May 13, 2020

Maxim Integrated (MXIM)

$54.09 (As of 05/12/20)

Price Target (6-12 Months): **$57.00**

Long Term: 6-12 Months	**Zacks Recommendation:** (Since: 09/30/19) Prior Recommendation: Underperform	**Neutral**
Short Term: 1-3 Months	**Zacks Rank:** (1-5) Zacks Style Scores: Value: C | Growth: C | Momentum: A	**3-Hold** VGM:C

Summary

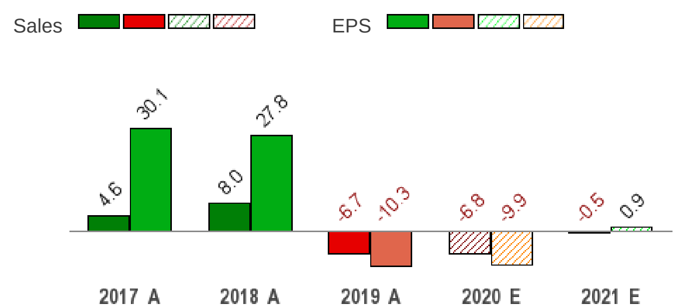
Maxim reported strong fiscal third-quarter results driven by strength in end-market demand. The company is benefiting from strong momentum across driver assistance in electric vehicles. Further, solid automatic test equipment demand remains a positive. Furthermore, growing demand for 100G laser drivers and modules is aiding its performance in the communications and data center market. Also, robust battery management systems have contributed significantly to Maxim's top-line. The company remains optimistic about the flexible manufacturing strategy and diversified product portfolio. However, coronavirus pandemic remains a major concern for the company's manufacturing operations. Further, weakness in the consumer electronics and slowdown in auto production are headwinds. The stock has underperformed the industry it belongs to over a year.

Price, Consensus & Surprise

Data Overview

52 Week High-Low	**$65.73 - $41.93**
20 Day Average Volume (sh)	**3,245,084**
Market Cap	**$14.4 B**
YTD Price Change	**-12.1%**
Beta	**1.31**
Dividend / Div Yld	**$1.92 / 3.5%**
Industry	**Semiconductor - Analog and Mixed**
Zacks Industry Rank	**Top 48% (122 out of 253)**
Last EPS Surprise	**7.0%**
Last Sales Surprise	**0.7%**
EPS F1 Est- 4 week change	**1.6%**
Expected Report Date	**08/04/2020**
Earnings ESP	**0.0%**
P/E TTM	**23.9**
P/E F1	**24.7**
PEG F1	**2.1**
P/S TTM	**6.6**

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2021	512 E	522 E	542 E	565 E	2,146 E
2020	533 A	551 A	562 A	510 E	2,156 E
2019	639 A	577 A	542 A	557 A	2,314 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	$0.50 E	$0.52 E	$0.56 E	$0.60 E	$2.21 E
2020	$0.52 A	$0.56 A	$0.61 A	$0.51 E	$2.19 E
2019	$0.75 A	$0.60 A	$0.52 A	$0.57 A	$2.43 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 05/12/2020. The reports text is as of 05/13/2020.

Overview

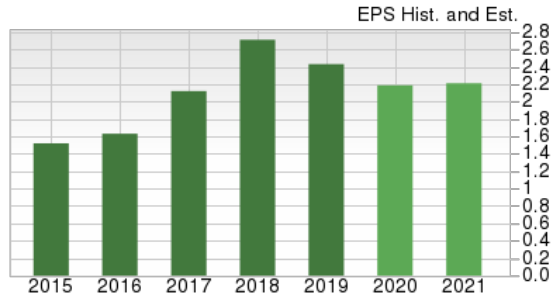
San Jose, California based Maxim Integrated Products, Inc. is an original equipment manufacturer (OEM) of semiconductor analog and mixed signal integrated circuits (ICs).

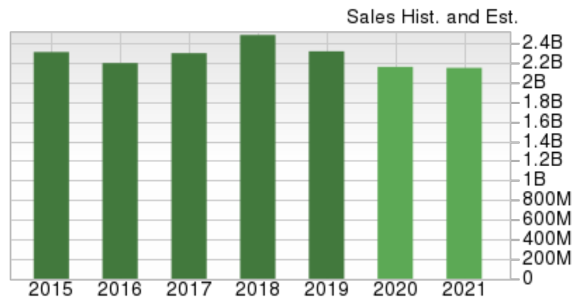
The company has a broad product portfolio that includes analog-to-digital converters, amplifiers and comparators, communications devices, data converters and management components, sensors and wireless products.

Maxim's 70+ product lines are primarily sold in the consumer, computing, industrial, automotive (formerly part of the Industrial segment) and communications markets which are the five primary end markets.

Its products have very extensive application in consumer goods like cordless phones, digital cameras and PDAs; data processing; industrial products; instrumentation products; medical instruments; and various communications gear and networking equipment.

The company's products are sold in major five end-markets namely automotive, communications and data center, computing, consumer and industrial markets.





A significant percentage of the wafer manufacturing continues to be carried out at Maxim's three fabrication facilities, although increasing amounts are being outsourced to partner foundries — Epson, Powerchip and Maxchip.

The company has operations in the Asia/Pacific region, the U.S. and Europe. In fiscal 2019, the major part of total revenues came from China which accounted for 35% and the rest of Asia contributed 33%. The Europe and U.S. generated 18.5% and 11%, respectively. The rest of the world generated 2.5%.

Products are distributed in the U.S. and Canada through a direct sales force and support system. Products are sold through direct sales, applications organization and unaffiliated distributors. Distributors generated 46% of sales in fiscal 2019.

Avnet was the primary global distributor, accounting for around 22% of the company's revenues. Samsung, the only customer generated 10% of revenues alone.

Reasons To Buy:

Maxim has a solid portfolio that generates steady design wins, a strong core business that is highly profitable and well-diversified, and returns cash to investors at regular intervals.

- Maxim generates its revenues from the **analog market,** which comes with several inherent advantages. Analog products do not require leading edge manufacturing facilities, since the capacity can be used for longer periods of time than digital products. This reduces capital equipment costs, as large upfront costs are avoided, depreciation is less and profits are more stable when utilization rates drop lower. Being more differentiated, analog products are also less likely to become commoditized. The relatively longer life cycles ensure that older analog products can keep contributing to revenues for longer periods of time and generate higher margins (due to pricing power) than corresponding digital products. Moreover, Maxim's shifting to advanced node process technology development bodes well for its margin expansion.

- Multiple opportunities continue to unfold in the **industrial market**. Industrial automation, building controls, electrical meters, security devices and automobiles are not just the highest consumers of semiconductors, but also the areas with the greatest promise of growth.The company expects its factory automation product will continue to perform well in the long haul. Moreover, increasing deployment of Industry 4.0 control systems in factories across the world remains a key catalyst. Another segment that is currently showing promise is medical sector and is likely to aid Maxim's business growth. Utilities are moving toward greater automation and efficiencies in operation, another secular growth driver. Maxim's higher-integration smaller-footprint products have been popular in these markets. Maxim has also enhanced its capabilities in the industrial market through bolt-on acquisitions that have strengthened its position and offered more comprehensive solutions. Maxim's **consumer revenues** have picked up gradually due to diversification across customers, products and platforms. Revenues in this market have been improving due to diversification across a variety of markets. Management stated that new wins in the fast growing markets like fitness wearables, tablets and smartphones will continue to drive consumer revenues in the near term.

- Maxim has a solid balance sheet. As of Mar 31, 2020, the company's net cash amounted to $692 million compared with $790 million as of Dec 31, 2019. The strong net cash balance will not only help it pursue strategic acquisitions but will also enable it repurchase shares aggressively in the long haul. Moreover, debt-to-total capital was 36.5% as of Mar 31, 2020 which is lower than the industry average of 43.3%. As of Mar 31, 2020, it had a solid cash balance of $1.7 billion and cash flow from operations of $209.8 million. Maxim — which has a record of consistent earnings growth — has less credit risk and lower chances of default or bankruptcy if the economic situation worsens.

- Maxim's **automotive business** carries strategic importance, high growth opportunities. The increase in customer wins is particularly encouraging because it opens up possibilities of further design wins as new car models are prepped for the market. Infotainment, safety and driver assistance content, known as ADAS are long term drivers of the automotive business. The company's expertise in Automotive Safety Integrity Levels (ASIL) remains the key catalyst. Moreover, the company's ASIL compliant battery management system remains a market differentiator and will continue to sustain Maxim's momentum in the market. China is expected to bring further opportunities, as Chinese infrastructure spending boosts demand for its factory automation products. Recently, the company introduced a high-end version of BMS product for electric buses which has already gained momentum in China. Moreover, the company's ASIL compliant battery management system remains a market differentiator and will continue to sustain Maxim's momentum in the market. Management expects battery management systems to be a meaningful driver of revenue growth going forward. Additionally, there are **long term opportunities the communications and data center market**.Longer-term trends like the competitive nature of the communications service provider market that drive players to deploy more efficient and capable infrastructure are intact. It is now apparent that IP-based networks are better than traditional voice-based networks in this respect; therefore, there will be long-term demand for convergence technologies that could be beneficial for companies like Maxim. The company is focusing on communications interface circuits to drive growth in this segment. Maxim is also seeing growing customer wins in the cloud and data center market for its highly integrated, high-current power management solutions and 40-gig and 100-gig optical products. It is also poised to take advantage of a leading cloud computing customer's demand for smaller and more power-efficient solutions to reduce overall cost of ownership. Cloud and datacenters will likely be significant growth drivers for Maxim in the communications and data center market.

Reasons To Sell:

- **Revenue growth** is usually an area of concern for analog companies, since products take longer to design and stay relevant longer. Maxim is no different from others in this respect. While the business model supports stronger margins, the longer lead times for customized devices require a relatively longer sales cycle than digital products.

- **Customer concentration** is a big problem for Maxim. Being designed into Samsung devices means that the company is likely to see very strong growth rates when Samsung does well that skew its overall results. A typical analog company, especially one that has diversified end markets, usually sees moderate and steady growth rates if market conditions permit. However, Samsung is changing all that by generating 10% of the company's total revenues alone in fiscal 2019. No other customer has contributed this much. As a result, Samsung's projections and announcements, especially those related to its high-end models where Maxim has greater exposure, have a significant impact on it. On the positive side, Samsung has many new products scheduled to be launched, so there is a lot of opportunity for Maxim, if it is able to capitalize on it.

> This problem with Maxim is that it is exacerbated by the concentration of its mobility revenue at Samsung, which could only be mitigated once its diversification strategy takes off.

- Maxim derives a major portion of its revenues from outside the U.S. Thus, an economic condition which impacts foreign currency exchange rates does result in transaction exposure, which leads to profit fluctuation. Exposure to **foreign currency translation** impacts and poses a threat to its growth.

Last Earnings Report

Maxim Surpasses Earnings & Revenue Estimates in Q3

Quarter Ending	03/2020
Report Date	**Apr 28, 2020**
Sales Surprise	**0.65%**
EPS Surprise	**7.02%**
Quarterly EPS	**0.61**
Annual EPS (TTM)	**2.26**

Maxim Integrated Products reported third-quarter fiscal 2020 adjusted earnings of 61 cents per share, which surpassed the Zacks Consensus Estimate by 7%. The bottom line also came within the guided range of 57-65 cents.

Further, the figure improved 17.3% year over year and 8.9% on a sequential basis.

Revenues of $561.92 million outpaced the Zacks Consensus Estimate of $558.31 million and came within management's guided range of $555-$595 million. The top line increased 4% year over year and 2% on a sequential basis.

The upside can be attributed to the company's solid performance across industrial, automotive, and communications and data center markets during the reported quarter.

Further, the company's solid manufacturing strategies and diversified supply chain presence globally contributed to the results despite the coronavirus-induced disruption.

Maxim anticipates manufacturing operations to not run at full capacity in the fiscal fourth quarter owing to the initiatives being taken to protect employees from COVID-19 infection.

Nevertheless, the company's strong manufacturing strategies are likely to aid it in delivering products to customers despite challenging scenario. Further, continuous share repurchase and dividend payment activities are likely to instil investor optimism in the stock.

End Market in Detail

Industrial: The company generated 30% of total revenues from this market during the reported quarter. Revenues in this market advanced 4% from the prior-year quarter primarily owing to an uptick in the automatic test equipment demand.

Automotive: This market accounted for 28% of the company's revenues during the fiscal first quarter. Further, revenues were up 5% on a year-over-year basis, which was driven by strong performance of company's automotive applications like battery management systems (BMS), driver assistance, infotainment and auto body electronics, during the reported quarter.

Consumer: Maxim generated 18% of revenues from this market. Revenues in this market declined 18% year over year on account of seasonal fluctuations and softness in the consumer electronics in the fiscal third quarter.

Nevertheless, uptick in the smartphone shipment during the quarter under review remained a positive.

Communications and Data Center: Revenues from this market, which now includes computing, accounted for 24% of the total revenues. This reflects an improvement of 26% from the year-ago quarter. This can be attributed to robust laser driver product portfolio that gained strong momentum across hyper scale data centers and 5G base station uplinks in the quarter under review. Further, the company experienced solid traction across base stations and data center applications on the back of its 25G and 100G optical products, respectively.

Operating Details

Non-GAAP gross margin was 66.1%, expanding 230 basis points (bps) from the year-ago quarter.

Non-GAAP operating expenses of $180.7 million decreased 0.2% year over year. Further, as a percentage of revenues, the figure contracted 120 bps from the prior-year quarter.

Per the company, operating margin came in at 32.6%, expanding 370 bps from the year-ago quarter.

Balance Sheet & Cash Flow

As of Mar 28, 2020, cash, cash equivalents and short-term investments were $1.7 billion, down from $1.8 billion as of Dec 28, 2019.

Further, long-term debt was $993.7 million at the end of fiscal third quarter compared with $993.3 million at fiscal second quarter-end.

During the quarter under review, cash flow from operations was $209.8 million, down from $237.5 million in the prior quarter. Further, the company utilized $17 million for capital expenditure during the fiscal third quarter.

Maxim spent $157 million in repurchasing shares and made dividend payment of $129 million (48 cents per share).

Guidance

For fourth-quarter fiscal 2020, earnings per share are expected in the range of 43-57 cents on an adjusted basis.

Further, Maxim expects revenues in the range of $480-$540 million. Non-GAAP gross margin is expected within 65.5-67.5%.

Management anticipates the industrial market to be sequentially up in the fiscal fourth quarter, thanks to the growing momentum across medical products owing to surge in customer demand amid this coronavirus pandemic.

Further, Maxim expects sequential growth in revenues in the communications and data center market in the fiscal fourth quarter owing to rapid deployment of its laser driver products.

Additionally, growing adoption of power and optical across hyperscale data centers, and 4G and 5G base station applications is expected to contribute to the performance.

However, the automotive market is anticipated to decline from the fiscal third quarter due to coronavirus led OEM factory closures, which are expected to cause softness in automotive demand.

Nevertheless, strong investments in power management, ADAS and BMS for electric vehicles and content growth opportunities are likely to remain tailwinds.

Meanwhile, Maxim is expected to witness significant decline in consumer market owing to coronavirus-induced low smartphone content and sluggish consumer spending.

Recent News

On **Jan 7, 2020**, Maxim's Volterra Semiconductor filed a lawsuit against Monolithic Power Systems which describes the infringement of its patents related to the coupled inductor technology by the latter's MPS DC-to-DC power converter products.

On **Nov 20, 2019**, Maxim rolled out a solid-state blood-pressure monitoring solution which is comprised of a complete integrated optical sensor module, a microcontroller sensor hub and a sensing algorithm. The solution allows users to measure blood pressure by placing their finger on the device in which it is embedded.

On **Nov 1, 2019**, Maxim unveiled MAX6078A voltage reference IC, the MAX16155 nanoPower supervisor and the MAX16160 voltage monitor which expanded its analog product portfolio.

Valuation

Maxim Integrated Products shares are down 12.1% in the year-to-date period but up 0.1% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are down 14% and 0.5% in the year-to-date, respectively. Over the past year, the Zacks sub-industry is up 2.5% and the sector is up 14.2%.

The S&P 500 index is down 10.9% in the year-to-date period but up 1.1% in the past year.

The stock is currently trading at 24.51X forward 12-month earnings, which compares to 24.09X for the Zacks sub-industry, 23.39X for the Zacks sector and 20.76X for the S&P 500 index.

Over the past five years, the stock has traded as high as 26.31X and as low as 15.27X, with a 5-year median of 19.96X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our $57 price target reflects 25.82X forward 12-month earnings.

The table below shows summary valuation data for MXIM

Valuation Multiples - MXIM

		Stock	Sub-Industry	Sector	S&P 500
P/E F 12M	Current	24.51	24.09	23.39	20.76
	5-Year High	26.31	24.09	22.52	20.79
	5-Year Low	15.27	13.42	16.71	15.19
	5-Year Median	19.96	18.12	19.26	17.45
P/S F12M	Current	6.72	4.3	3.56	3.24
	5-Year High	7.48	4.52	3.59	3.44
	5-Year Low	3.52	2.81	2.32	2.54
	5-Year Median	5.61	3.7	3.1	3.02
EV/EBITDA TTM	Current	23.66	10.82	11.19	10.39
	5-Year High	29.34	14.24	12.71	12.86
	5-Year Low	8.95	8.14	7.56	8.28
	5-Year Median	12.83	11.61	10.62	10.77

As of 05/12/2020

Industry Analysis Zacks Industry Rank: Top 48% (122 out of 253)

Top Peers

Company (Ticker)	Rec	Rank
Analog Devices Inc **(ADI)**	Neutral	3
Cirrus Logic Inc **(CRUS)**	Neutral	4
Monolithic Power Systems Inc **(MPWR)**	Neutral	3
MaxLinear Inc **(MXL)**	Neutral	3
Semtech Corporation **(SMTC)**	Neutral	3
Skyworks Solutions Inc **(SWKS)**	Neutral	4
Texas Instruments Incorporated **(TXN)**	Neutral	3
Silicon Laboratories Inc **(SLAB)**	Underperform	4

Industry Comparison Industry: Semiconductor - Analog And Mixed

Industry Peers

	MXIM	X Industry	S&P 500	SLAB	SMTC	TXN
Zacks Recommendation (Long Term)	Neutral	-	-	Underperform	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	4	3	3
VGM Score	C	-	-	D	D	D
Market Cap	14.42 B	5.74 B	19.25 B	4.13 B	2.84 B	102.51 B
# of Analysts	10	9	14	5	7	12
Dividend Yield	3.55%	0.00%	2.21%	0.00%	0.00%	3.22%
Value Score	C	-	-	F	D	D
Cash/Price	0.12	0.09	0.06	0.24	0.10	0.04
EV/EBITDA	15.87	17.06	11.70	24.62	29.27	14.86
PEG Ratio	2.11	2.06	2.61	2.51	2.44	2.97
Price/Book (P/B)	8.90	3.75	2.61	3.75	4.27	13.25
Price/Cash Flow (P/CF)	18.77	16.57	10.36	24.85	28.44	17.21
P/E (F1)	24.58	34.12	19.13	37.68	30.55	27.68
Price/Sales (P/S)	6.55	4.52	1.96	4.78	5.19	7.26
Earnings Yield	4.05%	2.97%	5.00%	2.66%	3.28%	3.61%
Debt/Equity	0.61	0.57	0.75	0.34	0.29	0.71
Cash Flow ($/share)	2.88	2.91	7.01	3.80	1.53	6.49
Growth Score	C	-	-	A	C	C
Hist. EPS Growth (3-5 yrs)	12.23%	14.19%	10.82%	14.25%	11.89%	19.56%
Proj. EPS Growth (F1/F0)	-10.04%	-13.55%	-10.31%	-22.35%	-6.01%	-23.00%
Curr. Cash Flow Growth	-14.31%	-12.47%	5.83%	-16.69%	-28.03%	-4.66%
Hist. Cash Flow Growth (3-5 yrs)	2.00%	22.53%	8.52%	13.23%	-5.21%	8.82%
Current Ratio	5.95	2.56	1.27	2.79	4.67	3.49
Debt/Capital	38.02%	38.02%	44.25%	25.28%	22.33%	41.56%
Net Margin	37.00%	2.31%	10.59%	1.86%	7.16%	35.17%
Return on Equity	35.31%	11.96%	16.33%	8.89%	9.30%	57.45%
Sales/Assets	0.60	0.47	0.55	0.50	0.52	0.80
Proj. Sales Growth (F1/F0)	-6.83%	-5.60%	-2.53%	-0.73%	-1.18%	-14.91%
Momentum Score	A	-	-	D	B	C
Daily Price Chg	-0.93%	-3.12%	-2.55%	-3.63%	-4.34%	-2.78%
1 Week Price Chg	3.96%	8.85%	3.23%	9.24%	7.73%	4.82%
4 Week Price Chg	1.67%	4.62%	-0.84%	4.29%	-2.44%	0.67%
12 Week Price Chg	-13.39%	-11.72%	-21.82%	-8.66%	-10.70%	-14.90%
52 Week Price Chg	-0.02%	0.07%	-10.27%	-3.54%	-9.14%	2.43%
20 Day Average Volume	3,245,084	1,051,838	2,520,117	316,949	401,729	5,555,684
(F1) EPS Est 1 week change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	1.63%	-2.30%	-6.29%	-28.20%	0.00%	-11.30%
(F1) EPS Est 12 week change	-6.10%	-28.33%	-16.21%	-46.33%	-48.28%	-20.97%
(Q1) EPS Est Mthly Chg	-4.64%	-2.32%	-12.28%	-13.16%	0.00%	-19.79%

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	C
Growth Score	C
Momentum Score	A
VGM Score	C

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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