Forward-Looking Statements

All statements in this document that are not historical, such as those relating to Universal Display Corporation’s technologies and potential applications of those technologies, the Company’s expected results as well as the growth of the OLED market and the Company’s opportunities in that market, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You are cautioned not to place undue reliance on any forward-looking statements in this document, as they reflect Universal Display Corporation’s current views with respect to future events and are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated. These risks and uncertainties are discussed in greater detail in Universal Display Corporation’s periodic reports on Form 10-K and Form 10-Q filed with the Securities and Exchange Commission, including, in particular, the section entitled “Risk Factors” in Universal Display Corporation’s annual report on Form 10-K for the year ended December 31, 2019. Universal Display Corporation disclaims any obligation to update any forward-looking statement contained in this document.
Who We Are

Critical OLED Innovator & Enabler

OLED IP Licensor & Material Supplier

Fabless

Proprietary PHOLEDs

5,000+ Global Patents*

*5000+ Pending and Issued Patents Worldwide as of February 17, 2020
What is an OLED?

- An Organic Light Emitting Diode is a series of organic thin films between two conductors.
- When electrical current is applied, bright light is emitted.
- OLEDs can be used for displays and lighting.
- OLEDs are not just thin and efficient - they can also be made flexible and transparent.
Business Model

**Revenues**
- License & Royalty Fees
- Material Sales

**OLED Enabler**
- Patent Licensing
- PHOLED Emitters & Hosts

**Innovation & Invention**
- Device & Architecture IP
- Composition of Matter IP
OLED Display Market Potential

Mobile Growth
TV Growth
IT/Wearables Growth

- Mobile
- TV
- IT/Wearables
- Other

Source: IHS OLED Display Market Tracker – Q3 2019 (January 2020)
OLED Panel Area Demand

Mobile Growth  TV Growth  IT/Wearables Growth

- Mobile
- TV
- IT/Wearables
- Other

Millions of square meters


*Unit Numbers are for OLED TVs only

Source: IHS OLED Display Market Tracker – Q3 2019 (January 2020)
Strong OLED Display Market Drivers

Lower Power Usage

• **RED**
  - Phosphorescence reduces power consumption by 25%
• **Add GREEN**: 45% cumulative reduction
• **Add BLUE**: 75% cumulative reduction
• Enabled by PHOLEDs

Superior Aesthetics

• Improved image quality
• Thin and Light
• 180 degree viewing angle
• 2,000,000+: 1 contrast ratio – TRUE BLACK
• Real-time video speeds – excellent for 3D
• Self-emissive display
• Low UV output
• Minimal Bezel
• **Flexible**

More Cost Effective

• Fewer manufacturing process steps
• Lower bill-of-materials
• No backlight required
• No color filter required
• No liquid crystal required
• Reduced driver IC costs
• Enables non-glass substrates
New OLED Smartphones

- ZTE Axon 10s Pro 5G
- Google Pixel 4
- Oppo F15
- Realme X50 Pro 5G
- iPhone 11 Pro Max
- Samsung S20
- Vivo X30 Pro
- Sony Xperia 1 II
- Mi 10 Pro 5G
- Huawei P30 Pro
- LG G8X ThinQ
- Motorola Razr
More OLED Products

- Samsung Galaxy Tab S6
- Pimax 4K VR Headset
- Dell XPS 15
- LG CX 65” Class 4K Smart OLED TV
- Sony - A8F BRAVIA Series
- 2021 Cadillac Escalade
- Royole FlexPai Developer
- Huawei Watch GT 2
- Samsung Galaxy Watch Active 2
- ZTE nubia Alpha
- LG Watch Style
- Apple Watch Series 5
LCD vs. OLED

- Lower BOM (bill of materials)
- Better Performance, More Efficient
- Thinner and Flexible Form Factor
- Vivid Colors and Superior Contrast Ratio

Image source: LG
**Strong OLED Lighting Market Drivers**

**Energy-efficient & environmentally friendly**
- Low drive voltage
- Low operating temperatures, cool to touch
- Long lifetime
- Easy to control

**Highly desirable color quality**
- Wide range of CCT, high CRI possible
- Color tunable
- Instant “ON”, Dimmable without flicker
- No glare, no noise
- Low UV content

**Novel form factor & Low Cost Potential**
- Thin and lightweight
- Transparent
- Non-breakable, Conformable, Flexible, Foldable, Rollable
- Scaling advantage
- Roll to roll process

*Image source: LG Display*
Innovation: Future Revenue Streams

Ink Jet

Liquid Solution Printing
P2OLED

Nozzle

Organic Vapor Jet Printing (OVJP)

Barrier Encapsulation

Barrier Encapsulation
Future Growth: Flexible

New Form Factors  Unbreakable  Lighter  Thinner

Huawei Mate X

Samsung Galaxy Z Flip

Lenovo ThinkPad X1 Fold
Strong, Broad and Deep Patent Portfolio

Lighting
Flexible OLEDs
Manufacturing Processes & Equipment
Phosphorescent OLEDs (PHOLEDs)
Light Out-Coupling
Encapsulation
Device Architectures
Printable Phosphorescent OLEDs
Patents are Universal

Over 5,000 patents and pending applications*

*as of February 17, 2020
## Strategic Display & Lighting Partnerships

<table>
<thead>
<tr>
<th>Display</th>
<th>Lighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU Optronics</td>
<td>Fraunhofer IPMS</td>
</tr>
<tr>
<td>BOE Technology</td>
<td>HotaluX</td>
</tr>
<tr>
<td>China Star Optoelectronics</td>
<td>Kaneka</td>
</tr>
<tr>
<td>Innolux</td>
<td>Konica Minolta</td>
</tr>
<tr>
<td>Japan Display</td>
<td>LG Display</td>
</tr>
<tr>
<td>LG Display</td>
<td>Lumiotec</td>
</tr>
<tr>
<td>Tohoku Pioneer</td>
<td>OLEDWorks</td>
</tr>
<tr>
<td>Royole</td>
<td>Sumitomo Chemical</td>
</tr>
<tr>
<td>Samsung Display</td>
<td></td>
</tr>
<tr>
<td>Seeya Technology</td>
<td></td>
</tr>
<tr>
<td>Sharp</td>
<td></td>
</tr>
<tr>
<td>Tianma Micro-electronics</td>
<td></td>
</tr>
<tr>
<td>Visionox</td>
<td></td>
</tr>
</tbody>
</table>
Historical Financial Performance

Revenues

<table>
<thead>
<tr>
<th>Year</th>
<th>ASC 605 Adjustment</th>
<th>Hosts</th>
<th>Royalty &amp; License</th>
<th>Emitters</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$-</td>
<td>$41.3</td>
<td>$63.2</td>
<td>$85.6</td>
</tr>
<tr>
<td>2015</td>
<td>$-</td>
<td>$12.5</td>
<td>$77.8</td>
<td>$100.6</td>
</tr>
<tr>
<td>2016</td>
<td>$-</td>
<td>$1.4</td>
<td>$96.1</td>
<td>$97.9</td>
</tr>
<tr>
<td>2017</td>
<td>$-</td>
<td>$1.6</td>
<td>$126.5</td>
<td>$198.7</td>
</tr>
<tr>
<td>2018</td>
<td>$78.9</td>
<td>$-</td>
<td>$80.6</td>
<td>$153.2</td>
</tr>
<tr>
<td>2019</td>
<td>$22.9</td>
<td>$-</td>
<td>$150.0</td>
<td>$243.4</td>
</tr>
</tbody>
</table>

Income

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$45.5(2)</td>
<td>$48.1</td>
</tr>
<tr>
<td>2015</td>
<td>$44.8(2)</td>
<td>$48.1</td>
</tr>
<tr>
<td>2016</td>
<td>$115.4(3)</td>
<td>$58.8</td>
</tr>
<tr>
<td>2017</td>
<td>$130.5</td>
<td>$17.8</td>
</tr>
<tr>
<td>2018</td>
<td>$156.1</td>
<td>$-</td>
</tr>
<tr>
<td>2019</td>
<td>$-</td>
<td>$-</td>
</tr>
</tbody>
</table>

(2) Adjusted net income excludes the inventory write-down and its related impact on the effective tax rate.
(3) Adjusted net income excludes the one-time charge due to the enactment of the Tax Cuts and Jobs Act.
See “Reconciliation of Non-GAAP Measures” for further discussion of these non-GAAP measures on slide 20.
Reconciliation of non-GAAP measures

The following table details our reconciliation of non-GAAP measures to the most directly comparable GAAP measures:

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income reconciliation</td>
<td>$103,885</td>
<td>$48,070</td>
<td>$14,678</td>
<td>$41,854</td>
</tr>
<tr>
<td>Net income per share:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>$2.19</td>
<td>$1.02</td>
<td>$0.31</td>
<td>$0.90</td>
</tr>
<tr>
<td>Diluted</td>
<td>$2.18</td>
<td>$1.02</td>
<td>$0.31</td>
<td>$0.90</td>
</tr>
<tr>
<td>Net income adjustments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory write-down</td>
<td>---</td>
<td>---</td>
<td>33,000</td>
<td>3,918</td>
</tr>
<tr>
<td>Income tax effect of inventory write-down</td>
<td>---</td>
<td>---</td>
<td>(2,836)</td>
<td>(251)</td>
</tr>
<tr>
<td>Deferred income tax expense</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Release of income tax valuation write-down</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Tax Cuts and Jobs Act</td>
<td>11,514</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Adjusted net income</td>
<td>$115,399</td>
<td>(2)</td>
<td>$48,070</td>
<td>$44,842</td>
</tr>
<tr>
<td>Adjusted net income per share:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic (1)</td>
<td>$2.43</td>
<td>$1.02</td>
<td>$0.96</td>
<td>$0.98</td>
</tr>
<tr>
<td>Diluted (1)</td>
<td>$2.43</td>
<td>$1.02</td>
<td>$0.94</td>
<td>$0.98</td>
</tr>
</tbody>
</table>

(1) The adjusted net income per common share, basic and diluted is derived from dividing adjusted net income by the number of weighted average shares used in computing basic and diluted net income per common share.

(2) Adjusted net income is based on excluding the impact of the one-time charge due to the enactment of the Tax Cuts and Jobs Act for the year ended December 31, 2017.

(3) Adjusted net income assumes an effective tax rate of 32% and 29% for the years ended December 31, 2015 and 2014, respectively and is based on excluding the impact of the inventory write down.

Non-GAAP Measures - To supplement our selected financial data presented in accordance with U.S. generally accepted accounting principles (GAAP), we use certain non-GAAP measures. These non-GAAP measures include adjusted net income (loss), adjusted net income (loss) per common share, basic and adjusted income (loss) per common share, diluted. Reconciliation to the nearest GAAP measures of all non-GAAP measures included in the presentation can be found within the tables detailing the reconciliation of non-GAAP measures to GAAP measures above. We have provided these non-GAAP measures to enhance investors’ overall understanding of our current financial performance, and as a means to evaluate period-to-period comparisons. We believe that these non-GAAP measures provide meaningful supplemental information regarding our financial performance by excluding the effect of the release of income tax valuation allowances that may not be indicative of recurring core business operating results. We believe that the non-GAAP measures that exclude the impact of the release of income tax valuation allowances and deferred income tax expense recognized after the release of the allowances, when viewed with GAAP results, enhance the comparability or results against prior periods and allow for greater transparency of financial results. The presentation of non-GAAP measures is not intended to be considered in isolation or as a substitute for, or superior to, the financial information prepared and presented in accordance with GAAP.
### Robust Capital Structure

<table>
<thead>
<tr>
<th>Description</th>
<th>December 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash, Cash Equivalents and Short-Term Investments</td>
<td>$646,088</td>
</tr>
<tr>
<td>Total Assets</td>
<td>$1,120,157</td>
</tr>
<tr>
<td>Long-term Debt</td>
<td>------</td>
</tr>
<tr>
<td>A/P and Accrued Liab.</td>
<td>$62,318</td>
</tr>
<tr>
<td>Deferred Revenue</td>
<td>$144,862</td>
</tr>
<tr>
<td>Shareholders’ Equity</td>
<td>$811,449</td>
</tr>
<tr>
<td>Total Shares Outstanding*</td>
<td>47,031,759</td>
</tr>
</tbody>
</table>

*Weighted average diluted shares used in computing net income per common share
Company Summary

Global OLED Materials & Technology Leader

- Lighting up the OLED Revolution
- License & Sell Proprietary Phosphorescent OLED Technology and Materials to Display & Solid-State Lighting Manufacturers
- Fabless Model; Partnering w/ PPG
- ~311 Employees (219 R&D, 117 PhDs); Largest Global PHOLED Team

Blue-Chip Customer Base

- Displays: Samsung, LG Display, BOE, Tianma, Visionox, CSOT, Sharp
- Lighting: HotaluX, Kaneka, Konica Minolta, LG Display, OLEDWorks, Sumitomo Chemical
- Working with over 25 Companies

Strong Financial Performance

- $646M Cash, no debt*
- $13.74 in cash/share*
- High Margin Business
- Lean Operating Model

*as of December 31, 2019

Comprehensive & Robust IP

- Largest Phosphorescent OLED (PHOLED) Technology & Materials Portfolio
- Over 5,000** Issued & Pending Patents Worldwide and Growing

**as of Feb 17, 2020