

Monolithic Power (MPWR)

\$199.91 (As of 04/30/20)

Price Target (6-12 Months): **\$205.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 03/05/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:D

Value: F

Growth: B

Momentum: D

Summary

Monolithic's revenues and earnings improved on a year-over-year basis in first-quarter 2020. Notably, solid demand for industrial security, autonomous driving and cloud servers aided top-line growth. Monolithic's robust product portfolio that targets In-Car connectivity and infotainment as well as advanced driver assistance system is a key catalyst. Moreover, increasing deployment of 5G is expected to have aided growth in the Communications market. Further, increasing adoption of point of sales systems, security applications and smart meters bode well. The stock has outperformed the industry in the past year. However, the company is bearing the brunt of slowing economy in China where it has significant exposure, thanks to the coronavirus crisis. Additionally, rising competition in the highly-fragmented analog market is a serious threat.

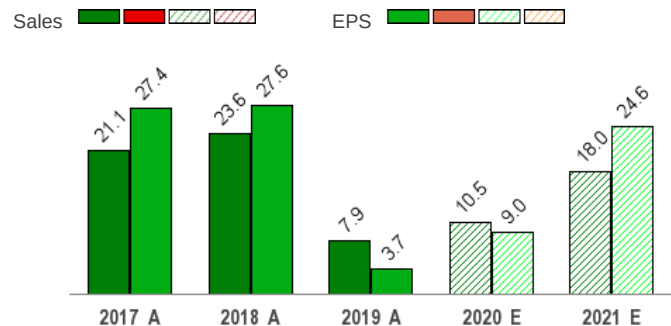
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$208.81 - \$114.84
20 Day Average Volume (sh)	342,145
Market Cap	\$8.9 B
YTD Price Change	12.3%
Beta	1.24
Dividend / Div Yld	\$2.00 / 1.0%
Industry	Semiconductor - Analog and Mixed
Zacks Industry Rank	Bottom 47% (135 out of 253)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	1.1%
Last Sales Surprise	3.4%
EPS F1 Est- 4 week change	-6.3%
Expected Report Date	07/29/2020
Earnings ESP	2.9%
P/E TTM	50.1
P/E F1	47.4
PEG F1	1.9
P/S TTM	13.7

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	180 E	196 E	222 E	221 E	819 E
2020	166 A	170 E	183 E	182 E	694 E
2019	141 A	151 A	169 A	167 A	628 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$1.07 E	\$1.21 E	\$1.45 E	\$1.45 E	\$5.27 E
2020	\$0.95 A	\$0.96 E	\$1.15 E	\$1.14 E	\$4.23 E
2019	\$0.84 A	\$0.92 A	\$1.08 A	\$1.04 A	\$3.88 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 04/30/2020. The reports text is as of 05/01/2020.

Overview

Monolithic Power Systems, based in San Jose, CA, designs, develops and markets high-performance power solutions. The company focuses on the market for high-performance analog and mixed-signal integrated circuits (ICs).

Monolithic's products are widely utilized in industrial applications, telecommunication infrastructures, cloud computing, automotive and consumer applications.

Being a fabless company, Monolithic works with third-party contractors and chip assemblers for the manufacturing, assembling and testing of wafers and ICs. This approach permits the company to focus more on the designing and development of process technology at a lower-fixed cost.

Notably, unlike other fabless semiconductor companies, Monolithic installs its own proprietary process technologies in third-party contractors' equipment and facilities.

Monolithic reported total revenue of \$627.9 million in 2019. The company's key product families are direct current (DC to DC) products and Lighting Control products.

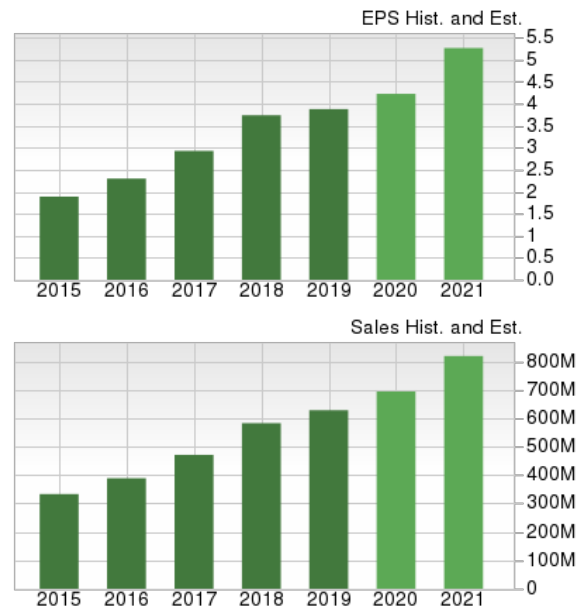
DC to DC ICs are used to convert and control voltages within a broad range of electronic systems, such as portable electronic devices, wireless LAN access points, computers and monitors, automobiles and medical equipment. The product line accounted for 93.9% of total revenue in 2019.

Lighting control ICs are used in backlighting and general illumination products. The product line accounted for 6.1% of total revenue in 2019.

End-market wise, 30.1% of total revenue came from Computing and storage for the year ended Dec 31, 2019.

Precisely, Consumer, Industrial, Automotive and Communications end-markets contributed 26.2%, 15.8%, 14.4% and 13.5%, respectively to 2019 revenues.

Monolithic's primary competitors are Analog Devices, Infineon Technologies, Renesas Electronics (post Intersil acquisition), Analog Devices (post Linear Technology acquisition), Maxim Integrated Products, NXP Semiconductors (pending acquisition by Qualcomm), ON Semiconductor, Power Integrations, ROHM Semiconductor, Semtech and Texas Instruments.



Reasons To Buy:

- ▲ Automotive is one of the foremost industries that is benefiting from the emergence of Internet of Things (IoT) and artificial intelligence (AI). The increasing demand for analog ICs and sensors bodes well for semiconductor component providers like Monolithic. Management has stated that the company is winning increasing dollar content in the automotive market. Moreover, its deep-rooted partnerships with leading auto suppliers will further boost top line. The company anticipates served addressed market (SAM) for the automotive industry expanded from \$6 billion in 2015 to \$7 billion in 2018. Moreover, management expects Automotive business to witness a CAGR of 40-50% between 2013 and 2021. Monolithic has strong growth opportunity due to its robust product portfolio that targets In-Car connectivity and infotainment, advanced driver assistance system (ADAS) and rapid adoption of LED lightings in cars and vehicles.
- ▲ Apart from automotive, Monolithic is investing in markets like industrial, server and communications that have strong growth potential over the long term. The ongoing adoption of cloud computing is driving demand for servers, which bodes well for the company's power management solutions. We expect Monolithic to benefit from the ongoing Grantley to Purley platform conversion in the server market. Higher dollar content in new servers based on Purley will drive top-line growth. Management anticipates cloud computing to be a notable growth driver, particularly increasing demand for solid state drives (SSDs) and servers. SAM for cloud computing which includes server and storage expanded from \$800 million in 2015 to \$1 billion in 2018.
- ▲ Moreover, Monolithic projects e-commerce as the upcoming growth driver. The company is now engaged in developing its e-commerce platform, which will allow customers input their specific needs. The company will leverage AI software to predict performance for the consumer's desired product. Monolithic expects to deliver Amazon-like consumer experience through its e-commerce platform. This will not only expand customer base but also help the company to rapidly penetrate the small and medium (SMB) businesses.
- ▲ Being a fabless company, Monolithic works with third-party contractors and chip assemblers for the manufacturing, assembling and testing of wafers and ICs. This approach permits the company to focus more on the designing and development of process technology at a lower-fixed cost. However, unlike other fabless semiconductor companies, Monolithic installs its own proprietary process technologies in third-party contractors' equipment and facilities. Monolithic claims that its proprietary process helps in achieving higher level of integration within its chips. We note that the company has 1,133 patents as of Dec 31, 2018, which possibly helps it to maintain this technological lead.
- ▲ Monolithic has a strong balance sheet with ample liquidity position and no debt obligations. As of Mar 31, 2020, Monolithic had cash and short-term investments balance of \$489.3 million compared with \$455.5 million as of Dec 31, 2019. The company generated \$51.4 million of cash from operating activities in the first quarter of 2020. The increasing liquidity and cash flow trend reflect that the company is making investments in the right direction. Moreover, since it carries no long-term debt, the cash is available for pursuing strategic acquisitions, and investment in growth initiatives.

Investments in high-growth fields like automotive, industrial, server and communications are anticipated to drive growth in the long haul.

Reasons To Sell:

- ▼ Monolithic derives a significant proportion of its revenues from Asia. Notably, for year ended Dec 31, 2019, the company generated 89% of total revenues from customers based in Asia. Hence, changes in the relative value of the dollar against Asian currencies may create pricing pressure for the company's products. Moreover, lack of geographic diversity in terms of end-customers is a significant headwind. The company generates majority of revenues from a limited number of customers. Customer concentration lowers the company's ability to hike price, which is a major concern.
- ▼ Monolithic is considerably exposed particularly to the demand environment in China (61% of revenues in fiscal 2019), which is at present quite sluggish. Further, imposition of tariffs owing to trade war between the United States and China is anticipated to negatively impact growth prospects. The uncertainty over the recent trade war truce has impacted investors' confidence and is likely to remain an overhang on the company's performance.
- ▼ Monolithic operates in a highly competitive market. The company faces significant competition in the analog market (including power management sub-segment), which is highly fragmented. Moreover, most competitors have strong financial resources and broader distribution channel than Monolithic. Being relatively small in size, the company doesn't have significant flexibility to reduce price as compared with its peers, which is a headwind. We expect intensifying competition to keep profitability under pressure at least in the near-term.
- ▼ Monolithic's business, in particular and in the semiconductor industry in general, is highly cyclical. It is characterized by constant and swift technological changes, as well as rapid product obsolescence and price erosion, evolving standards, short product life-cycles. Additionally, semiconductor manufacturing is very capital-intensive. The manufacturing capacities that are essential to maintain a competitive cost position require large capital investments. A high percentage of the cost of operating a fab is fixed; therefore, increases or decreases in capacity utilization can have a significant impact on profitability.
- ▼ Moreover, the company is trading at premium in terms of Price/Earnings (P/E). Monolithic currently has a trailing 12 month P/E ratio of 84. This level compares unfavorably with what the industry witnessed in the last year. Consequently, the valuation looks slightly stretched from P/E perspective.

Monolithic's business in the highly cyclical semiconductor industry and dependence on China amid macroeconomic uncertainty remain major concerns.

Last Earnings Report

Monolithic Power Q1 Earnings & Revenues Top Estimates

Monolithic Power Systems, Inc. reported first-quarter 2020 non-GAAP earnings of 95 cents per share, which beat the Zacks Consensus Estimate by 1%. Notably, the figure increased 13.1% on a year-over-year basis.

Revenues of \$165.8 million increased 17.3% from the year-ago quarter's figure and surpassed the Zacks Consensus Estimate by 3.4%. The reported figure was also towards the higher end of management's guidance of \$161-\$167 million.

Strong demand across Computing & Storage and Automotive and Communications end-markets as well as a diversified multi-market strategy drove year-over-year growth.

Quarter in Details

Revenues by Product Family

Revenues in the DC to DC segment (94.6% of total revenues) increased 18.2% year over year to \$156.8 million. Moreover, Lighting Control (5.4% of total revenues) revenues increased 2.9% to \$8.9 million.

Revenues by End Market

Computing & Storage (31.3% of total revenues) revenues rallied 32.6% year over year to \$52 million. The market's solid performance was driven by robust sales of cloud servers and storage.

Consumer (22.6%) revenues dropped 1.9% from the year-ago quarter's figure to \$37.4 million due to softening demand for set-top boxes and flat-panel TVs.

Industrial (15.2%) revenues increased 18.3% year over year to \$25.2 million due to strong performance of games, smart meters and security applications.

Automotive (14.1%) revenues were \$23.3 million, up 13.6% year over year. This was driven by sales of infotainment, safety and connectivity application products.

Communications (16.8%) revenues rallied 25.6% year over year to almost \$27.9 million. The end-market benefited from strong 5G networking sales.

Margins in Detail

Non-GAAP gross margin contracted 10 basis points (bps) from the year-ago quarter's level to 55.5%. Management had predicted the figure to be between 55.4% and 56%.

Non-GAAP operating expenses amounted to \$46.1 million during the reported quarter, up 18.1% year over year. As a percentage of revenues, the figure expanded 20 bps on a year-over-year basis to 27.8%.

Non-GAAP operating income improved almost 9% year over year to \$45.9 million. Non-GAAP operating margin (as a percentage of revenues) contracted 30 bps from the year-ago quarter's level to 27.7%.

Balance Sheet & Cash Flow

As of Mar 31, 2020, cash, cash equivalents and short-term investments were \$489.3 million, up from \$455.4 million reported as of Dec 31, 2019.

Monolithic Power generated operating cash flow of approximately \$51.4 million compared with \$61 million in the prior quarter.

Guidance

For second-quarter 2020, Monolithic Power projects revenues between \$167 million and \$173 million

Management anticipates non-GAAP gross margin between 55.3% and 55.9%.

Quarter Ending 03/2020

Report Date	Apr 28, 2020
Sales Surprise	3.39%
EPS Surprise	1.06%
Quarterly EPS	0.95
Annual EPS (TTM)	3.99

Recent News

On Apr 9, Monolithic announced that it has built a low cost emergency ventilator based on an open-source MIT design, to aid medical workers in their fight against the coronavirus pandemic.

Valuation

Monolithic shares are up 12.3% in the year-to-date period and 28.1% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are down 12.8% and 2.4% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry is down 6.6% while the sector is up 6.9%.

The S&P 500 index is down 8.9% in the year-to-date period and up 0.5% in the past year.

The stock is currently trading at 43.22X forward 12-month earnings, which compares to 23.16X for the Zacks sub-industry, 23.05X for the Zacks sector and 20.8X for the S&P 500 index.

Over the past five years, the stock has traded as high as 78.81X and as low as 34.57X, with a 5-year median of 46.44X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$205 price target reflects 44.32X forward 12-month earnings.

The table below shows summary valuation data for MPWR

Valuation Multiples - MPWR					
		Stock	Sub-Industry	Sector	S&P 500
P/E F 12M	Current	43.22	23.16	23.05	20.8
	5-Year High	78.81	23.16	23.05	20.8
	5-Year Low	34.57	13.42	16.71	15.19
	5-Year Median	46.44	18.09	19.23	17.44
P/S F12M	Current	12.04	4.32	3.51	3.28
	5-Year High	12.52	4.52	3.59	3.44
	5-Year Low	4.98	2.81	2.32	2.54
	5-Year Median	8.16	3.69	3.10	3.01
P/B TTM	Current	11.53	3.57	4.62	3.86
	5-Year High	11.74	6.22	5.38	4.55
	5-Year Low	5.06	2.49	3.16	2.84
	5-Year Median	8.58	3.63	4.29	3.64

As of 04/30/2020

Industry Analysis Zacks Industry Rank: Bottom 47% (135 out of 253)



Top Peers

Company (Ticker)	Rec	Rank
Analog Devices, Inc. (ADI)	Neutral	3
Cirrus Logic, Inc. (CRUS)	Neutral	3
Infineon Technologies AG (IFNNY)	Neutral	3
Microchip Technology Incorporated (MCHP)	Neutral	4
Maxim Integrated Products, Inc. (MXIM)	Neutral	3
NXP Semiconductors N.V. (NXPI)	Neutral	4
Texas Instruments Incorporated (TXN)	Neutral	3
ON Semiconductor Corporation (ON)	Underperform	4

Industry Comparison Industry: Semiconductor - Analog And Mixed				Industry Peers		
	MPWR	X Industry	S&P 500	IFNNY	NXPI	TXN
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	4	3
VGM Score	D	-	-	F	C	F
Market Cap	8.94 B	5.51 B	20.61 B	22.96 B	27.78 B	106.53 B
# of Analysts	8	8.5	14	2	10	12
Dividend Yield	1.00%	0.00%	2.11%	1.09%	1.51%	3.10%
Value Score	F	-	-	D	D	D
Cash/Price	0.05	0.10	0.06	0.26	0.04	0.05
EV/EBITDA	67.92	17.19	11.87	8.04	14.59	15.44
PEG Ratio	1.80	1.96	2.47	16.42	1.77	3.08
Price/Book (P/B)	11.23	3.79	2.67	2.08	2.88	13.77
Price/Cash Flow (P/CF)	68.20	16.92	10.66	9.31	6.40	17.88
P/E (F1)	45.00	28.53	19.01	41.72	17.66	28.77
Price/Sales (P/S)	13.70	4.64	2.10	2.57	3.16	7.55
Earnings Yield	2.11%	3.55%	5.05%	2.40%	5.66%	3.47%
Debt/Equity	0.00	0.55	0.72	0.15	0.76	0.71
Cash Flow (\$/share)	2.93	2.91	7.01	1.97	15.55	6.49
Growth Score	B	-	-	F	C	D
Hist. EPS Growth (3-5 yrs)	28.83%	13.72%	10.88%	13.69%	13.59%	19.56%
Proj. EPS Growth (F1/F0)	8.89%	-13.37%	-7.32%	-56.00%	-37.34%	-23.00%
Curr. Cash Flow Growth	5.71%	-12.47%	5.92%	-3.50%	10.37%	-4.66%
Hist. Cash Flow Growth (3-5 yrs)	20.59%	22.53%	8.55%	11.38%	24.47%	8.82%
Current Ratio	6.67	2.78	1.23	4.14	1.82	3.49
Debt/Capital	0.00%	36.52%	43.84%	13.42%	43.27%	41.56%
Net Margin	18.15%	3.30%	11.08%	10.36%	2.76%	35.17%
Return on Equity	15.25%	12.28%	16.44%	11.71%	24.05%	57.45%
Sales/Assets	0.71	0.47	0.54	0.61	0.42	0.80
Proj. Sales Growth (F1/F0)	10.51%	-2.43%	-1.42%	0.00%	-12.56%	-14.91%
Momentum Score	D	-	-	F	D	D
Daily Price Chg	-1.79%	-4.85%	-2.39%	-2.83%	-6.74%	-2.79%
1 Week Price Chg	0.15%	2.88%	-1.74%	-6.85%	4.72%	0.33%
4 Week Price Chg	26.91%	25.94%	17.07%	27.91%	28.01%	13.77%
12 Week Price Chg	9.93%	-10.65%	-18.53%	-24.65%	-26.43%	-12.41%
52 Week Price Chg	28.01%	-7.27%	-9.82%	-21.43%	-6.59%	-1.18%
20 Day Average Volume	342,145	931,436	2,641,413	377,390	3,641,993	6,167,527
(F1) EPS Est 1 week change	-2.05%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	-6.29%	-7.71%	-6.62%	-40.54%	-23.76%	-12.95%
(F1) EPS Est 12 week change	-19.07%	-25.58%	-13.28%	-54.17%	-36.05%	-21.20%
(Q1) EPS Est Mthly Chg	-8.80%	-5.85%	-11.97%	NA	-30.77%	-21.70%

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	B
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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