

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 12, 2023

**PHOTRONICS, INC.**

(Exact name of registrant as specified in its charter)

Connecticut

(State or other jurisdiction of incorporation)

0-15451

(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 Select Market

**Item 7.01.**    **Regulation FD.**

On January 12th, 2023, Photonics, Inc. (the “Company”) will present at the 25<sup>th</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.

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

(d) Exhibits

[99.1](#) Presentation dated January 12, 2023

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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

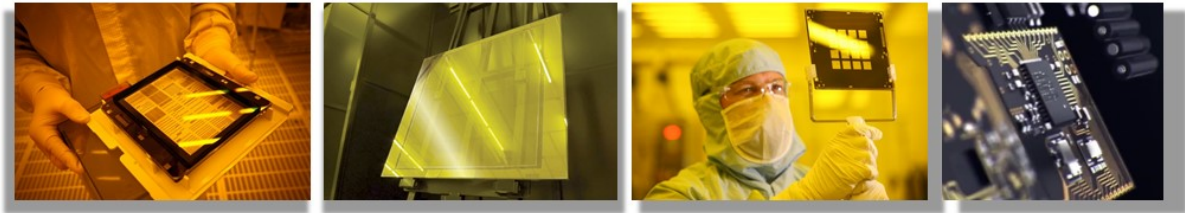
Date: January 12, 2023

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# Global Merchant Photomask Leader

25<sup>th</sup> Annual Needham Growth Conference  
January 12, 2023



PHOTRONICS, INC.

# Safe Harbor Statement

This presentation and some of our comments during this presentation may contain projections or other forward-looking statements such as statements regarding future events, our future financial performance, and/or the future performance of the industry. These statements are subject to predictions and contain risks and uncertainties. We refer you to the documents the Company files from time to time with the Securities and Exchange Commission. These documents contain and identify important factors that could cause the actual results for the Company to differ materially from those contained in our projections or forward-looking statements. Certain of these factors can be found at [www.photronics.com/riskfactors](http://www.photronics.com/riskfactors). Although we believe that the expectations reflected in the forward-looking statements are reasonable, 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.

# A Compelling Investment Thesis



## A GLOBAL LEADER in the **merchant photomask industry**

Delivering growth  
by leveraging core  
competencies



## TECHNOLOGY ALIGNED with **secular growth trends**

China industry expansion  
(IC & FPD)

Display technology  
inflections

Resurgence of legacy  
foundry sector



## INVESTMENT GROWTH strategy targeting **EPS growth +35%\***

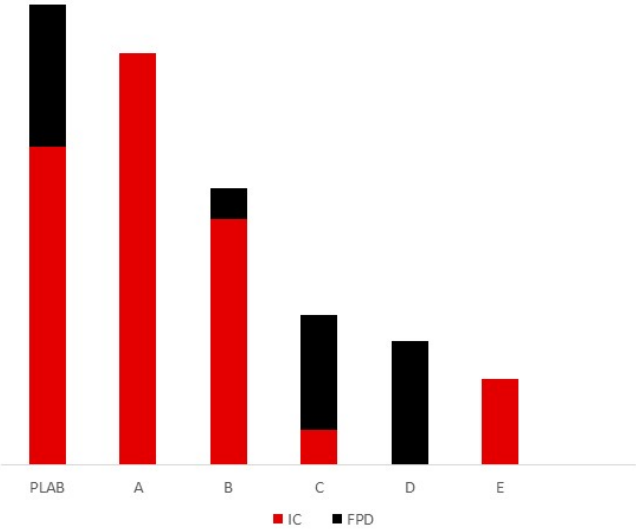
Operating margins  
in the low-thirties

Free cash flow  
above \$250M

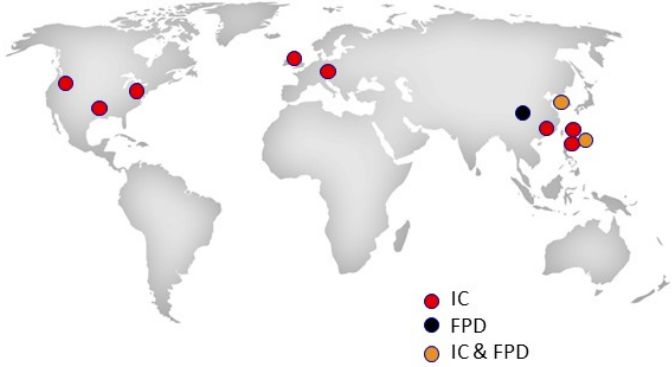
\*Upper range of 2024 target model compared with 2022

# Leading merchant with unmatched global presence

Largest Merchant Photomask Manufacturer (\$M)



Unmatched Global Footprint  
11 Strategically Located Manufacturing Facilities



Sources: SEMI 2021 Photomask Characterization Study; internal estimates



# Investment Strategy

## Revenue Growth

- Win lion's share of the impressive growth in TAM for China IC and FPD
- Supplement capacity with point tool investments and targeted expansions
- Capitalize on technology leadership in AMOLED to continue improving mix
- Leverage global footprint to exploit growth in "legacy foundry" business

## Margin Expansion

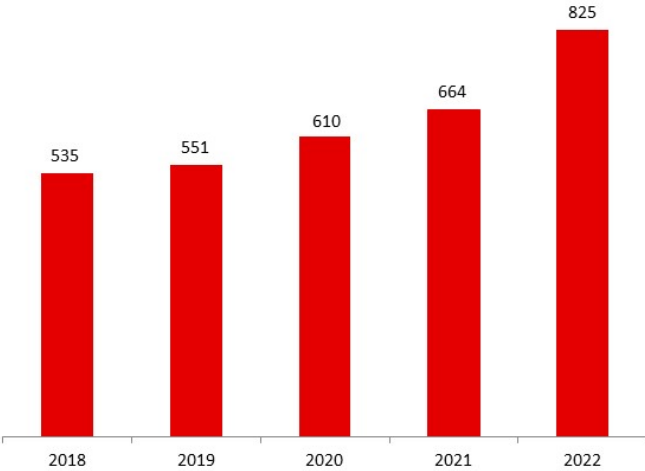
- Sustaining pricing strength in high-end and mainstream IC
- Optimizing asset tool set to match end-market demand
- Increasing benefit from operating leverage

## Explore Strategic Partnerships

# Investment strategy is working

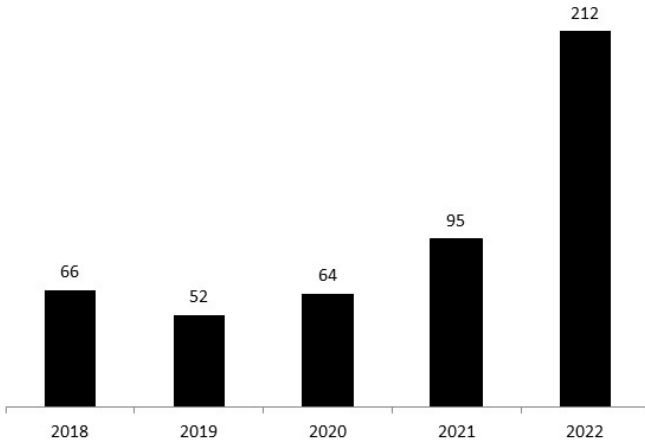
Converting Investments Into Revenue (\$M)

5<sup>th</sup> consecutive year of record revenue



Growing Operating Income (\$M)

29% operating margin during H2 2022



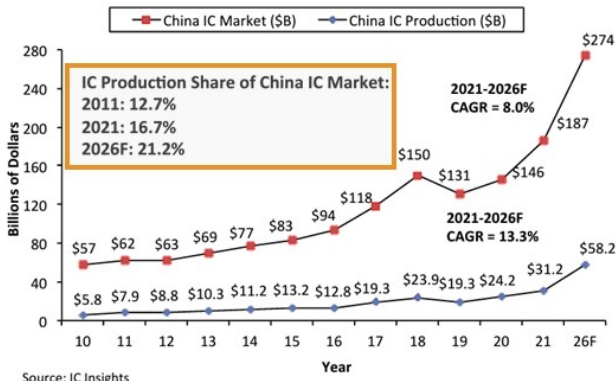
# Delivering on Updated Target Model

<u>\$M (except EPS)</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>Illustrative FY 24 Target Model</u>		
Revenue	\$610	\$664	\$825	\$900	\$950	\$975
Gross Margin	22%	25%	36%	38-40%	40-42%	42-43%
Operating Margin	10%	14%	26%	28-30%	30-32%	32-33%
Operating Cash Flow	\$143	\$151	\$275	\$350-375	\$365-380	\$375-400
Free Cash Flow*	\$77	\$47	\$166	\$250-275	\$235-280	\$275-300
Diluted EPS	\$0.52	\$0.89	\$1.94	\$2.35-2.45	\$2.50-2.55	\$2.60-2.65

\*Free Cash Flow is a non-GAAP term; see reconciliation included in this presentation

# “Made in China 2025” driving growth

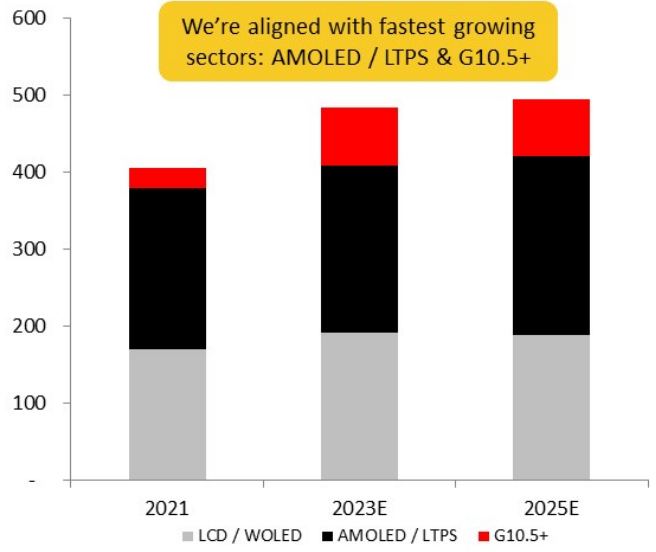
**China IC Market vs. China IC Production Trends**



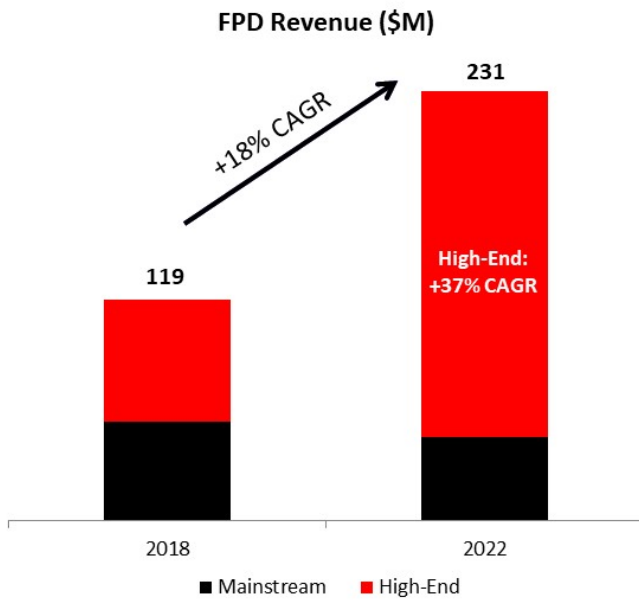
Source: IC Insights  
May 2022

Forecast falling short of policy goals  
More investment needed to meet targets

**China FPD Mask TAM (\$M)**



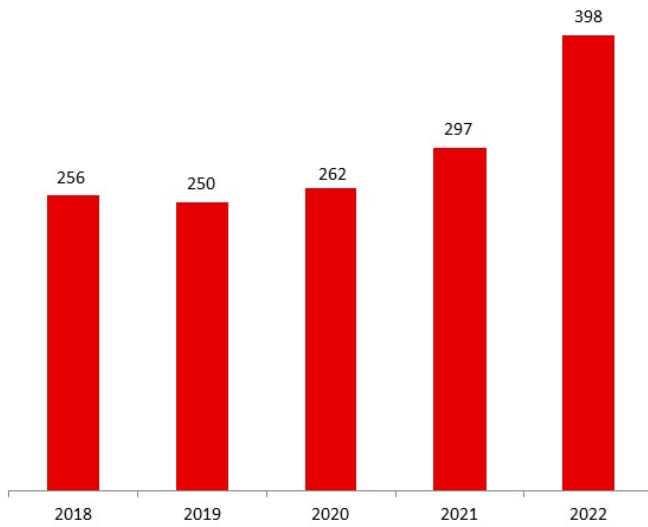
## Technology leadership improves FPD business mix



- Investments aligned with secular growth trends
  - AMOLED & LTPS for mobile
  - New OLED TV technologies
  - G10.5+
- Partners with largest panel makers
- Runway left for advanced display growth
  - Mobile platforms
  - Advanced TV
  - Mini & Micro LED

# Growth in Legacy Foundry = Dynamic Mainstream Mask Market

Mainstream IC Revenue (\$M)



- Demand continues to exceed supply
  - Delivery times expanded from legacy levels
  - Industry cannot add capacity cost effectively
- Rebirth of the ASIC mask market
  - Moore's law economics no longer working for much of the logic market
  - Mask to silicon revenue of 3% in mainstream vs 1% for over-all semiconductor market
- Pricing leverage
  - Double digit increases implemented in Taiwan and China
  - Pricing environment improved globally.

# Financial Discipline Improves Shareholder Value

- Targeted investments drive top-line growth in excess of market
- Operating leverage and cost reductions expand margins
  - Target operating margins low-thirties
  - Target incremental margins 50%
- Strong cash flow generation fortifies balance sheet
- Capital deployment priorities to improve ROIC



# Q4 2022 Summary

Revenue was

**\$210.3M**



IC: -3% Q/Q, +25% Y/Y

FPD: -8% Q/Q, -3% Y/Y

To China: +8% Q/Q; +39% Y/Y

**\$320M**

Cash  
balance

**\$ 39M**

S-T  
Investments

**\$79M** generated from operating activity

**\$66M** invested in capex

**\$42M** total long-term debt; reduced debt \$69M Y/Y

- Net income attributable to Photronics, Inc. shareholders of \$37.1M (\$0.60/share)
- Investing in mainstream IC capacity to capitalize on market growth trends

Committed to driving long-term, profitable growth through strategic investments



# 2022 Summary

Revenue was a record

**\$824.5M**



IC: +29%

FPD: +14%

To China: +55%

**\$320M**

Cash balance

**\$ 39M**

S-T Investments

\$275M generated from operating activity

\$112M invested in capex

\$166M in free cash flow\*

- Fifth consecutive year of record revenue, as customers continue to trust us for their photomask needs
- Gross and operating margins in target model range during second half of 2022
- Net income attributable to Photronics, Inc. shareholders of \$118.8M (\$1.94/share)

**5<sup>th</sup> consecutive year of record revenue, demonstrating effectiveness of investment strategy**

\*Free Cash Flow is a non-GAAP term; see reconciliation included in this presentation  
12/13/2022

## Income Statement Summary - Quarter

\$M (except EPS)	Q422	Q322	Q/Q	Q421	Y/Y
Revenue	\$ 210.3	\$ 219.9	(4%)	\$ 181.3	16%
Gross Profit	\$ 80.3	\$ 83.9	(4%)	\$ 51.9	55%
Gross Margin	38.2%	38.1%	10 bps	28.7%	950 bps
Operating Income	\$ 60.5	\$ 63.7	(5%)	\$ 33.5	81%
Operating Margin	28.8%	29.0%	(20 bps)	18.5%	1,030 bps
Non-operating income	\$ 10.8	\$ 3.6	\$ 7.2	\$ 3.8	\$ 7.0
Income tax provision	\$ 16.1	\$ 18.1	(\$ 2.0)	\$ 8.7	\$ 7.4
Minority interest	\$ 18.2	\$ 18.0	\$ 0.2	\$ 8.8	\$ 9.4
Net income*	\$ 37.1	\$ 31.2	19%	\$ 19.8	87%
Diluted EPS*	\$ 0.60	\$ 0.51	\$ 0.09	\$ 0.33	\$ 0.27
Days in quarter	92	91	1	91	1

\*Net income attributable to Photonics, Inc. shareholders  
12/13/2022

- Margins essentially flat Q/Q as cost management and IC price realization offset impact of lower revenue
- Non-operating income primarily consists of unrealized FX gain
- Minority interest from strong net income of IC JVs in Taiwan and China

## Income Statement Summary – Full Year

\$M (except EPS)	FY22	FY21	Y/Y
Revenue	\$824.5	\$663.8	24%
Gross Profit	\$294.2	\$167.0	76%
Gross Margin	35.70 %	25.20 %	1050 bps
Operating Income	\$211.9	\$94.6	124%
Operating Margin	25.70 %	14.20 %	1150 bps
Non-operating income	\$27.2	\$7.5	\$19.7
Income tax provision	\$59.8	\$23.2	\$36.6
Minority interest	\$60.5	\$23.4	\$37.1
Net income*	\$118.8	\$55.4	\$63.4
Diluted EPS*	\$1.94	\$0.89	\$1.05

- Margins continued improving through the year driven by improved demand profile and pricing environment combined with strong cost control
- Non-operating income primarily consists of unrealized FX gain
- Minority interest from strong net income of IC JVs in Taiwan and China

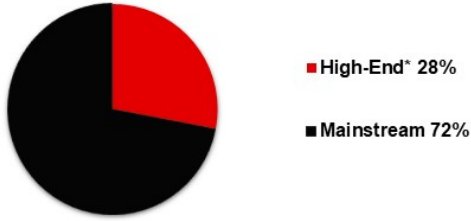
\*Net income attributable to Photonics, Inc. shareholders  
12/13/2022

# IC Photomask Revenue

\$M	Q422	Q322	Q/Q	Q421	Y/Y
High-End*	\$ 44.3	\$ 52.7	(16%)	\$ 42.6	4%
Mainstream	\$ 111.9	\$ 108.6	3%	\$ 82.9	35%
Total	\$ 156.2	\$ 161.3	(3%)	\$ 125.4	25%

Total may differ due to rounding

Q422 Revenue by Technology



\*28nm and smaller  
12/13/2022

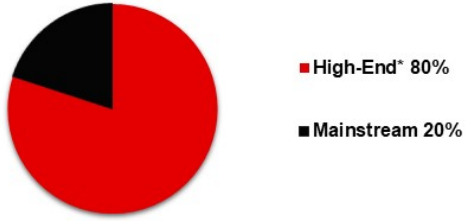
- High-end declined Q/Q on lower foundry/logic demand in Asia
- Continued mainstream growth from chip proliferation in consumer products, IoT, 5G, and Crypto supporting higher ASPs
- Outlook
  - New designs by customers to gain market share and support technology roadmap
  - Regionalization driving investments for global chip capacity
  - Expanding ASPs on positive supply/demand balance

# FPD Photomask Revenue

\$M	Q422	Q322	Q/Q	Q421	Y/Y
High-End*	\$ 43.4	\$ 50.7	(14%)	\$ 41.0	6%
Mainstream	\$ 10.6	\$ 8.0	33%	\$ 14.9	(28%)
Total	\$ 54.1	\$ 58.7	(8%)	\$ 55.8	(3%)

Total may differ due to rounding

Q422 Revenue by Technology



\*≥G10.5, AMOLED and LTPS  
12/13/2022

- Lower Q/Q high-end demand for mobile displays and G10.5+ for ultra-large screen TVs
- Mainstream increased sequentially as we filled capacity from high-end decline
- Outlook
  - Mobile demand should recover with rollout of new designs
  - Technology development drives demand for higher-value masks

## Select Financial Data

\$M	Q422	Q322	Q421
Cash	\$359	\$381	\$277
Debt	\$42	\$57	\$12
Net Cash*	\$316	\$324	\$165
Operating Cash Flow	\$79	\$93	\$38
Capital Expenditures	\$66	\$12	\$17
Full Year Operating Cash Flow	\$275		\$151
Full Year Capital Expenditures	\$109		\$103
Share repurchase	-	-	\$13

\*Net cash defined is a non-GAAP term; see reconciliation included in this presentation  
12/13/2022

- Cash includes cash equivalents and long-term investments
- Debt primarily comprised of US equipment leases and local China loans; reduced debt \$69M in 2022
- Full-year capex (net of gov't subsidies) mostly mainstream IC capacity & facility expansion
- Balance sheet able to fund investments, share repurchases, and strategic M&A opportunities
- Total share repurchases of \$68M under current (Sep 2020) \$100M authorization

## Summary



2022 was 5<sup>th</sup> consecutive year of **record revenue**, growing 13% CAGR over that period



Our **leadership position is expanding** – growing more quickly than markets



Moving forward, investment focus is to drive **accretive growth**



With a business model demonstrated to deliver **increasing shareholder value**

- Margin expansion creates earnings power
- Strong cash flow generation
- Strategic use of cash to fund growth and enhance shareholder returns

# A Compelling Investment Thesis



## A GLOBAL LEADER in the **merchant photomask industry**

Delivering growth  
by leveraging core  
competencies



## TECHNOLOGY ALIGNED with **secular growth trends**

China industry expansion  
(IC & FPD)

Display technology  
inflections

Resurgence of legacy  
foundry sector



## INVESTMENT GROWTH strategy targeting **EPS growth +35%\***

Operating margins  
in the low-thirties

Free cash flow  
above \$250M

\*Upper range of 2024 target model compared with 2022



# Thank you for your interest!

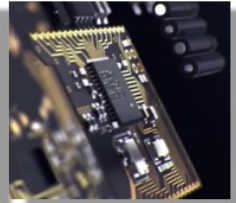
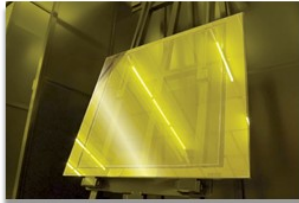
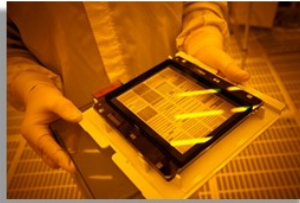
For Additional Information:

John P. Jordan

Executive Vice President & CFO

203.740.5671

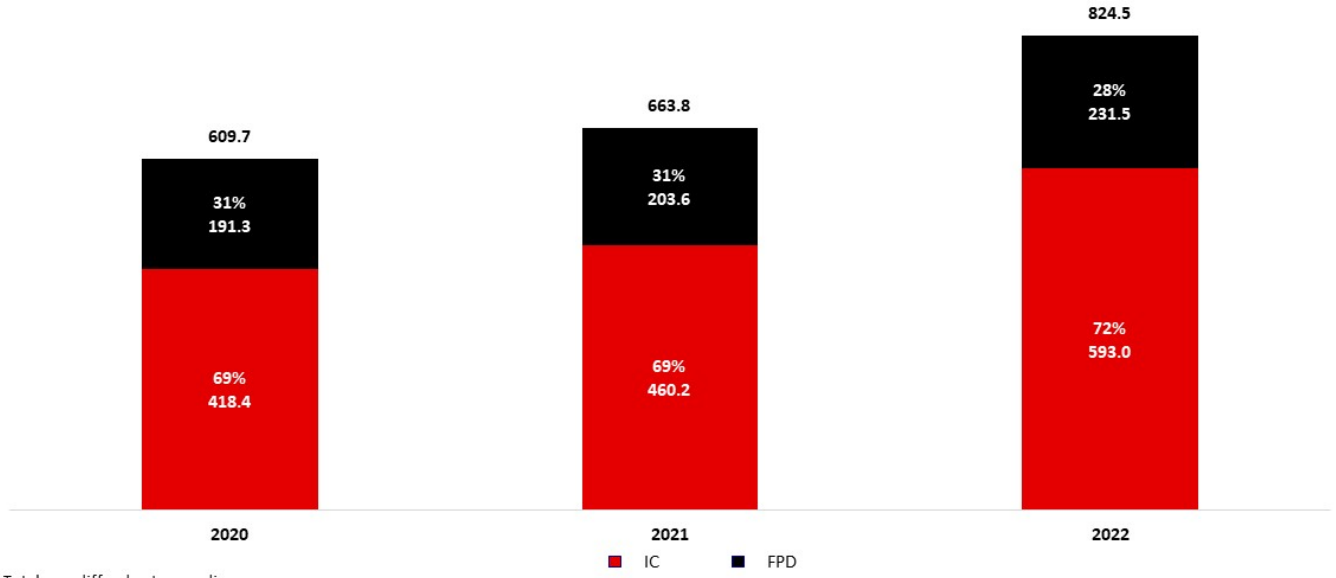
[jjordan@photonics.com](mailto:jjordan@photonics.com)



# Appendix

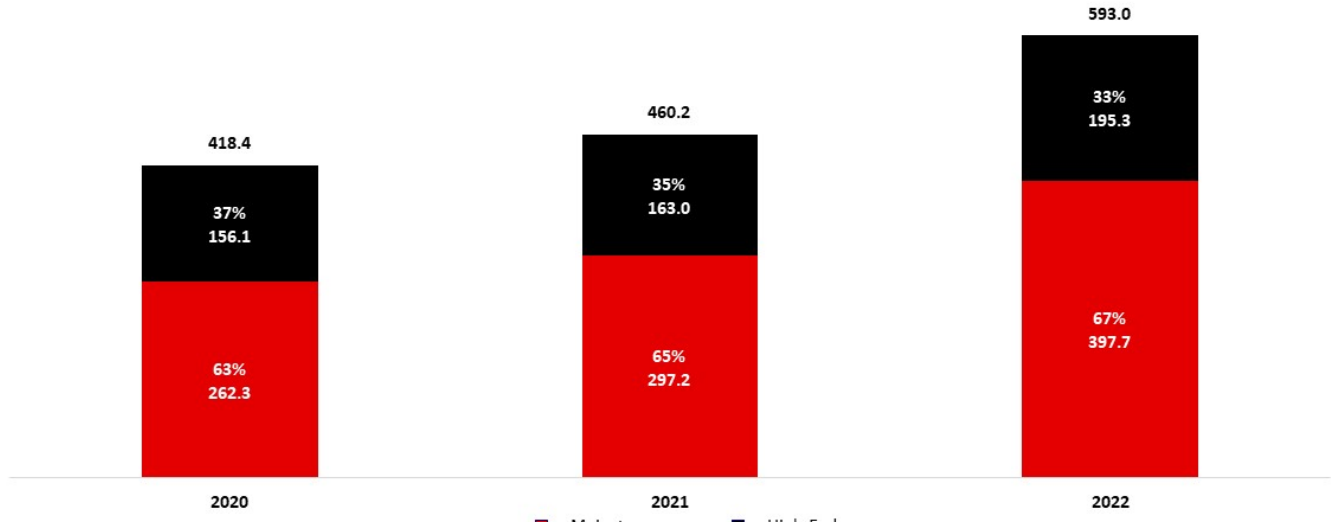
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# Total Revenue



Total may differ due to rounding

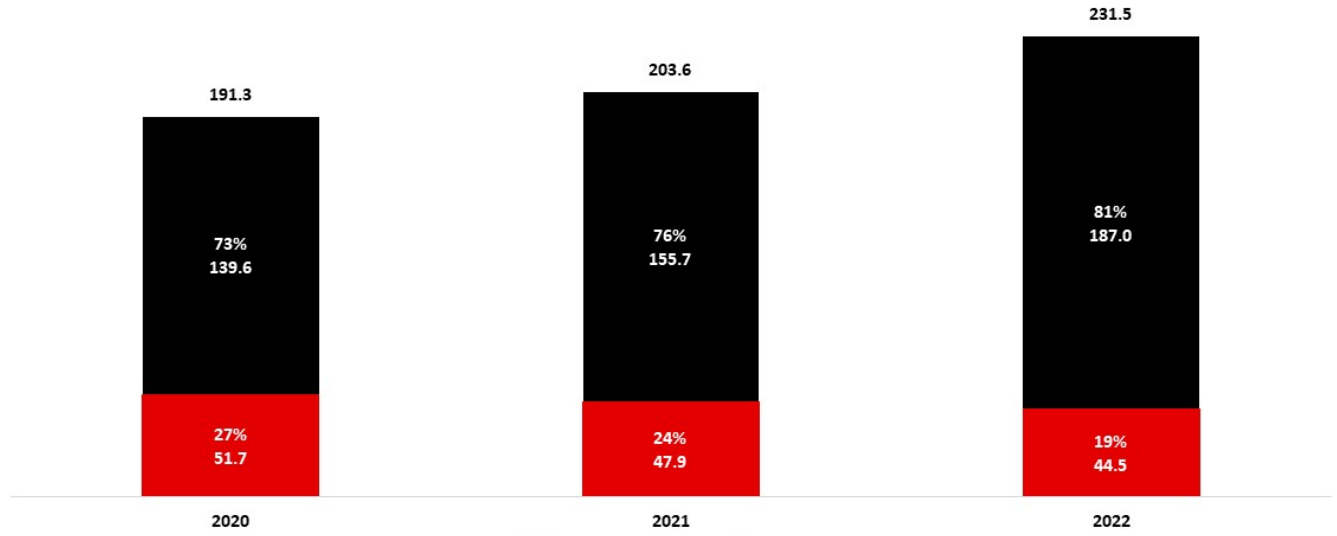
# IC Photomask Revenue



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

■ Mainstream ■ High-End

# FPD Photomask Revenue



High-End: ≥G10.5, AMOLED and LTPS; total may differ due to rounding

■ Mainstream ■ High-End

## Non-GAAP Financial Measures

Free Cash Flow, LTM Free Cash Flow, and Net Cash are "non-GAAP financial measures" as such term is defined by the Securities and Exchange Commission, and may differ from similarly named non-GAAP financial measures used by other companies. The attached financial supplement reconciles Photronics, Inc. financial results under GAAP to non-GAAP financial information. We believe these non-GAAP financial measures that exclude certain items are useful for analysts and investors to evaluate our future on-going performance because they enable a more meaningful comparison of our projected performance with our historical results. These non-GAAP metrics are not intended to represent funds available for our discretionary use and are not intended to represent, or be used as a substitute for, cash and cash equivalents, or cash flows from operations, as measured under GAAP. The items excluded from these non-GAAP metrics, but included in the calculation of their closest GAAP equivalent, are significant components of the condensed consolidated balance sheets and statement of cash flows and must be considered in performing a comprehensive assessment of overall financial performance. Please refer to the non-GAAP reconciliations on the following page.

# Non-GAAP Financial Measures

**Reconciliation of GAAP to Non-GAAP Financial Information**  
(in thousands)  
(Unaudited)

*Reconciliation of Net cash provided by operating activities to Free Cash Flow*

	Year ended				Target Model Two-year Horizon
	October 31, 2022	October 31, 2021	October 31, 2020	October 31, 2019	
GAAP Net cash provided by operating activities	\$ 275,187	\$ 150,772	\$ 143,046	\$ 68,386	\$ 350,000 - 400,000
Purchases of property, plant and equipment	(112,338)	(109,099)	(70,815)	(178,375)	(100,000)
Government Incentives	3,615	5,775	5,263	27,003	-
Free Cash Flow	<u>\$ 166,464</u>	<u>\$ 47,448</u>	<u>\$ 77,494</u>	<u>\$ (82,986)</u>	<u>\$ 250,000 - 300,000</u>

*Reconciliation of Cash and cash equivalents to Net Cash:*

	As of	
	October 31, 2022	October 31, 2021
Cash and cash equivalents	\$ 319,680	\$ 276,670
Short-term investments	38,820	-
Current portion of Long-term debt	(10,024)	(22,248)
Long-term Debt	(32,310)	(89,446)
Net Cash	<u>\$ 316,166</u>	<u>\$ 164,976</u>