results in smear-free video rate imagery and provides improved image quality for DVD playback applications. This eliminates visible image smear and makes practicable three-dimensional stereo imaging using a split frame rate. This advantage of our OLED-on-silicon is very important for 3-D stereovision gaming applications.

Flicker-free; no color breakup. Because the OLED-on-silicon stores brightness and color information at each pixel, the display can be run with no noticeable flicker and no color sequential breakup, even at low refresh rates. A lower refresh rate not only helps reduce power, it also facilitates system

integration. Color sequential breakup occurs in systems such as liquid crystal on silicon and some liquid crystal display microdisplays when red, green and blue frames are sequentially imaged in time for the eye to combine. Since the different color screens occur at different times, movement of the eye due to vibration or just fast pupil movement can create color bands at each dark-light edge, making the image unpleasant to view and making text difficult to read. For example, the liquid crystal on silicon display needs to run at least three times the "normal" frame rate or speed to produce color sequential images, which wastes power and makes for a difficult technological challenge as display resolutions increase.

Wide operating temperature range. Our OLEDs offer much less temperature sensitivity at both high and low temperatures than LCDs. LCDs are sluggish or non-operative much below freezing unless heaters are added and lose contrast above 50 degrees Celsius, while our OLEDs turn on instantly and can operate between -55 degrees Celsius and 130 degrees Celsius. We specify a smaller range on most products to accommodate low cost packaging. This is an important characteristic for many portable products that may be used outdoors in many varying environmental conditions. It is especially important for military customers. Insensitivity to vibration, shock, and pressure are also important environmental control attributes.

Complementary Lens and System Technology

We have developed a wide range of technologies which complement our core OLED and lens technologies and which will enhance our competitive position in the microdisplay and head-wearable display markets. These include:

Lens technology: We have developed advanced lens technology for microdisplays and head-wearable display systems and hold key patents in these areas. Our lens technology permits our OLED-on-silicon microdisplays to provide large field of view images that can be viewed for extended periods with reduced eye-fatigue. During 2003, we plan to outsource manufacturing of our lenses in order to provide them in larger quantities to our customers, assuming the final version of the production lens becomes available and moves into production by our manufacturing partner.

We believe that the key advantages of our lens technology include:

- Can be very low cost, with minimal assembly. A one piece, molded plastic optic attached to the microdisplay can serve many consumer end-product markets. Since our process is plastic molding, our per unit production costs are low;

- Allows a compact and lightweight lens system that can greatly magnify a microdisplay to produce a large field of view;

- Can use single-piece molded microdisplay lenses to permit high light throughput making the display image brighter or permitting the use of less power for an acceptable brightness;

- Can be designed to provide focusing to enable users with various eyesight qualities to view images clearly; and

- Can optionally provide focal plane adjustment for simultaneous focusing of computer images and real world objects. For example, this characteristic is beneficial for word processing or spreadsheet applications where a person is typing data in from reference material. This feature can make it easier for people with moderately poor accommodation to use a head-wearable display as a portable computer-viewing accessory.

Head-wearable display technology. We have developed ergonomic technologies that make head-wearable displays easier to use in a wide variety of applications. For example, the use of our patented rotatable Eyeblocker(TM) provides a sharp image without requiring most users to squint. The Eyeblocker can also be moved to create an effective see-through appearance. To our knowledge, we have made the lightest weight, high-resolution head-wearable display with an over 35(Degree) diagonal field of view ever publicly demonstrated.

Wireless video technology. We have developed power efficient, miniature, video and stereo sound, radio frequency transmitter-receiver technology as part of a government program. This could allow consumers to watch wireless high quality video from most locations in their home using existing entertainment, such as DVD or cable/satellite systems, or data systems. If commercialized, we expect this capability to greatly increase the available market and demand for video and data head-wearable displays and we are considering this technology for use in low cost consumer applications. Commercialization of this technology will be considered in the future.

Sales and Marketing

Current Status

We are now shipping monochrome and full color versions of our first two commercial microdisplay products. Our SVGA+ resolution OLED microdisplay, which contains 1.53 million picture elements, was specifically designed to meet the needs of several military, industrial, and medical customers based on marketing information obtained prior to the design phase of the display and was first offered for sampling in April 2001. Our stereovision-capable SVGA-3D microdisplay, which contains 1.44 million picture elements, was designed with the input of multiple customers to principally target the mobile personal computer and PC games markets, and was first shipped in February 2002. We are currently developing a military and industrial oriented ultra-high-luminance SXGA resolution integrated circuit, which contains 3.9 million picture elements, that is due for completion in 2004, and we have shipped limited quantities of prototypes of our eGlass headsets.

Near term sales efforts have been focused on our military, industrial, and medical customers. Our primary production orders and design wins to date have been for the SVGA+ display. To date, we have shipped products and evaluation kits to more than 70 OEM customers. OEM evaluation and product design cycles may take from 6 months to 24 months. Some of our initial customers have completed their initial evaluation cycle and we are now receiving follow-on orders and notification of product purchase decisions. Several customers have indicated their intent to incorporate potentially high volumes of our microdisplays into consumer products beginning in 2004. We have also received notification that our microdisplays will be used as components in versions 1.0 and 2.0 of the US Army Land Warrior program and in the US Air Force Joint Strike Fighter program, among other programs.

General Sales and Marketing Effort

We primarily provide display components and Microviewer(TM) display-optic modules for OEMs to incorporate into their branded products and sell through their well-established distribution channels. In addition, we market head-wearable displays directly to various vertical market channels, such as medical, industrial, and government customers. A typical buyer is a manufacturer of a product requiring a specific resolution of visual display or viewfinder for insertion into a product such as a portable DVD headset, a PC-gaming headset, or an instrument.

As a market-driven company, we assess customer needs both quantitatively and qualitatively, through market research and direct communications. Because our microdisplays are the main functional component that defines many of our customers' end products, we work closely with potential customers to define our products to optimize the final design, typically on a senior engineer-to-engineer basis.

We identify companies with end products and applications for which we believe that our products will provide a system level solution and for which our products can be a key differentiator. We target both market leaders and select early adopter companies; their acceptance validates our technology and approach in the market. We believe successful marketing will require relationships with recognized consumer brand companies.

OEMs develop designs to enable them to develop products for their own target markets. An OEM design cycle typically requires between 6 and 24 months, depending on the uniqueness of the market and the complexity of the end product. New product development may require several design iterations prior to commercialization.

Customers

The Company sells products to a large number of customers, which have historically been primarily in the United States. The Company's customer base includes two customers who account for 32% and 6% of sales in fiscal 2002 and 2001, respectively. One customer represented 18% and 6% and the other customer represented 14% and 0% of sales in fiscal 2002 and 2001. As we increase our customer base, we are not as dependent on specific customers. Not including contract revenue, for the nine months ended September 30, 2003 we had two customers who accounted for 11.5%, and 10% of sales as compared to the same period in 2002 where we had one customer that accounted for 32% of sales and 2001 where we had one customer that accounted for 18% of sales.

Backlog

As of December 31, 2003 we had a backlog of purchase agreements of approximately $30 million. Our backlog consists of both purchase agreements for delivery over the next 24 months and short-term purchase orders for delivery mostly within 3-6 months. Most orders are subject to cancellation by the customer with no or limited penalties. Because of the possibility of customer changes in delivery schedules or cancellations and potential delays in product shipment, our backlog as of a particular date may not be indicative of net revenue for any specific succeeding period. Lack of working capital has delayed our ability to ship the full quantity of purchase agreements and purchase orders on hand, and has required negotiations with customers for delays in product launch schedules.

Research and Development

OLED technology is a relatively new technology that has considerable room for substantial improvements in luminance, life, power efficiency, voltage swing, design compactness, and many other parameters. We also anticipate that achieving reductions in manufacturing costs will require new technology developments. We anticipate that improving the performance, capability and cost of our products will provide an important competitive advantage in our fast moving, high technology marketplace. Past and current research activities include development of improved OLED and display device structures, developing and/or evaluating new materials (including the synthesis of new organic molecules), manufacturing equipment and process development, electronics design methodologies and new circuits and the development of new lenses and related systems. During 2002 we

focused primarily on near-term product development projects related to our transition from research to manufacturing. For example we developed a glass cover plate to ruggedize our displays to facilitate easier handling by our OEM customers. We also developed a new high luminance, high efficiency yellow monochrome OLED and adapted to our SVGA+ display for see-through optic applications and began sampling the yellow monochrome product in early 2003. However, in order to improve customer satisfaction and simultaneously maximize our margins, as well as to maintain competitive technology advantages, we believe that it is important to continue to engage in long-term research and development. During the past four years, we have spent, net of U.S. government funding, approximately $32.8 million on research and development. In 2001, we spent approximately $12.7 million, and in 2002 we spent approximately $7.3 million on research and development. During the same four-year period, we received $3.6 million in funding from US government under research and development cost sharing arrangements.

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 (See "Strategic Relationships").

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 45,000 square feet of space housing our own equipment for OLED microdisplay fabrication, and for research and development plus additional space for assembly and administrative offices. We believe that our lease agreement with IBM for a 16,300 square foot class 10 clean room space, along with additional, lower level clean room space, and the associated acquisition of substantial amounts of advanced manufacturing equipment is at a favorable cost, represents a substantial asset and competitive advantage. On or about April 21, 2003, eMagin and IBM entered into a Stipulation in order to settle an eviction proceeding originally commenced by IBM against eMagin on or about April 9, 2003. Thereafter, in accordance with the Stipulation, on April 23, 2003 the Stipulation was presented to, and approved by, the court, and a Judgment was issued in favor of IBM. Pursuant to the Judgment and Stipulation, (i) eMagin paid IBM all rent due and owing to IBM, and (ii) IBM was awarded possession of the leased premises, was issued a warrant to remove eMagin from possession of the leased premises, and obtained a monetary judgment for rent arrears in the sum of Eight Hundred Thirteen Thousand Fifty Five and 65/100 ($813,055.65) Dollars, which sum is to be paid in equal monthly installments during the period commencing May 1, 2003 and ending on March 1, 2004.

Such Judgment is being held in escrow by IBM's attorney and the warrant of eviction is being stayed, so long as the Company continues to timely pay make the installment payments during the next 12 months and any additional rent and/or other sums due under the Lease. eMagin has paid its rent and fees for services in a timely manner since April 2003, and negotiations are in process to establish a new lease.

Facilities services provided by IBM include our cleanroom, 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 that our facility is capable of producing over 50,000 SVGA+ or SVGA-3D displays per month once we are manufacturing around the clock on a 24 hours a day, 7 days per week basis, with a fully loaded manufacturing line.

We lease additional non-cleanroom facilities for chemical mixing, cleaning, chemical systems, and glass/silicon cutting. OLED chemicals can be purified in our facility with our equipment, permitting the company to evaluate new chemicals in pilot production that are not yet available in suitable purity for OLED applications on the market.

Our display fabrication process starts with the silicon wafer, which is manufactured by a semiconductor foundry using conventional CMOS process. After a device is designed by a combination of internal and external designers with customer participation, we outsource wafer fabrication.

Our manufacturing process for OLED-on-silicon microdisplays has three main components: organic film deposition, organic film encapsulation (also known as sealing), and color filter processing. All steps are performed in semi-automated, hands-free environment suitable for high volume throughput. An automated cluster tool provides all OLED deposition steps in a highly controlled environment that is the centerpiece of our OLED fabrication. After wafer processing, each part is inspected using an automated inspection system, prior to shipment. We have electrical and optical instrumentation required to characterize the performance of our displays including photometric and color coordinate analysis. We are also equipped for integrated circuit and electronics design and display testing.

Our system development effort at Virtual Vision operates out of a leased facility in Redmond, Washington. The facilities are well suited for designing and building limited volume prototypes and industrial or government products. We plan to outsource high volume head-wearable display production to low cost plastics, lenses, and assembly