

Dolby Laboratories (DLB)

\$69.87 (As of 08/06/20)

Price Target (6-12 Months): **\$73.00**

Long Term: 6-12 Months

Zacks Recommendation:
Neutral

(Since: 08/06/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:B

Value: C

Growth: B

Momentum: B

Summary

Due to the competitive nature of the consumer entertainment market, Dolby is susceptible to risks of reduced revenues due to lower prices. Lower licensing revenues stemming from COVID-19 adversities are likely to dent near-term profitability. Higher adoption of proprietary sound technologies might lead to severe competition in the global arena, threatening Dolby's market share. Volatile cinema product sales and price-sensitive entertainment industry are headwinds. However, Dolby reported impressive third-quarter fiscal 2020 results, with the top and the bottom line surpassing the Zacks Consensus Estimate. Despite certain macroeconomic challenges, the company provided guidance for fourth-quarter fiscal 2020 and full year 2020. With its robust financials, Dolby employs diligent capital deployment strategies to spur growth.

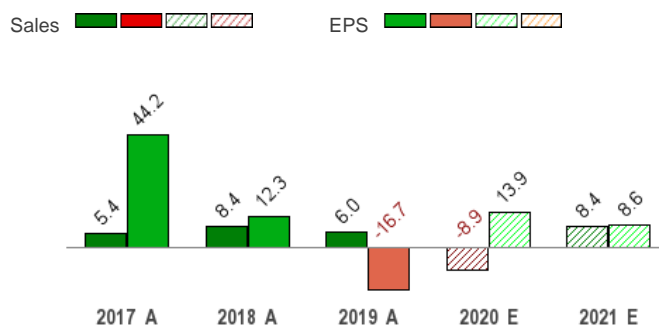
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$73.94 - \$44.68
20 Day Average Volume (sh)	332,541
Market Cap	\$7.0 B
YTD Price Change	1.6%
Beta	0.89
Dividend / Div Yld	\$0.88 / 1.3%
Industry	Audio Video Production
Zacks Industry Rank	Top 12% (30 out of 252)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	218.5%
Last Sales Surprise	6.6%
EPS F1 Est- 4 week change	29.7%
Expected Report Date	11/12/2020
Earnings ESP	-5.8%

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	285 E	355 E	297 E	299 E	1,227 E
2020	292 A	352 A	247 A	241 E	1,132 E
2019	302 A	338 A	302 A	299 A	1,242 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.57 E	\$1.08 E	\$0.78 E	\$0.68 E	\$3.02 E
2020	\$0.47 A	\$0.86 A	\$0.86 A	\$0.35 E	\$2.78 E
2019	\$0.74 A	\$1.04 A	\$0.38 A	\$0.43 A	\$2.44 A

*Quarterly figures may not add up to annual.

P/E TTM	26.7
P/E F1	25.1
PEG F1	1.9
P/S TTM	5.9

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 08/06/2020. The reports text is as of 08/07/2020.

Overview

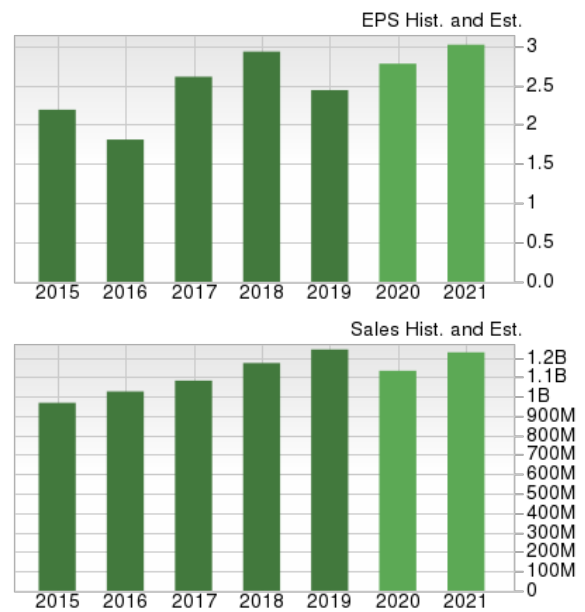
Founded in 1965, the San Francisco, CA-based company Dolby Laboratories, Inc. specializes in audio noise reduction and audio encoding/compression. The company offers state-of-the-art audio, imaging, and voice technologies that revolutionize entertainment and communications at theaters, home, work and mobile devices. Also, the company designs and manufactures audio and imaging products including digital cinema servers and other products for film production, cinema, television, broadcast and other entertainment industries.

Moreover, Dolby offers a host of services for supporting theatrical and television production for cinema exhibition, broadcast and home entertainment. This apart, it serves film studios, content creators, post-production facilities, cinema operators, broadcasters and video game designers. The products of the company are sold directly to the end users and through dealers and distributors as well.

A majority of the company's revenues are derived from the licensing of audio technologies. The company operates on various licensing models including a two-tier model, an integrated licensing model, a patent licensing model and a revenue-sharing model. It offers core licensing to broadcasters, personal computers, consumer electronics and mobile customers.

Currently, Dolby is focusing on expanding its product portfolio and has already developed new applications for voice conferencing and imaging solutions that enable HDR picture quality in televisions and cinemas. Some of the newly introduced products include Dolby Voice, Dolby Vision and Dolby Cinema.

The company reports under two operating segments — Licensing (95.2% of total revenues in the third quarter of fiscal 2020), and Products and Services (4.8%).



Reasons To Buy:

- ▲ Dolby's long-term growth strategy stands on three pillars, namely advancing the science of sight and sound, providing creative solutions, and delivering superior experiences. Successful execution in each of these areas has led to decent growth over the past quarters. Dolby has three impressive projects, namely, Dolby Vision, Dolby Voice and Dolby Cinema, that will likely accelerate growth going forward. Coming to Dolby Vision, Disney joined the bandwagon of other major Hollywood studios such as Warner Brothers and Paramount to create Dolby Vision content for home. The company is enjoying widespread industry adoption of Dolby Vision and Dolby Atmos, the latest in the list being Apple. Also, Dolby Vision saw further adoption in Blu-ray players as Sony and Panasonic announced their first Dolby Vision players, joining LG, Phillips and OPPO. The company's Dolby Voice technology, an audio conferencing solution, is witnessing solid growth opportunities that are adding to the company's strength. Apart from expanding its foothold in the traditional audio conferencing market, Dolby Voice is also making concerted efforts to bolster its footprint in the budding video conferencing market. Dolby Voice is gearing up for some interesting product launch, in collaboration with its partner, BlueJeans. It had launched a partnership with audio conferencing provider, West, to expand this business.
- ▲ Netflix, one of Dolby's first partners, had started streaming in Dolby Atmos, and offers combined Dolby Vision and Dolby Atmos experience to its global subscriber base. LG also announced that it would expand the combined Dolby Vision and Dolby Atmos experience to its OLED and super UHD televisions. The company's Dolby Vision is being adopted in the mainstream TV models. Based on present industry trends, the company is confident that Dolby Vision's growth momentum will keep accelerating, going forward. Lenovo, Huawei and Xiami have launched PCs with Dolby Atmos. Also, Amazon expanded its Dolby Atmos support beyond the Fire HDX tablets and into the new Fire TV and Fire TV Cube in addition to other compatible devices like TV, sound bars and home theater systems. Earlier, both Sony and LG announced their new Dolby Atmos sound bars. In addition, Dolby rolled out Dolby Atmos for headphones. Dolby Atmos content has now expanded beyond premium movie and TV content to gaming and live sports. In gaming, the first Dolby Atmos game for Xbox, Gears of War 4, was also released. In live sports, BT commenced broadcasting in Dolby Atmos, and delivered the entire season of Premier League Soccer in Dolby Atmos. Also, Microsoft started supporting Dolby Vision on the Xbox One. This is the first gaming console to support both Dolby Vision and Dolby Atmos.
- ▲ Dolby Cinema technology is considered to be a major profit churner for the company. Earlier, Dolby Cinema had added two new partners including Jinyi, one of the largest cinema chains in China and Pathé Cinemas, the largest cinema chain operation in France, the Netherlands and Switzerland. Dolby Cinemas' client list includes AMC in the United States, Wanda and Jackie Chan in China, Cineplexx in Austria, REEL in Middle East and Vue in the Netherlands. Dolby Cinemas is enjoying exponential market traction and the company brought Dolby Cinema to the U.K. for the first time with Odeon Cinemas Group. The content pipeline for Dolby Cinema continues to grow with about 190 titles in Dolby Vision and Dolby Atmos announced or released. Combined with Dolby's existing partners in China, Wanda and Jackie Chan, the company has more than 140 screens open or committed in the country. However, with the emergence of COVID-19 pandemic, majority of screens around the world have been closed, including Dolby Cinema screens. This has negatively impacted the demand for cinema products with lower box office share revenues. Nevertheless, the company believes that surging demand for premium viewing experiences will fuel growth for Dolby Cinema in the long haul. Overall, it has about 250 Dolby Cinema sites across 11 countries with more than 20 exhibitor partners. The company had inked agreements with two new exhibitor partners that will bring the first Dolby Cinema to South Korea and Saudi Arabia. Market reports suggest that consumers are increasingly viewing video content on smartphones, tablets and computers, which in turn is expected to unlock opportunities for Dolby.
- ▲ Despite uncertainties pertaining to the coronavirus outbreak, Dolby provided guidance for fourth-quarter fiscal 2020 and full year 2020. For fourth-quarter fiscal 2020, the company expects GAAP earnings in the range of 5-20 cents per share and non-GAAP earnings in the range of 22-37 cents per share on revenues of \$225-\$255 million. Unit volume shipments across various end markets and devices are likely to be lower due to COVID-19 adversities. For 2020, Dolby expects GAAP earnings per share (EPS) in the range of \$2.04-\$2.19 and non-GAAP EPS in the range of \$2.76-\$2.91. Revenues are anticipated in the range of \$1.12-\$1.15 billion.
- ▲ Dolby, with its robust financials, employs diligent capital deployment strategies for ensuring growth. The capital allocation strategies are designed to maintain a flexible capital structure, deliver value to shareholders through sustainable growth, solid margins, strong cash flows and returning capital. Moreover, the company dedicatedly follows a balanced capital deployment strategy and continually rewards its shareholders through share repurchases and dividend increases. As of Jun 26, the company had \$855.1 million in cash and equivalents with \$120 million of non-current liabilities. With favorable cash and equivalents, the company is likely to pay back its near-term financial obligations. Dolby's debt-to-capital ratio and long-term debt has always been zero. Meanwhile, the times interest earned has declined sequentially from 1,386.7 to 1,341.9. Although Dolby's dividend payout rate has reduced sequentially from 39.9% to 38.3%, current ratio has improved from 4.75 to 5.83. This indicates that Dolby is likely to have sufficient cash reserves to pay off its current liabilities in the near future.

Dolby has maintained its long-standing partnerships with industry frontrunners like Apple, Google, Amazon and Netflix to offer best-in-class services and fend off competition.

Reasons To Sell:

- ▼ Escalating cost of sales has been a major cause of concern for Dolby over the past quarters, primarily on account of increased product cost and higher licensing expenses. The market for consumer entertainment products is highly competitive and price sensitive, which exposes Dolby to the risks of reduced revenues owing to lower prices. The company's profitability is subject to timing of payments from clients. Moreover, OEMs continually focus on reducing product costs, which in turn will exert pressure on the company's licensing fees. Of late, free and proprietary sound technologies are being increasingly adopted by clients and Dolby apprehends that competitors will soon freely enter this space with other offerings, threatening its market share.
- ▼ A large section of Dolby's sales depends on OEMs and other licensees who incorporate the company's technology into their offerings. Also, the company's sales depend on a handful of customers and losing any of them will significantly impact revenues. These license agreements do not require minimum purchases, minimum royalty fees and do not prohibit licensees from using competitor's offerings, which adds to Dolby's concerns. In addition, the company's cinema product sales are subject to fluctuations based on general conditions in the industry, such as the construction of new screens or upgrade of existing screens. Though the company's relatively new offering Dolby Cinema is experiencing exceptional market traction, there is no denying the fact that its success is hitched to the pipeline and the performance of motion pictures at Dolby Cinema locations.
- ▼ Dolby's profits largely depend on timely deliveries from suppliers. The risks pertaining to the procurement of the key materials used in Dolby's products include limited control over price, timely delivery and quality of the components provided by the suppliers. Additionally, the company has no formal agreements with suppliers that can ensure continued supply of materials and components. This makes Dolby vulnerable to delay in obtaining raw materials from suppliers, which poses risk of production cost hikes. This apart, the company's success largely depends on its ability to retain patents, trademarks, trade secrets, copyrights and other intellectual property rights. Unfortunately, a few countries in which the company operates do not have stringent laws to protect against unauthorized use of its products and services. In the past, Dolby has often experienced problems with non-licensee OEMs and software vendors, particularly in China and other emerging countries like Taiwan and India that have incorporated Dolby's technologies and trademarks into their products without authorization. These factors are quite commonplace and frequent, which poses a grave concern.
- ▼ The market for broadcast technologies has been heavily dependent on industry standards, often mandated by governments. This exposes Dolby to regulatory risk. The success of Dolby's endeavors is subject to its ability to comply with industry standards to ensure compatibility across delivery platforms and consumer entertainment products. Going forward, unhindered revenue growth from the broadcast market will depend upon both the continued global adoption of digital television and incorporation of Dolby's technologies in them. Also, the fast-evolving industry calls for constant technological innovation, which necessitates Dolby to continuously come up with state-of-the-art technology to stay ahead of the curve. The global coronavirus pandemic has forced several governments to impose restrictions on movie theaters for social distancing, which are likely to dent its revenues. Owing to certain macroeconomic factors like unemployment and supply-chain disruptions, Dolby's near-term performance is more prone to get affected by the ongoing turmoil of the deadly pandemic across various end markets.

Of late, free and proprietary sound technologies are being increasingly adopted by clients and Dolby apprehends that competitors will soon easily enter this space with other offerings.

Last Earnings Report

Dolby Q3 Earnings Beat Estimates, Revenues Fall Y/Y

Dolby reported impressive third-quarter fiscal 2020 (ended Jun 26, 2020) results, with the top and the bottom line surpassing the Zacks Consensus Estimate. Despite higher adoption of Dolby Atmos and Dolby Vision technology, lower licensing coupled with lower product and services revenues stemming from COVID-19 adversities marred quarterly performance.

Net Income

On a GAAP basis, net income was \$67.3 million or 66 cents per share compared with \$39.6 million or 38 cents per share in the year-ago quarter. Despite top-line contractions, the year-over-year increase was primarily driven by lower operating expenses.

Non-GAAP net income came in at \$87.5 million or 86 cents per share compared with \$79.3 million or 76 cents per share in the prior-year quarter. The bottom line beat the Zacks Consensus Estimate by 59 cents.

Revenues

Total GAAP revenues were \$246.9 million, down 18.3% from \$302.2 million in the year-ago quarter. The decline was caused by the COVID-19 pandemic, which led to temporary business shutdowns and lower consumer activity globally. Nevertheless, the top line surpassed the Zacks Consensus Estimate of \$232 million.

Segmental Performance

Revenues from **Licensing** were \$235.1 million, down 13.5% year over year, due to lower revenues in Broadcast business. Despite higher adoption of Dolby Vision and Dolby Atmos, Broadcast business witnessed nearly 34% year-over-year decline in revenues owing to lower volume and recoveries stemming from COVID-19 pandemic. Sales from Consumer Electronics fell nearly 29% due to lower volume and recoveries. Revenues from Mobile Devices were up nearly 65% from prior-year quarter's figure, driven by robust growth in patent programs. Sales from PC was down by about 4% year over year owing to lower recoveries. Meanwhile, revenues from Other Markets fell nearly 34% owing to a decline in revenues from Dolby Cinema coupled with lower gaming revenues.

Products and services revenues came in at \$11.8 million, down 61.1% year over year. The downside was primarily caused by the impact of COVID-19 pandemic on the Cinema business as social distancing norms led to movie theatre closures.

Other Details

Gross profit in the fiscal third quarter was \$217 million compared with \$262.5 million in the year-earlier quarter. Total operating expenses fell 19.9% to \$182.9 million, primarily due to lower restructuring charges. Operating income was \$34.1 million compared with \$34.3 million in the year-ago quarter.

Cash Flow & Liquidity

During the first nine months of fiscal 2020, Dolby generated \$231.2 million of net cash from operating activities compared with \$197.2 million in the year-ago quarter. As of Jun 26, the company had \$855.1 million in cash and equivalents with \$120 million of non-current liabilities.

Q4 & Full Year 2020 Guidance Issued

Despite uncertainties pertaining to the ongoing virus outbreak, Dolby provided guidance for fourth-quarter fiscal 2020 and full year 2020.

For fourth-quarter fiscal 2020, the company expects GAAP earnings in the range of 5-20 cents per share and non-GAAP earnings in the range of 22-37 cents per share on revenues of \$225-\$255 million. Unit volume shipments across various end markets and devices are likely to be lower due to COVID-19 adversities. On a GAAP basis, operating expenses are expected in the \$187-\$197 million band, whereas on a non-GAAP basis, operating expenses are anticipated in the range of \$167-\$177 million.

For 2020, Dolby expects GAAP earnings per share (EPS) in the range of \$2.04-\$2.19 and non-GAAP EPS in the range of \$2.76-\$2.91. Revenues are anticipated in the range of \$1.12-\$1.15 billion. On a GAAP basis, operating expenses are expected in the \$785-\$795 million band, whereas on a non-GAAP basis, operating expenses are anticipated in the range of \$697-\$707 million.

Due to certain macroeconomic factors like unemployment and supply chain disruptions, Dolby's near-term performance is more prone to get affected by the ongoing turmoil of the deadly pandemic across various end markets. Although its licensing as well as products and services revenues are likely to be affected by the coronavirus, Dolby is committed to support its business operations in this hour of crisis.

Quarter Ending **06/2020**

Report Date	Aug 03, 2020
Sales Surprise	6.64%
EPS Surprise	218.52%
Quarterly EPS	0.86
Annual EPS (TTM)	2.62

Recent News

On May 12, 2020, Dolby announced that it has introduced an avant-garde API platform — Dolby.io — that delivers immersive conferencing and collaboration experience in the enterprise and application development domain. Embedded in more than 10 billion devices, this one-of-a kind platform enables developers and content creators to leverage scalable and easy-to-use media processing APIs to deliver spectacular audiovisual experiences at an affordable cost. Markedly, Dolby.io supports multi-party audio and video communications and can be used in various industries such as online training, healthcare, social media and digital collaboration to name a few.

On Mar 10, Dolby announced that it has been recognized as one of the World's Most Innovative Companies for its latest innovation in Dolby Atmos Music by a renowned American business magazine — Fast Company. Markedly, Dolby Atmos Music is an immersive audio experience, which allows sounds to be precisely placed, thereby adding dimensionality to create a full audio atmosphere. Known for a rich listening experience, Dolby had previously leveraged its Atmos Music platform to collaborate with eminent record labels, music artists and streaming services.

On Jan 7, Dolby exhibited new features for its Dolby Vision immersive entertainment technology, Dolby Vision IQ, at Consumer Electronics Show 2020. The latest addition to its portfolio extends the benefits of Dolby Vision beyond HDR by optimizing picture quality for viewers in any room. It can inform the TV what is being watched so when the channel is switched, the TV will modify its settings accordingly. Dolby also exhibited its Dolby Atmos sound technology at CES, particularly demonstrating its effectiveness in the music industry.

Valuation

Dolby shares are up 15.9% over the trailing 12-month period. Stocks in the Zacks sub-industry are up 35.5% over the past year, while stocks in the Zacks Consumer Discretionary sector are up 4.8% in the same time frame.

The S&P 500 Index is up 14.3% in the past year.

The stock is currently trading at 2.97X trailing 12-month book value, which compares to 1.85X for the Zacks sub-industry, 3.28X for the Zacks sector and 4.58X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 3.53X and as low as 1.7X, with a 5-year median of 2.7X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$73 price target reflects 24.6X trailing 12-month book value.

The table below shows summary valuation data for DLB

Valuation Multiples - DLB					
		Stock	Sub-Industry	Sector	S&P 500
P/B TTM	Current	2.97	1.85	3.28	4.58
	5-Year High	3.53	1.92	4.95	4.58
	5-Year Low	1.7	0.98	2.22	2.83
	5-Year Median	2.7	1.48	4.21	3.73
P/S F12M	Current	5.75	1	2.39	3.66
	5-Year High	6.15	1	2.95	3.66
	5-Year Low	2.97	0.13	1.68	2.53
	5-Year Median	4.78	0.66	2.5	3.04
EV/EBITDA TTM	Current	20.14	5.63	10.79	12.98
	5-Year High	22.19	9.8	17.81	12.98
	5-Year Low	7.84	3.38	8.34	8.24
	5-Year Median	13.5	5.01	12.24	10.89

As of 08/06/2020

Industry Analysis Zacks Industry Rank: Top 12% (30 out of 252)



Top Peers

Company (Ticker)	Rec	Rank
Turtle Beach Corporation (HEAR)	Outperform	2
Sony Corporation (SNE)	Outperform	1
GoPro, Inc. (GPRO)	Neutral	2
LiveXLive Media, Inc. (LIVX)	Neutral	2
Panasonic Corp. (PCRFY)	Neutral	3
Sonos, Inc. (SONO)	Neutral	2
IMAX Corporation (IMAX)	Underperform	4
Nikon Corp. (NINYO)	Underperform	5

Industry Comparison Industry: Audio Video Production				Industry Peers		
	DLB	X Industry	S&P 500	GPRO	SNE	SONO
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Outperform	Neutral
Zacks Rank (Short Term)	3	-	-	2	1	2
VGM Score	B	-	-	F	B	C
Market Cap	7.03 B	72.51 M	23.20 B	876.11 M	100.65 B	1.56 B
# of Analysts	5	3	14	4	4	3
Dividend Yield	1.26%	0.00%	1.78%	0.00%	0.42%	0.00%
Value Score	C	-	-	D	B	D
Cash/Price	0.13	0.18	0.07	0.15	0.32	0.16
EV/EBITDA	16.63	5.11	13.21	36.44	6.97	34.23
PEG Ratio	1.93	2.73	2.94	NA	3.52	NA
Price/Book (P/B)	2.88	1.95	3.12	4.65	2.17	5.19
Price/Cash Flow (P/CF)	20.54	14.87	12.27	28.64	10.95	48.01
P/E (F1)	25.13	21.97	21.69	NA	22.72	NA
Price/Sales (P/S)	5.91	0.91	2.48	0.96	1.31	1.22
Earnings Yield	3.98%	3.98%	4.39%	-5.04%	4.40%	-2.59%
Debt/Equity	0.00	0.05	0.77	1.19	0.19	0.07
Cash Flow (\$/share)	3.40	0.02	6.94	0.19	7.35	0.30
Growth Score	B	-	-	F	C	C
Hist. EPS Growth (3-5 yrs)	7.02%	8.63%	10.46%	NA	86.71%	NA
Proj. EPS Growth (F1/F0)	13.77%	-25.53%	-6.80%	-217.71%	-16.45%	-640.00%
Curr. Cash Flow Growth	-0.04%	3.62%	5.39%	-197.78%	-21.35%	33.24%
Hist. Cash Flow Growth (3-5 yrs)	3.73%	-2.18%	8.55%	-27.97%	33.38%	NA
Current Ratio	5.83	1.34	1.33	1.74	0.93	2.18
Debt/Capital	0.00%	16.25%	44.50%	54.40%	16.25%	6.70%
Net Margin	20.89%	-4.90%	10.13%	-10.24%	8.00%	-5.32%
Return on Equity	10.67%	-9.24%	14.39%	-36.11%	13.78%	-11.97%
Sales/Assets	0.41	1.07	0.51	1.30	0.36	1.69
Proj. Sales Growth (F1/F0)	-8.81%	0.00%	-1.51%	-42.03%	-1.37%	1.12%
Momentum Score	B	-	-	F	B	B
Daily Price Chg	-0.10%	0.00%	-0.04%	-0.63%	-0.96%	-18.34%
1 Week Price Chg	2.34%	0.05%	0.14%	4.75%	1.96%	-2.44%
4 Week Price Chg	6.70%	7.41%	7.78%	14.64%	12.50%	-5.86%
12 Week Price Chg	28.89%	25.91%	17.48%	58.86%	26.41%	57.38%
52 Week Price Chg	16.45%	-0.34%	0.68%	24.94%	43.06%	34.05%
20 Day Average Volume	332,541	61,810	2,057,775	2,478,524	1,060,983	5,948,379
(F1) EPS Est 1 week change	29.66%	0.00%	0.00%	0.00%	15.30%	0.00%
(F1) EPS Est 4 week change	29.66%	4.33%	1.36%	0.00%	17.79%	0.00%
(F1) EPS Est 12 week change	28.88%	2.33%	1.57%	1.75%	0.71%	0.00%
(Q1) EPS Est Mthly Chg	-24.66%	0.00%	0.54%	0.00%	5.32%	0.00%

Zacks Stock Rating System

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

Zacks Recommendation

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we have an excellent balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

Zacks Rank

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

Zacks Style Scores

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.

Value Score	C
Growth Score	B
Momentum Score	B
VGM Score	B

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

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Any opinions expressed herein are subject to change.

ZIR is not an investment advisor and the report should not be construed as advice designed to meet the particular investment needs of any investor. Prior to making any investment decision, you are advised to consult with your broker, investment advisor, or other appropriate tax or financial professional to determine the suitability of any investment. This report and others like it are published regularly and not in response to episodic market activity or events affecting the securities industry.

This report is not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. ZIR or its officers, employees or customers may have a position long or short in the securities mentioned and buy or sell the securities from time to time. ZIR is not a broker-dealer. ZIR may enter into arms-length agreements with broker-dealers to provide this research to their clients. Zacks and its staff are not involved in investment banking activities for the stock issuer covered in this report.

ZIR uses the following rating system for the securities it covers. **Outperform-** ZIR expects that the subject company will outperform the broader U.S. equities markets over the next six to twelve months. **Neutral-** ZIR expects that the company will perform in line with the broader U.S. equities markets over the next six to twelve months. **Underperform-** ZIR expects the company will underperform the broader U.S. equities markets over the next six to twelve months.

No part of this report can be reprinted, republished or transmitted electronically without the prior written authorization of ZIR.