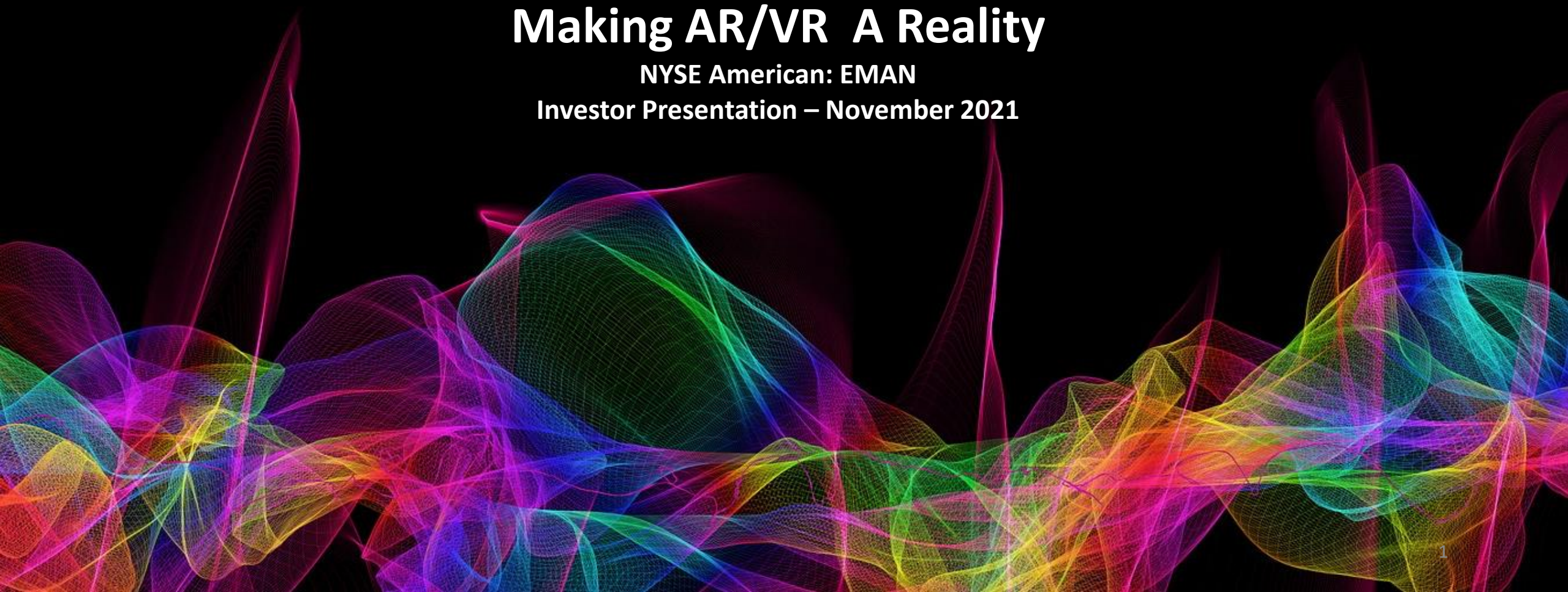




Making AR/VR A Reality

NYSE American: EMAN

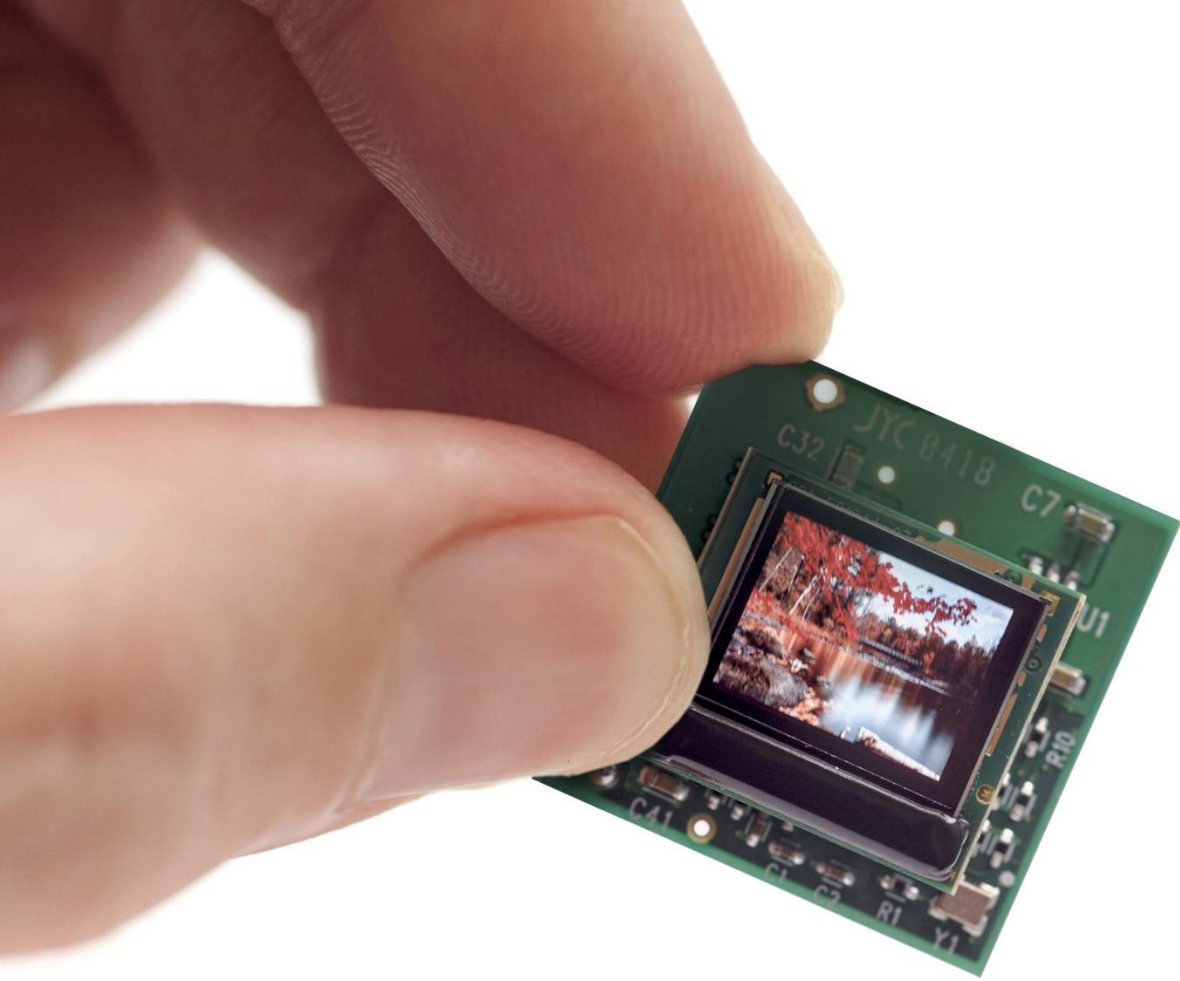
Investor Presentation – November 2021



Disclaimer

Certain statements made by us in this presentation that are not historical facts or that relate to future plans, events or performances are forward-looking statements within the meaning of the federal securities laws. Our actual results may differ materially from those expressed in any forward-looking statement made by us. Forward-looking statements involve a number of risks or uncertainties including, but not limited to, the risks described under the heading “Risk Factors” in the Company’s filings with the Securities and Exchange Commission, including, but not limited to, the Company’s Reports on Form 10-K for the year ended December 31, 2020. All forward-looking statements are qualified by those Risk Factors as well as the Company’s “Statement of Forward-Looking Information” in such filings. All statements made by us in this presentation are further qualified in all respects by the information disclosed in the Company’s filings with the Securities and Exchange Commission. These statements are only predictions. We are under no duty to update or revise any forward-looking statements to conform such statements to actual results or events, and do not intend to do so.

This presentation is the property of, and contains the proprietary and confidential information of the Company and is being provided solely for informational purposes. The projections, estimates and forecasts contained herein have been prepared by the Company in good faith based on assumptions believed by the Company to be reasonable at the time of preparation thereof. Forecasts and estimates regarding the Company’s industry and end markets are based on third party sources the Company believes to be reliable. There can be no assurance however that any particular projection, estimate, forecast or other forward-looking information will prove to be accurate in whole or in part or that any of the information contained herein is reflective of future performance to any degree. No representation or warranty is made with respect to the information included herein.



Vision:

***Enable the visualization
of digital information
and imagery with OLED
technology***

A Pioneering Technology Leader with a Broad IP Portfolio

1

A technology leader with proprietary and patented direct patterning technology (dPd™) for ultrahigh brightness in color, and the sole U.S. manufacturer of OLED microdisplays

2

Uniquely positioned to capitalize on growing addressable markets in military, industrial and consumer applications for high-brightness AR/VR solutions

3

U.S. government funding of approximately \$39 million for manufacturing supports equipment procurement and improvements in growth, innovation and productivity

4

Deep applications expertise and broad IP portfolio that is aligned with diverse customer base and long-term industry trends

5

Well-established military and aviation market presence benefiting from modernization trends; leverageable platform for high growth opportunities in consumer and commercial end markets

6

Highly experienced management team with industry-leading technical expertise enabling a substantial runway for value creation

eMagin at a Glance

Headquarters: **Hopewell Junction, NY**
Manufacturing: **U.S. Domiciled**
Employees: **100+**

Revenue: **\$29.4M in 2020**

- 85% from Product Sales, 15% Contracts
- 56% U.S., 46% International
- 30 countries served

Market Cap: **\$207.6M***
Ticker/Exchange: **EMAN / NYSE American**

Patents: **56 issued, 31 pending**

The technology leader in OLED Displays



Making AR/VR a reality

**Based on closing price on 11/8/21 and approximately 72.6 million shares outstanding.*

Leveraging Our Military Experience to Seize New Opportunities



Year-To-Date Q3 2021 Update: Strong Backlog and 10,000 Nits Achieved



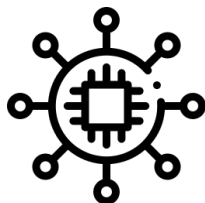
Financials

- Product revenues for nine months ended September 30, 2021 totaled \$17.2 million, compared with \$18.9 million in the prior-year period
- Contract revenues for nine months ended September 30, 2021 totaled \$1.7 million, compared with \$2.9 million in the prior-year period
- Backlog of open orders of \$14.9 million as of the end of Q3 2021, compared with \$10.3 million as of the end of Q2 2021
- Cash and cash equivalents of \$7.3 million as of September 30, 2021
- Expecting contract revenues to continue with development and scalability of dPd technology for consumer AR/VR



Operating Trends

- Continuing to supply sole-sourced displays under the Enhance Night Vision Goggle-Binocular (ENVG-B) program as it ramps to volume, as well as other key military programs worldwide
- In December 2020, signed a 10-year lease for 25% of additional space to house the new equipment, including equipment to be purchased for the Company's patented high-brightness dPd production process
- As of the end of the third quarter, the Company has taken delivery of four pieces of production equipment and expended \$12.2 million of grant money of the \$39.1 million in U.S. government funding awarded to eMagin to enhance its manufacturing capabilities as the only U.S. provider of OLED microdisplays



Advancing Product Development

- Achieved historic brightness milestone of 10,000cd/m² for a full-color display using a single stack architecture
- Continue to see strong interest in high-brightness XLE and direct patterned technology
- Steady progress on the development efforts for dPd technology and high brightness product roadmap

Serving a Critical Need in U.S. Defense Capabilities

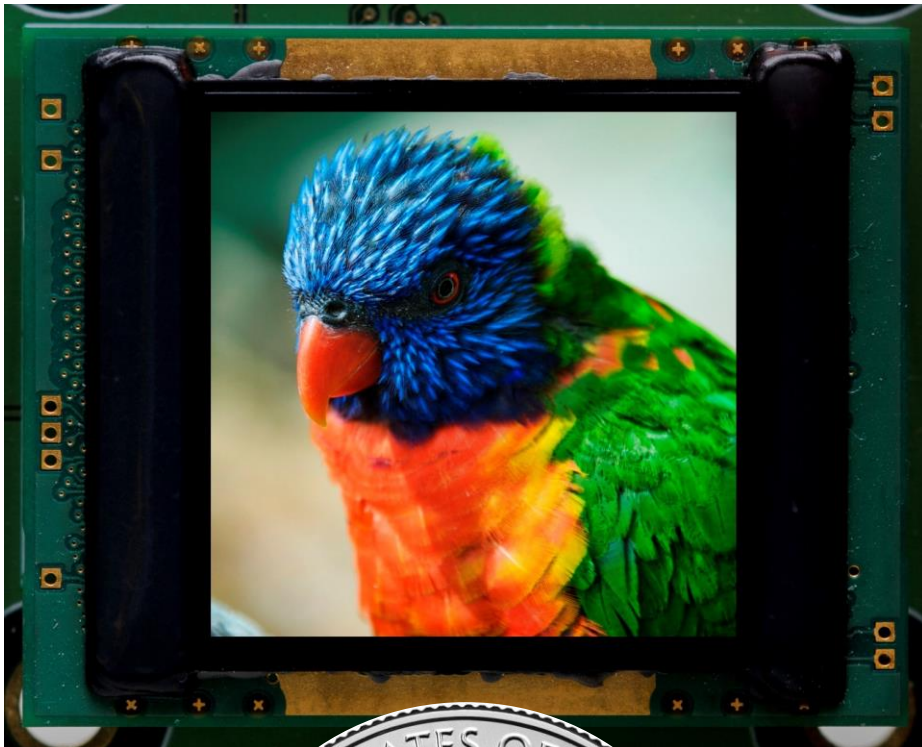


- Recognized by the U.S. Department of Defense (DoD) as the only domestic manufacturer of OLED microdisplays and designated as a cornerstone of the U.S. manufacturing base
- Received \$39.1 million in DoD funding for procurement and installation of capital equipment at the Hopewell Junction facility to enhance manufacturing capabilities and to sustain and enhance U.S. domestic capability for high-resolution, high-brightness OLED microdisplays based on proprietary dPd technology



Our OLED Technology Advantage: Lowest Power, Highest Brightness

- Brightest OLED commercially available – monogreen with peak luminance over 40,000 cd/m²
- Full-color over 10,000 cd/m² demonstrated
- Very high contrast – greater than 1,000,000:1
- Lower power consumption yields longer battery life
- More compact form factor
- Lightweight solution
- Field tested for reliability and performance
- Nausea-free operation
- Superior performance and a competitive cost at higher volumes



A History of Technical Leadership Through Fundamental Innovations in Microdisplays

- Developed and shipped first full-color Active Matrix OLED in 2001
- Introduced sequentially higher resolution displays:

• VGA	640x480	SXGA120	1280x1024
• SVGA+	852x600	WUXGA	1920x1200
• DSVGA	800x600	2Kx2K	2048x2048
• SXGA096	1280x1024	4Kx4K	
- Full-color SXGA OLED microdisplay
- First to develop 20k cd/m² monochrome green in 2011
- First to develop 700 cd/m² in full color in 2013
- Recent white with color filter displays exceed 1,500 cd/m²
- Demonstrated unique and proprietary full-color direct patterned dPd™ microdisplay of over 10,000 cd/m²

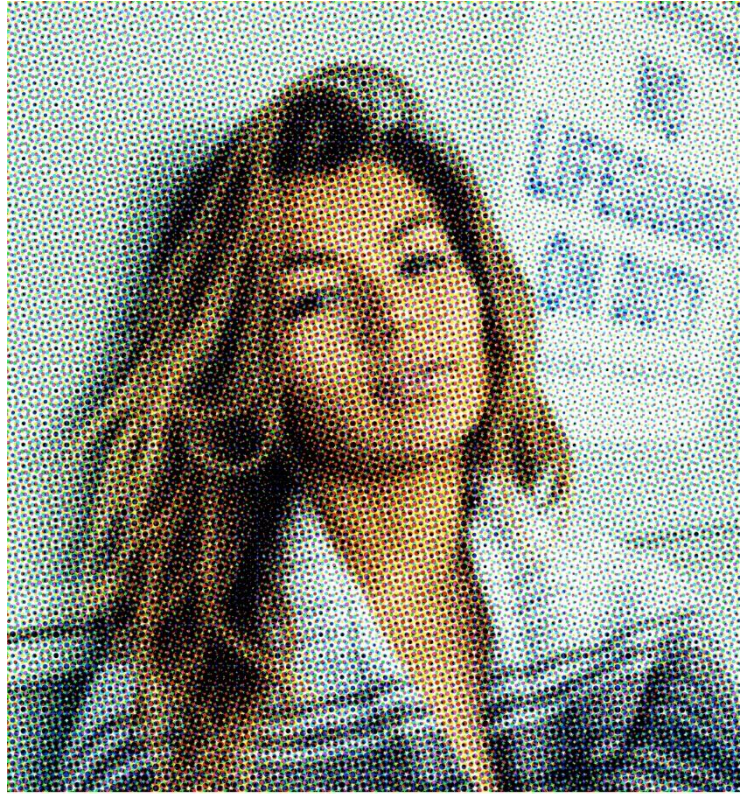


Direct Patterning: The Best Display Solution for AR/VR Applications

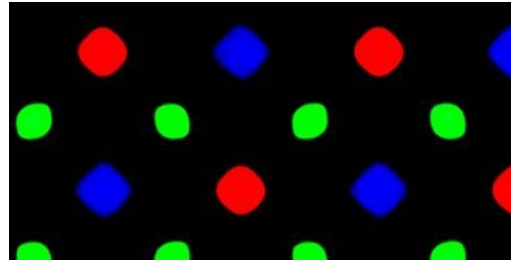
- dPd achieved over 10,000 cd/m² brightness on a full-color WUXGA
- Full-color 2k x 2k display demonstrated by using dPd
- 4k x 4k full-color dPd microdisplay demonstrated

OLED Provides a Superior AR/VR Experience

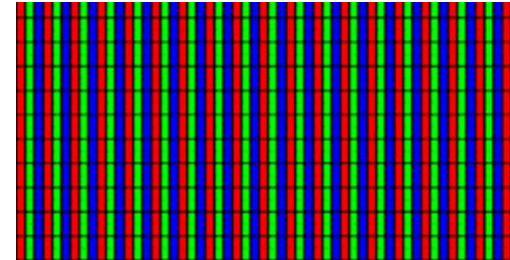
Magnification Highlights eMagin's Superior Fill Factor



OLED Cell Phone Display ~600 ppi



eMagin OLED Microdisplay >2,500 ppi



The Future of AR/VR Powered by dPd™



- Conventional OLED microdisplays use white OLED with color filters
 - Color filters absorb ~80% of the useful light; limited brightness and inefficient
- Only eMagin has Direct Patterned microdisplay technology for direct emission of red, green and blue light without color filters
 - Enables significantly higher brightness; targeting 10,000 cd/m² at year end and 28,000 cd/m² by 2023
 - Higher efficiency, much lower power consumption
- eMagin is ahead today in full-color OLED microdisplay brightness and will stay ahead with dPd

*for illustrative purposes only

Deep Application Expertise and Broad IP Portfolio Create Significant Barriers to Entry

Patents

- 56 patents issued and 31 pending
- Includes silicon backplane, OLED architecture, process and packaging
- Key patents include ultra-high brightness directly patterned OLED displays

Know-how

- Includes silicon backplane, OLED architecture, process and packaging
- Back-plane design
- Anode patterning
- Direct patterning of OLED
- Thin film encapsulation
- Packaging methodology

Well-established Military and Aviation Business

Profile

- Predominately sole-source supplier
- Differentiated performance and leader in brightness
 - Visible in bright sunlight
 - High contrast for detail
- First mover in AR/VR for domestic and foreign military applications
- Global market leadership – International and U.S. Army, Air Force, Special Forces, Navy/Marines
- Proven track record of performing in demanding applications and environments
- Long-standing customer relationships and extended program and product lifecycles
- Military microdisplays addressable market expected to increase
- Accelerating activity and program wins in aviation
- Trend away from LCD to OLED for better contrast and brightness

Customers



Products



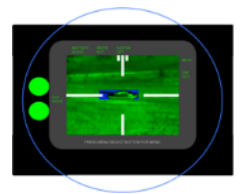
Enhanced Night
Vision Goggle



Helmet
Display



Laser Range
Finder



Simulation Training
Devices

Commercial and Medical Markets Represent New Growth Opportunities and End-market Diversification

Profile

- Products provide high reliability in stressful environments
- Visualize digital information and imagery
- Successful in supplying to medical imaging devices, veterinary ultrasound viewers, thermal cameras and hunting scopes

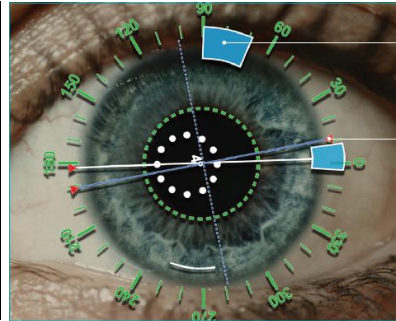
Products



LASIK Surgery



Cataract Surgery



fMRI
Visual System

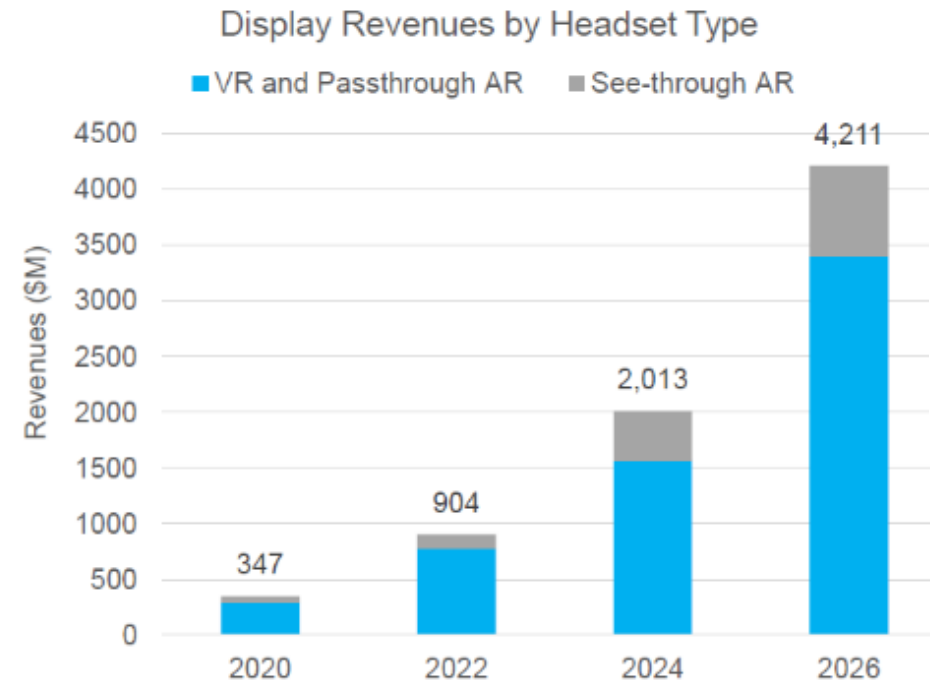
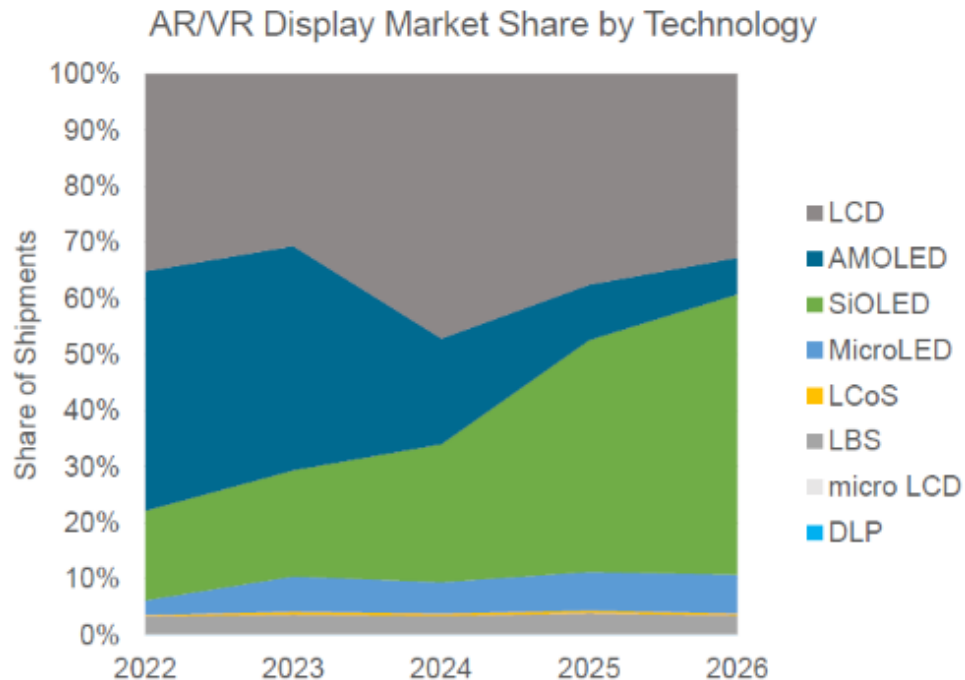


Hunting Scopes

Display Market Share and Revenues

- ▶ OLED on silicon (SiOLED) will capture the largest share of shipments from 2025, with LCD in second place.
- ▶ We expect that AMOLED will lose popularity in the long term, due to the limitations in pixel density.
- ▶ Revenues for AR/VR displays will grow at a CAGR of 51.6%, from \$0.3B in 2020 to \$4.2B in 2026.

DSCC charts exclude wearable monitor HMDs for Industrial & Medical applications

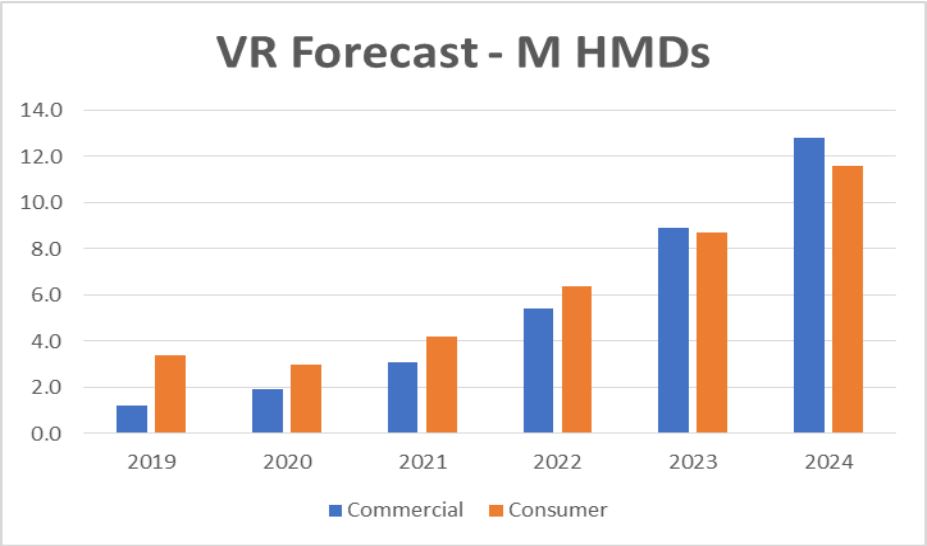
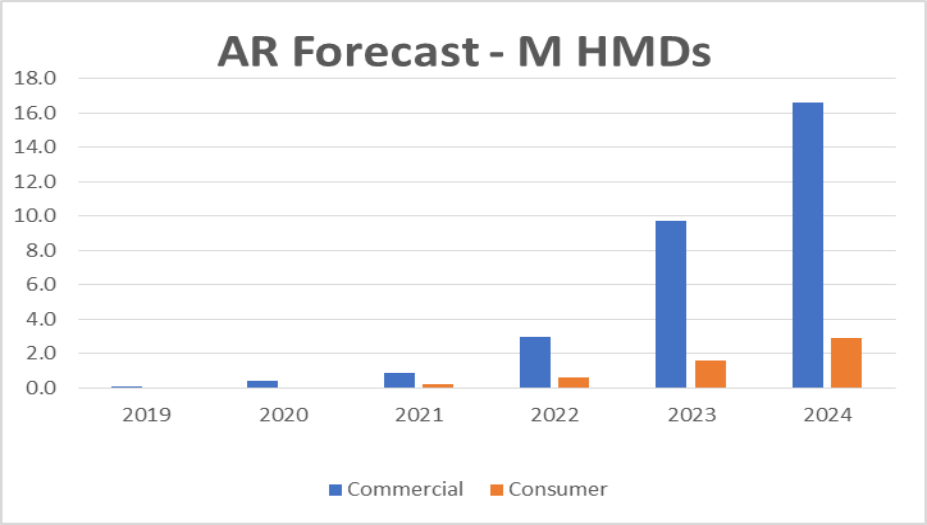


OLED Microdisplays Dominate

Well Positioned to Capitalize on Large Commercial and Consumer Opportunities

Profile

- ✓ Augmented reality for
 - Equipment repair
 - Factory automation
 - Service technicians
- ✓ Virtual reality for
 - Vehicle design
 - Training and simulation
 - Consumer gaming and entertainment
- ✓ eMagin is the only company with technology that satisfies the key requirements:
 - High brightness
 - High speed
 - High pixels per inch
 - High resolution



Source: IDC 2020

Our Manufacturing Footprint: We are “Made in the USA”

Hopewell Junction, NY (Headquarters)

- Houses own equipment for OLED microdisplay fabrication, assembly operations, R&D and product development functions
- eMagin is the only US-based manufacturer of OLED microdisplays
- Approximately \$39 million in DoD awards for procurement and installation of capital equipment to enhance manufacturing and enhance dPd technology

Class 10 Clean Room Operations

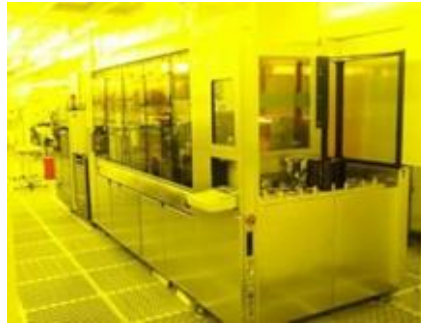


Photo-Lithography



Metal Deposition



OLED Deposition Cluster



In-Line Inspection



GlassLid



Advanced Packaging Capabilities

Experienced Management Team of Recognized Industry Experts

Andrew Sculley <i>CEO</i>	<ul style="list-style-type: none">• More than 20 years experience in OLED technology and manufacturing• Led Kodak OLED Systems• MS Physics Cornell, MBA Carnegie-Mellon
Dr. Amal Ghosh <i>COO</i>	<ul style="list-style-type: none">• Pioneering inventor of disruptive OLED microdisplay technology at eMagin and Kodak• PhD Physics MIT• Past President of the prestigious Society for Information Display (SID)
Mark Koch <i>CFO</i>	<ul style="list-style-type: none">• Previously eMagin's VP of Finance and Corporate Controller• +25 years of financial experience• Certified Public Accountant; BS Manhattan College
Oliver Prache <i>SVP Product Development</i>	<ul style="list-style-type: none">• OLED product commercialization pioneer at Pixtech (France) and OIS Optical Imaging Systems• Diplôme d'Ingénieur from E.N.S.E.R.G. Grenoble France
Joseph Saltarelli <i>SVP Operations</i>	<ul style="list-style-type: none">• More than 25 years of semiconductor, thin films, and packaging manufacturing• Senior Director of Manufacturing Operations, GLOBALFOUNDRIES• BS Ceramic Engineering and Materials Science Rutgers, MBA in Technology Management

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Appendices

Consolidated Statement of Operations

(In thousands, except per share data)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Revenues:				
Product	\$ 5,313	\$ 6,978	\$ 17,160	\$ 18,872
Contract	469	333	1,674	2,870
Total revenues, net	5,782	7,311	18,834	21,742
Cost of revenues:				
Product	4,962	5,385	15,135	15,153
Contract	261	234	861	1,487
Total cost of revenues	5,223	5,619	15,996	16,640
Gross profit	559	1,692	2,838	5,102
Operating expenses:				
Research and development	1,669	1,734	5,299	4,313
Selling, general and administrative	2,203	1,824	5,717	5,334
Total operating expenses	3,872	3,558	11,016	9,647
Loss from operations	(3,313)	(1,866)	(8,178)	(4,545)
Other (expense) income:				
Change in fair value of common stock warrant liability	4,742	(1,803)	176	(3,304)
Interest expense, net	(210)	(10)	(625)	(45)
Gain on forgiveness of debt	—	—	1,963	—
Other income, net	87	148	314	163
Total other income (expense)	4,619	(1,665)	1,828	(3,186)
Income (loss) before provision for income taxes	1,306	(3,531)	(6,350)	(7,731)
Income taxes	—	—	—	—
Net income (loss)	\$ 1,306	\$ (3,531)	\$ (6,350)	\$ (7,731)
Less net income allocated to participating securities	268	—	—	—
Net income (loss) allocated to common shares	\$ 1,038	\$ (3,531)	\$ (6,350)	\$ (7,731)
Income (loss) per share, basic	\$ 0.01	\$ (0.06)	\$ (0.09)	\$ (0.14)
Loss per share, diluted	\$ (0.05)	\$ (0.06)	\$ (0.09)	\$ (0.14)
Weighted average number of shares outstanding:				
Basic	72,527	57,736	71,675	54,451
Diluted	73,862	57,736	73,417	54,451

Consolidated Balance Sheet

(In thousands, except share data)
(Unaudited)

	September 30, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 7,337	\$ 8,315
Restricted cash	1,272	2,111
Accounts receivable, net	4,345	5,314
Account receivable-due from government awards	204	1,013
Unbilled accounts receivable	1,173	253
Inventories	7,917	8,379
Prepaid expenses and other current assets	723	943
Total current assets	22,971	26,328
Property, plant and equipment, net	29,344	21,132
Operating lease right-of-use assets	5	50
Intangibles and other assets	39	126
Total assets	\$ 52,359	\$ 47,636
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 988	\$ 1,206
Accrued compensation	2,005	1,628
Paycheck Protection Program loan - current	—	982
Revolving credit facility, net	1,992	1,875
Common stock warrant liability	4,446	4,622
Other accrued expenses	476	1,693
Deferred revenue	65	425
Operating lease liability - current	5	51
Finance lease liability - current	1,138	1,027
Other current liabilities	747	757
Total current liabilities	11,862	14,266
Other liability - long term	28	56
Paycheck Protection Program loan - long term	—	982
Deferred income - government awards - long term	12,072	4,309
Finance lease liability - long term	11,641	11,783
Total liabilities	35,603	31,396
Shareholders' equity:		
Preferred stock, \$0.001 par value: authorized 10,000,000 shares:		
Series B Convertible Preferred stock, (liquidation preference of \$5,659) stated value \$1,000 per share, \$0.001 par value: 10,000 shares designated and 5,659 issued and outstanding as of September 30, 2021, and December 31, 2020.	—	—
Common stock, \$0.001 par value: authorized 200,000,000 shares, issued 72,697,697 shares, outstanding 72,535,631 shares as of September 30, 2021, and issued 68,890,819 shares, outstanding 68,728,753 shares as of December 31, 2020.	72	69
Additional paid-in capital	275,592	268,729
Accumulated deficit	(258,408)	(252,058)
Treasury stock, 162,066 shares as of September 30, 2021, and December 31, 2020.	(500)	(500)
Total shareholders' equity	16,756	16,240
Total liabilities and shareholders' equity	\$ 52,359	\$ 47,636

Adjusted EBITDA

\$ in thousands

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Net loss	\$ 1,306	\$ (3,531)	\$ (6,350)	\$ (7,731)
Non-cash compensation	419	60	469	147
Change in fair value of common stock warrant liability	(4,742)	1,803	(176)	3,304
Depreciation and intangibles amortization expense	683	522	2,110	1,481
Interest expense	210	10	625	45
Adjusted EBITDA	<u>\$ (2,124)</u>	<u>\$ (1,136)</u>	<u>\$ (3,322)</u>	<u>\$ (2,754)</u>