Needham Growth Conference 2018 Investor Presentation

KOPIN
Revolutionizing the way people see, hear, and communicate
FORWARD LOOKING STATEMENTS

This presentation includes forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995. These statements relate to our expected future financial and operating performance, growth in the markets in which our products are sold, our market share for our products, and our significant customers. We may use words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “could,” “seeks,” “estimates,” and variations of such words and similar expressions in identifying forward-looking statements.

In addition, any statements which refer to expectations, projections, our stock value multiple, the value of head-worn computing and or our products, or other characterizations of future events or circumstances are forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions which are difficult to predict. Actual outcomes and results may differ materially from what is expressed or forecasted in such forward-looking statements, whether as a result of new information, future events or otherwise. We refer you to the documents the Company files from time to time with Securities and Exchange Commission, and specifically the “Risk Factors” section of the Company’s Form 10-K for the period ended December 31, 2016. We do not undertake to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.
2017 HIGHLIGHTS

• Acquired NVIS Inc., a designer and manufacturer of virtual reality display systems which allow the user to interact with simulated 3D environments.

• Introduced our *Lightning™ OLED microdisplay*, a 1"-diagonal, 2048 x 2048 resolution and operates up to 120 Hz with low power consumption, all of which are firsts for the VR industry.

• Kopin entered into an agreement with Yunnan OLiGHTEK Opto-electronics Technology Co. Ltd. (OLiGHTEK), a leader in high performance OLED micro-displays on silicon. The parties will jointly purchase an advanced production OLED deposition line to be installed within OLiGHTEK’s facility in order to augment OLiGHTEK’s existing capabilities. Under the terms of the agreement, Kopin will be entitled to 50% of the new line output.

• Kopin entered into an agreement with BOE Technology Group Co. Ltd. (BOE) and OLiGHTEK to establish a high-volume, state of the art facility to manufacture OLED micro-displays. The new facility is expected to be the world’s largest OLED-on-silicon manufacturing center and is expected to be operational at the end of 2019. BOE is a world leader in the manufacture of liquid crystal and OLED on glass displays for televisions, tablets and smartphones.

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**Corporate Profile**

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<table>
<thead>
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<th></th>
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<tbody>
<tr>
<td>Headquarters</td>
<td>Westborough, MA</td>
</tr>
<tr>
<td>Stock Symbol</td>
<td>KOPN</td>
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<tr>
<td>Exchange</td>
<td>NasdaqGS</td>
</tr>
<tr>
<td>Share Price (1)</td>
<td>3.43</td>
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<tr>
<td>Market Capitalization</td>
<td>$222 Million</td>
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<tr>
<td>3 Months Avg. Volume</td>
<td>310,790</td>
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(1) As of Jan 06, 2017
RECENT CES HIGHLIGHTS

• Demonstrated high-brightness 720p resolution (1280 x 720) Lightning™ organic light emitting diodes (OLED) display. Kopin’s Lightning 720p OLED microdisplay is 0.49-inch diagonal size, has high brightness of over 1000 nits and has low power consumption.

• Demonstrated a new generation of Solos® Smart Glasses for Runners and Tri-athletes. The new Sols builds on the original features for cyclists to include the most advanced Pupil™ display optics, which enable a ‘heads-up’ see-through experience with a larger eye box, new audio features including voice control, phone calls, superior speakers and earbud capabilities for listening to music and group chat communication.
RECENT CES HIGHLIGHTS

- Announced Kopin Corporation and Pico Interactive have entered into a partnership jointly developed wearable devices. The first wearable device is codenamed “Eagle” and it enables a home theater entertainment experience on the go. The Eagle, a recipient of a CES 2018 Innovation Award, is a lightweight mobile headset featuring over-ear noise cancelling headphones and a removable high-definition OLED display band.
Kopin and Goertek demonstrated the Elf VR Reference Design: 2018 CES Innovation Award Honoree – The Elf VR reference design is the world’s most compact and lightweight virtual reality headset that boasts stereo 4K resolution at 120Hz refresh rate. Elf is made possible by Kopin’s Lightning™ OLED microdisplays that boast an impressive pixel density of 2,940 PPI – approximately 400% higher than conventional TFT-LCD, OLED and AMOLED displays at 20% of the size. For comparison, the Samsung Odyssey and upcoming Vive Pro feature 1.4k by 1.6k pixels per eye OLED panels from Samsung (Vive and Rift offer roughly 1.1k by 1.2k for each eye).
CES COVERAGE

Announcement: **Kopin Unveils High-Brightness Breakthrough for Lightning OLED Microdisplays and Debuts New 720p Resolution 0.5” OLED Display at CES 2018**

Coverage:
Upload VR: “CES 2018: The 5 Biggest VR Tech Updates” by Ian Hamilton (January 12, 2018)
Laser Focus World: “Kopin forms joint venture with Chinese companies to advance OLED-on-silicon technology for AR/VR devices” by Gail Overton (January 8, 2018)
VRWorld: “Kopin Bringing Their OLED Microdisplays to VR/AR Headsets” by Christopher Harper (January 6, 2018)
LEDInside: Kopin Unveils High-Brightness Breakthrough for Lightning OLED Microdisplays and Debuts New 720p Resolution 0.5” OLED Display at CES 2018 (January 5, 2018)
Ravepubs: More OLED-on-Silicon to Come from New Joint-Venture by Chris Cinock (January 5, 2018)
VRFocus: Kopin Will Be OLED VR Game Changer In Both Augmented And Virtual Reality by Nina Salomons (December 28, 2017)

Announcement: **SOLOS Announces New Generation Smart Performance Glasses at CES 2018**

Coverage:
Forbes: “CES Decompress” by Charlie Fink (January 15, 2018)
Digital Trends: **With Solos Glasses, 2K microdisplay, Kopin hopes to storm the VR industry** by Will Nicol (January 12, 2018)
Men’s Health: “Keep Your Eyes on the Prize with these Smart Glasses from Solos at CES 2018” reported by Jordyn Taylor (January 11, 2018)
Toms Guide: Bike to the Future: Solos Smart Cycling Glasses Use AR by Avram Piltch (January 11, 2018)
UBreakiFix: The Not-So-Distant Future Of Smart Glasses by Mia Glatter (January 11, 2018)
Electronics360: Smart Glasses on Display at CES Allow Coaches to Talk to Athletes On the Move by Siobhan Treacy (January 10, 2018)
VR Fitness Insider: Solos AR Glasses Provides Training Assistance and On The Road Data (January 9, 2018)
SportTechie: SOLOS Augmented Reality Glasses Expand To Running From Cycling by Jen Booton (January 9, 2018)
Gadgets and Wearables: Next generation Solos smart glasses are for cyclists and runners by Dusan Johnson (January 9, 2018)
Endurancebusiness: Up-and-running with next gen SOLOS Smart Glasses by Gary Roethenbaugh (January 9, 2018)
The Daily Telescope: SOLOS Announces New Generation Smart Performance Glasses at CES 2018 by Maria Burns (January 8, 2018)
Engadget: SOLOS smart cycling glasses are going for a run by Andrew Tarantola (January 8, 2018)
Yahoo! Finance: SOLOS smart cycling glasses are going for a run by Andrew Tarantola (January 8, 2018)
Android Headlines: The New SOLOS Smart Glasses Are Perfect For Athletes – CES 2018 by Justin Diaz (January 8, 2018)
3News NBC Las Vegas (Broadcast): CES PREVIEW: The hottest new wearable technology by Robin Raskin (Living in Digital Times) (January 8, 2018)
BikeRumor: SOLOS heads up display for cyclists, triathletes adds voice control, group chat & more by Tyler Benedict (January 8, 2018)
NJ Tech Review: SOLOS unveils its refreshed Smart Glasses at CES 2018 by Jacob Krol
Boston Globe: “Can these ‘smart glasses’ make cyclists go faster?” by Scott Kirsner (January 6, 2018)
CES COVERAGE

Announcement: **Kopin and Pico Interactive Join Forces to Transform Mobile Entertainment**

Coverage:
- **Tom’s Hardware:** Video Headset Transforms into Noise-Cancelling Headphones by Avram Piltch (January 10, 2018)
- **Electronic Design:** Another Dose of Augmented/Virtual Reality at CES 2018 by William Wong (January 9, 2018)
- **Amazing Reveal: CES 2018:** Kopin and Pico create a wearable cinema Eagle (January 9, 2018)
- **TechRadar:** CES 2018: dates, news and all the big reveals at the Las Vegas tech show by Michelle Fitzsimmons (January 8, 2018)
- **Engadget:** “Wearable Home Theater Let’s You See What’s Outside” by Jon Fingas (January 8, 2018)
- **Info Time:** The Pico Eagle Mobile Home Theater Features Kopin’s New High-Brightness OLED Microdisplays (January 8, 2018)
- **9to5Mac:** The new Pico Eagle wearable home theater hits CES w/ Lightning OLED Microdisplays by Justin Kahn (January 8, 2018)
- **Tom’s Hardware:** The Pico Eagle Mobile Home Theater Features Kopin’s New High-Brightness OLED Microdisplays by Kevin Carbotte (January 8, 2018)
- **Ubergizmo:** Kopin Unveils Home Theater System That You Can Wear On Your Head by Tyler Lee (January 8, 2018)
- **SlashGear:** Eagle wearable has OLED display, headphones for personal entertainment by Brittany Roston (January 5, 2018)
YOU PROBABLY HEARD...
WEARABLES WILL BE BIG

5 YEAR CAGRS
2016-20201
VR 48.5%
AR 190.4%
Total Market 58.0%

Unit Shipments

IDC Worldwide Augmented and Virtual Reality Hardware Forecast 2017-2021, May 2017
YOU PROBABLY HEARD...
WEARABLES WILL BE BIG

Sales (in Millions)

Heads-up Displays

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
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<tr>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
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</table>
A Leader in All Wearable Headset and Components Markets

**Consumer**
- Goertek
- Oriscape
- Pico Interactive

**Military**
- Elbit
- DRS
- Lockheed Martin
- Raytheon
- Rockwell Collins

**Enterprise**
- Fujitsu
- Google
- Lenovo New Vision
- RealWear
- Scott Safety
- Vuzix
WHAT IS REQUIRED TO DEVELOP THE IDEAL INDUSTRIAL AND CONSUMER HMD?

THE MISSING PIECES - KOPIN FOCUS

- Reliable WiFi and BT connection
- Compact, low-power electronics
- Small, high-capacity battery
- Small display + optics allow stylish design
- Attractive design and system functionality – Critical SW & FW
- Reliable voice-control for hands-free use

Applications SW
Augmented & Virtual Reality Display Modules

– Comprehensive line of modules for all HMD needs: Consumer & Enterprise applications

Augmented Reality

• Transmissive AMLCDs for AR
  – 0.20” – .88” diagonal
  – QVGA – QXGA
• Backlights: Super-high brightness to Compete with the Sun, low power for inside and outside use
• Optics: Compact designs -- everyone wants small and good looking device – even in enterprise use
• Driver ASICs: small size, low power

Virtual Reality

• 2k by 2K OLED (Lightning™) for VR
  – 1.0” diagonal
  – 2048 x 2048 resolution (4 million pixels)
  – 120 Hz with low power consumption,
  – Pantile™ optics (< 30 mm thick) allows much smaller and thinner mobile VR systems
Vista™ Pupil-Scale Display

The world's smallest optical module for high-resolution near-eye applications.

Pupil-scale optics match the biometrics of the eye for heightened visual clarity.

Virtual screen is 4x larger than fixed displays and sharp even in bright sunlight.
Augmented Reality and Virtual Reality – Matching Display and Optics

Distance to Eye (MM)

Field of View

Virtual Reality

60

40

20

PRISM

PEARL

PUPIL
To address the needs for future VR roadmaps

- Highest resolution for natural images
- Highest frame rate to reduce motion artifacts
- Smallest form factors
- OLED on Si = Lowest Power architecture
- Scalable foundry model
3X pixels versus existing Mobile VR OLEDs for natural, smooth images without the screen door effect.
120 Hz frame rate = No Motion Blur

60 Hz VR = Motion Blur Artifacts

120 Hz Frame Rate To Help Avoid Motion Artifacts That Can Cause Dizziness or Nausea
**Immersive Audio Field**

Discrete microphone and microspeakers are recessed with Solos frames.

Uses vocal separation for voice clarity amid background noise.

Off-ear design for ambient awareness; dynamic volume control for consistent levels.
VOICE INTERFACE:

– Kopin has developed the Whisper Chip™ that provides up to almost 2X improvement in human-to-machine (H2M) automatic speech recognition (ASR) rates.
Long Life Power Cell

Solos uses a high-density lithium cell embedded in the frame.

Designed for 6 hours of run time.

Solos's energy source was exclusively developed with a leading Japanese battery partner.
MILITARY OPPORTUNITIES

• F35 Strike Fighter Program
  – All the information pilots need to complete their missions – airspeed, heading, altitude, targeting information and warnings – is projected on the helmet’s visor, rather than on a traditional Heads-up Display.
  – Potential $100M revenue opportunity over the next 10 years

• U.S. Army FWS-1 Program
  – In 2016 selected by one of two prime contractors to provide the eyepiece assemblies for the next generation of thermal sights
  – Potential $100M revenue opportunity over the next 10 years
  – Assuming successful development, we will provide components for FWS Individual (FWS-I) and FWS Crew Served (FWS-CS)
  – FWS-CS, FWS-S Development contract – Engineering and Development Contract Q3 2016, Prototype Testing into 2018, then Deployment
MILITARY OPPORTUNITIES

• Armored Vehicle
  – First design win in armored vehicles. A Kopin FDD NVIS Win.
  – Rollout $20M to $40M revenue opportunity over the next 10 years
  – In development through 2020, then volume production
### BALANCE SHEET HIGHLIGHTS

($ in millions)  

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>September 30, 2017</th>
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<tbody>
<tr>
<td>Cash and marketable securities</td>
<td>$77.3</td>
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<tr>
<td>A/R and inventory</td>
<td>8.1</td>
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<td>Other current assets</td>
<td>1.3</td>
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<tr>
<td>PP&amp;E</td>
<td>3.7</td>
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<tr>
<td>Intangible and other assets</td>
<td>4.7</td>
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<tr>
<td><strong>Total assets</strong></td>
<td><strong>$95.1</strong></td>
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<tr>
<td>Current liabilities</td>
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<tr>
<td>Other</td>
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<tr>
<td>Noncontrolling interest</td>
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<tr>
<td>Equity</td>
<td>78.6</td>
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<tr>
<td><strong>Total liabilities and equity</strong></td>
<td><strong>$95.1</strong></td>
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**Strong financial position – high liquidity**
SUMMARY

A FOCUS ON WEARABLES

Customers/partners leverage our portfolio of key technologies developed over 30 year history

- LCOS displays (transmissive and reflective)
- OLED 2K x 2K display, 720P
- Optics
- Ergonomics
- Software
- Electronics
- Packaging
- Speech Enhancement

We understand the complete wearable headset system requirements

Demonstrate that the breadth of our knowledge and increase our critical component offerings enabling our partners to develop tailored solutions and reduce their time to market

Continue to enhance our IP portfolio on key technologies and concept system designs

At CES 2018 we demonstrated our latest technologies including our new Lightning 720P OLED and Solos Smart Eyeglasses and Partners’ Eagle and Elf Wearables