Growth: A Momentum: A



# Ambarella, Inc. (AMBA) \$45.26 (As of 07/23/20) Price Target (6-12 Months): \$48.00 Short Term: 1-3 Months Long Term: 6-12 Months (Since: 12/27/18) Prior Recommendation: Underperform Zacks Rank: (1-5) Zacks Style Scores: VGM:B

# **Summary**

Ambarella is benefiting from its transition to a video Al company. Ramping up of production and shipments in the automotive and security camera market is a key driver. Ambarella's CV portfolio is also attracting customers and helping it expand client base. Customers are also replacing products of HiSilicon with Ambarella, which is a positive for the company. Growing application of computer vision for ADAS and Driver Monitor System is a positive too. However, global tariff issues, export restrictions and hostile macroeconomic conditions remain concerns. Moreover, Ambarella predicts consumer electronics revenues to decline as a percentage of revenues over the next three years, which makes us apprehensive. Also, the pandemic coronavirus is likely to impact Ambarella's supply chain. The stock has underperformed the industry over the past year.

# **Data Overview**

52 Week High-Low	\$73.59 - \$36.02
20 Day Average Volume (sh)	380,607
Market Cap	\$1.6 B
YTD Price Change	-25.3%
Beta	1.26
Dividend / Div Yld	\$0.00 / 0.0%
Industry	Electronics - Semiconductors
Zacks Industry Rank	Top 40% (100 out of 252)

Last EPS Surprise	500.0%
Last Sales Surprise	0.6%
EPS F1 Est- 4 week change	0.0%
Expected Report Date	09/03/2020
Earnings ESP	100.0%

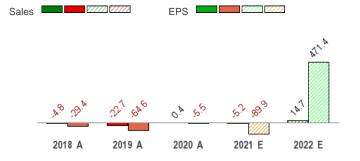
P/E TTM	63.8
P/E F1	646.6
PEG F1	43.1
P/S TTM	6.6

#### Price, Consensus & Surprise



Value: F

# Sales and EPS Growth Rates (Y/Y %)



# Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	53 E	59 E	68 E	66 E	249 E
2021	55 A	50 E	56 E	54 E	217 E
2020	47 A	56 A	68 A	57 A	229 A

# **EPS Estimates**

	Q1	Q2	Q3	Q4	Annual*
2022	\$0.00 E	\$0.08 E	\$0.21 E	\$0.17 E	\$0.40 E
2021	\$0.04 A	-\$0.02 E	\$0.06 E	\$0.04 E	\$0.07 E
2020	\$0.01 A	\$0.21 A	\$0.32 A	\$0.14 A	\$0.69 A

<sup>\*</sup>Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 07/23/2020. The reports text is as of 07/24/2020.

#### Overview

Headquartered in Santa Clara, CA, Ambarella Inc. develops video compression and image processing semiconductors, which enables high-definition or HD video capture, share and display.

Ambarella's system-on-a-chip (SoC) designs integrates HD video processing, image processing, audio processing, and system functions onto a single chip, which helps in delivering exceptional video and image quality at high compression rates, differentiated functionality and low power consumption.

The company's products are used in creating video content for wearable sports cameras, automotive aftermarket cameras, and professional and consumer Internet Protocol (IP) security cameras. Its solutions are also used in cameras incorporated into unmanned aerial vehicles, such as UAVs, drones or flying cameras. In the infrastructure market, Ambarella's solutions help in managing IP video traffic, broadcast encoding and transcoding, and IP video delivery applications.

Notably, of all the aforementioned, Ambarella is well known for its sports camera technology. It produces a video processing chip that is the main component in a popular brand of action cameras.

Ambarella caters to the following end markets, namely Professional IP Security Cameras, Consumer IP Security Cameras, Automotive Cameras, Wearable Cameras including Sports, Commercial and Social Media and UAVs or Drones.



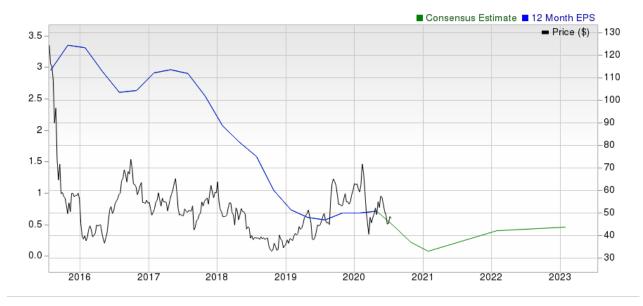


Ambarella sells its solutions to original design manufacturers (ODM) and original equipment manufacturers (OEM) through its direct sales force and logistics providers including Wintech Microelectronics. Sales through Wintech accounted for approximately 60% of the company's fiscal 2020 total revenue.

For fiscal 2020, revenues were up 0.4% year over year to \$228.7 million. Sales to customers in Asia accounted for approximately 90% of total revenues in fiscal 2020.

For fiscal 2020, 2019 and 2018, 98% of the company's revenues was attributable to sales of its solutions into the camera markets and 2% of its revenues was attributable to sales of its solutions into the infrastructure market.

The company's primary competitors include Intel, Novatek, Omnivision, Qualcomm, Xilinx, NXP Semiconductors, NVIDIA and Texas Instruments among others.



### **Reasons To Buy:**

- Ambarella is making steady progress on the development and delivery of computer video solution based on its CVFlow architecture. The company released CVFlow software developed kits, supporting its CV2 and CV22 SoCs, attracting positive consumer feedback.
- ▲ Ambarella is well known for its market leading high-performance video processing SoCs, which consume lowest power in this space. The company's proprietary video and image processing SoCs are highly configurable, providing it a cost and power advantage against its rivals, which uses multiple expensive semiconductors in their video and image processing solutions. This makes Ambarella a suitable choice for wearable camera, IP camera, automotive dashboard cameras and drone camera makers.

Ambarella's efforts toward expanding its reach in other markets, such as IP security, automotive and computer vision application manufacturing and simultaneously, lower dependency on GoPro will drive long-term growth.

- ▲ New technologies, Internet penetration and invention of smart devices are driving demand for different kinds of cameras and broadcast infrastructure equipment mainly centered on high-definition video and image quality along with advanced features, transmission and analytics. High-definition cameras are now used in varied fields such as sports, medical, automobiles or mobiles, etc. With advancement in technology advancing video processing becoming a must-have feature across various end markets, the industry has huge growth potential. Being one of the most cost and power efficient SoC providers, we believe Ambarella is well positioned to grab the growing opportunity in this space.
- ▲ In a move to diversify its business and lower its dependency on GoPro, Ambarella has forayed into the VR camera space by launching H3 SoC in January 2017. Since then, the company has been continuously expanding its product portfolio in the high-end drones and VR cameras space. Although it will be very tough for Ambarella to compete against well established players such as NVIDIA and Advanced Micro, we believe that given its track record of innovation, the company has the potential to strengthen its position in the space.
- ▲ Nearly all automakers are now in various stages of developing self-driving cars. This has been creating huge demand for camera-based SoCs as well as computer vision technology. Notably, Ambarella already has deep technical knowledge in camera-based SoCs and to enhance its computer vision capabilities. Growing demand for Automated Driver Assistant Systems (ADAS) is a main driver. Design wins for automated parking systems are a positive. Ambarella expects the demand for security cameras with computer vision capability to continue to grow, giving it an opportunity to increase its value contribution per camera, and hence boost top-line.
- ▲ Ambarella has a strong balance sheet with ample liquidity position and less debt obligations. As of Apr 30, 2020, the company had cash and marketable securities of \$411 million. Moreover, long-term debt at the end of its fiscal first-quarter 2021 was only approximately \$9 million. Also, its total debt-to-capital level of 0.02 is much lower than the industry average of 0.42.

#### **Reasons To Sell:**

Ambarella is well known for its sports camera technology and GoPro is its second largest customer. However, since fiscal 2018, GoPro has been fulfilling its majority of requirements from one of Ambarella's competitors, thus hurting Ambarella's shipment volumes, resulting in revenue decline throughout the fiscal. Softness in the drone market continues to hurt the company's top-line. The company is also hurt by the U.S. ban on security camera purchase from Hikvision and Dahua, causing a lull in near-term orders, especially in the high end of the product range typically associated with its export business.

Global tariff issues, probable export restrictions and changes in the macroeconomic conditions are key headwinds for the company.

- ▼ The company is witnessing slowing sales growth rate and deteriorating operating margin. The company, which has registered over 25% sales growth since 2012, registered decline in the last four fiscals. Also, its operating margin, which increased till fiscal 2016, contracted in fiscal 2017, 2018, 2019, and 2020. The downtrend is believed to be mainly due to slowdown in sales of high-margin action cameras, losing business from GoPro and softness in drone market. We believe that the situation is not going to reverse in the near term. Further, the increasing mix of lower margin products being pulled in by Chinese customers fearing a trade ban is likely to be an overhang on margins.
- ▼ Ambarella uses third-party contractors to manufacture, assemble and test its SoCs. Therefore, the company is prone to suppliers risk as any issues with them may cause product delays and result in increased costs, thereby severely impacting its top- and bottom -line performances.
- ▼ Ambarella currently operates in a highly volatile market. Global tariff issues, probable export restrictions and changes in the macroeconomic conditions, which include deleveraging in China, are some unrelenting concerns. Speculations regarding many security camera customers in China to be subjected to U.S. Government Regulations are feared to limit or restrict the company's shipments to them. Higher import tariffs on customers based both in China and outside the country are headwinds.

# **Last Earnings Report**

#### Ambarella Tops Q1 Earnings and Revenue Estimates

Ambarella reported better-than-expected first-quarter fiscal 2021 results. The company reported non-GAAP earnings of 4 cents per share for the quarter, while the Zacks Consensus Estimate was pegged at a loss per share of a penny. Moreover, quarterly earnings reflect a sharp improvement from the year-ago quarter's break-even earnings.

The company's fiscal first-quarter revenues of \$54.6 million marginally beat the consensus mark of \$54 million. The top line increased 16% year over year. Its transition to a video Al company is a tailwind. However, softness in the automotive camera market slightly hurt Ambarella's overall revenue growth in the quarter.

Quarter Ending	04/2020
Report Date	Jun 02, 2020
Sales Surprise	0.63%
EPS Surprise	500.00%
Quarterly EPS	0.04
Annual EPS (TTM)	0.71

Ambarella's CV portfolio is also attracting customers, helping it expand the client base. During the earnings conference call, the company revealed five new CV customers that it gained during the fiscal first quarter. Ambarella's CV portfolio represented mid-single-digit percent in total revenues.

On a non-GAAP basis, the company reported gross margin of 59.1%, which was 50 basis points lower than the year-ago quarter's figure. The fiscal first-quarter non-GAAP gross margin was toward the higher-end of management's guided range of 57.5-59.5%.

Sequentially, non-GAAP operating expenses came in at \$31.9 million compared with the year-ago quarter's \$29.9 million.

Ambarella ended fiscal first-quarter with cash and cash equivalents & marketable securities of \$411 million, up from the \$405 million recorded as of Jan 31, 2020. During the quarter, the company generated an operating cash flow of \$7.6 million.

#### Outlook

For second-quarter fiscal 2021, revenues are expected to be \$50 million (+/-6%). Non-GAAP gross margin is anticipated to be 59-60.5%. Non-GAAP operating expenses are projected at \$31-\$33 million.

Ambarella is concerned about the coronavirus pandemic's impact on its China and non-China supply chains. The company expects order pushouts as well as cancellations to continue in the current quarter due to the coronavirus-led business disruptions.

#### **Recent News**

On Jan 6, Ambarella collaborated with Lumentum and ON Semiconductor to provide 3D sensing platform for access control and smart video security solutions.

On the same day, the company also introduced the CV22FS and CV2FS automotive camera SoCs with CVflow AI processing and ASIL B compliance to enable safety-critical applications.

On Jan 2, Ambarella announced that it will demonstrate its new robotics platform during CES 2020. On the same day, it was revealed that Ambarella and AWS customers can now use Amazon SageMaker Neo to train ML models once and run them on any device equipped with an Ambarella CVflow-powered AI vision SoC.

#### **Valuation**

Shares of Ambarella have declined 25.2% in the year-to-date (YTD) period while gained 9% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector have gained 8.9% and 17.3%, respectively, YTD. Over the past year, the Zacks sub-industry and the sector increased 26.6% and 27.7%, respectively.

The S&P 500 Index has increased 2% YTD and 9.9% in the past year.

The stock is currently trading at 6.7X forward 12-month sales, which compares to 7.07X for the Zacks sub-industry, 4.01X for the Zacks sector and 3.62X for the S&P 500 index.

Over the past five years, the stock has traded as high as 10.69X and as low as 3.06X with a 5-year median of 5.5X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$48 price target reflects 7.04X forward 12-month sales.

The table below shows summary valuation data for AMBA

Valuation Multiples - AMBA					
		Stock	Sub-Industry	Sector	S&P 500
	Current	6.70	7.07	4.01	3.62
P/S F12M	5-Year High	10.69	7.07	4.01	3.62
	5-Year Low	3.06	4.68	2.32	2.53
	5-Year Median	5.50	5.72	3.14	3.02
	Current	3.41	8.58	6.10	4.49
P/B TTM	5-Year High	14.66	8.60	6.12	4.56
	5-Year Low	2.46	3.19	3.16	2.83
	5-Year Median	3.86	5.89	4.39	3.71
	Current	4.87	6.64	4.67	3.22
EV/Sales TTM	5-Year High	14.72	6.78	4.67	3.46
	5-Year Low	2.47	2.63	2.59	2.15
	5-Year Median	4.65	5.34	3.62	2.85

As of 07/23/2020

# Industry Analysis Zacks Industry Rank: Top 40% (100 out of 252)

#### ■ Industry Price ■ Price -130 40 - Industry -80

# **Top Peers**

Company (Ticker)	Rec	Rank
Texas Instruments Incorporated (TXN)	Outperform	1
Cirrus Logic, Inc. (CRUS)	Neutra	3
Intel Corporation (INTC)	Neutra	2
NVIDIA Corporation (NVDA)	Neutra	3
NXP Semiconductors N.V. (NXPI)	Neutra	2
QUALCOMM Incorporated (QCOM)	Neutra	3
Sony Corporation (SNE)	Neutra	3
Xilinx, Inc. (XLNX)	Neutra	3

Industry Comparison Industry	ustry Comparison Industry: Electronics - Semiconductors			Industry Peers		
	AMBA	X Industry	S&P 500	INTC	NVDA	QCOM
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutra
Zacks Rank (Short Term)	4	-	-	2	3	3
VGM Score	В	-	-	В	D	Α
Market Cap	1.55 B	846.73 M	22.58 B	255.73 B	249.19 B	100.87 E
# of Analysts	9	3	14	14	13	10
Dividend Yield	0.00%	0.00%	1.81%	2.19%	0.16%	2.90%
Value Score	F	-	-	В	F	В
Cash/Price	0.25	0.19	0.06	0.08	0.07	0.10
EV/EBITDA	-37.16	6.47	13.13	7.78	70.62	10.75
PEG Ratio	42.81	1.76	3.04	1.67	3.04	1.40
Price/Book (P/B)	3.41	2.72	3.15	3.35	19.02	33.13
Price/Cash Flow (P/CF)	NA	14.94	12.33	7.95	77.13	21.48
P/E (F1)	642.14	22.82	22.09	12.54	51.28	24.55
Price/Sales (P/S)	6.58	2.65	2.41	3.24	21.16	4.08
Earnings Yield	0.15%	1.70%	4.30%	7.98%	1.95%	4.07%
Debt/Equity	0.02	0.11	0.76	0.48	0.57	4.42
Cash Flow (\$/share)	-0.97	0.57	7.01	7.60	5.25	4.17
Growth Score	Α	-	-	С	C	В
Hist. EPS Growth (3-5 yrs)	-49.86%	3.40%	10.82%	21.32%	40.62%	-8.67%
Proj. EPS Growth (F1/F0)	-89.53%	-0.18%	-9.01%	-1.09%	36.48%	3.16%
Curr. Cash Flow Growth	9.54%	-4.50%	5.47%	6.53%	-20.70%	-22.34%
Hist. Cash Flow Growth (3-5 yrs)	NA%	10.34%	8.55%	9.99%	28.68%	-10.62%
Current Ratio	8.91	3.40	1.31	1.74	10.29	1.57
Debt/Capital	1.60%	13.62%	44.41%	32.32%	36.34%	81.54%
Net Margin	-18.18%	1.51%	10.46%	29.97%	28.17%	16.36%
Return on Equity	-9.00%	3.12%	15.13%	32.17%	28.59%	69.92%
Sales/Assets	0.46	0.64	0.54	0.57	0.66	0.75
Proj. Sales Growth (F1/F0)	-5.24%	3.33%	-2.06%	2.84%	32.57%	-14.28%
Momentum Score	Α	-	-	Α	В	Α
Daily Price Chg	-2.31%	-0.41%	-0.20%	-1.06%	-2.96%	-3.16%
1 Week Price Chg	-1.74%	0.41%	3.82%	0.79%	-2.65%	-0.30%
4 Week Price Chg	-3.41%	5.89%	6.02%	3.23%	6.74%	0.80%
12 Week Price Chg	-13.92%	21.25%	10.03%	0.70%	38.63%	13.98%
52 Week Price Chg	-9.03%	21.38%	-2.89%	15.80%	133.70%	19.00%
20 Day Average Volume	380,607	241,022	2,026,477	20,095,930	9,225,891	6,540,690
(F1) EPS Est 1 week change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	0.00%	0.00%	0.15%	0.12%	0.11%	0.00%
(F1) EPS Est 12 week change	-9.70%	0.00%	-3.24%	-0.01%	5.48%	1.32%
(Q1) EPS Est Mthly Chg	0.00%	0.00%	0.00%	0.36%	-1.30%	0.00%

# **Zacks Stock Rating System**

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

#### **Zacks Recommendation**

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we have an excellent balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

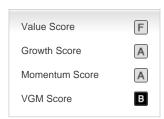
#### **Zacks Rank**

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

# **Zacks Style Scores**

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.



As an investor, you want to buy stocks with the highest probability of success. That means buying stocks with a Zacks Recommendation of Outperform, which also has a Style Score of an A or a B.

#### **Disclosures**

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Any opinions expressed herein are subject to change.

ZIR is not an investment advisor and the report should not be construed as advice designed to meet the particular investment needs of any investor. Prior to making any investment decision, you are advised to consult with your broker, investment advisor, or other appropriate tax or financial professional to determine the suitability of any investment. This report and others like it are published regularly and not in response to episodic market activity or events affecting the securities industry.

This report is not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. ZIR or its officers, employees or customers may have a position long or short in the securities mentioned and buy or sell the securities from time to time. ZIR is not a broker-dealer. ZIR may enter into arms-length agreements with broker-dealers to provide this research to their clients. Zacks and its staff are not involved in investment banking activities for the stock issuer covered in this report.

ZIR uses the following rating system for the securities it covers. **Outperform-** ZIR expects that the subject company will outperform the broader U.S. equities markets over the next six to twelve months. **Neutral-** ZIR expects that the company will perform in line with the broader U.S. equities markets over the next six to twelve months. **Underperform-** ZIR expects the company will underperform the broader U.S. equities markets over the next six to twelve months.

No part of this report can be reprinted, republished or transmitted electronically without the prior written authorization of ZIR.