

PXLW: Don't Get Shanghai'd

PXLW	3 est.	Pixelworks		CY24rev:	25%
Qtr:	4Q	Grade:	C	Growth (qtr-qtr)	
Rev:	20.07	Rev:	o	Rev:	25.2%
GM:	44.8%	EPS:	-	Fcst:	-25-15%
EPS:	(\$0.05)	Fcst:	o	Div:	

Pixelworks (PXLW \$2.21 -0.04 at the close on 2/9/24)

Overview: I was annoyed they made me listen to the replay to get guidance. Then I was excited by the current and expected growth of the business. Then I became enthusiastic when I looked at the valuation. Then I did a bunch of background work and got spooked by the Shanghai Restructuring. Too much work to go unpublished, so here goes.

4Q Results: Revenue increased 25% sequentially driven by Mobile. Non-GAAP gross margin expanded 170 basis points to 44.8% on cost-cutting initiatives and sales of newer parts with higher ASPs and better margins. Non-GAAP operating expenses were \$12.0M down from \$13.3M, but would have been flat if not for the final credit of \$1.3M to R&D from the co-development deal with its largest projector customer. Adjusted EBITDA was -\$1.9M vs. -\$5.0M last quarter. 4Q cash and equivalents at \$47.5M down -\$2.8M from 3Q and down -\$9.8M on the year.

Mobile Market Growth: The Mobile Market is sales of IRX Gaming Experience processor chips (and the recent X7 Gen 2) into smartphones that significantly enhance video performance. Revenue from Mobile increased 44% sequentially to \$11.9M or 59% of total revenue. The company is ramping production on four tier-1 Chinese customer phones and expects to ramp a new OEM later this year that 'serves the global market.' Announced design wins include HONOR Magic5 models, OPPO OnePlus and realme models, Xiaomi Redmi models, ASUS ROG, and iQOO. Revenue growth this year is expected at +50% due to increasing units, a richer mix of new parts with higher ASPs, video game ecosystem traction, and the pipeline of potential design wins.

TrueCut Emergence: Revenue currently falls under Engineering services, licensing and other. This is a movie post-production service using an in-house server with multiple Nvidia GPUs to optimize video display quality frame-by-frame for high-resolution content operating at high-frame rates on a variety of screens. The product is called TrueCut Motion. Recent releases include Argyle and re-mastered versions of Titanic and both Avatar movies. Revenue streams come from the original content work, plus licensing to the cinemas, and then the licensing of premium home TVs. Work over the last few years is expected to generate a couple million dollars this year and ramp significantly next. Partners so far include Universal and Disney studios and Apple TV and Apple Vision Pro.

Projector Legacy: Home and Enterprise is legacy video processors for projectors that accounted for revenue of \$8.2M or 41% of sales. Pixelworks just taped-out its next generation device co-developed with a strategic customer (Seiko Epson, maybe?) that reimbursed part of R&D. Samples 1Q, production 2H24 and expectations to increase market share over the next few years. Flat-ish business is expected this year after last year's inventory adjustments finally normalize. This mature market is profitable with high-margins and generates cash for the company.

Shanghai Subsidiary: "We have reorganized our existing business operations and employees in China, Japan, Canada and some in the US into an independent P&L center with the end goal of the subsidiary pursuing a public listing on the STAR market in China," based on a plan from August 2021. SEC filings have multiple pages of risk factors: no unprofitable listings, dollar conversion and repatriation risk, separate boards and governance, limited control over partially owned sub, and—my favorite—deadlines of 6/30/24 and 12/31/24 to list without having to reimburse private/strategic investors, and employee's ESOP (plus 5% interest), respectively. Hence, the company's \$25M shelf offering prospectus on Feb 1. More red flags than, well, a Chinese Communist Party Convention.

Guidance (non-GAAP): 1Q revenue of \$15-17M on soft mobile and projector seasonality, gross margin up 600bp to 51-53% on new mobile products with better margins, op ex flat at \$12.5-13.5M, and EPS loss of (\$0.10)-(\$0.06).

2024 revenue growth is expected at +50% mostly from mobile and a couple million dollars from TrueCut, while gross margins expand from increasing sales of newer parts with better margins, TrueCut services and licensing, and overhead absorption. The combination is expected to restore profitability this year and accelerate it next.

(verbiage continues on last page)

Pixelworks Financials

	2021	2022					2023				
		1Q	2Q	3Q	4Q	2022	1Q	2Q	3Q	4Q*	2023
Market											
Mobile	16,113	5,572	7,209	5,738	2,641	21,160	3,063	6,858	8,237	11,900	30,058
Home & Enterprise	34,694	10,884	11,485	11,450	13,189	47,008	6,617	6,677	7,735	8,200	29,229
Eng Svc, Lic, other	4,295	172	384	364	1,058	1,978	286	70	60		416
Total Revenue	55,102	16,628	19,078	17,552	16,888	70,146	9,966	13,605	16,032	20,100	59,703
IC Sales	50,807	16,456	18,694	17,188	15,830	68,168	9,680	13,535	15,972	20,100	59,287
non-GAAP											
Gross Margin (non-GAAP)	52.0%	53.2%	49.3%	49.8%	53.3%	51.3%	44.1%	40.5%	43.1%	44.8%	43.2%
EPS (GAAP)	(0.38)	(0.09)	(0.09)	(0.08)	(0.04)	(0.30)	(0.17)	(0.11)	(0.12)	(0.07)	(0.47)
EPS (non-GAAP)	(0.24)	(0.06)	(0.06)	(0.06)	(0.01)	(0.20)	(0.15)	(0.09)	(0.10)	(0.05)	(0.38)
Market Percent											
Mobile	29.2%	33.5%	37.8%	32.7%	15.6%	30.2%	30.7%	50.4%	51.4%	59.2%	50.3%
Home & Enterprise	63.0%	65.5%	60.2%	65.2%	78.1%	67.0%	66.4%	49.1%	48.2%	40.8%	49.0%
Engr Svc, Licensing, other	7.8%	1.0%	2.0%	2.1%	6.3%	2.8%	2.9%	0.5%	0.4%	0.0%	0.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Market Growth											
Mobile			29.4%	-20.4%	-54.0%	31.3%	16.0%	123.9%	20.1%	44.5%	42.1%
Home & Enterprise			5.5%	-0.3%	15.2%	35.5%	-49.8%	0.9%	15.8%	6.0%	-37.8%
Eng Svc, Lic, other			123.3%	-5.2%	190.7%	-53.9%	-73.0%	-75.5%	-14.3%	-100.0%	-79.0%
Total			14.7%	-8.0%	-3.8%	27.3%	-41.0%	36.5%	17.8%	25.4%	-14.9%
Regional Revenue											
China	23,977	7,131	8,757	5,482	4,200	25,570	3,926	8,203	8,777		20,906
Japan	27,001	7,399	9,298	10,908	10,070	37,675	5,559	5,122	7,070		17,751
Taiwan	2,142	1,164	793	464	611	3,032	421	231	185		837
US	1,624	858	230	648	1,706	3,442	60	49	0		109
Korea	116	0	0	50	227	277	0	0	0		0
Europe	242	76	0	0	74	150	0	0	0		0
Total	55,102	16,628	19,078	17,552	16,888	70,146	9,966	13,605	16,032	0	39,603
Regional Percent											
China	43.5%	42.9%	45.9%	31.2%	24.9%	36.5%	39.4%	60.3%	54.7%		52.8%
Japan	49.0%	44.5%	48.7%	62.1%	59.6%	53.7%	55.8%	37.6%	44.1%		44.8%
Taiwan	3.9%	7.0%	4.2%	2.6%	3.6%	4.3%	4.2%	1.7%	1.2%		2.1%
US	2.9%	5.2%	1.2%	3.7%	10.1%	4.9%	0.6%	0.4%	0.0%		0.3%
Korea	0.2%	0.0%	0.0%	0.3%	1.3%	0.4%	0.0%	0.0%	0.0%		0.0%
Europe	0.4%	0.5%	0.0%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%		0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%
Distributor Percent											
Distributor A	27%	32%	37%	29%		29%	30%	49%	50%		
Distributor B	13%	12%	13%	23%		17%	13%	9%	4%		
All Distributors	56%	63%	62%	57%		57%	55%	71%	60%		
Customer Percent											
Top 5	76%	80%	81%	83%		76%	87%	87%	93%		
Customer A	35%	32%	36%	39%		37%	42%	29%	40%		
Customer B	22%	1%	21%	15%		14%	18%	29%	26%		
Customer C	8%	0%	0%	0%		13%	12%	11%	20%		
Customer D		32%	0%	12%			0%	9%	3%		
Customer E			13%	13%				0%	0%		
Total A thru E	65%	65%	70%	79%	0%	64%	72%	78%	89%	0%	0%

Customers A-E purchase from PXLW both directly and through distribution.

Valuation: PXLW share price valuation is pretty attractive on a price-sales basis, at 2.1-time trailing, 1.4-times \$90M this year consistent with management guidance, and 1.2-times 2025 assuming revenue growth of +20%. Price-earnings is more challenging since it looks like something around break-even this year after last year's loss, but even assuming a nominal \$0.25 in 2025 this clocks in at less than 10-times. More problematic is a pretty low book value of \$12.5M that swings negative after intangibles of \$18.4M. But the real kicker is the Shanghai IPO on the STAR market in China—if it actually does happen. Exactly how this might benefit PXLW shareholders stateside is very unclear to me. And that recent shelf registration doesn't bode well, either. This could be an extremely attractive opportunity, but it depends on how the capital structure plays out—in my opinion.

LEGEND		Grade	
+++	exceeded the high-end of the range	A	all +++
++	above consensus, within the high-end of the range	B	all +
+	slightly above consensus	C	all o/+
o	met consensus	D	mixed -/o/+
-	slightly below consensus	E	all o/-
--	missed consensus, within the low-end of the range	F	all -
---	missed the low-end of the range		

—Dan K. Scovel
Semiconductor Analyst

Tokeneke Research LLC
Rowayton, CT 06853
dscovel@tokenekerresearch.com
www.tokenekerresearch.com
203-554-4621

Copyright © 2024 Tokeneke Research LLC. All rights reserved. This report is for information purposes only and does not constitute a solicitation or an offer to buy or sell any security or to participate in any investment or trading strategy. Opinions expressed in this report reflect the judgment of Tokeneke Research LLC on the topics addressed as of the date of the report, and are subject to change without notice. Tokeneke Research LLC makes every effort to use reliable and comprehensive information but makes no representation that the information in this report is accurate or complete, nor does it undertake to update or revise this report at any time or for any reason. This report contains forward-looking statements that involve risks and uncertainties, both known and unknown, as well as assumptions that, if they do not fully materialize or prove incorrect, could cause actual results to differ materially from those expressed or implied by such forward-looking statements. Actual results and trends may differ materially from historical results or those projected in any such forward-looking statements depending on a variety of factors. This report does not provide individually tailored investment advice and has been prepared without regard to the specific individual financial situation, objectives and needs of those who receive it. Securities discussed in this report may not be suitable for the reader. Tokeneke Research LLC and/or Dan Scovel may have a long or short position in the securities of a company or companies mentioned in this report and, at any time, may change that position. Tokeneke Research LLC accepts no liability whatsoever for any loss or damage of any kind arising out of the use of any part, or all, of this report. All company and product names mentioned in this report may be trademarks or registered trademarks of their respective holders and are used for identification purposes only. Reproduction or distribution of this report, even for internal distribution, is strictly prohibited unless specifically authorized by Tokeneke Research LLC.