

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT  
Pursuant To Section 13 Or 15(d) Of The Securities Exchange Act Of 1934



Date of report (Date of earliest event reported) January 15, 2020

**PHOTRONICS, INC.**

(Exact name of registrant as specified in its charter)

Connecticut

(State or other jurisdiction of incorporation)

000-15451

(Commission File Number)

06-0854886

(IRS Employer Identification Number)

15 Secor Road, Brookfield, CT

(Address of Principal Executive Offices)

06804

(Zip Code)

Registrant's Telephone Number, including area code (203) 775-9000

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class                      | Trading Symbol(s) | Name of each exchange on which registered |
|------------------------------------------|-------------------|-------------------------------------------|
| COMMON STOCK, \$0.01 par value per share | PLAB              | NASDAQ Global Market                      |

**Item 7.01. Regulation FD.**

On January 15, 2020, Photonics, Inc. (the “Company”) will present at the 22<sup>nd</sup> Annual Needham Growth Conference. The presentation to be used during the event is attached as Exhibit 99.1 to this Form 8-K. The presentation will also be available via webcast. Interested parties may register for the webcast through the Investors section of the Company’s website at [www.photonics.com](http://www.photonics.com).

In accordance with General Instruction B.2 of Form 8-K, the information in this Current Report on Form 8-K, including Exhibit 99.1, shall not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such a filing.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits

[99.1](#) Presentation dated January 15, 2020

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**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**PHOTRONICS, INC.**  
**(Registrant)**

By: /s/ Richelle E. Burr  
Name: Richelle E. Burr  
Title: Chief Administrative Officer

Date: January 15, 2020

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# Photronics, Inc. Global Leader in the Merchant Photomask Industry

22<sup>nd</sup> Annual Needham Growth Conference  
January 15, 2020



# Safe Harbor Statement

This presentation and some of our comments may contain projections or other forward-looking statements regarding future events, our future financial performance, and/or the future performance of the industry. These statements are predictions, and contain risks and uncertainties. Actual events or results may differ materially from those presented. These statements include words like “anticipate”, “believe”, “estimate”, “expect”, “forecast”, “may”, “plan”, “project”, “in our view” or the negative thereto. We cannot guarantee the accuracy of any forecasts or estimates, and we are not obligated to update any forward-looking statements if our expectations change. If you would like more information on the risks involved in forward-looking statements, please see the documents we file from time to time with the Securities and Exchange Commission.

# A Compelling Investment Thesis

## ▶ Global leader in merchant photomask industry

- *Delivering growth by leveraging core competencies: Operational Excellence, Low Cost Producer, Technology Leadership, Customer Intimacy*
- *Growing more quickly than the market*

## ▶ Technology aligned with secular growth trends

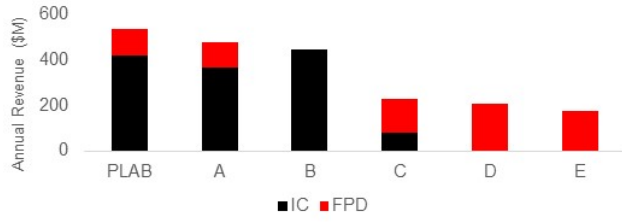
- *China industry expansion (IC & FPD) – Made in China 2025*
- *Technology inflection from LCD to AMOLED*
- *Rapid expansion of G10.5+ panel capacity*

## ▶ Investment strategy drives earnings growth

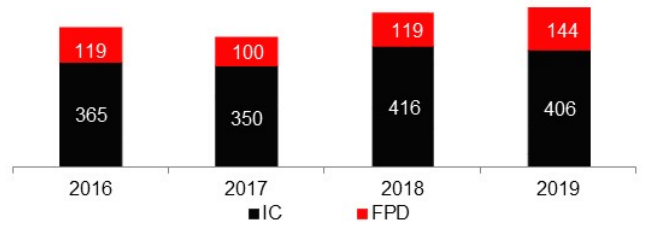
- *Strategic investments bring top-line growth*
- *Operating leverage creates margin expansion*
- *Increasing free cash flow to fund growth investments and share repurchase*

# Photronics at a Glance

**Largest Merchant Photomask Manufacturer**

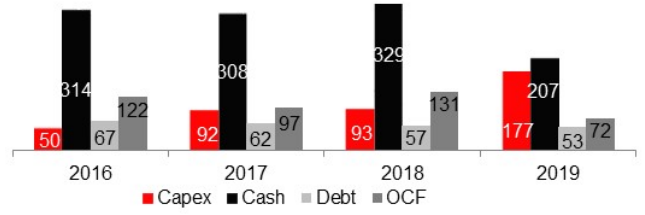


**Converting Investments Into Revenue (\$M)**



**Unmatched Global Footprint**  
11 Strategically Located Manufacturing Facilities

**Financial Strength to Fund Investments (\$M)**



# Photomasks: Essential for Electronics Manufacturing

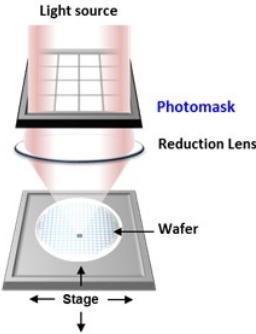
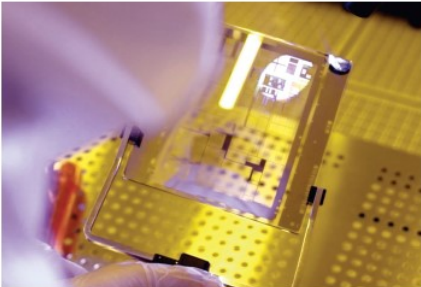
Component Design

Photomask

Manufacturing Process

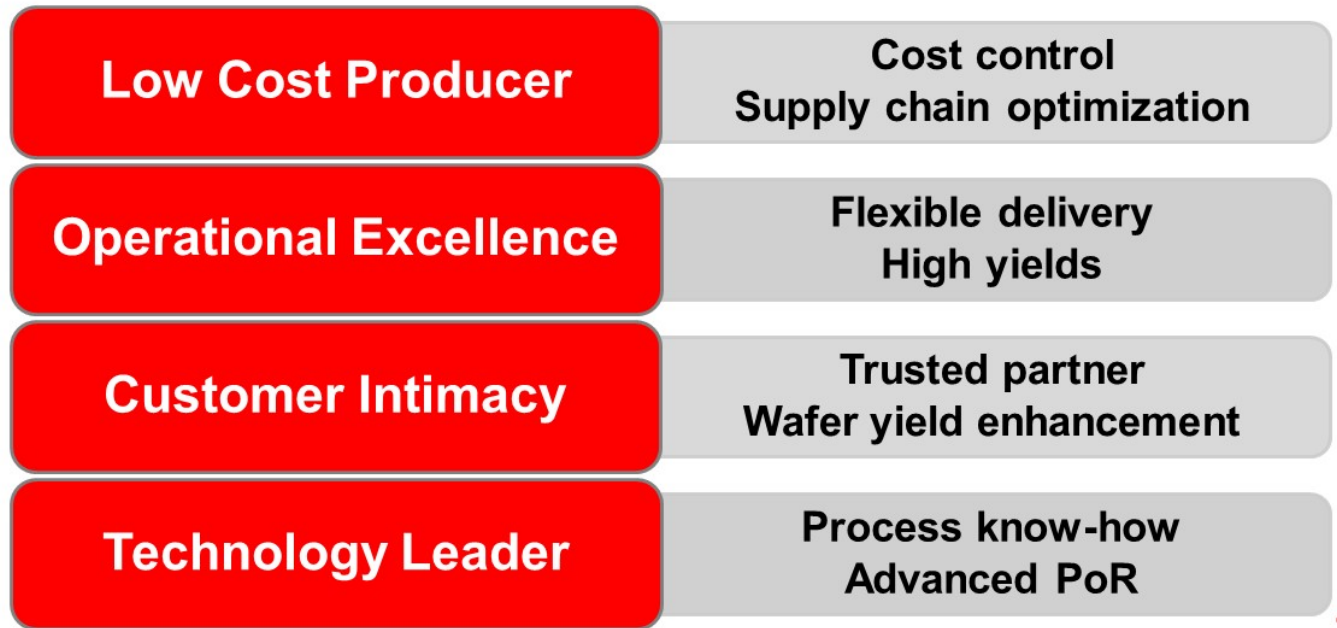
End User

*BRINGS DESIGN TO MANUFACTURING FLOOR*





# Core Competencies Underpin Sustainable Growth



# Repositioned for Growth

## ▶ China

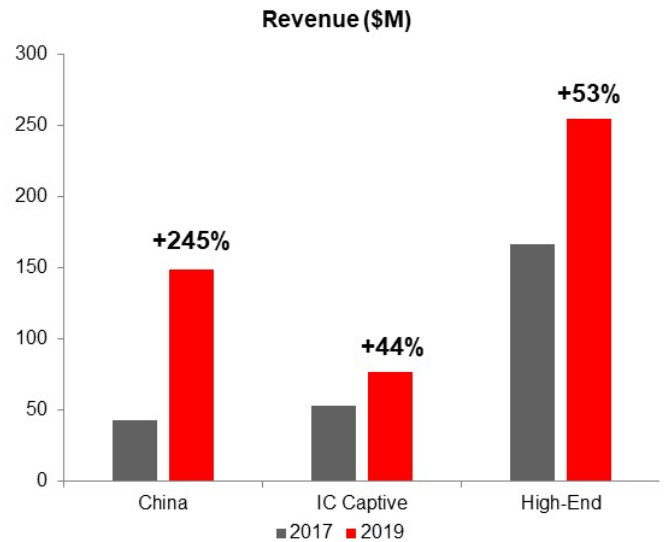
- Total TAM ~\$700M by 2022
- Region with strongest growth potential
- Supported by new manufacturing facilities since 2019

## ▶ IC Captive

- Approximately \$2.6B TAM
- We are seen as trusted partner
- Commitments improve sustainability

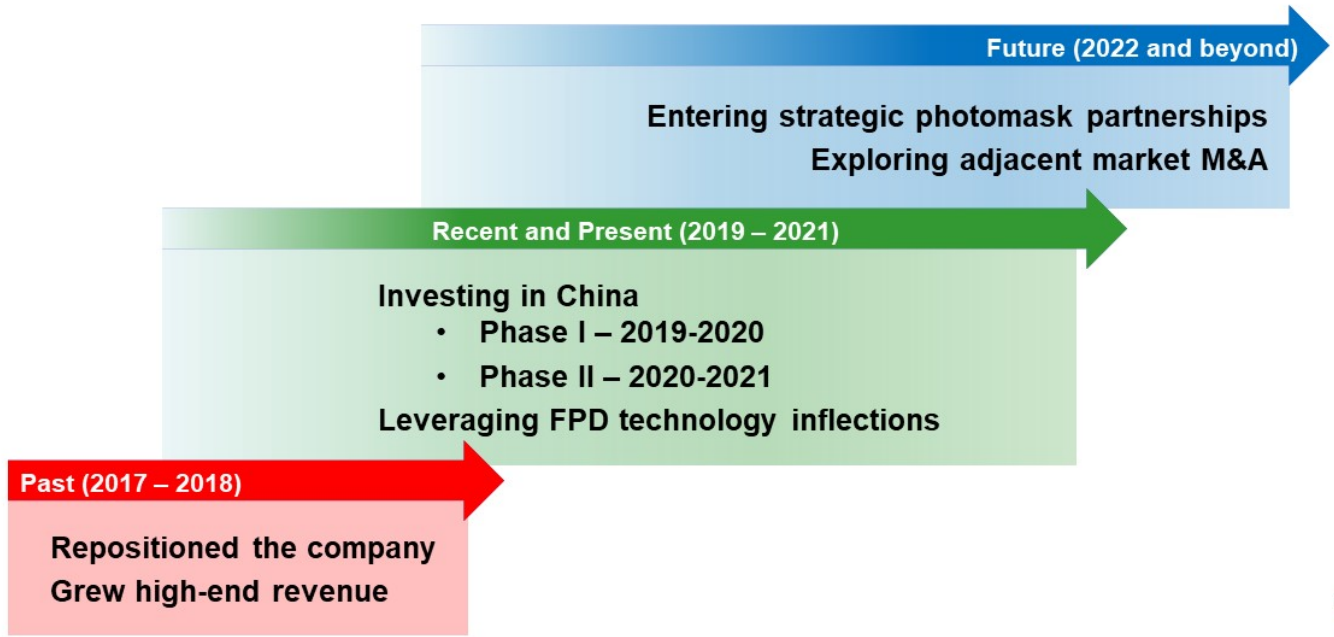
## ▶ High-end revenue growth

- High value and high growth
- Supports China & captive initiatives

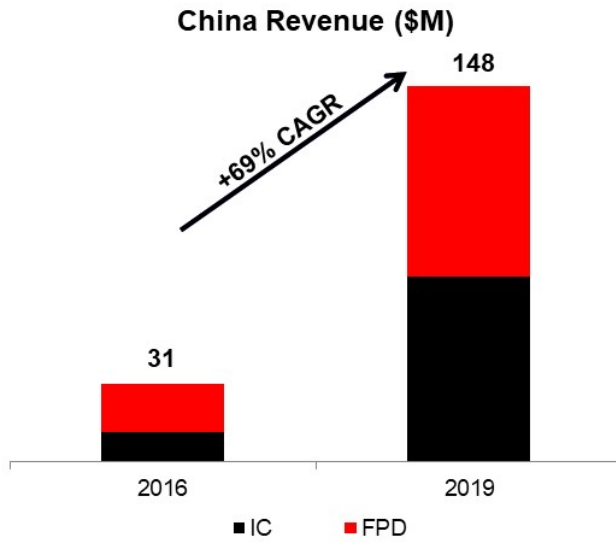


**Note:** classifications in graph above are not distinct; revenue related to certain products may appear in more than one category

# Driving Sustainable, Profitable Growth



# Developing and Growing China Business



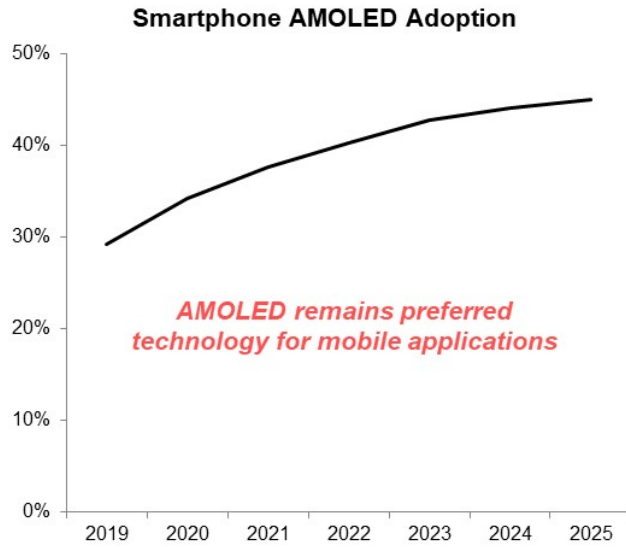
## ▶ We already have growing business in China

- 27% of total revenue in 2019
  - 18% of IC revenue
  - 52% of FPD revenue
- Growing strong since 2016
  - IC +83% CAGR
  - FPD +59% CAGR

## ▶ Manufacturing presence in China aims to accelerate growth

- Customer contracts help ramp facilities more quickly
- Investment incentives reduce risk and improve returns
- IC JV enables us to compete more effectively

# Leveraging Technology Leadership for Mobile Display AMOLED Adoption



Source: Internal Estimates

## ▶ Mobile devices moving from LCD to AMOLED

- Superior visual characteristics
- Lower power consumption
- Enables flexible format
- Preferred for VR/AR devices

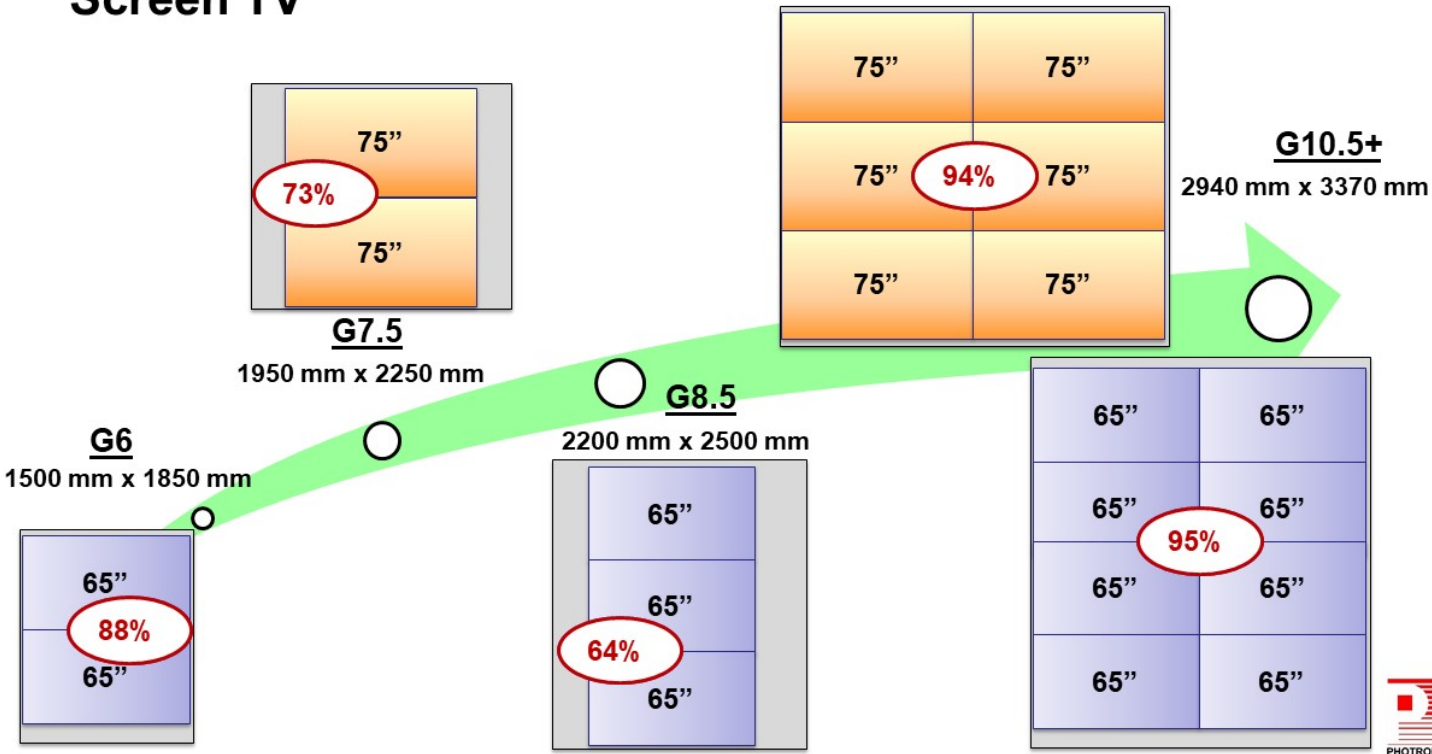
## ▶ Increasing mask complexity

- More mask layers per set
- Tighter specs on each layer

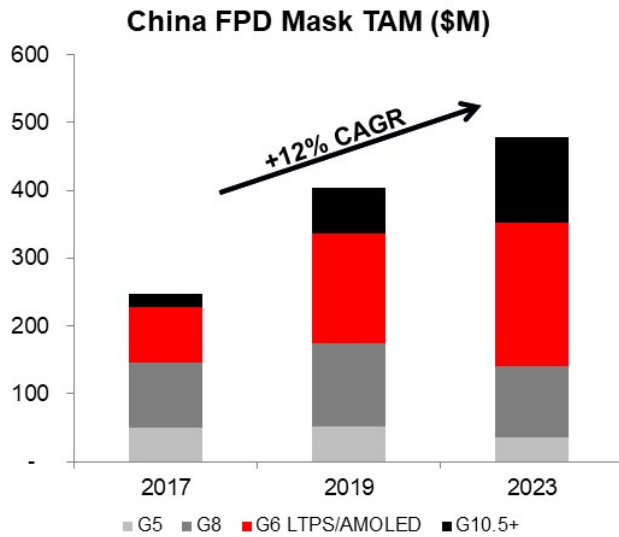
## ▶ Established technology leadership

- 1<sup>st</sup> firm with P-800 mask writer
- Produces highest resolution AMOLED masks
- Competitive advantage vs. all merchants and captives

# G10.5+ → Improved Glass Efficiency for Ultra-Large Screen TV



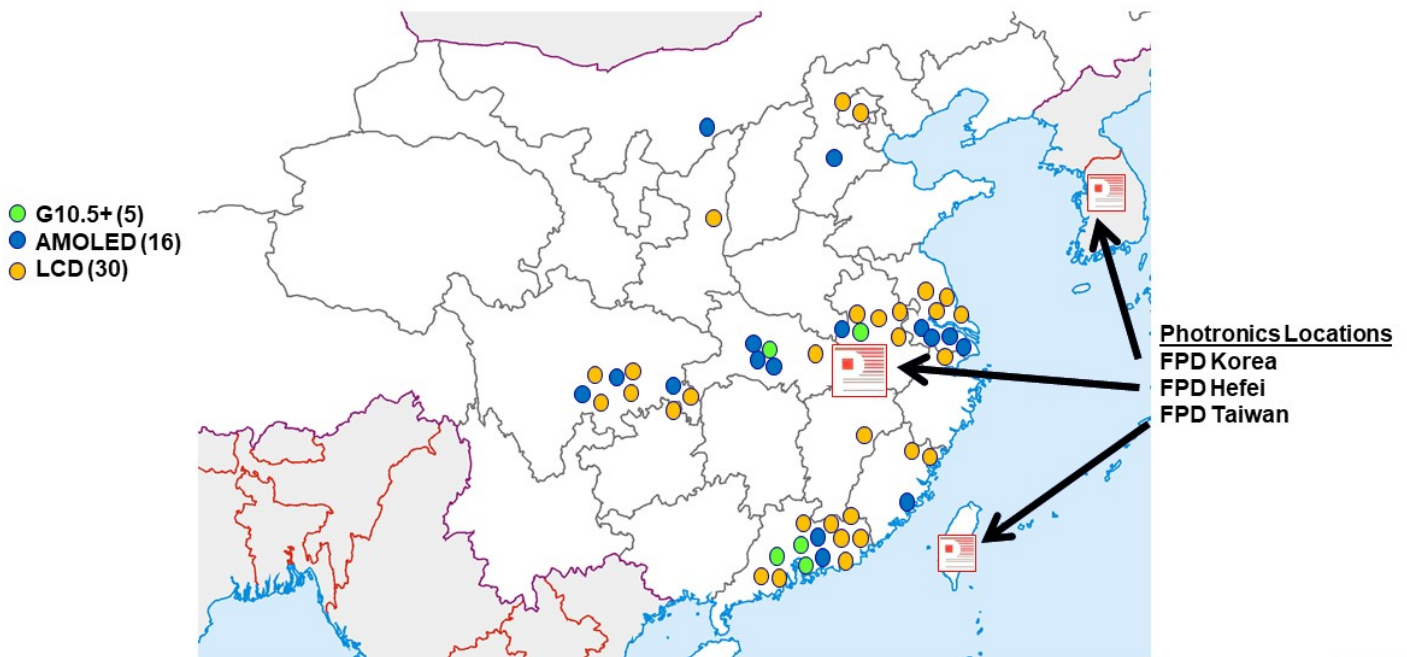
# “Made in China 2025” Driving Growth in FPD Market



Source: Internal Estimates

- ▶ **China represents fastest growing display region**
  - 51 fabs in production or under construction
  - Largest LCD display producer (Korea 2<sup>nd</sup>)
- ▶ **Photomask opportunities in China are attractive**
  - Wide range of display technologies
  - No merchant photomask producer with high-end experience
  - We are aligned with fastest growing sectors: AMOLED & G10.5+

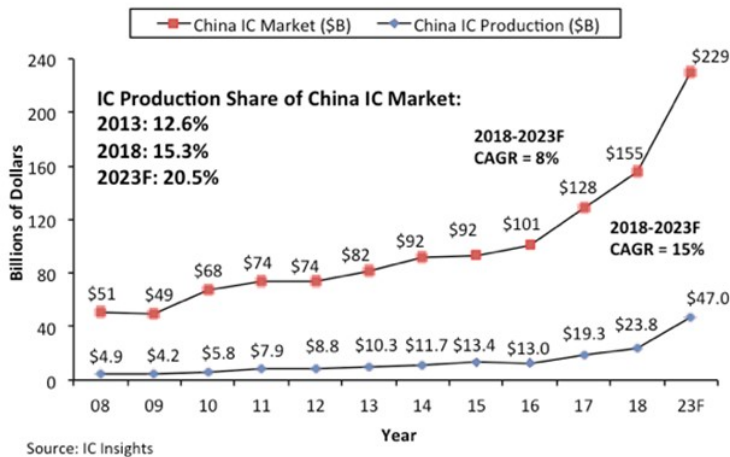
# 51 China Display Fabs in Production by 2022





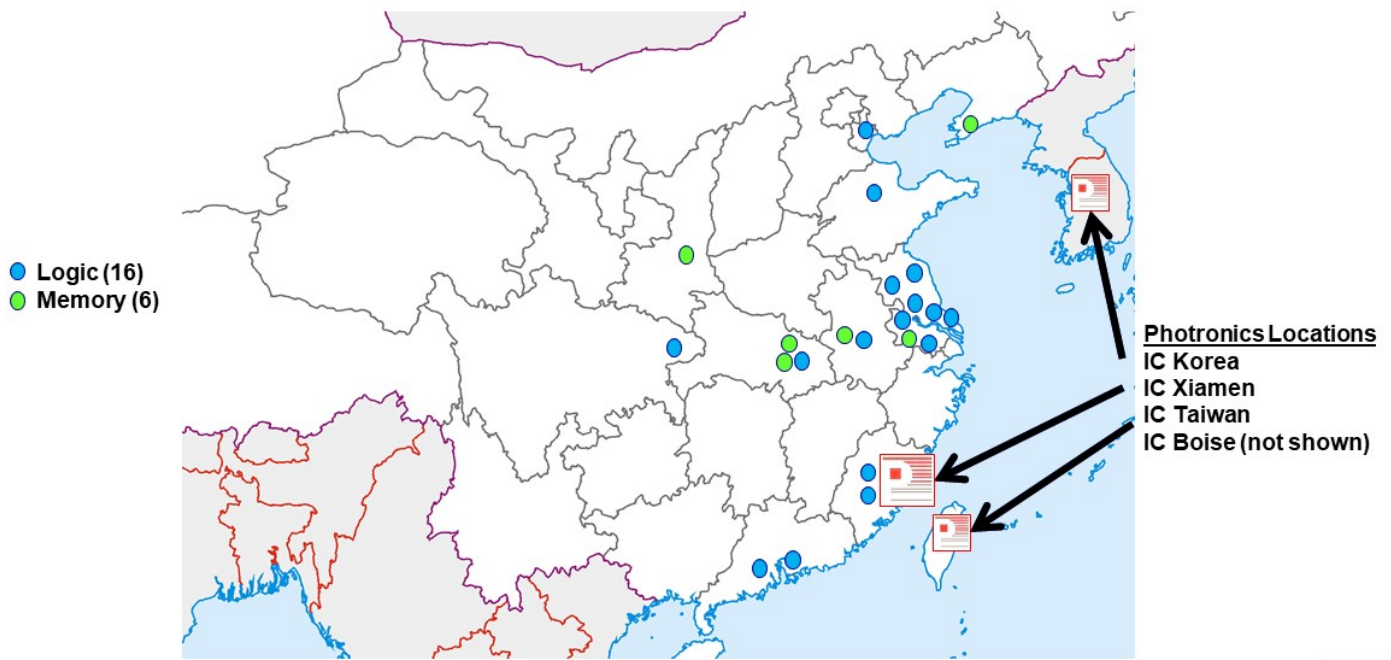
# “Made in China 2025” Driving Growth in IC Market

China IC Market vs. China IC Production Trends



- ▶ **China represents fastest growing semiconductor region**
  - Growing domestic producers
  - Investments by multi-nationals
- ▶ **More investment needed to meet national targets**
  - 2023 forecast is 21%
  - China government target is 40% by 2020, 70% by 2025
- ▶ **Photomask opportunities in China are attractive**
  - Wide range of nodes in logic and memory
  - No strong domestic merchant mask producer

# 22 New China 12" IC Fabs 2018-2022



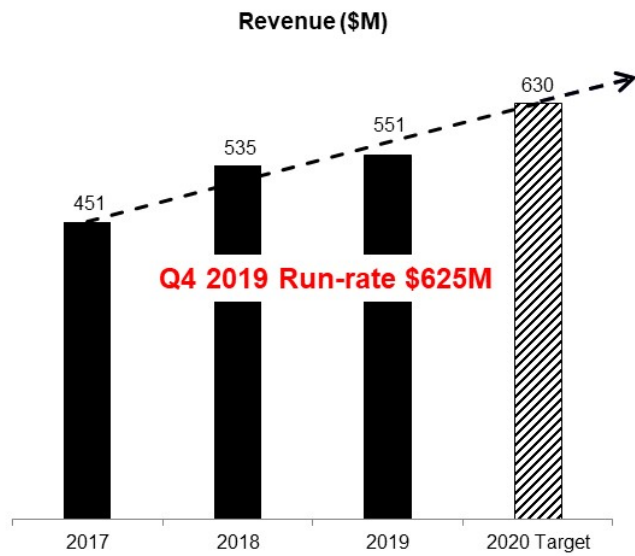
# Strategic Priorities to Improve Shareholder Value

- ▶ **Top line growth with continued focus on driving costs out**
- ▶ **Disciplined focus on investments to improve ROIC**
- ▶ **Maintain strong balance sheet while returning cash to shareholders**
  - Share repurchases
  - Flexibility to invest in other growth opportunities (organic or M&A)

# Solid Financial Fundamentals

- ▶ **Powerful operating leverage: target 50%**
- ▶ **Strong operating cash flow generator**
- ▶ **Disciplined investment approach**
- ▶ **Solid balance sheet**

# On Our Way to 2020 Target



## Key Success Factors

- ▶ “Made in China 2025” – new facilities
- ▶ FPD technology inflections
- ▶ Repositioned the company
- ▶ Node migration (logic & memory)
- ▶ Growing business with captive producers
- ▶ IC JV’s in China and Taiwan
- ▶ Stable mainstream business
- ▶ Cross-site collaboration to serve global customers

# Clear Capital Deployment Priorities

## ▶ Fund organic growth

- Geographic expansion into China
- Investments to maintain technical leadership
- Capacity expansion when reciprocated by customer commitment

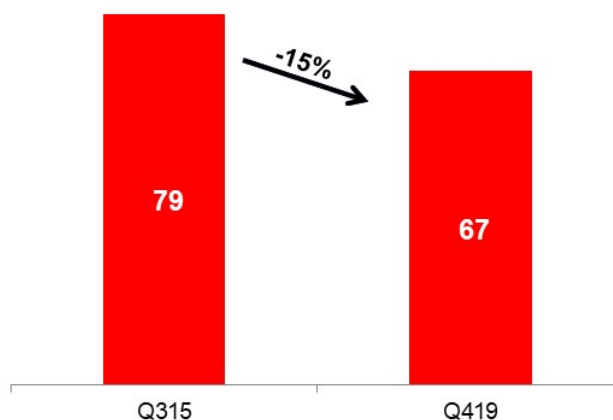
## ▶ Explore strategic M&A

- Photomask industry – IC & FPD
- Adjacencies to increase revenue diversification

## ▶ Share repurchase

- Repurchased 4.7M shares (\$44.8M) since 2018
- \$89M remaining in current \$100M authorization
- Redeemed \$115M in convertible debt since 2016, eliminating 10.3M potentially dilutive shares

Reducing Diluted Shares  
(Million Shares)



# Financial Summary

- ▶ **Clear path to accelerate profitable growth**
- ▶ **Prudent stewardship of balance sheet**
- ▶ **Financial model to grow income faster than revenue**
- ▶ **On track to achieve financial targets**
  - Revenue \$630M & EPS \$0.80 by 2020
  - Operating margin > 15%
  - Minimum \$100M net cash
  - Improve ROIC – no projects accepted below hurdle rate

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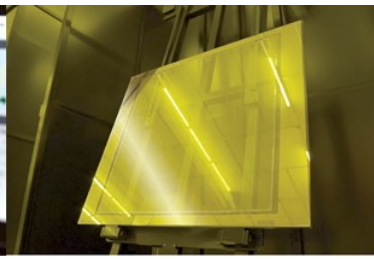
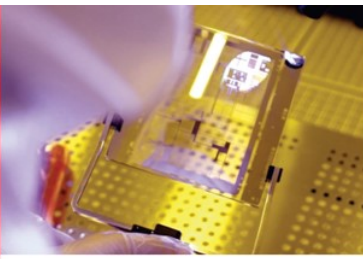


**Thank you for your interest!**

For Additional Information:

**R. Troy Dewar, CFA**  
Vice President, Investor Relations  
203.740.5610  
[tdewar@photonics.com](mailto:tdewar@photonics.com)





# Appendix

# Q4 2019 Summary

- ▶ **Record revenue, up 13% Q/Q and 8% Y/Y**
  - Record FPD revenue driven by mobile displays and Hefei production ramp
  - Record IC revenue as China design activity accelerates
  - Record revenue of products shipped to China, representing 33% of total revenue
- ▶ **Operating margin expanded to 13.7% on operating leverage and cost control**
- ▶ **Net income attributable to Photronics, Inc. shareholders of \$9.7M (\$0.15/share)**
- ▶ **Cash balance grew to \$207M on strong operating cash flow**
- ▶ **Repurchased 1.0M shares for \$11M**
- ▶ **China production contributed \$11M to revenue**

**Successfully repositioned the business; China investments driving long-term, profitable growth**

# Income Statement Summary

| <b>\$M (except EPS)</b> | <b>Q419</b>  | <b>Q319</b>  | <b>Q/Q</b>     | <b>Q418</b>  | <b>Y/Y</b>      |
|-------------------------|--------------|--------------|----------------|--------------|-----------------|
| Revenue                 | \$ 156.3     | \$ 138.1     | 13%            | \$ 144.7     | 8%              |
| Gross Profit            | \$ 38.2      | \$ 30.6      | 25%            | \$ 35.4      | 8%              |
| <i>Gross Margin</i>     | <i>24.4%</i> | <i>22.1%</i> | <i>230 bps</i> | <i>24.5%</i> | <i>(10 bps)</i> |
| Operating Income        | \$ 21.5      | \$ 13.4      | 60%            | \$ 18.0      | 19%             |
| <i>Operating Margin</i> | <i>13.7%</i> | <i>9.7%</i>  | <i>400 bps</i> | <i>12.5%</i> | <i>120 bps</i>  |
| Other income (expense)  | (\$ 6.1)     | (\$ 0.3)     | (\$ 5.8)       | \$ 2.3       | (\$ 8.4)        |
| Income tax provision    | \$ 2.3       | \$ 3.2       | (\$ 0.9)       | \$ 3.6       | (\$ 1.2)        |
| Minority interest       | \$ 3.3       | \$ 3.5       | (\$ 0.1)       | \$ 4.3       | (\$ 0.9)        |
| Net Income*             | \$ 9.7       | \$ 6.3       | 53%            | \$ 12.5      | (22%)           |
| Diluted EPS*            | \$ 0.15      | \$ 0.10      | \$ 0.05        | \$ 0.18      | (\$ 0.03)       |
| <i>Days in quarter</i>  | <i>95</i>    | <i>91</i>    | <i>4</i>       | <i>94</i>    | <i>1</i>        |

- ▶ **Gross and operating margin improved Q/Q on revenue growth, operating leverage and cost controls**
- ▶ **China operations were \$4.1M negative impact to operating income**
- ▶ **Other income/expense primarily attributable to FX gain/loss**
- ▶ **Minority interest reflects Taiwan JV gain partially offset by China JV loss**

# IC Photomask Revenue

| \$M        | Q419     | Q319     | Q/Q | Q418     | Y/Y  |
|------------|----------|----------|-----|----------|------|
| High-End*  | \$ 45.0  | \$ 38.5  | 17% | \$ 39.4  | 14%  |
| Mainstream | \$ 67.6  | \$ 61.7  | 9%  | \$ 71.4  | (5%) |
| Total      | \$ 112.5 | \$ 100.2 | 12% | \$ 110.9 | 1%   |

Total may differ due to rounding

Q419 Revenue by Technology



■ High-End\* 40%

■ Mainstream 60%

\*28nm and smaller

▶ Revenue grew with increase in broad-based design activity

▶ China revenue rebounded as firms accelerate product development

■ +72% Q/Q; +32% Y/Y

■ Represents 22% of Q419 IC revenue

▶ Outlook

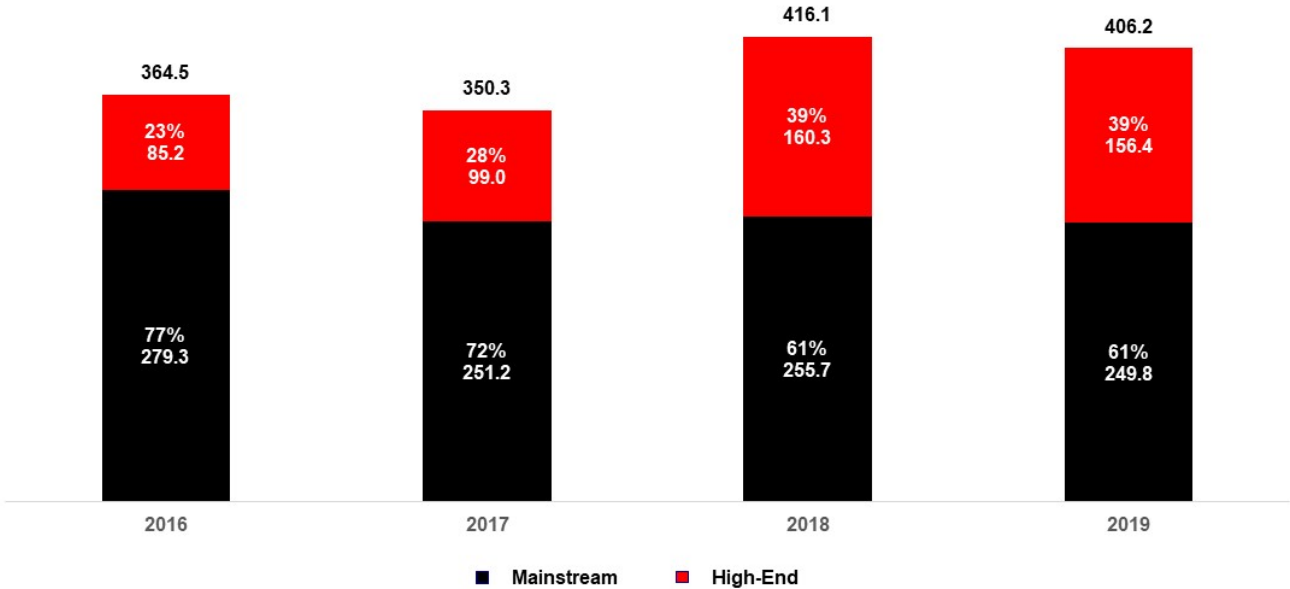
■ Expect stable to improving high-end demand

■ Anticipate production ramping in Xiamen

■ Potential impact from US-China trade discussions

■ Seasonal headwinds

# IC Photomask Revenue



High-End: 28nm and smaller; total may differ due to rounding



# FPD Photomask Revenue

| \$M        | Q419    | Q319    | Q/Q | Q418    | Y/Y |
|------------|---------|---------|-----|---------|-----|
| High-End*  | \$ 28.5 | \$ 25.9 | 10% | \$ 22.0 | 29% |
| Mainstream | \$ 15.2 | \$ 12.0 | 27% | \$ 11.8 | 30% |
| Total      | \$ 43.7 | \$ 37.9 | 15% | \$ 33.8 | 29% |

Total may differ due to rounding

Q419 Revenue by Technology



- High-End\* 65%
- Mainstream 35%

\*≥G8 and AMOLED

▶ **Record FPD revenue driven by mobile displays and China production ramp, including G10.5+**

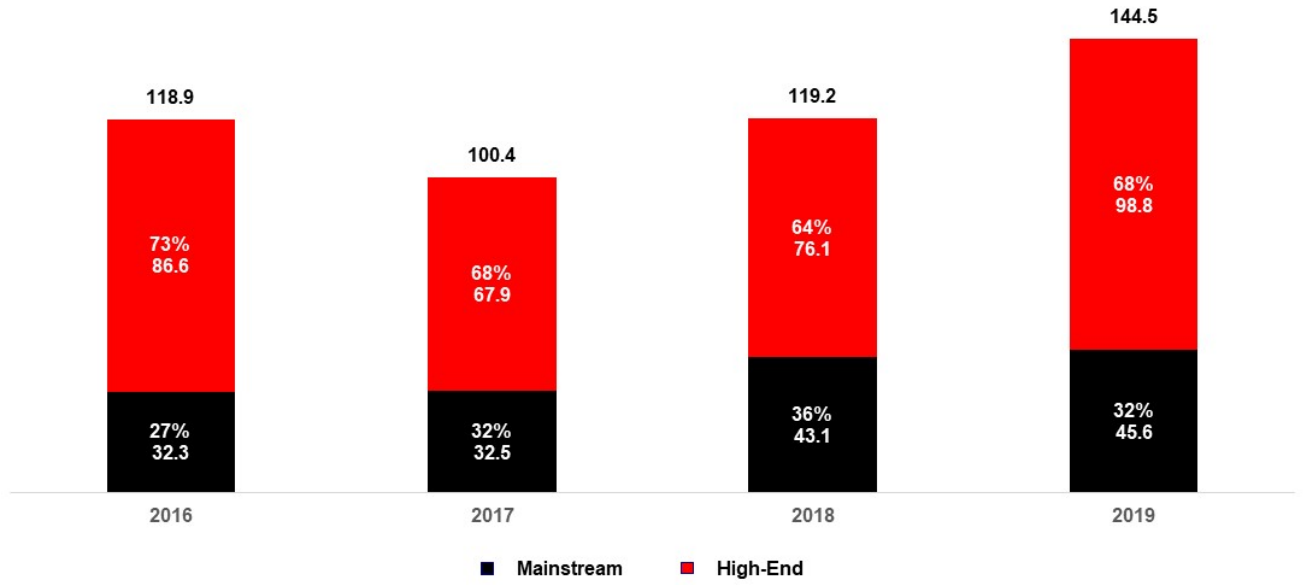
▶ **China revenue**

- +32% Q/Q; +118% Y/Y
- Represents 61% of Q419 FPD revenue

▶ **Outlook**

- Mobile display demand expected to remain high
- LCD industry downturn continues
- Hefei shipments should continue to ramp

# FPD Photomask Revenue



High-End: ≥G8 and AMOLED; total may differ due to rounding



## Select Financial Data

| <b>\$M</b>           | <b>Q419</b> | <b>Q319</b> | <b>Q418</b> |
|----------------------|-------------|-------------|-------------|
| Cash                 | \$ 207      | \$ 197      | \$ 329      |
| Debt                 | \$ 53       | \$ 49       | \$ 57       |
| Net Cash*            | \$ 154      | \$ 148      | \$ 272      |
| Operating Cash Flow  | \$ 48       | \$ 26       | \$ 44       |
| Capital Expenditures | \$ 17       | \$ 20       | \$ 28       |
| Share repurchase     | \$ 11       | -           | \$ 16       |

- ▶ **Deploying cash balance to fund China investments**
- ▶ **Debt is local China borrowing to finance fixed assets**
- ▶ **FY 2019 capex \$177M; anticipate FY 2020 capex ~ \$100M (includes 2019 carryover)**
- ▶ **Repurchased 1.0M shares for \$11M (YTD 2.1M shares for \$22M)**
- ▶ **Balance sheet able to fund planned investments, share repurchases, and strategic M&A opportunities**

\*Net cash defined as cash and cash equivalents less long-term borrowings (including current portion), as reported in accordance with GAAP

# Total Revenue

