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Aug 21, 2020

Analog Devices, Inc. (ADI)

$116.11 (As of 08/20/20)

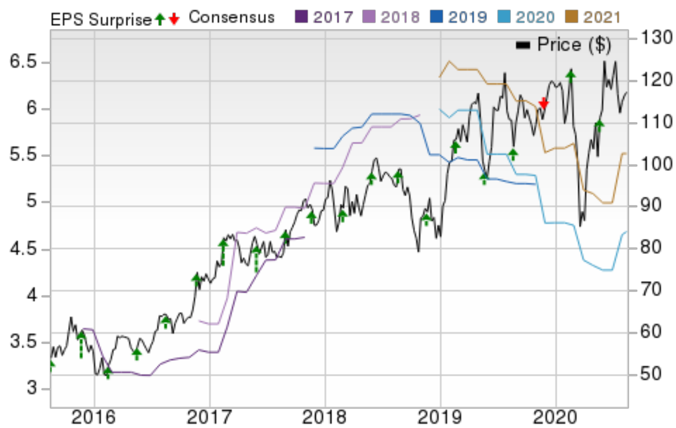
Price Target (6-12 Months): **$135.00**

Long Term: 6-12 Months	**Zacks Recommendation:** (Since: 07/21/20) Prior Recommendation: Neutral	**Outperform**
Short Term: 1-3 Months	**Zacks Rank:** (1-5)	**2-Buy**
	Zacks Style Scores:	VGM:D
	Value: C | Growth: D | Momentum: C	

Summary

Analog Devices reported strong fiscal third-quarter results driven by strength in communication and industrial markets. Strengthening momentum across the electric vehicle space on the back of its robust Battery Management System (BMS) solutions is a positive. Further, growing power design wins are major positives. Notably, it plans to acquire Maxim Integrated. The deal is expected to drive Analog Devices' growth across several emerging growth markets. Additionally, rising adoption of advanced radio systems in 5G infrastructures is driving growth of the company's communication business. It remains optimistic about growth opportunities related to 5G. The stock has underperformed the industry it belongs to on a year-to-date basis. However, softness in overall end-market conditions remains a major concern.

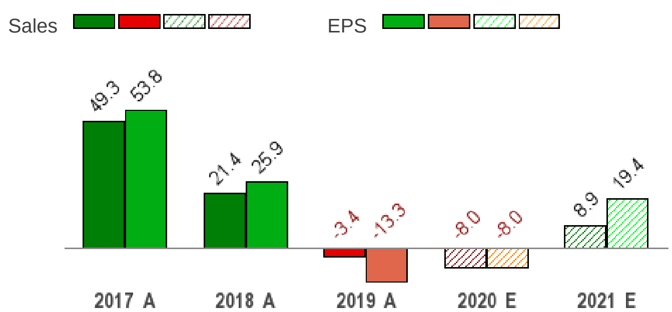
Price, Consensus & Surprise



Data Overview

52 Week High-Low	**$127.39 - $79.08**
20 Day Average Volume (sh)	**3,430,849**
Market Cap	**$43.4 B**
YTD Price Change	**-1.2%**
Beta	**1.30**
Dividend / Div Yld	**$2.48 / 2.1%**
Industry	**Semiconductor - Analog and Mixed**
Zacks Industry Rank	**Top 17% (44 out of 252)**
Last EPS Surprise	**2.3%**
Last Sales Surprise	**0.4%**
EPS F1 Est- 4 week change	**1.8%**
Expected Report Date	**11/24/2020**
Earnings ESP	**0.4%**
P/E TTM	**25.2**
P/E F1	**24.5**
PEG F1	**2.0**
P/S TTM	**7.9**

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2021	1,424 E	1,477 E	1,526 E	1,571 E	6,003 E
2020	1,304 A	1,317 A	1,456 A	1,440 E	5,512 E
2019	1,541 A	1,527 A	1,480 A	1,443 A	5,991 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	$1.28 E	$1.38 E	$1.46 E	$1.54 E	$5.66 E
2020	$1.03 A	$1.08 A	$1.36 A	$1.32 E	$4.74 E
2019	$1.33 A	$1.36 A	$1.26 A	$1.19 A	$5.15 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 08/20/2020. The reports text is as of 08/21/2020.

Overview

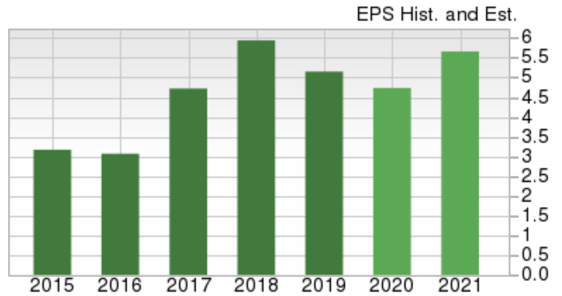
Analog Devices, Inc. is headquartered in Norwood, Massachusetts. The company is an original equipment manufacturer of semiconductor devices, specifically, analog, mixed signal and digital signal processing (DSP) integrated circuits.

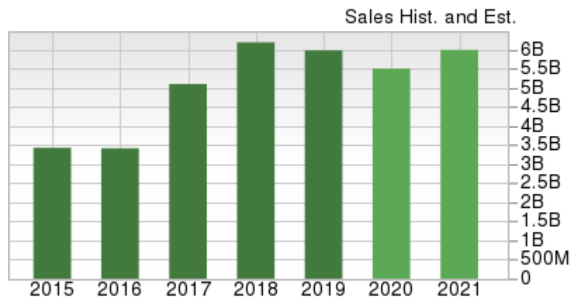
The product line is composed of amplifiers and comparators; analog to digital converters; digital to analog converters; video encoders and decoders; embedded processing products and DSPs; MEMS and temperature sensors; RF/IF components and converters; power and thermal management ICs, audio/video converters, amplifiers, CODECs, filters and processors.

The company also offers analog, digital and RF switches and multiplexers; analog microcontrollers; clock and timing products; voltage references; interface products such as isolators, translators and transceivers; wireless products and converters; broadband products including amplifiers, CODECs, chipsets, splitters.

Analog Devices has manufacturing facilities in the United States, Ireland, and Southeast Asia. The company also uses outside foundries, mainly Taiwan Semiconductor Manufacturing Company for front-end processing and third-party subcontractors for back-end operations.

Notably, the company generated $5.9 billion revenues in fiscal 2019.





The company generates revenues from four organized end-markets – Industrial, Consumer, Communications and Automotive.

In Industrial market (50% of fiscal 2019 revenues), Analog Devices caters to the needs of industrial and instrumentation, defense/aerospace, energy management and healthcare sectors.

For Automotive market (16%), the company offers products that are utilized in infotainment, electrification, autonomous, ADAS and safety applications.

Further, the company takes care of the requirements in feature-rich, high-performance products such as portable devices and prosumer video/audio equipment in the Consumer market (13%).

In Communications market (21%), Analog Devices offers products required in internet infrastructures, broadband and wireless applications.

The company caters to the growing demand for its products in these afore mentioned markets via its strong sales channels. We note that it has direct sales offices, sales representatives and distributors in more than 50 countries.

Reasons To Buy:

Analog Devices' diversified product portfolio is the key catalyst. Its leading market position and focus on communications, automotive and industrial markets remain major positive.

- Analog Devices is the second largest producer of analog chips after Texas Instruments. The company should benefit from its strong market position in high performance analog (HPA), especially in the industrial, communications infrastructure and consumer markets. Within HPA, Analog Devices has a leading market position in converters, where it has around half the market share. Additionally, the company sells converters and amplifiers in integrated forms, which are categorized as “other analog” products. Analog Devices also has a leading position in the digital signal processor (DSP) market.

- Analog Devices plans to acquire Maxim Integrated Products. The move is expected to strengthen presence in the chip industry. The acquisition is expected drive Analog Devices' growth across several emerging markets. Moreover, the deal will expand the company's total addressable, allowing it to cater to staggering demand in some of the promising markets including industrial, automotive and telecommunications. Analog Devices is likely to gain strong traction across autonomous driving, 5G network and several other applications on the back of Maxim's robust chip offerings that are usable in communications, healthcare cars, manufacturing, energy and connected devices.

- The company has been investing in products for the automotive market, mainly because the electronic content in automobiles, particularly in the safety and infotainment areas, is on the rise. The Automotive electronics market is continuing to gain due to consumer demand for added technology and features in new vehicles and the transition to hybrid and electric vehicles. For instance, the company's start-stop technology that enables better fuel efficiency and compliance with CAFÉ standards has been widely adopted in Europe and is gaining traction in the U.S. Government mandated requirements that all new vehicles be equipped with better safety features and environmental controls is also an important growth driver. The fact that safety devices are moving from high-end to mainstream vehicles is also a positive for a company such as Analog Devices. Management's continuous collaboration with innovative TAR brands, development of new technology along with a strengthening in Europe and China should benefit the company. We expect the company to leverage its already-strong market position to drive deeper penetration, and possibly, take some market share.

- Analog Devices has a healthy communications business, where twin trends are currently driving revenues for the company. In the more developed economies, the market is driven by data density, meaning the need to expand infrastructure capacity to allow for rich media transfers (photos, video and so on). Moreover, the move to digital networks by carriers, such as AT&T is also driving demand for the company's products. In lesser developed economies, basic infrastructure needs have not yet been met in many cases. Therefore, growth in these regions is based on demand for building the network. The communications market (one of the largest consumers of analog chips) should see strong growth over the next few years. Most of the strength will however come from the wireless segment. We believe growing adoption of advanced radio systems in 5G infrastructure should continue to benefit the communications segment.

Risks

- Analog Devices is one of the older players in the analog market. While Maxim provides significant competition, Texas Instruments in particular could be something to worry about, as it has been taking market share in the high performance analog space. Since the National Semiconductor takeover, Texas Instruments' position in the market has strengthened further. Analog Devices continues to lead in the converter segment, but Texas Instruments remains a strong leader in all other categories.

- Analog Devices' **balance sheet remains leveraged.** As of Jun 30, 2020, the company's net debt amounted to $4.5 billion, compared with $4.6 billion reported in the previous quarter. However, debt to total capital was 32.5% (less than the industry average of 45.9%) as of Jun 30, 2020.

- Moreover, the company is trading at premium in terms of Price/Earnings (P/E). Analog Devices currently has a trailing 12-month P/E ratio of 17.48. This level compares unfavorably with what the industry witnessed in the last year. Additionally, the ratio is near the high end of the valuation range in this period. Consequently, the valuation looks slightly stretched from P/E perspective.

Last Earnings Report

Analog Devices Beats Q3 Earnings & Revenue Estimates

Quarter Ending	07/2020
Report Date	Aug 19, 2020
Sales Surprise	0.35%
EPS Surprise	2.26%
Quarterly EPS	1.36
Annual EPS (TTM)	4.66

Analog Devices Inc. reported third-quarter fiscal 2020 adjusted earnings of $1.36 per share, which beat the Zacks Consensus Estimate of $1.33. Also, the bottom line increased 8% year over year.

Revenues of $1.46 billion also surpassed the Zacks Consensus Estimate of $1.45 billion. The top line increased 11% sequentially but declined 2% year over year.

The sequential increase in revenues was led by growth in communication and industrial markets.

Revenues by End Markets

Industrial: The company generated revenues of $774.4 million (accounting for 53% of total revenues), up 3% year over year.

Communications: Revenues from this market came in at $363.6 million (25% of revenues), increasing 14% year over year.

Automotive: Revenues from this market came in at $162.5 million (11% of revenues), down 29% from the year-ago quarter.

Consumer: This market generated revenues of $155.7 million (11% of revenues), reflecting a 13% decline on a year-over-year basis.

Operating Details

Non-GAAP gross margin contracted 50 basis points (bps) on a year-over-year basis to 69.9%.

Total operating expenses were $402 million, down 8.1% from the year-ago quarter.

Non-GAAP operating margin expanded 150 bps on a year-over-year basis to 42.3% for the reported quarter.

Balance Sheet & Cash Flow

At fiscal third quarter-end, cash and cash equivalents were $1.09 billion, up from $784.9 million in the prior quarter.

Long-term debt was approximately $5.1 billion, flat sequentially.

Net cash provided by operations was $557.2 million in the fiscal third quarter, up from $429 million in the prior quarter.

The company generated $536 million of free cash flow during the fiscal third quarter.

Additionally, Analog Devices returned $247 million to shareholders through dividends and share repurchases in the reported quarter.

Guidance

For fourth-quarter fiscal 2020, Analog Devices expects revenues to be $1.44 billion (+/- $70 million).

Non-GAAP earnings are expected to be $1.32 (+/- $0.10) per share.

The company anticipates non-GAAP operating margins to be 42% (+/- 100 bps).

Recent News

On **Jul 13, 2020,** Analog Devices stated that it is in negotiations to acquire Maxim for more than $17 billion. Further, shareholders of Maxim are likely to get Analog Devices' shares instead of cash payment. The deal will drive Analog Devices' growth across several emerging growth markets.

On **Jun 16, 2020,** Analog Devices and The University of Limerick (UL) announced two scholarship programs in honor of Peter Real, ADI's late chief technology officer (CTO) and UL alumnus.

On **Mar 31, 2020,** Analog Devices announced its decision to significantly boost the production of healthcare technologies in a bid to combat the coronavirus pandemic. These healthcare technologies like critical measurement and control technologies are used in the manufacture of medical equipment components like ventilators, respirators, diagnostic test systems, infusion pumps, among others, which are used for diagnostics and treatment for COVID-19 patients.

Valuation

Analog Devices shares are down 1.2% in the year-to-date period and 8.1% over the trailing 12-month period. Stocks in the Zacks sub-industry is up 5.2% and the Zacks Computer & Technology sector is up 21.5% in the past year-to-date period. Over the past year, the Zacks sub-industry and the sector are up 20.4% and 36%, respectively.

The S&P 500 index is up 4.7% in the past year-to-date period but up 15.7% in the past year.

The stock is currently trading at 21.94X forward 12-month earnings, which compares to 25.51X for the Zacks sub-industry, 26.4X for the Zacks sector and 22.78X for the S&P 500 index.

Over the past five years, the stock has traded as high as 26.52X and as low as 13.31X, with a 5-year median of 18.58X. Our Outperform recommendation indicates that the stock will perform better than the market. Our $135 price target reflects 25.6X forward 12-month earnings.

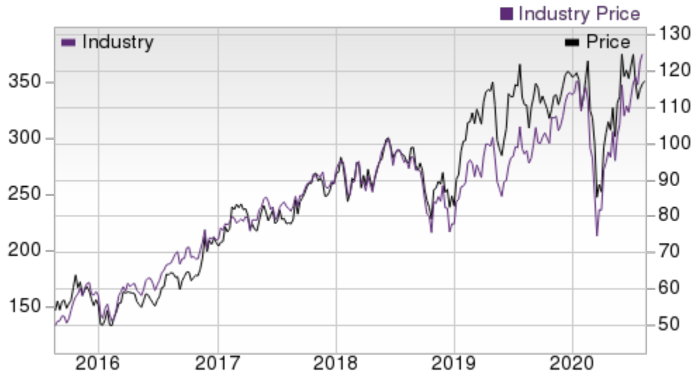
The table below shows summary valuation data for ADI

Valuation Multiples - ADI

		Stock	Sub-Industry	Sector	S&P 500
P/E F 12M	Current	21.94	25.51	26.4	22.78
	5-Year High	26.52	27.04	26.4	22.78
	5-Year Low	13.31	13.42	16.72	15.25
	5-Year Median	18.58	18.16	19.61	17.58
P/S F12M	Current	7.47	4.2	3.35	3.21
	5-Year High	7.91	4.52	3.59	3.44
	5-Year Low	4.26	2.81	2.32	2.54
	5-Year Median	5.58	3.69	3.09	3.01
EV/Sales TTM	Current	7.97	4.66	3.76	2.83
	5-Year High	8.94	5.52	4.44	3.45
	5-Year Low	3.75	3.13	2.58	2.16
	5-Year Median	6.51	4.38	3.57	2.82

As of 08/20/2020

Industry Analysis **Zacks Industry Rank:** Top 17% (44 out of 252)



Top Peers

Company (Ticker)	Rec	Rank
Maxim Integrated Products, Inc. (MXIM)	Outperform	2
Texas Instruments Incorporated (TXN)	Outperform	1
Applied Materials, Inc. (AMAT)	Neutral	2
Broadcom Inc. (AVGO)	Neutral	2
Microchip Technology Incorporated (MCHP)	Neutral	3
Monolithic Power Systems, Inc. (MPWR)	Neutral	3
NXP Semiconductors N.V. (NXPI)	Neutral	3
Infineon Technologies AG (IFNNY)	Underperform	2

Industry Comparison Industry: Semiconductor - Analog And Mixed

	ADI	X Industry	S&P 500	AMAT	AVGO	MXIM
				Industry Peers		
Zacks Recommendation (Long Term)	Outperform	-	-	Neutral	Neutral	Outperform
Zacks Rank (Short Term)	2	-	-	2	2	2
VGM Score	D	-	-	C	D	F
Market Cap	43.36 B	7.27 B	23.46 B	58.46 B	132.25 B	18.40 B
# of Analysts	12	9	14	10	13	10
Dividend Yield	2.11%	0.00%	1.65%	1.38%	3.95%	2.78%
Value Score	C	-	-	C	C	D
Cash/Price	0.02	0.08	0.07	0.08	0.07	0.09
EV/EBITDA	18.89	19.72	13.34	15.29	17.73	20.55
PEG Ratio	1.98	2.43	3.00	1.11	1.27	2.78
Price/Book (P/B)	3.68	5.43	3.12	6.11	5.52	11.10
Price/Cash Flow (P/CF)	15.82	22.08	12.60	18.20	9.68	25.40
P/E (F1)	24.50	34.80	21.61	15.68	15.28	27.79
Price/Sales (P/S)	7.85	5.91	2.44	3.59	5.78	8.40
Earnings Yield	4.04%	2.87%	4.43%	6.38%	6.54%	3.59%
Debt/Equity	0.44	0.74	0.76	0.57	1.88	0.60
Cash Flow ($/share)	7.42	2.82	6.93	3.51	33.97	2.72
Growth Score	D	-	-	C	C	D
Hist. EPS Growth (3-5 yrs)	16.81%	11.63%	10.44%	28.18%	22.21%	10.54%
Proj. EPS Growth (F1/F0)	-8.06%	9.34%	-5.53%	33.82%	1.08%	9.87%
Curr. Cash Flow Growth	-9.88%	-10.25%	5.20%	-35.58%	8.07%	-8.10%
Hist. Cash Flow Growth (3-5 yrs)	24.75%	22.53%	8.52%	13.90%	48.32%	-0.43%
Current Ratio	1.47	2.54	1.33	2.86	2.15	5.11
Debt/Capital	30.40%	42.20%	44.50%	36.28%	65.31%	37.49%
Net Margin	20.14%	3.58%	10.13%	19.58%	10.97%	29.88%
Return on Equity	14.80%	10.54%	14.67%	38.81%	32.00%	36.29%
Sales/Assets	0.26	0.50	0.51	0.80	0.31	0.61
Proj. Sales Growth (F1/F0)	-7.99%	1.94%	-1.54%	17.15%	4.35%	3.86%
Momentum Score	C	-	-	C	F	F
Daily Price Chg	-0.59%	-1.60%	-0.59%	-3.16%	-0.12%	0.07%
1 Week Price Chg	0.74%	0.30%	1.09%	6.37%	0.58%	-0.13%
4 Week Price Chg	4.92%	2.11%	1.91%	0.25%	6.19%	2.31%
12 Week Price Chg	5.85%	20.69%	6.82%	16.68%	16.14%	22.07%
52 Week Price Chg	8.12%	20.58%	1.47%	35.64%	14.33%	26.34%
20 Day Average Volume	3,430,849	750,263	1,873,576	7,514,302	1,621,001	3,866,313
(F1) EPS Est 1 week change	1.85%	0.00%	0.00%	5.06%	0.00%	0.00%
(F1) EPS Est 4 week change	1.85%	5.82%	1.79%	6.66%	0.00%	1.60%
(F1) EPS Est 12 week change	10.91%	21.30%	3.35%	6.66%	1.53%	12.35%
(Q1) EPS Est Mthly Chg	4.39%	9.42%	0.42%	14.30%	0.00%	2.96%

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	D
Momentum Score	C
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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