

Ambarella, Inc. (AMBA)

\$62.76 (As of 01/02/20)

Price Target (6-12 Months): **\$66.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 11/01/18)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:D

Value: F

Growth: A

Momentum: D

Summary

Ambarella is benefiting from its transition to a video AI company. Ramping up of production shipments in the automotive and security camera market is a key driver. Ambarella's CV portfolio is also attracting customers and helping it expand the client base. Customers are also replacing products of HiSilicon with Ambarella, which is an upside 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.

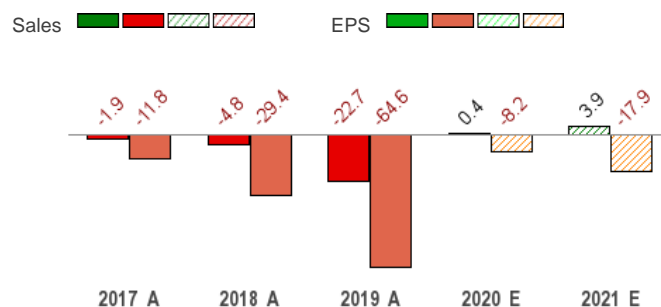
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$67.15 - \$34.80
20 Day Average Volume (sh)	572,716
Market Cap	\$2.1 B
YTD Price Change	3.6%
Beta	1.23
Dividend / Div Yld	\$0.00 / 0.0%
Industry	Electronics - Semiconductors
Zacks Industry Rank	Top 27% (68 out of 253)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	52.4%
Last Sales Surprise	4.4%
EPS F1 Est- 4 week change	0.0%
Expected Report Date	03/03/2020
Earnings ESP	0.0%
P/E TTM	92.3
P/E F1	93.7
PEG F1	6.2
P/S TTM	9.5

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	50 E	58 E	68 E	62 E	238 E
2020	47 A	56 A	68 A	57 E	229 E
2019	57 A	62 A	57 A	51 A	228 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.01 E	\$0.11 E	\$0.25 E	\$0.17 E	\$0.55 E
2020	\$0.01 A	\$0.21 A	\$0.32 A	\$0.12 E	\$0.67 E
2019	\$0.13 A	\$0.25 A	\$0.21 A	\$0.14 A	\$0.73 A

*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 01/02/2020. The reports text is as of 01/03/2020.

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.

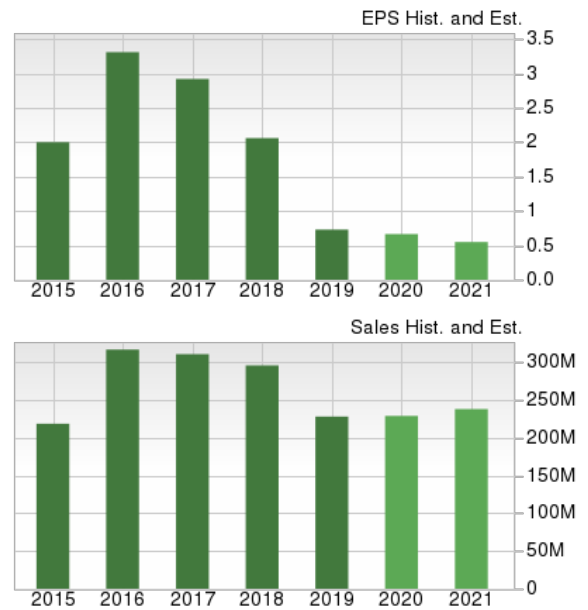
Ambarella caters to the following end markets, namely Professional IP Security Cameras, Consumer IP Security Cameras, Automotive Cameras, Wearable Cameras including Sports, Commercial and Social Media and UAVs or Drones.

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 58% of the company's fiscal 2019 total revenue.

For fiscal 2019, revenues were down 23% year over year to \$227.8 million.

Sales to customers in Asia accounted for approximately 87% of total revenues in fiscal 2019. For fiscal 2019, 2018 and 2017, 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 vision 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.
- ▲ 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. The company claims that the chip will work wonderfully for high-end drones and VR cameras. 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'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.

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.
- ▼ 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 three fiscals. Also, its operating margin, which increased till fiscal 2016, contracted for fiscal 2017, 2018 and 2019. 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 a headwind.

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

Last Earnings Report

Ambarella Q3 Earnings Top Mark

Ambarella's third-quarter fiscal 2020 earnings of 32 cents per share beat the Zacks Consensus Estimate by 52.4% and also the year-ago figure by 22.2%.

The company's revenues in the fiscal third quarter of \$67.9 million surpassed the consensus mark of \$65 million and also increased 18.6% year over year. Its transition to a video AI company is a tailwind. Ramping up of production shipments in the automotive and security camera market is a key driver.

Ambarella's CV portfolio is also attracting customers and helping it expand the client base. During the quarter, the company shipped pre-production parts and development systems to more than 50 customers.

Operating Metrics

On a non-GAAP basis, the company reported gross margin of 58.1%, which was 280-basis points below the year-ago quarter's figure. Richer mix of automotive business in both OEM and aftermarket business is a positive.

Sequentially, non-GAAP operating expenses came in at \$29.3 million compared with \$29.7 million in the previous quarter.

Balance Sheet & Cash Flow

Ambarella ended the fiscal third quarter with cash and cash equivalents & marketable securities of \$400.8 million, up from \$375.8 million in the previous quarter.

The company generated operating cash flow of \$21.9 million during the quarter.

Outlook

For fourth-quarter fiscal 2020, revenues are expected between \$55 million and \$59 million. Non-GAAP gross margin is anticipated within 56.5-58.5%. Non-GAAP operating expenses are estimated in the range of \$29.5-\$31.5 million.

The company envisions automotive and security to be down sequentially while other revenues to be flat to slightly up sequentially. It predicts consumer electronics revenues to be persistently soft, declining as a percentage of revenues over the next two to three years.

However, global tariff issues, export restrictions and unfavorable macroeconomic conditions are bothersome.

Quarter Ending 10/2019

Report Date	Nov 25, 2019
Sales Surprise	4.43%
EPS Surprise	52.38%
Quarterly EPS	0.32
Annual EPS (TTM)	0.68

Recent News

On Jan 2, 2020, 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.

On Dec 30, 2019, Ambarella announced that it will use StradVision's SVNet software for its ADAS (Advanced driver-assistance systems) and DMS (driver monitoring solution) demonstration vehicle at the CES 2020.

Valuation

Shares of Ambarella have rallied 41.2% in the past six months and 82.6% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector have rallied 22.5% and 11.2% in the past six months, respectively. Over the past year, while the Zacks sub-industry has increased 59.4%, the sector gained 38.3%.

The S&P 500 Index has risen 8.3% in the past 6 months and 26.3% in the past year.

The stock is currently trading at 8.88X forward 12-month sales, which compares to 6.89X for the Zacks sub-industry, 3.55X for the Zacks sector and 3.46X for the S&P 500 index.

Over the past five years, the stock has traded as high as 11.62X and as low as 3.06X with a 5-year median of 5.51X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$66 price target reflects 9.32X forward 12-month sales.

The table below shows summary valuation data for AMBA

Valuation Multiples - AMBA					
		Stock	Sub-Industry	Sector	S&P 500
P/S F12M	Current	8.88	6.89	3.55	3.46
	5-Year High	11.62	6.89	3.55	3.46
	5-Year Low	3.06	2.58	2.29	2.54
	5-Year Median	5.51	5.82	2.99	3
P/B TTM	Current	4.66	8.65	5.3	4.41
	5-Year High	14.96	8.75	5.33	4.42
	5-Year Low	2.46	3.25	3.13	2.85
	5-Year Median	3.98	5.58	4.21	3.6
EV/Sales TTM	Current	7.56	6.82	4.17	3.22
	5-Year High	15.03	6.89	4.19	3.3
	5-Year Low	2.47	2.69	2.54	2.14
	5-Year Median	4.66	5.26	3.42	2.79

As of 01/02/2019

Industry Analysis Zacks Industry Rank: Top 27% (68 out of 253)



Top Peers

QUALCOMM Incorporated (QCOM)	Outperform
Sony Corporation (SNE)	Outperform
Cirrus Logic, Inc. (CRUS)	Neutral
Intel Corporation (INTC)	Neutral
NVIDIA Corporation (NVDA)	Neutral
NXP Semiconductors N.V. (NXPI)	Neutral
Texas Instruments Incorporated (TXN)	Neutral
Xilinx, Inc. (XLNX)	Neutral

Industry Comparison Industry: Electronics - Semiconductors				Industry Peers		
	AMBA Neutral	X Industry	S&P 500	INTC Neutral	NVDA Neutral	QCOM Outperform
VGM Score	D	-	-	A	C	F
Market Cap	2.11 B	763.49 M	23.76 B	264.65 B	146.82 B	101.27 B
# of Analysts	8	2	13	14	11	9
Dividend Yield	0.00%	0.00%	1.78%	2.07%	0.27%	2.80%
Value Score	F	-	-	B	D	D
Cash/Price	0.20	0.18	0.04	0.05	0.07	0.12
EV/EBITDA	-61.18	8.67	13.97	8.53	33.09	10.55
PEG Ratio	6.20	2.05	2.02	1.72	4.62	1.54
Price/Book (P/B)	4.66	2.91	3.38	3.56	13.09	21.96
Price/Cash Flow (P/CF)	NA	12.68	13.70	8.94	35.83	21.25
P/E (F1)	92.99	22.54	18.83	12.89	43.18	21.50
Price/Sales (P/S)	9.46	2.81	2.68	3.76	14.66	4.17
Earnings Yield	1.07%	3.55%	5.30%	7.76%	2.32%	4.65%
Debt/Equity	0.02	0.08	0.72	0.32	0.22	2.74
Cash Flow (\$/share)	-0.93	0.73	6.94	6.81	6.70	4.17
Growth Score	A	-	-	B	B	F
Hist. EPS Growth (3-5 yrs)	-38.65%	3.58%	10.56%	19.47%	47.42%	-8.63%
Proj. EPS Growth (F1/F0)	-8.90%	21.57%	7.41%	2.42%	-16.32%	16.51%
Curr. Cash Flow Growth	-224.90%	0.75%	14.83%	23.02%	29.72%	-22.34%
Hist. Cash Flow Growth (3-5 yrs)	NA%	12.15%	9.00%	11.64%	41.59%	-10.62%
Current Ratio	8.81	2.96	1.23	1.20	8.42	1.88
Debt/Capital	1.88%	9.10%	42.92%	24.20%	17.98%	73.24%
Net Margin	-16.33%	1.09%	11.08%	27.46%	24.08%	18.07%
Return on Equity	-9.51%	2.76%	17.10%	28.28%	22.02%	77.78%
Sales/Assets	0.46	0.69	0.55	0.54	0.69	0.72
Proj. Sales Growth (F1/F0)	0.38%	8.24%	4.20%	1.56%	-8.07%	-9.84%
Momentum Score	D	-	-	D	D	C
Daily Price Chg	3.63%	1.70%	0.33%	1.65%	1.96%	0.52%
1 Week Price Chg	3.35%	0.40%	0.13%	1.92%	-1.04%	-0.06%
4 Week Price Chg	19.27%	8.66%	3.31%	8.49%	14.93%	7.39%
12 Week Price Chg	19.82%	14.14%	9.70%	19.04%	31.08%	18.30%
52 Week Price Chg	82.60%	39.49%	30.28%	36.75%	87.44%	59.23%
20 Day Average Volume	572,716	172,784	1,603,615	17,806,440	6,879,603	7,281,727
(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%	0.00%	-0.02%	-0.16%	0.00%
(F1) EPS Est 12 week change	11.64%	0.00%	-0.57%	6.34%	6.03%	5.72%
(Q1) EPS Est Mthly Chg	0.00%	0.00%	0.00%	0.00%	0.00%	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.

Value Score	F
Growth Score	A
Momentum Score	D
VGM Score	D

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.

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