

Luminex Corporation (LMNX)

\$32.52 (As of 02/26/21)

Price Target (6-12 Months): **\$34.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 01/07/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM: C

Value: C

Growth: C

Momentum: C

Summary

Luminex exited the fourth quarter on a mixed note with earnings missing but revenues beating estimates. Revenues at each operating segment improved in the quarter. Also, the company continues to gain from its flagship ARIES and VERIGENE platforms that currently have a strong customer base. Further, it witnessed revenue growth within both non-automated and sample-to-answer molecular diagnostics in the fourth quarter. Expansion of both margins is a positive too. A plethora of regulatory approvals is a major plus as well. Notably, the FDA's Emergency Use Authorization (EUA) for the ARIES SARS-CoV-2 Assay continues to buoy optimism on the stock. Also, stable liquidity is a boon. Over the past six months, the stock has outperformed its industry. However, the plunge in the bottomline is concerning.

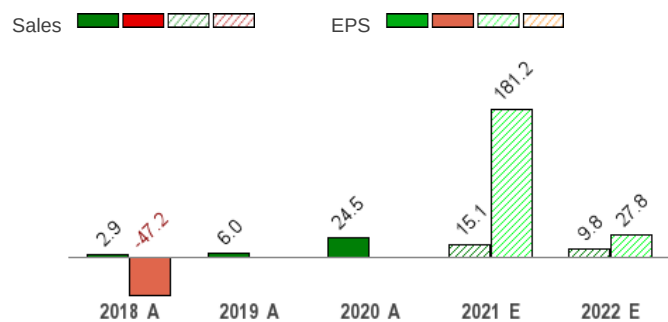
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$41.42 - \$20.61
20-Day Average Volume (Shares)	868,613
Market Cap	\$1.5 B
Year-To-Date Price Change	40.7%
Beta	0.52
Dividend / Dividend Yield	\$0.40 / 1.2%
Industry	Medical - Instruments
Zacks Industry Rank	Bottom 32% (171 out of 253)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	-92.9%
Last Sales Surprise	0.4%
EPS F1 Estimate 4-Week Change	0.3%
Expected Report Date	NA
Earnings ESP	-4.5%

P/E TTM	98.5
P/E F1	36.1
PEG F1	2.4
P/S TTM	3.6

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	133 E	137 E	140 E	152 E	527 E
2021	111 E	118 E	123 E	124 E	480 E
2020	90 A	110 A	106 A	111 A	417 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$0.33 E	\$0.34 E	\$0.35 E	\$0.38 E	\$1.15 E
2021	\$0.15 E	\$0.21 E	\$0.26 E	\$0.28 E	\$0.90 E
2020	\$0.01 A	\$0.27 A	\$0.04 A	\$0.01 A	\$0.32 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 02/26/2021. The report's text and the analyst-provided price target are as of 03/01/2021.

Overview

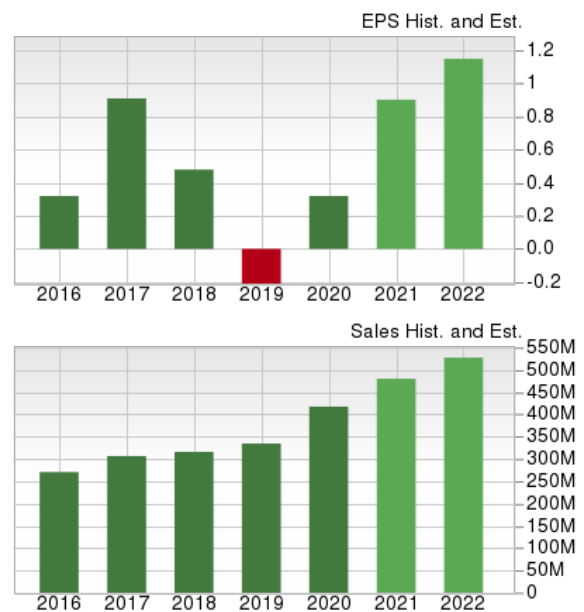
Luminex Corporation founded in 1995 and based in Austin, TX, develops, manufactures and markets proprietary biological testing technologies with applications throughout the life sciences and diagnostics industry. The company's open-architecture multiplexing xMAP (Multi-Analyte Profiling) technology is sold worldwide and is used by leading research laboratories as well as major pharmaceutical, diagnostic and biotechnology companies for conducting biological tests.

Its products include Luminex 100/200 that integrates fluidics, optics, and digital signal processing; FLEXMAP 3D system for use as a general laboratory instrument; MAGPIX system, a multiplexing analyzer for qualitative and quantitative analysis of proteins and nucleic acids; ARIES system, a sample to answer real-time PCR platform; ARIES M1 system, a single-module version of the ARIES System; and VERIGENE system, a semi-automated, multiplex, molecular analysis system for the clinical diagnostics market.

2020 at a Glance

Luminex's 2020 revenues grossed \$417.4 million, up 25% year over year.

- System sales were \$70.8 million (16.9% of net revenues)
- Consumables were \$48.9 million (11.7%)
- Royalty Revenues were \$48.9 million (11.7%)
- Assay Revenues were \$211.9 million (50.8%)
- Service Revenues were \$23.3 million (5.6%)
- Other revenues were \$13.6 million (3.3%).



Source: Zacks Investment Research

Reasons To Buy:

▲ **Share Price Movement:** In the past six months, shares of Luminex have gained 22.8%, against the industry's loss of 0.8%. Revenues at each operating segment also improved significantly in the fourth quarter. Further, it witnessed total molecular diagnostics revenue growth in the quarter. Notably the FDA's Emergency Use Authorization (EUA) for the ARIES SARS-CoV-2 Assay continues to instill confidence in the stock. A plethora of regulatory approvals also perked up the share price. The company continues to benefit from its flagship ARIES and VERIGENE platforms that currently have a strong customer base. The acquisition of the flow cytometry asset of MilliporeSigma continues to positively impact performance.

Luminex is making significant progress with its ARIES system, plethora of regulatory approvals, and accretive acquisitions which we believe will drive market share expansion in the long run.

▲ **Molecular Diagnostics Platform Solid:** For the fourth quarter, molecular diagnostics revenues grew 49% from the prior-year quarter. Non-automated molecular diagnostic revenues soared 40% year over year and sample-to-answer molecular diagnostic revenues grew 56% year over year. During 2020, the company placed around 450 sample-to-answer molecular diagnostic systems, up 118% from the year-ago placement tally. Molecular diagnostic assay revenues comprised almost 98% of the company's total assay revenues with minor contributions from both flow assays and assay sales within its research revenue stream.

▲ **Product Portfolio Strong:** Luminex has a broad product portfolio that comprises of its advanced xMAP, xTAG and Multi Code technology.

The first new product is VERIGENE II system that will provide a fully automated solution, comprising room temperature storage with significantly reduced footprint, thereby achieving equivalent throughput to the current VERIGENE system.

The second new product is the next-generation xMAP system, formerly known as SENSIPLEX, which will be launched under the official name xMAP INTELLIFLEX. The new system offers modern enhancement for what is widely acknowledged today to be the gold standard platform for multiplexing.

Lastly, Luminex's Flow Cytometry group will launch the Guava easyCyte next generation system. The main objective of this system is to reinforce the company's position as a leader in the benchtop flow cytometry space. Given the software enhancements made to this system, the company is optimistic regarding generating a steady revenue stream from the newly acquired Flow Cytometry. The company reported Flow Cytometry revenues of \$9.9 million in the third quarter, up 13%, primarily on higher system and service revenues.

In the second quarter of 2020, the company launched a plethora of new testing solutions in response to the pandemic and anticipates launching several more very soon. At the same time, it continues to invest in the development of core technologies, including its VERIGENE portfolio, xMAP Technology and flow cytometry portfolios. Luminex expanded its sample-to-answer system installed base in the second quarter with more than 160 systems.

In July 2020, the company delivered the first of its new xMAP INTELLIFLEX Systems to several of its Life Science Research Partners. This marks a significant milestone in the company's strategy with respect to the expansion of its xMAP Technology with new functionality to facilitate new applications.

In 2020, the company placed more than 970 multiplexing systems excluding ARIES and VERIGENE systems. Consumable revenues grew 11% to \$13 million for the fourth quarter. This increase was driven by higher non-bulk purchases from partners. Royalty revenues were \$13.9 million for the quarter, up 3% year over year.

▲ **VERIGENE Platform Drives Growth:** Luminex' flagship VERIGENE System enables clinicians to identify the pathogens for some of the most complex, costly, and deadly infectious diseases.

Luminex's molecular portfolio integrated the next gen VERIGENE II system, which initiated clinical trial in June 2018. VERIGENE II is a higher-plex instrument that can run complex assays of more than 50 pathogens in less than two hours. Each VERIGENE II instrument can have up to six units in a system, allowing for up to six independent assays to be performed at once. The new VERIGENE II Plus component, which increases the power and flexibility of the VERIGENE II instrument, would be incorporated into the VERIGENE II system, allowing for faster turnaround times, and real time chemistry option.

Currently, the company has no clear COVID-related products in its VERIGENE system and is still waiting for an EUA for its stand-alone SARS-CoV-2 VERIGENE I assay. Further, it is working very hard on the EUA submission for its VERIGENE II RSP flex assay that will include the SARS-CoV-2 target. The company currently has enough capacity to meet demand for almost 2 million tests per year between VERIGENE I and VERIGENE II product line.

▲ **The Aries Platform:** Luminex is making noteworthy progress with another major product– the ARIES system, which represents a major revenue opportunity for the company. Luminex is focused on fortifying its market leadership in infectious disease with sample to answer platform, the ARIES system.

Per management, Luminex is the only company that provides solutions for both targeted and syndromic testing in a lab. In the second quarter, the company raked in \$643,000 of revenues from the second BARDA contract that it inked associated with the development of its ARIES SARS-CoV-2 assay. The utilization rate for the company's ARIES systems was slightly more than 80,000 per ordering customer during the second quarter.

At the end of the third quarter, the company had around 9 million of ARIES COVID-related assay. It is also working on a combined ARIES Flu A/B RSV SARS-CoV-2 assay for submission in early 2021.

Through the fourth quarter, the company also expanded its manufacturing capabilities significantly with a fourfold increase in ARIES manufacturing capacity and a ninefold increase in xMAP manufacturing capacity. Completion of its ARIES expansion to a capacity of around 5 million tests per year is expected to be the primary growth driver. On the ARIES front, the company ramped up very quickly from the first two quarters of 2020 as it attained maximum production capacity and plans to double or continue to expand it.

In February 2021, the company announced that it received \$11.3 million in funding from the BARDA. These funds will enable the rapid development and validation of a respiratory panel combining Flu A/B & respiratory syncytial virus (RSV) targets with the SARS-CoV-2 target that can be run on all ARIES Systems.

In our opinion, approval for Luminex's products in international markets will further strengthen its pipeline, which should help the company gain significant top-line growth over the long haul.

▲ **Plethora of Regulatory Approvals:** In the third quarter of 2019, Luminex's ARIES, MRSA Assay received FDA clearance, marking the company's eighth assay clearance globally.

In fact, on the international front, Japan's Central Social Insurance Medical Council had approved the recommendation by the Japanese Ministry of Health, Labor and Welfare ("MHLW") to provide reimbursement for two VERIGENE assays: The Gram-Positive Blood Culture (BC-GP) test and the Gram-Negative Blood Culture (BC-GN) test. Notably, Japan is the company's second largest market for molecular diagnostics.

Earlier, Luminex announced the receipt of FDA clearance for the ARIES Group A Strep Assay, which is a moderate complexity, sample to answer test for the direct detection of *Streptococcus pyogenes* from throat swab specimens using the ARIES System. Per management, this is the sixth assay that has been cleared by the FDA for use on the company's ARIES Systems in the last two years.

In March 2020, the company received EUA from the FDA for its NxTAGCoV Extended Panel that will be used to detect the SARS-CoV-2 virus. Now, high-complexity molecular laboratories can utilize the NxTAG test on Luminex's easy-to-use, compact MAGPIX System, which will help detect the virus causing COVID-19 for up to 96 patients in about four hours. In April, the company announced the receipt of EUA from the FDA for its ARIES SARS-CoV-2 Assay that can rapidly detect the virus causing COVID-19.

In June, the company submitted an EUA request to the FDA for its xMAP SARS-CoV-2 Multi-Antigen IgG assay. The assay has been created to offer additional capacity to detect antibodies in patients who might have been exposed to or infected by SARS-CoV-2. Notably, this COVID-19 antibody test can deliver outstanding results for up to 96 samples in under three hours and has been developed to run on all xMAP platforms.

In July, the company received EUA from the FDA for its xMAP SARS-CoV-2 Multi-Antigen immunoglobulin class G (IgG) Assay. Clinical laboratories can now utilize this serology assay to detect the presence of antibodies in people affected by the virus causing COVID-19. Notably, this is the company's third COVID-19 test to receive EUA since March 2020. The company is currently on track for an FDA approval of the NxTAG RPP plus COVID panel.

▲ **Strategic Collaborations:** Luminex has entered collaborative agreements with several companies, which should help expand the use of its products/technology. An agreement with EDP Biotech Corporation buoys optimism, wherein EDP will have the rights to develop, market and sell its blood-based colorectal cancer diagnostic assay, ColoPlex, utilizing Luminex's xMAP technology.

Luminex had also announced earlier the signing of a new supply and distribution agreement with Bio-Techne Corp. through 2020. The partnership deal involves immunoassay development and commercialization of Bio-Techne biological content using the Luminex testing platform.

▲ **Balance Sheet View:** The company exited the fourth quarter with cash and cash equivalents of \$309.4 million, up from \$308.5 million on a sequential basis. The company has long term debt of \$203.1 million in the quarter, up sequentially from \$201 million. Moreover, the company exited the fourth quarter with no current debt on its balance sheet. Cumulative net cash provided by operating activities at the end of the fourth quarter of 2020 came in at \$49.9 million compared with \$13.5 million in the year-ago period. This is particularly good considering the company's solvency position as in the year of economic downturn, the company at least has sufficient cash for debt repayment.

Reasons To Sell:

▼ **Challenging Reimbursement Landscape:** Luminex may be impacted by future changes to the reimbursement landscape. As per the new molecular diagnostic code system established by the Centers for Medicare and Medicaid Services (CMS) in recent past, the Protecting Access to Medicare Act (PAMA) will require clinical laboratories to report to CMS the volume of each laboratory test and the price paid by private payors. This has led to a drop in Luminex's lab customer traffic.

A number of Luminex' lab customers have experienced several headwinds and delays, all of which are resulting in lower than anticipated testing volumes for the customers and resultantly decreased assay revenues for the ARP segment. Additionally, budget sequestration in the U.S. adds to the reimbursement risk for the company.

▼ **Cutthroat Competition in Life-sciences Industry:** Luminex operates in the highly competitive life sciences industry. The industry is characterized by rapid and continuous technological innovation. Currently, it is facing significant competitive headwinds in the respiratory market.

▼ **Reduced Spending by Partner Companies:** Luminex is highly dependent on its partners for revenue generation. The company's customers include clinical diagnostic, pharmaceutical, biotechnological, chemical and industrial companies. Reduced spending on research and diagnostics by these companies is adversely impacting the demand for the company's products. In general, spending on research and drug discovery remains weak given the soft macroeconomic conditions. Moreover, the company's consumable sales have been fluctuating considerably over the last 3 years mainly due to periodic changes in volume of the company's largest bulk purchasing partners. These fluctuations are expected to remain as the ordering patterns and inventory levels of Luminex's largest bulk purchasing partners continue to be variable. This lower level of purchasing is expected to continue over the next several years.

Reimbursement risk and fluctuations in consumables revenues are major headwinds faced by the company in the near term.

Last Earnings Report

Luminex Q4 Earnings Miss Estimates, Revenues Beat

Luminex Corporation reported fourth-quarter 2020 earnings per share of 1 cent, missing the Zacks Consensus Estimate by 92.9%. The bottomline also fell 85.7% year over year.

For 2020, earnings per share came in at 32 cents, also lagging the Zacks Consensus Estimate by 27.3%. However, the company reported a loss per share of 9 cents in the year-ago period.

Revenues

For the fourth quarter, revenues summed \$111.4 million, beating the Zacks Consensus Estimate by 0.4%. The top line also improved 23% on a year-over-year basis.

For the full year, revenues came at \$417.4 million, beating the Zacks Consensus Estimate by 1.8%. The topline also rose 25% year over year.

Segmental Analysis

For the fourth quarter, total sample-to-answer molecular diagnostics revenues grew 49% from the prior-year quarter.

System Sales

Revenues at this segment totaled \$23.8 million, up 14% from the year-ago quarter.

Consumable Sales

This segment accounted for \$12.9 million of revenues, up 11% year over year.

Royalty Revenues

Royalty revenues totaled \$13.9 million, up 3% on a year-over-year basis.

Assay Revenues

This segment reported revenues worth \$51.3 million, up 41% on a year-over-year basis.

Service Revenues

Revenues in the segment amounted to \$6.3 million, up 12% from the year-ago quarter.

Other

Other revenues came in at \$3.1 million, up 28% from the prior-year quarter.

Financial Update

The company exited the fourth quarter with cash and cash equivalents of \$309.4 million, up from \$308.5 million on a sequential basis.

Cumulative net cash provided by operating activities at the end of the fourth quarter of 2020 came in at \$49.9 million compared with \$13.5 million in the year-ago period.

Margins

Gross profit in the reported quarter was \$64.4 million, up 29.2% year over year. Gross margin was 57.9%, expanding 275 basis points (bps).

The company reported adjusted operating profit of \$13.4 million, up 130% from the year-ago quarter's figure. Adjusted operating margin came in at 12%, expanding 560 bps.

Guidance

Revenues for 2021 are reaffirmed to be around \$480 million, indicating growth of more than 15% from Luminex's reported 2020 tally. The Zacks Consensus Estimate for the same is pegged at \$476.2 million

Quarter Ending 12/2020

Report Date	Feb 08, 2021
Sales Surprise	0.35%
EPS Surprise	-92.86%
Quarterly EPS	0.01
Annual EPS (TTM)	0.33

Recent News

Luminex Receives BARDA Funding to Support Development and Validation of Test Combining SARS-CoV-2 and Flu/RSV Respiratory Panel : Feb 19,2021

Luminex announced that it has received \$11.3 million in funding from the Biomedical Advanced Research and Development Authority (BARDA). These funds will support the rapid development and validation of a respiratory panel combining Flu A/B & respiratory syncytial virus (RSV) targets with the SARS-CoV-2 target that can be run on all ARIES Systems.

Valuation

Luminex's shares are up 40.7% in the year to date period while up 23.4% in the trailing 12-month period. Stocks in the Zacks sub-industry are down 1.4% in the year to date period while that in the Zacks Medical sector are up 0.2%. Over the past year, the Zacks sub-industry and sector are up 24.5% and 7.6%, respectively.

The S&P 500 index is up 1.9% in the year-to-date period and 25.4% in the past year.

The stock is currently trading at 1.1X Forward 12-months sales, which compares to 4.6X for the Zacks sub-industry, 2.7X for the Zacks sector and 4.4X for the S&P 500 index.

Over the past five years, the stock has traded as high as 4.9X and as low as 0.02X, with a 5-year median of 2.9X.

Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$34 price target reflects 3.3X forward 12-months sales.

The table below shows summary valuation data for LMNX.

Valuation Multiples - LMNX					
		Stock	Sub-Industry	Sector	S&P 500
P/S F12M	Current	1.14	4.57	2.73	4.44
	5-Year High	4.88	4.78	3.17	4.44
	5-Year Low	0.02	2.56	2.26	3.21
	5-Year Median	2.99	3.37	2.82	3.68
P/B TTM	Current	2.92	4.68	4.32	6.74
	5-Year High	3.82	5.10	5.11	6.97
	5-Year Low	1.71	2.80	3.02	3.84
	5-Year Median	2.23	4.12	4.38	4.97
EV/SALES TTM	Current	3.37	5.38	3.38	4.37
	5-Year High	5.03	5.73	3.81	4.45
	5-Year Low	2.16	3.35	2.66	2.63
	5-Year Median	2.93	4.13	3.40	3.57

As of 02/26/2021

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 32% (171 out of 253)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
AngioDynamics, Inc. (ANGO)	Outperform	2
Accuray Incorporated (ARAY)	Neutral	3
CryoLife, Inc. (CRY)	Neutral	4
Glaukos Corporation (GKOS)	Neutral	4
Inogen, Inc. (INGN)	Neutral	4
Nevro Corp. (NVRO)	Neutral	4
ORTHOFIX MEDICAL INC. (OFIX)	Neutral	3
Tandem Diabetes Care, Inc. (TNDM)	Neutral	3

The positions listed should not be deemed a recommendation to buy, hold or sell.

Industry Comparison Industry: Medical - Instruments				Industry Peers		
	LMNX	X Industry	S&P 500	ARAY	INGN	TNDM
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	4	3
VGM Score	C	-	-	A	D	A
Market Cap	1.51 B	339.88 M	27.20 B	462.63 M	1.17 B	5.85 B
# of Analysts	4	2	13	3	5	7
Dividend Yield	1.23%	0.00%	1.48%	0.00%	0.00%	0.00%
Value Score	C	-	-	B	C	D
Cash/Price	0.24	0.08	0.06	0.22	0.19	0.08
EV/EBITDA	73.93	-4.31	14.95	35.30	24.86	-293.64
PEG F1	2.37	3.36	2.32	NA	NA	NA
P/B	2.92	5.68	3.80	5.95	3.34	15.96
P/CF	28.99	27.30	15.39	250.01	91.04	NA
P/E F1	35.58	41.82	20.41	99.60	NA	1,919.80
P/S TTM	3.62	7.20	3.10	1.23	3.79	11.72
Earnings Yield	2.77%	-1.17%	4.82%	1.00%	-1.51%	0.05%
Debt/Equity	0.39	0.06	0.68	2.16	0.00	0.55
Cash Flow (\$/share)	1.12	-0.09	6.62	0.02	0.58	-0.08
Growth Score	C	-	-	A	C	A
Historical EPS Growth (3-5 Years)	-23.49%	6.55%	9.34%	NA	-6.17%	NA
Projected EPS Growth (F1/F0)	182.03%	33.55%	14.09%	66.67%	-193.33%	108.93%
Current Cash Flow Growth	171.04%	0.19%	0.52%	-353.59%	-66.15%	-35.59%
Historical Cash Flow Growth (3-5 Years)	-2.62%	9.87%	7.62%	15.99%	15.10%	13.65%
Current Ratio	5.82	3.13	1.39	1.93	5.39	6.14
Debt/Capital	28.18%	7.43%	41.42%	68.36%	0.00%	35.66%
Net Margin	3.63%	-13.17%	10.59%	1.85%	-1.89%	-6.89%
Return on Equity	3.03%	-19.51%	14.65%	10.38%	-1.66%	-4.16%
Sales/Assets	0.57	0.51	0.51	0.78	0.67	0.85
Projected Sales Growth (F1/F0)	14.09%	15.77%	6.75%	0.14%	5.92%	13.13%
Momentum Score	C	-	-	A	F	A
Daily Price Change	-1.42%	-0.76%	-0.84%	-3.58%	-0.51%	1.05%
1-Week Price Change	-1.19%	-1.77%	-0.16%	1.63%	-5.38%	-5.98%
4-Week Price Change	17.95%	2.40%	2.75%	-7.09%	7.36%	3.36%
12-Week Price Change	34.99%	26.33%	5.58%	22.96%	42.33%	-0.03%
52-Week Price Change	37.83%	32.19%	20.43%	67.68%	9.51%	27.90%
20-Day Average Volume (Shares)	868,613	292,119	2,018,241	1,028,292	148,514	686,373
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	0.28%	0.00%	0.45%	114.29%	0.00%	0.00%
EPS F1 Estimate 12-Week Change	4.03%	0.00%	1.88%	400.00%	0.63%	3.70%
EPS Q1 Estimate Monthly Change	-27.42%	0.00%	0.21%	-60.00%	-9.09%	11.80%

Source: Zacks Investment Research

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 maintain a 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	C
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.

Disclosures

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Additional Disclosure

This material represents an assessment of the market and economic environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. Forward-looking statements are subject to certain risks and uncertainties. Any statements that refer to expectations, projections or characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Actual results, performance, or achievements may differ materially from those expressed or implied.

Returns quoted represent past performance which is no guarantee of future results. Investment returns and principal value will fluctuate so that when shares are redeemed, they may be worth more or less than their original cost. Current performance may be higher or lower than the performance shown.

Investing involves risk; principal loss is possible. There is no guarantee that companies that can issue dividends will declare, continue to pay or increase dividends.

Glossary of Terms and Definitions

52-Week High-Low: The range of the highest and lowest prices at which a stock has traded during the past year. This range is determined based on the stock's daily closing price which may differ from the intra-day high or low. Many investors use it as a technical indicator to determine a stock's current value and future price movement. The idea here is that if price breaks out from the 52-week range, in either direction, the momentum may continue in the same direction.

20-Day Average Volume (Shares): The average number of shares of a company traded in a day over the last 20 days. It is a direct indication of a security's overall liquidity. The higher the average daily trading volume, the easier it is to enter or exit the stock at a desired price with more buyers and sellers being available.

Daily Price Change: This is the percentage difference between a trading day's closing price and the prior trading day's closing price. This item is updated at 9 p.m. EST each day.

1-Week Price Change: This is the percentage change in a stock's closing price over the last 5 trading days. This change reflects the collective buying and selling sentiment over the 1-week period.

A strong weekly price increase for the stock, especially when accompanied by increased volume, is an indication of it gaining momentum.

4-Week Price Change: This is the percentage change in a stock's closing price over the last 20 trading days or past 4 weeks. This is a medium-term price change metric and an indication of the stock gaining momentum.

12-Week Price Change: This is the percentage change of a stock's closing price over the last 60 trading days or past 12 weeks. Similar to 4-week price change, this is a medium-term price change metric. It shows whether a stock has been enjoying strong investor demand, or if it has been in consolidation, or distress over this period.

52-Week Price Change: This is the percentage change in a stock's closing price over the last 260 trading days or past 52 weeks. This long-term price change metric is a good reference point for investors. Some investors seek stocks with the best percentage price change over the last 52 weeks, expecting the momentum to continue.

Market Cap: The number of outstanding common shares of a company times its latest price per share. This figure represents a company's size, which indicates various characteristics, including price stability and risk, in which investors could be interested.

Year-To-Date Price Change: Change in a stock's daily closing price in the period of time beginning the first day of the current calendar year through to the previous trading day.

of Analysts: Number of EPS estimates used in calculating the current-quarter consensus. These estimates come from the brokerage analysts tracking this stock. However, the number of such analysts tracking this stock may not match the number of estimates, as all brokerage analysts may not come up with an estimate or provide it to us.

Beta: A measure of risk commonly used to compare the volatility of a stock to the overall market. The S&P 500 Index is the base for calculating beta and carries a value of 1. A stock with beta below 1 is less risky than the market as a whole. And a stock with beta above 1 is riskier.

Dividend: The portion of earnings a company is expected to distribute to its common shareholders in the next 12 months for each share they own. Dividends are usually paid quarterly. Dividend payments reflect positively on a company and help maintain investors' trust. Investors typically find dividend-paying stocks appealing because the dividend adds to any market price appreciation to result in higher return on investment (ROI). Moreover, a steady or increasing dividend payment provides investors a cushion in a down market.

Dividend Yield: The ratio of a company's annual dividend to its share price. The annual dividend used in the ratio is calculated based on the most recent dividend paid by the company. Dividend yield is an estimate of the dividend-only return from a stock in the next 12 months. Since dividend itself doesn't change frequently, dividend yield usually changes with a stock's price movement. As a result, often an unusually high dividend yield is a result of weak stock price.

S&P 500 Index: The Standard & Poor's 500 (S&P 500) Index is an unmanaged group of securities considered to be representative of the stock market in general. It is a market-capitalization-weighted index of stocks of the 500 largest U.S. companies. Each stock's weight in the index is proportionate to its market value.

Industry: One of the 250+ groups that Zacks classifies all stocks into based on the nature of business. These groups are termed as expanded (aka "X") industries and map to their respective (economic) sectors; Zacks has 16 sectors.

Zacks Industry Rank: The Zacks Industry Rank is determined by calculating the average Zacks Rank for all stocks in the industry and then assigning an ordinal rank to it. For example, an industry with an average Zacks Rank of 1.6 is better than an industry with an average Zacks Rank of 2.3. So, the industry with the better average Zacks Rank would get a better Zacks Industry Rank. If an industry has the best average Zacks Rank, it would be considered the top industry (1 out of 250+), which would place it at the top 1% of Zacks-ranked industries. Studies have shown that roughly half of a stock's price movement can be attributed to the industry group it belongs to. In fact, the top 50% of Zacks-ranked industries outperforms the bottom 50% by a factor of more than 2 to 1.

Last EPS Surprise: The percentage deviation of a company's last reported earnings per share from the Zacks Consensus Estimate. Companies with a positive earnings surprise are more likely to surprise again in the future (or miss again if they recently missed).

Last Sales Surprise: The percentage deviation of a company's last reported sales from the Zacks Consensus Estimate.

Expected Report Date: This is an estimated date of a company's next earnings release. The information originated or gathered by Zacks Investment Research from its information providers or publicly available sources is the basis of this estimate.

Earnings ESP: The Zacks Earnings ESP compares the Most Accurate Estimate to the Zacks Consensus Estimate for the yet-to-be reported quarter. The Most Accurate Estimate is the most recent version of the Zacks Consensus EPS Estimate. The idea here is that analysts revising their estimates closer to an earnings release have the latest information, which could potentially be more accurate than what they and others contributing to the consensus had predicted earlier. Thus, a positive or negative Earnings ESP reading theoretically indicates the likely deviation of the actual earnings from the consensus estimate. However, the model's predictive power is significant for positive ESP readings only. A positive Earnings ESP is a strong predictor of an earnings beat, particularly when combined with a Zacks Rank #1 (Strong Buy), #2 (Buy) or #3 (Hold). Our research shows that stocks with this combination produce a positive surprise nearly 70% of the time.

Periods:

TTM: Trailing 12 months. Using TTM figures is an effective way of analyzing the most-recent financial data in an annualized format that helps neutralize the effects of seasonality and other quarter-to-quarter variation.

F1: Current fiscal year. This period is used to analyze the estimates for the ongoing full fiscal year.

F2: Next fiscal year. This period is used to analyze the estimates for the next full fiscal year.

F12M: Forward 12 months. Using F12M figures is an effective way of analyzing the near-term (the following four unreported quarters) estimates in an annualized manner. Instead of typically representing estimates for the full fiscal year, which may not represent the nitty-gritty of each quarter, F12M figures suggest an all-inclusive annualized estimate for the following four quarters. The annualization helps neutralize the potential effects of seasonality and other quarter-to-quarter variations.

P/E Ratio: The price-to-earnings ratio measures a company's current market price per share relative to its earnings per share (EPS). Usually, the trailing-12-month (TTM) EPS, current-fiscal-year (F1) EPS estimate, or forward-12-month (F12M) EPS estimate is used as the denominator. In essence, this ratio shows what the market is willing to pay today for each dollar of EPS. In other words, this ratio gives a sense of what the relative value of the company is at the already reported level of earnings or at a future level of earnings.

It is one of the most widely-used multiples for determining the value of a company and helps comparing its valuation with that of a competitor, the industry group or a benchmark.

PEG Ratio: The price/earnings to growth ratio is a stock's P/E ratio using current fiscal year (F1) EPS estimate divided by its expected EPS growth rate over the coming 3 to 5 years. This ratio essentially determines a stock's value by factoring in the company's expected earnings growth and is thus believed to provide a more complete picture than just the P/E ratio, particularly for faster-growing companies.

P/S Ratio: The price-to-sales ratio is calculated as a company's current price per share divided by trailing 12 months (TTM) sales or revenues per share. This ratio shows what the market is willing to pay today for each dollar of TTM sales per share. The P/S ratio is at times the only valuation metric when the company has yet to become profitable.

Cash/Price Ratio: The cash-to-price ratio or Cash Yield is calculated as cash and marketable securities per share divided by the company's current share price. Like the earnings yield, which shows the anticipated yield (or return) on a stock from earnings for each dollar invested, the cash yield does the same, with cash being the source of return instead of earnings. For example, a cash/price ratio of 0.08 suggests a return of 8% or 8 cents for every \$1 investment.

EV/EBITDA Ratio: The EV/EBITDA ratio, also known as Enterprise Multiple, is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by EBITDA (earnings before interest, taxes, depreciation and amortization). Usually, trailing-12-month (TTM) or forward-12-month (F12M) EBITDA is used as the denominator.

EV/Sales Ratio: The enterprise value-to-sales ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by annual sales. It is an expansion of the P/S valuation, which uses market value instead of enterprise value. The EV/Sales ratio is perceived as more accurate than P/S, in part, because the market capitalization does not take a company's debt into account when valuing it.

EV/CF Ratio: The enterprise value-to-cash flow ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by the trailing-12-month (TTM) operating cash flow. It's a measure of how long it would take to buy the entire business if you were able to use all the company's operating cash flow.

The EV/CF ratio is perceived as more accurate than the P/CF ratio, in part, because the market price does not take a company's debt into account when valuing it.

EV/FCF Ratio: The enterprise value-to-free cash flow metric compares a company's enterprise value to its trailing-12-month (TTM) free cash flow (FCF). This metric is very similar to the EV/CF ratio, but is considered a more exact measure owing to the fact that it uses free cash flow, which subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding growth activities and payments to shareholders.

P/EBITDA Ratio: The P/EBITDA ratio is calculated as a company's per share market value divided by EBITDA (earnings before interest, taxes, depreciation, and amortization). This metric is very similar to the EV/EBITDA ratio, but is considered a little less exact measure as it uses market price, which does not take a company's debt into account. However, since EBITDA is often considered a proxy for cash income, the metric is used as a measure of what the market is willing to pay today for each dollar of the company's cash profitability in the trailing 12 months (TTM) or forward 12 months (F12M).

P/B Ratio: The price-to-book ratio is calculated as a company's current price per share divided by its book value (total assets – liabilities – preferred stocks) per share. In short, the book value is how much a company is worth. In other words, it reflects the total value of a company's assets that its common shareholders would receive if it were to be liquidated. So, the P/B ratio indicates whether you're paying higher or lower than what would remain if the company went bankrupt immediately. Investors typically use this metric to determine how a company's stock price stacks up to its intrinsic value.

P/TB Ratio: The price-to-tangible-book value ratio is calculated as a the per share market value of a company divided by the value of its tangible assets (total assets – liabilities – preferred stocks – intangible assets) per share. Tangible book value is the same thing as book value except it excludes the value of intangible assets to get a step closer to the baseline value of the company.

P/CF Ratio: The price-to-cash flow ratio measures a company's per share market price relative to its trailing-12-month (TTM) operating cash flow per share. This metric is used to determine whether a company is undervalued or overvalued relative to another stock, industry or sector. And like the P/E ratio, a lower number is typically considered better from the value perspective.

One of the reasons why P/CF ratio is often preferred over P/E ratio is the fact that operating cash flow adds back non-cash expenses such as depreciation and amortization to net income. This feature helps valuing stocks that have positive cash flow but are not profitable because of large noncash charges.

P/FCF Ratio: The price-to-free cash flow ratio is an extension of P/CF ratio, which uses trailing-12-month (TTM) free cash flow per share instead of operating cash flow per share. This metric is considered a more exact measure than P/CF ratio, as free cash flow subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding activities that generate additional revenues.

Earnings Yield: The earnings yield is calculated as current fiscal year (F1) EPS estimate divided by the company's current share price. The ratio, which is the inverse of the P/E ratio, measures the anticipated yield (or return) from earnings for each dollar invested in a stock today.

For example, earnings yield for a stock, which is trading at \$35 and expected to earn \$3 per share in the current fiscal year (F1), would be 0.0857 ($3/35 = 0.0857$) or 8.57%. In other words, for \$1 invested in the stock today, the yield from earnings is anticipated to be 8.57 cents.

Investors most commonly compare the earnings yield of a stock to that of a broad market index (such as the S&P 500) and prevailing interest rates, such as the current 10-year Treasury yield. Since bonds and stocks compete for investors' dollars, stock investors typically demand a higher yield for the extra risk they assume compared to investors of U.S. Treasury-backed securities that offer virtually risk-free returns. This additional return is referred to as the risk premium.

Debt/Equity Ratio: The debt-to-equity ratio is calculated as a company's total liabilities divided by its shareholder equity. This metric is used to gauge a company's financial leverage. In other words, it is a measure of the degree to which a company is financing its operations through debt versus its own funds. The higher the ratio, the higher the risk for shareholders.

However, this ratio is difficult to compare across industry groups where ideal amounts of debt vary. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-equity ratio should be compared with other companies in the same industry.

Cash Flow (\$/share): Cash flow per share is calculated as operating cash flow (after-tax earnings + depreciation + other non-cash charges) divided by common shares outstanding. It is used by many investors as a measure of a company's financial strength. Since cash flow per share takes into consideration a company's ability to generate cash by adding back non-cash expenses, it is regarded by some as a more accurate measure of a company's financial situation than earnings per share, which could be artificially deflated.

Current Ratio: The current ratio or liquidity ratio is a company's current assets divided by its current liabilities. It measures a company's ability to pay short-term obligations. A current ratio that is in line with the industry average or slightly higher is generally considered acceptable. A current ratio that is lower than the industry average would indicate a higher risk of distress or default. A higher number is usually better. However, a very high current ratio compared to the industry average could be an indication of inefficient use of assets by management.

Debt/Capital Ratio: Debt-to-capital ratio is a company's total debt (interest-bearing debt + both short- and long-term liabilities) divided its total capital (interest-bearing debt + shareholders' equity). It is a measure of a company's financial leverage. All else being equal, the higher the debt-to-capital ratio, the riskier the stock.

However, this ratio can vary widely from industry to industry, the ideal amount of required debt being different. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-capital ratio should be compared with the same for its industry.

Net Margin: Net margin is calculated as net income divided by sales. It shows how much of each dollar in sales generated by a company translates into profit. For example, if a company's net margin is 15%, its net income is 15 cents for every \$1 of sales it makes.

A change in margin can reflect either a change in business conditions, or a company's cost controls, or both. If a company's expenses are growing faster than sales, its net margin will decline. However, different net margin rates are considered good for different industries, so it's better to compare net margin rates of companies in the same industry group.

Return on Equity: Return on equity (ROE) is calculated as trailing-12-month net income divided by trailing-12-month average shareholder equity (including reinvested earnings). This metric is considered a measure of how effectively management is using a company's assets to generate profits. For example, if a company's ROE is 10%, it creates 10 cents profits for every \$1 shareholder equity, which is basically the company's assets minus debt. A company's ROE deemed good or bad depends on what's normal for its peers or industry group.

Sales/Assets Ratio: The sales-to-assets ratio or asset utilization ratio or asset turnover ratio is calculated as a company's annual sales divided by average assets (average of assets at the beginning of the year and at the year's end). This metric helps investors understand how effectively a company is using its assets to generate sales. For example, a sales-to-assets ratio of 2.5 indicates that the company generated \$2.50 in sales for every \$1 of assets on its books.

The higher the sales-to-assets ratio, the better the company is performing. However, similar to many other ratios, the asset turnover ratio tends to be higher for companies in certain industries/sectors than in others. So, a company's sales-to-assets ratio should be compared with the same for its industry/sector.

Historical EPS Growth (3-5 Years): This is the average annual (trailing-12-month) EPS growth rate over the last 3-5 years. This metric helps investors see how a company's EPS has grown from a long-term perspective.

Note: There are many factors that can influence short-term numbers — a recession will reduce this number, while a recovery will inflate it. The longterm perspective helps smooth out short-term events.

Projected EPS Growth (F1/F0): This is the estimated EPS growth rate for the current financial year. It is calculated as the consensus estimate for the current fiscal year (F1) divided by the reported EPS for the last completed fiscal year (F0).

Current Cash Flow Growth: It measures the latest year-over-year change in operating cash flow. Cash flow growth tells an investor how quickly a company is generating inflows of cash from operations. A positive change in the cash flow is desired and shows that more 'cash' is coming in than going out.

Historical Cash Flow Growth (3-5 Years): This is the annualized change in cash flow over the last 3-5 years. The change in a longer period helps put the current reading into proper perspective. By looking at the rate, rather than the actual dollar value, the comparison across the industry and peers becomes easier.

Projected Sales Growth (F1/F0): This metric looks at the estimated sales growth for the current year. It is calculated as sales estimate for the current fiscal year (F1) divided by the reported sales for the last completed fiscal year (F0).

Like EPS growth, a higher rate is better for sales growth. A look at a company's projected sales growth instantly tells you what the outlook is for their products and services. However, different sales growth rates are considered good for different industries, so it's better to compare sales growth rates of companies in the same industry group.

EPS F1 Estimate 1-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past week. The change in a company's consensus EPS estimate (or earnings estimate revision) has proven to be strongly correlated with the near-term price movement of its shares. It is an integral part of the Zacks Rank.

If a stock's consensus EPS estimate is \$1.10 now versus \$1.00 a week ago, that will be reflected as a 10% upward revision. If, on the other hand, it went from \$1.00 to 90 cents, that would be a 10% downward revision.

EPS F1 Estimate 4-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past four weeks.

A stock's earnings estimate revision in a 1-week period is important. But it's more meaningful to look at the longer-term revision. And, of course, the 4-week change helps put the 1-week change into proper perspective.

EPS F1 Estimate 12-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past 12 weeks.

This metric essentially shows how the consensus EPS estimate has changed over a period longer than 1 week or 4 weeks.

EPS Q1 Estimate Monthly Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal quarter over the past four weeks.

While the revision in consensus EPS estimate for the current fiscal year is strongly correlated with the near-term price movement of its shares, the estimate revision for the current fiscal quarter is an important metric as well, especially over the short term, and particularly as a stock approaches its earnings date. If a stock's Q1 EPS estimate decreases ahead of its earnings release, it's usually a negative sign, whereas an increase is a positive sign.