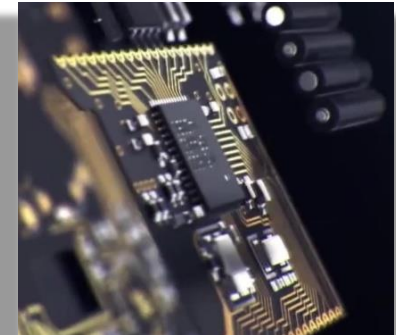
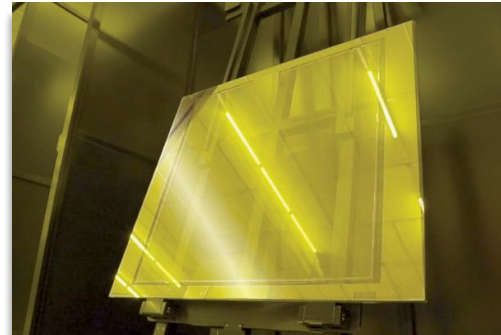
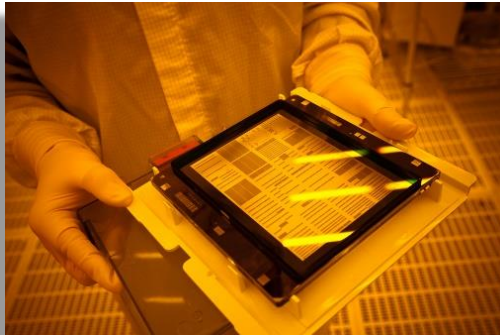


Global Merchant Photomask Leader

Stifel 2021 Virtual Cross Sector Insight Conference
June 8, 2021



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.

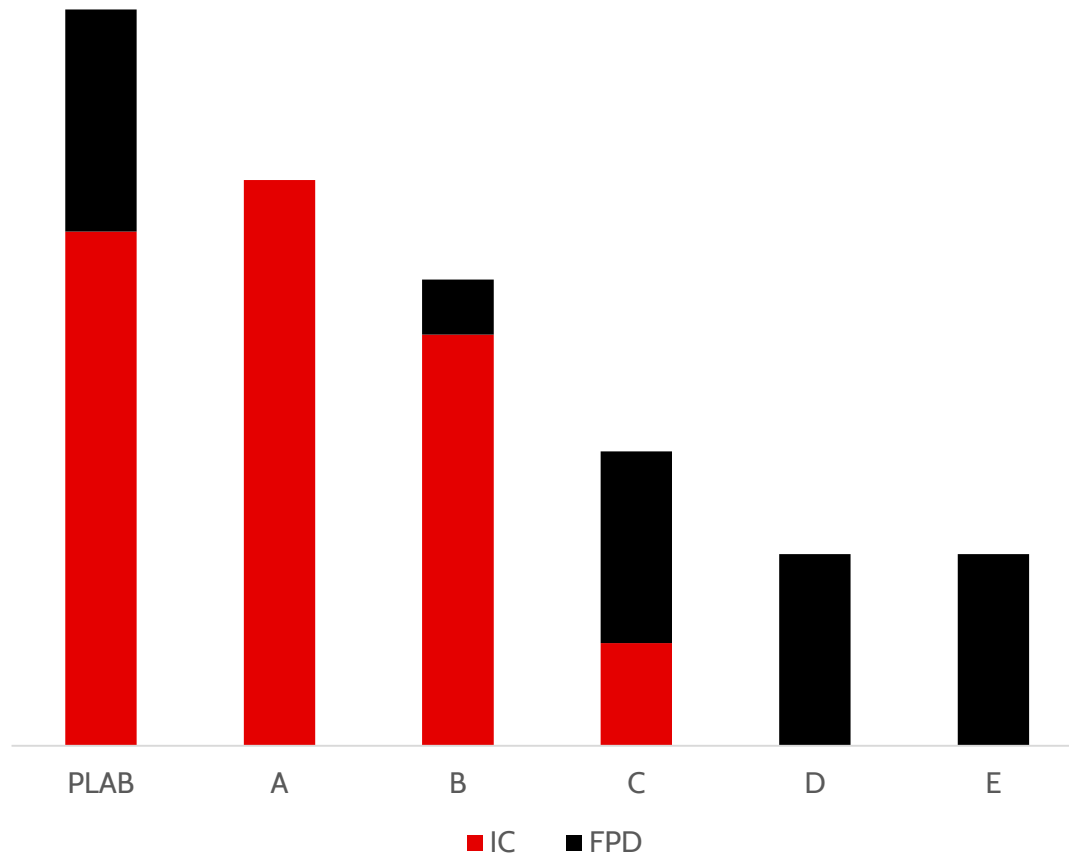
A Compelling Investment Thesis

- **Global leader** in merchant photomask industry
 - Delivering growth by leveraging core competencies
 - Growing more quickly than the market
- Technology aligned with **secular growth trends**
 - China industry expansion (IC & FPD) – Made in China 2025
 - Display technology inflections
- Investment growth strategy expected to **double EPS***
 - Top-line growing at twice industry growth rate
 - Operating margins expanding to high-teens
 - Targeting free cash flow above \$100M

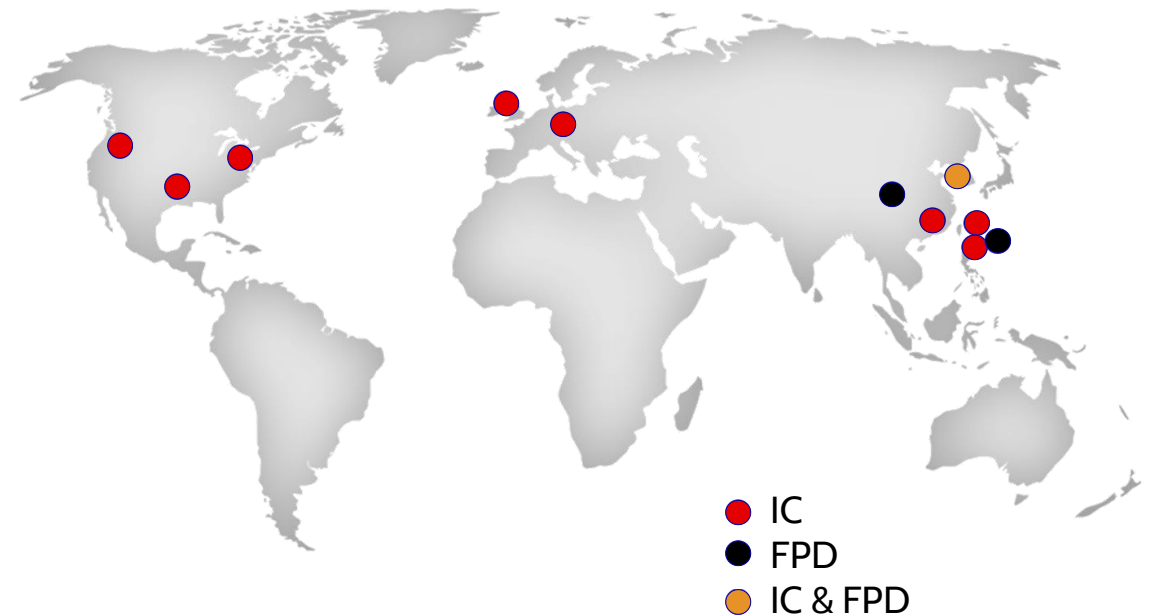
*Three year target model compared with fiscal year 2020

Leading merchant with unmatched global presence

Largest Merchant Photomask Manufacturer (\$M)



Unmatched Global Footprint
11 Strategically Located Manufacturing Facilities

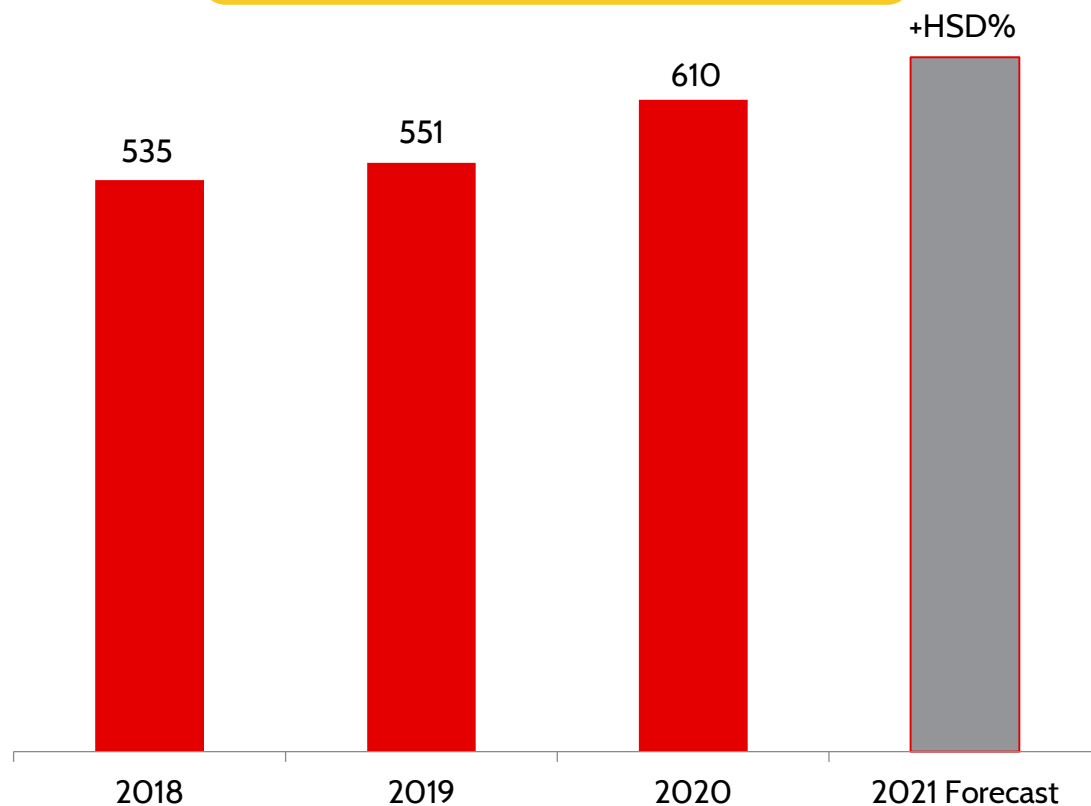


Sources: SEMI 2020 Photomask Characterization Study; internal estimates

Investment strategy is working

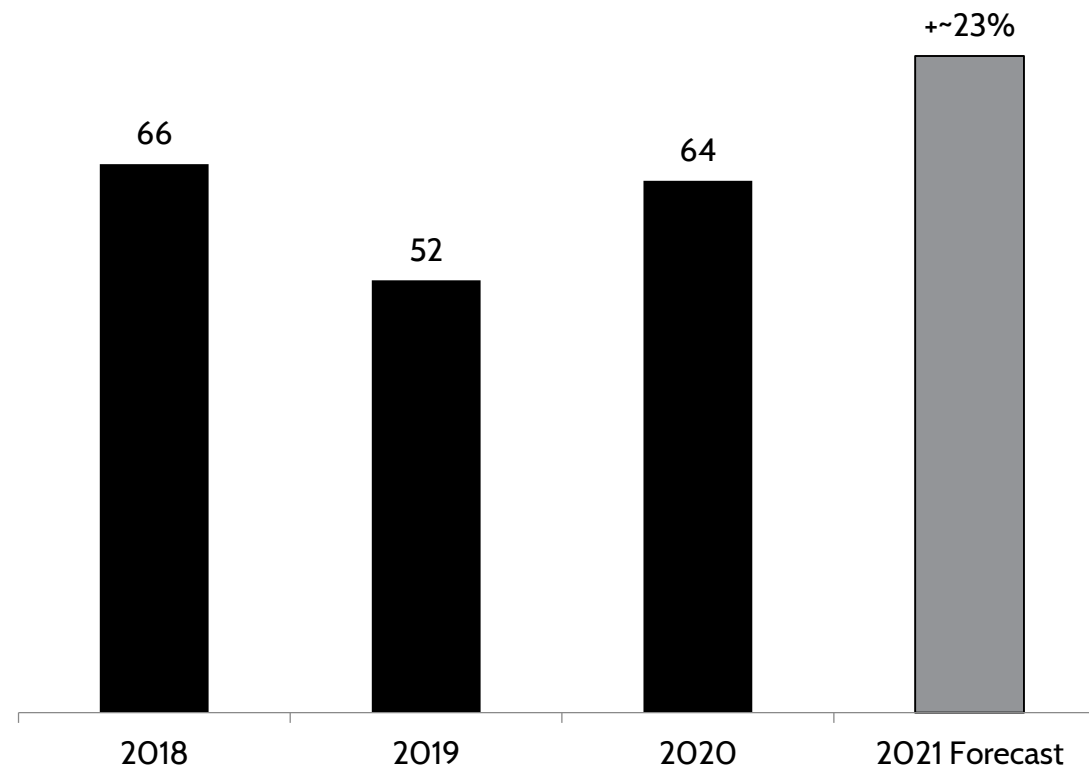
Converting Investments Into Revenue (\$M)

2021: 4th consecutive year of record revenue



Growing Operating Income (\$M)

2021: mid-teens operating margin run-rate by year end



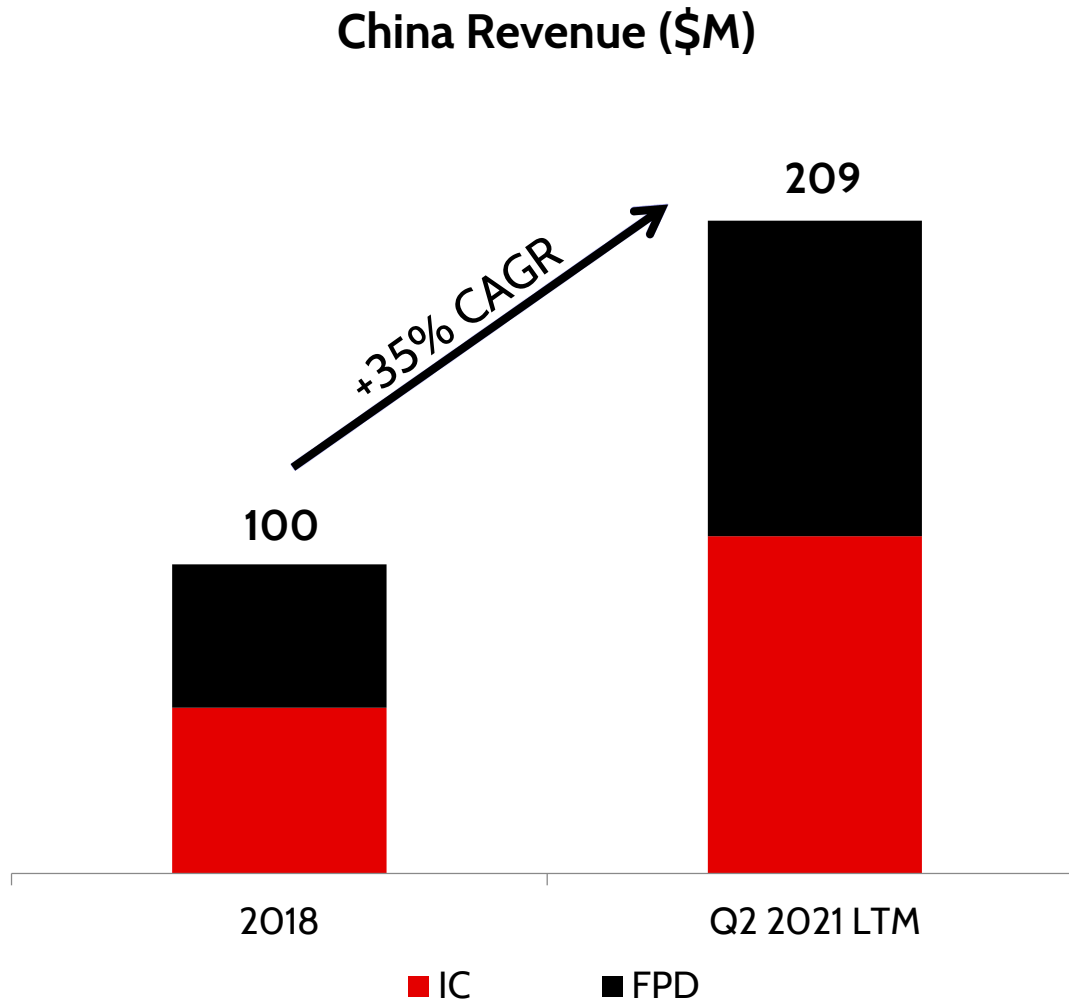
Next phase of investment strategy (2021 and beyond)

- Revenue growth
 - Win lion's share of "Made in China 2025" TAM growth
 - Supplement new factories with point tool investments
 - Capture captive outsourcing opportunity created by EUV
 - Capitalize on technology leadership in AMOLED to drive superior mix
- Margin expansion
 - Optimize asset tool set to match end-market demand
 - Employ operating leverage (Q/Q incremental margins >110% Q221)
- Supply chain excellence
 - Leverage scale to drive down material costs
 - Expand use of self maintenance to minimize downtime and reduce service contracts
- Explore strategic partnerships

Illustrative Target Model

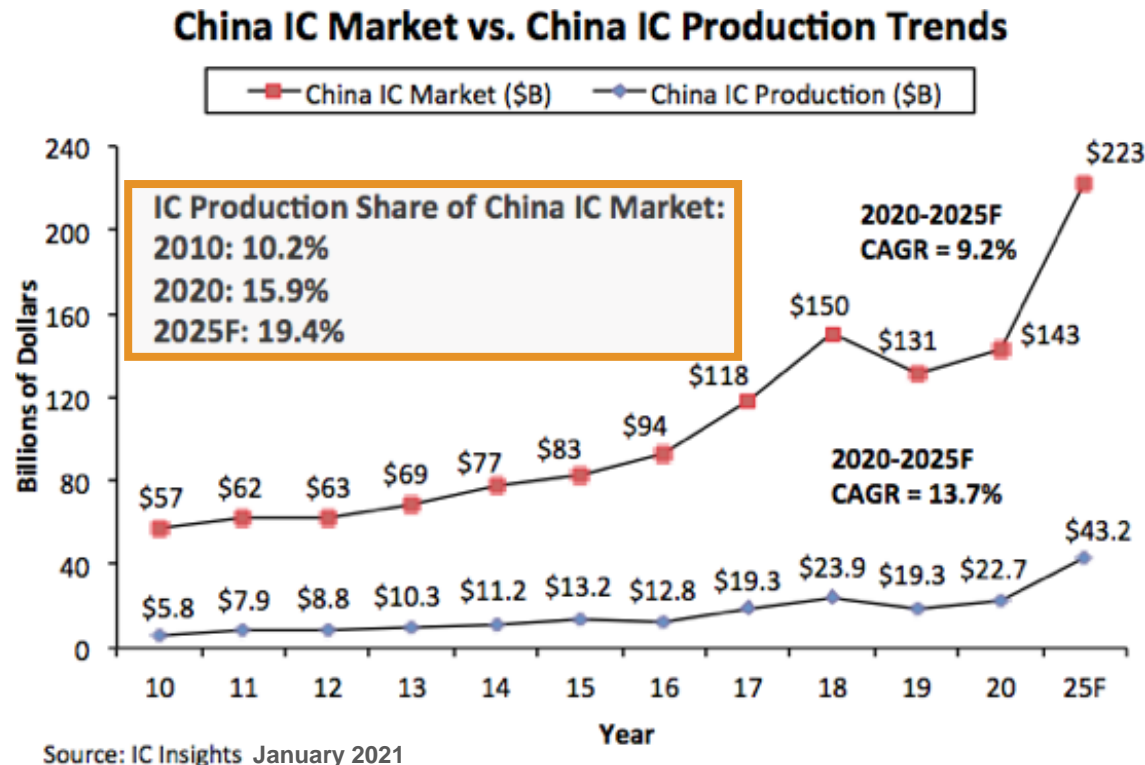
	2018	2019	2020	Illustrative Target Model 3-Year Horizon		
Revenue	\$535	\$551	\$610	\$700 <i>5% CAGR</i>	\$725 <i>6% CAGR</i>	\$750 <i>7% CAGR</i>
Gross Margin	25%	22%	22%	24-26%	26-28%	27-29%
Operating Margin	12%	9%	10%	13-15%	15-17%	17-19%
Operating Cash Flow	\$131	\$68	\$143	\$150-160	\$160-170	\$175-185
Free Cash Flow	\$39	(\$83)	\$77	\$80-90	\$90-100	\$100-110
EPS	\$0.59	\$0.44	\$0.52	\$1.00-1.05	\$1.15-1.25	\$1.25-1.35

Growing China business



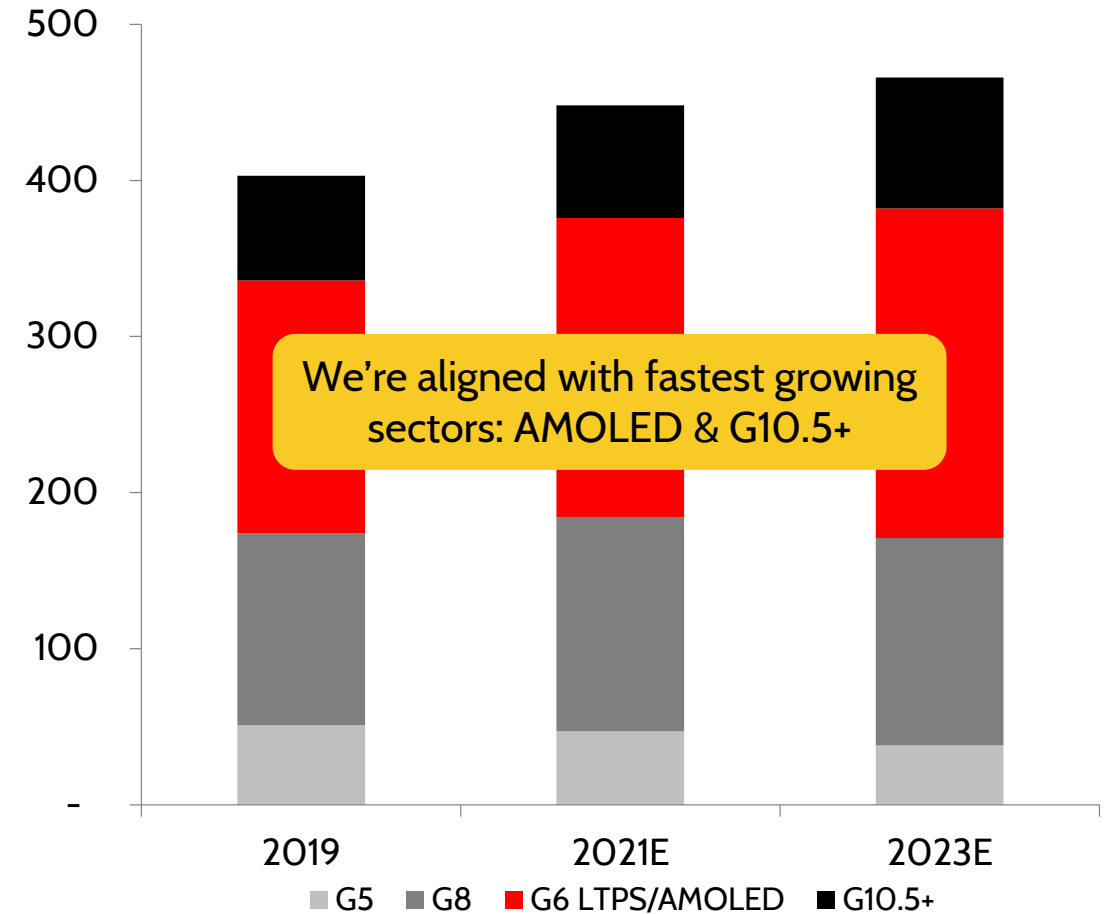
- We have growing business in China
 - 34% of total revenue in Q2 2021 LTM
 - 25% of IC revenue
 - 54% of FPD revenue
 - Growing strong since 2018
 - IC +32% CAGR
 - FPD +37% CAGR
- Local manufacturing accelerated growth
- Customer contracts fosters sustainable results
- IC JV enables us to compete more effectively

“Made in China 2025” driving growth

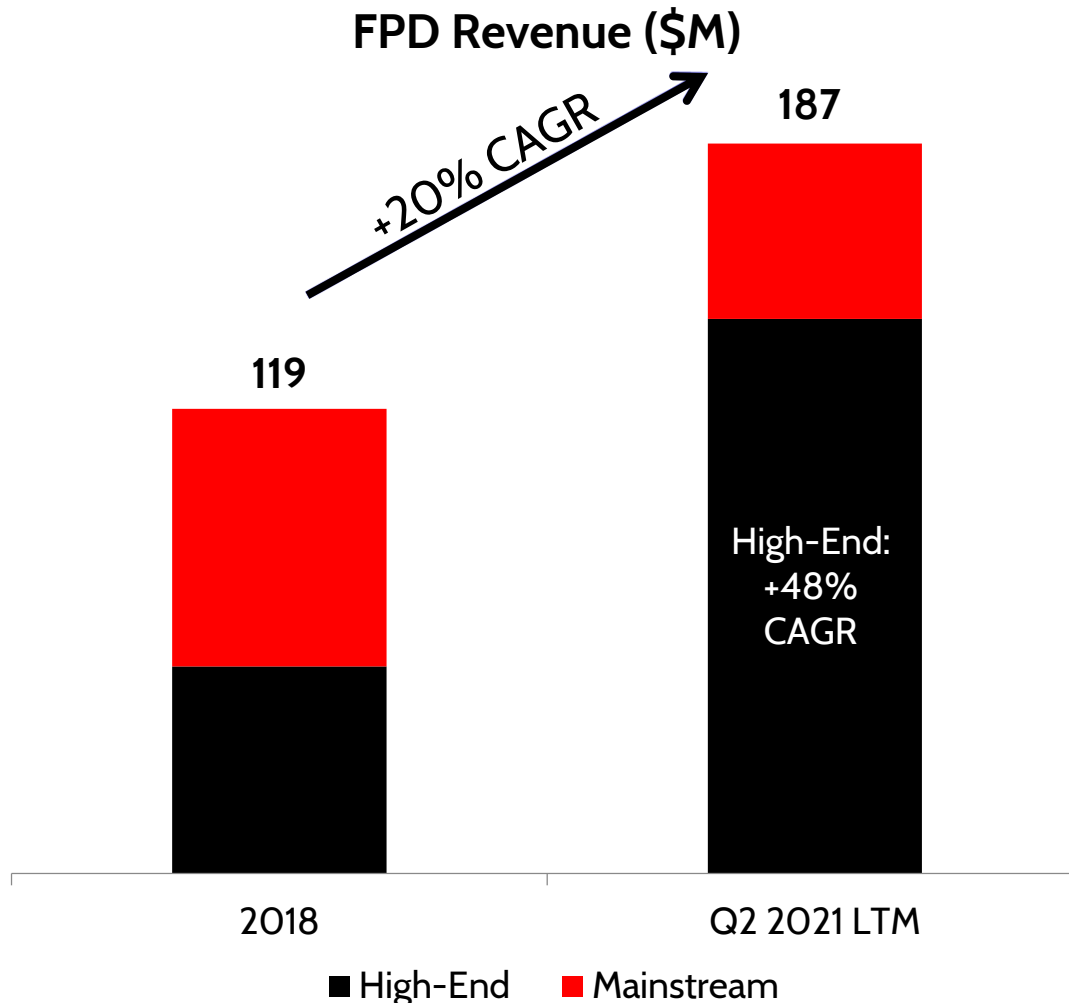


Forecast falling short of policy goals (70% by 2025)
More investment needed to meet targets

China FPD Mask TAM (\$M)

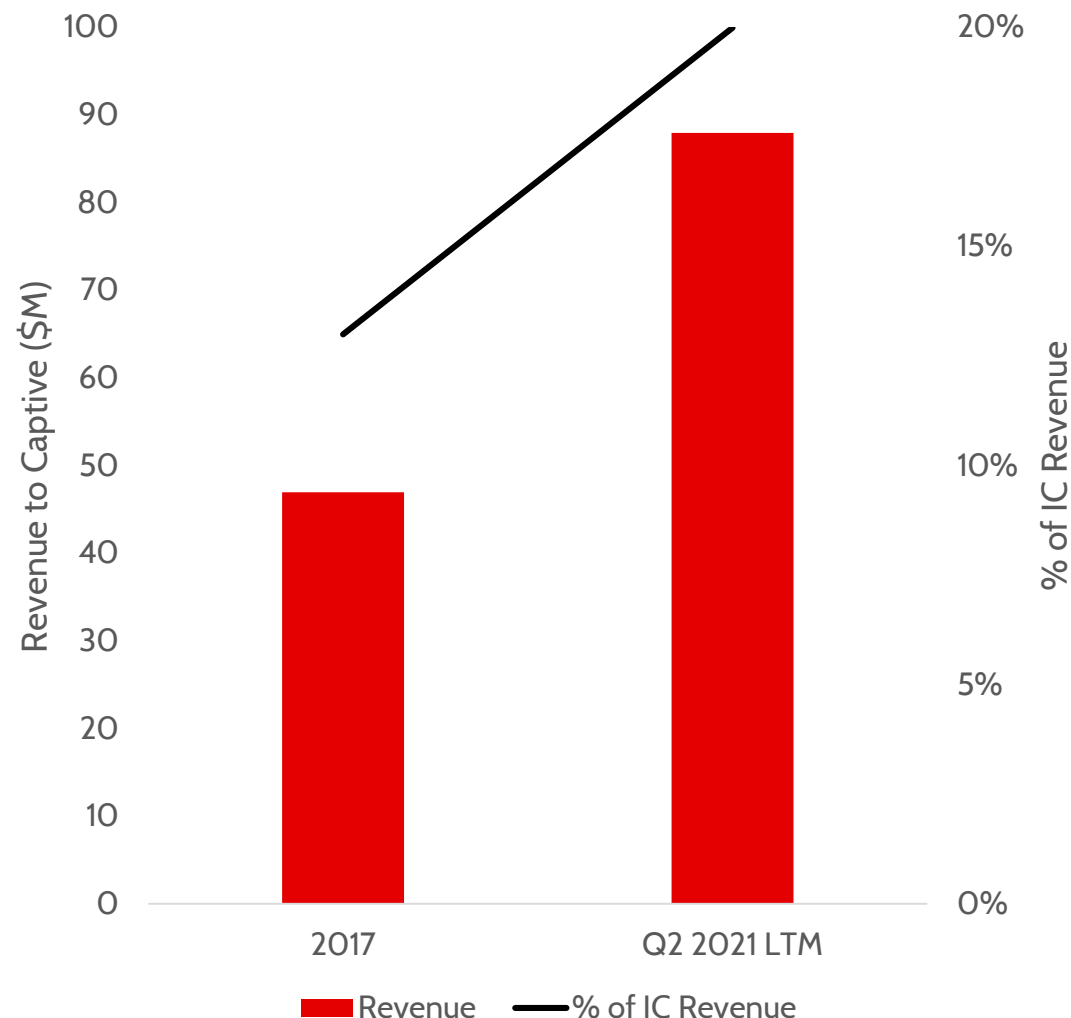


Technology leadership improves FPD business mix



- 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

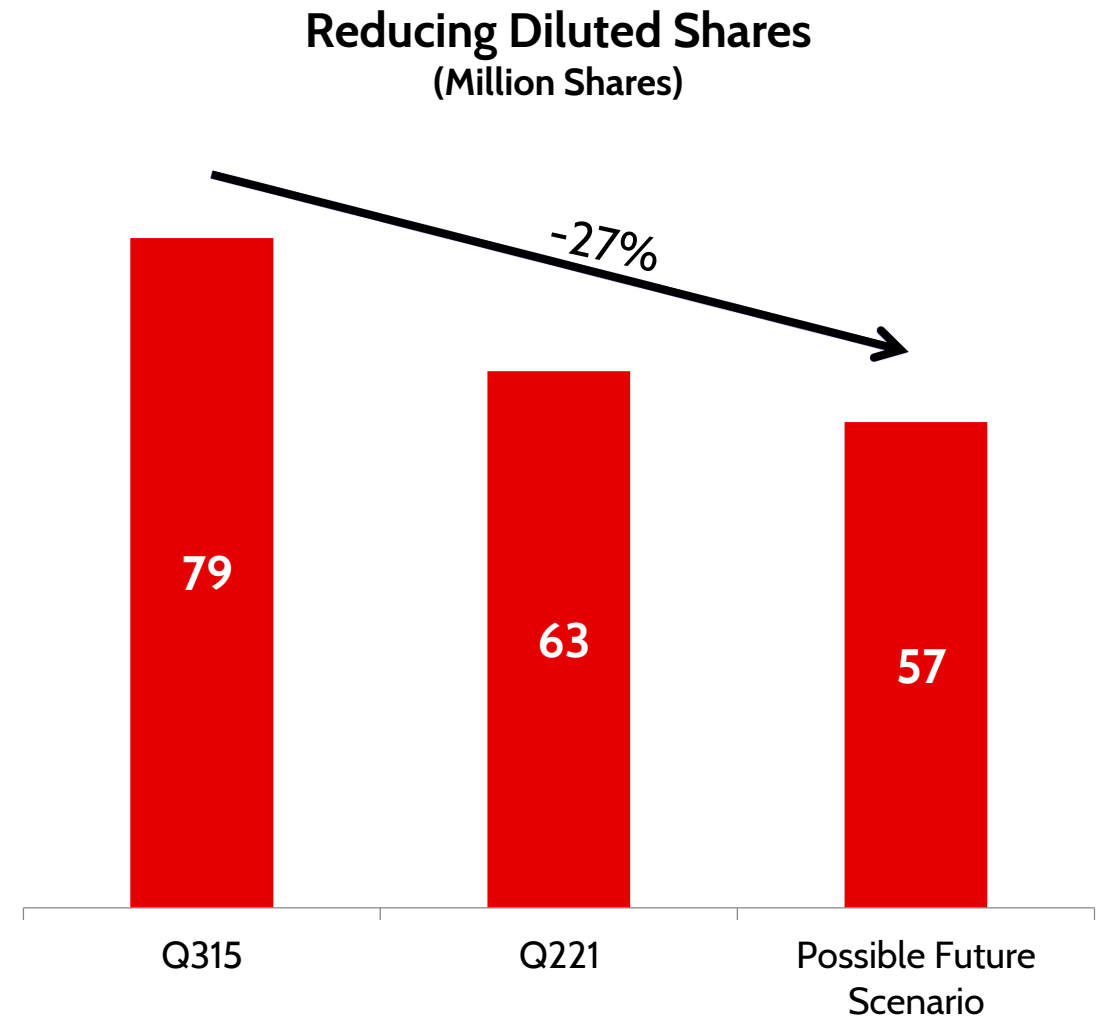
EUV: Growing captive opportunity



- EUV consumes significant captive mask writing resources
- Drives requirement to outsource
- N-1 and N-2 nodes attractive, high-end opportunity for merchant mask makers
- We are trusted photomask partner
- Trend expected to continue with expanded use of EUV

Clear capital deployment priorities

- Fund organic growth
 - Geographic expansion into China
 - Investments to maintain technical leadership
 - Capacity expansion when reciprocated by customer commitment
 - Financial discipline to improve ROIC
- Explore strategic M&A
 - Photomask industry – IC & FPD
 - Adjacencies to increase revenue diversification
- Share repurchase
 - Repurchased 9.9M shares (\$102M) since 2018
 - Redeemed \$115M in convertible debt since 2016, eliminating 10.3M potentially dilutive shares



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 mid- to high-teens
 - Target incremental margins 50%
- Strong cash flow generation fortifies balance sheet
- Capital deployment priorities to improve ROIC

Q2 2021 Summary

- Revenue was a record \$159.8M, up 5% Q/Q and 12% Y/Y
 - Growth achieved in both IC and FPD on strong design-driven demand
 - Revenue to China was up 16% Q/Q and 23% Y/Y
- Net income attributable to Photronics, Inc. shareholders of \$10.5M (\$0.17/share)
- Cash balance \$256M
 - \$32M generated from operating activity
 - \$56M invested in capex
 - \$10M returned to investors through share repurchases
- Next phase of FPD capacity investment on track for tool delivery in 2021
- Investing to expand mainstream IC capacity

Strategic investments driving long-term, profitable growth

Income Statement Summary

\$M (except EPS)	Q221	Q121	Q/Q	Q220	Y/Y
Revenue	\$ 159.8	\$ 152.1	5%	\$ 142.8	12%
Gross Profit	\$ 39.2	\$ 30.5	29%	\$ 30.4	29%
Gross Margin	24.6%	20.1%	450 bps	21.3%	330 bps
Operating Income	\$ 20.8	\$ 11.8	77%	\$ 12.7	64%
Operating Margin	13.0%	7.7%	530 bps	8.9%	410 bps
Other income (expense)	(\$ 0.8)	\$ 0.7	(\$ 1.5)	(\$ 1.0)	\$ 0.2
Income tax provision	\$ 3.7	\$ 2.9	\$ 0.8	\$ 3.8	(\$ 0.1)
Minority interest	\$ 5.8	\$ 1.5	\$ 4.3	\$ 1.7	\$ 4.1
Net Income*	\$ 10.5	\$ 8.0	31%	\$ 6.3	68%
Diluted EPS*	\$ 0.17	\$ 0.13	\$ 0.04	\$ 0.10	\$ 0.07
Days in quarter	91	92	(1)	91	-

*Net income attributable to Photronics, Inc. shareholders

6/8/2021

- Margin improved with higher revenue and better mainstream IC ASP
- Incremental margins >110% Q/Q
- Other income / (expense) primarily due to FX gain / (loss); Q221 includes China interest expense subsidy
- Minority interest from IC JVs in Taiwan and China

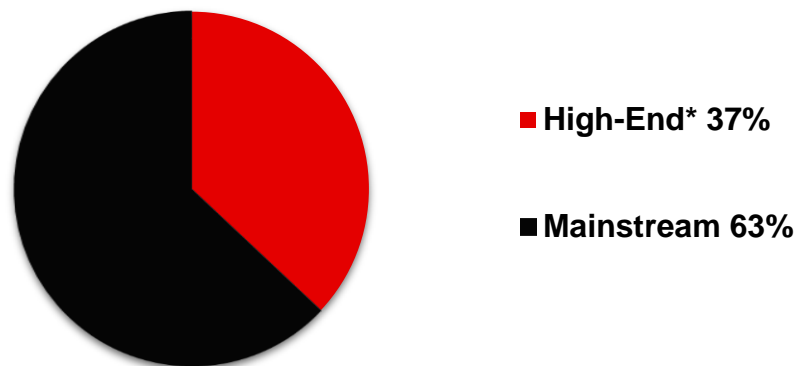
IC Photomask Revenue

\$M	Q221	Q121	Q/Q	Q220	Y/Y
High-End*	\$ 41.3	\$ 36.8	12%	\$ 38.3	8%
Mainstream	\$ 70.7	\$ 68.2	4%	\$ 58.6	21%
Total	\$ 112.0	\$ 105.0	7%	\$ 96.8	16%

Total may differ due to rounding

- High-end growth driven by logic recovery, especially in Taiwan & China
- Mainstream grew on positive demand trends and higher ASP
- China revenue +23% Q/Q and +53% Y/Y; represents 28% of IC revenue
- Outlook
 - Continued strength from remote work and education
 - Mainstream demand strong, with positive pricing
 - Continued macro risk from trade policies and shelter-in-place mandates

Q221 Revenue by Technology



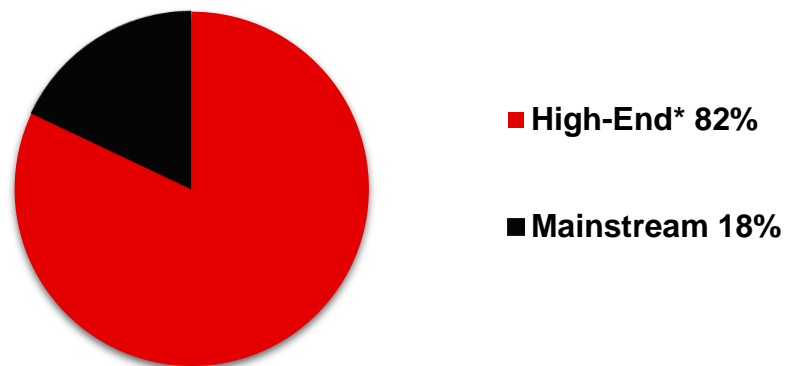
*28nm and smaller
6/8/2021

FPD Photomask Revenue

\$M	Q221	Q121	Q/Q	Q220	Y/Y
High-End*	\$ 39.4	\$ 34.6	14%	\$ 31.8	24%
Mainstream	\$ 8.4	\$ 12.5	(33%)	\$ 14.1	(41%)
Total	\$ 47.8	\$ 47.1	1%	\$ 45.9	4%

Total may differ due to rounding

Q221 Revenue by Technology



*≥G10.5, AMOLED and LTPS

6/8/2021

- High-end improved on strong LTPS & AMOLED demand for mobile displays
- Mainstream down as capacity was sold out to meet high-end demand
- China revenue +8% Q/Q and -1% Y/Y; represents 53% of FPD revenue
- Outlook
 - Dynamic market environment
 - Mobile demand strength expected to continue
 - Capacity expansions coming with new tool installations
 - Technology development drives demand for higher-value masks

Select Financial Data

<u>\$M</u>	<u>Q221</u>	<u>Q121</u>	<u>Q220</u>
Cash	\$ 256	\$ 279	\$ 238
Debt	\$ 114	\$ 98	\$ 53
Net Cash*	\$ 142	\$ 180	\$ 184
Operating Cash Flow	\$ 32	\$ 26	\$ 31
Capital Expenditures	\$ 56	\$ 18	\$ 16
Government Incentives for Capital Equipment	\$ 5	\$ 0.4	\$ 3
Share repurchase	\$ 10	\$ 13	\$ 6

- Debt is US equipment lease and local China loans
- Expect 2021 capex to be ~\$120M
 - Completing initial China IC investment
 - Next phase of FPD investment
 - Mainstream IC capacity expansion
- Total share repurchases of \$41M under current \$100M plan (Sep 2020)
- Balance sheet able to fund 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

6/8/2021

Summary

- We have sustained double digit growth in a very challenging environment over the past 3 years
- Our leadership position is expanding – growing more quickly than markets
- Moving forward our investment focus is narrowing 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

- **Global leader** in merchant photomask industry
 - Delivering growth by leveraging core competencies
 - Growing more quickly than the market
- Technology aligned with **secular growth trends**
 - China industry expansion (IC & FPD) – Made in China 2025
 - Display technology inflections
- Investment growth strategy expected to **double EPS***
 - Top-line growing at twice industry growth rate
 - Operating margins expanding to high-teens
 - Targeting free cash flow above \$100M

*Three year target model compared with fiscal year 2020

Thank you for your interest!

For Additional Information:
R. Troy Dewar, CFA
Vice President, Investor Relations
203.740.5610
tdewar@photronics.com

