Keysight Technologies (KEYS)

$99.74 (As of 09/01/20)

Price Target (6-12 Months): **$114.00**

Long Term: 6-12 Months	**Zacks Recommendation:** (Since: 09/01/20) Prior Recommendation: Neutral	**Outperform**
Short Term: 1-3 Months	**Zacks Rank:** (1-5)	**1-Strong Buy**
	Zacks Style Scores:	VGM:D
	Value: F | Growth: C	Momentum: A

Summary

Keysight's better-than-expected fiscal third-quarter results and impressive guidance for fiscal fourth quarter reflect uptick in 5G test solutions and strong backlog. Improving supply chain management and demand recovery across Asia Pacific contributed to revenues. Keysight is well poised to gain from solid demand of its semiconductor measurement solutions as semiconductor companies look to develop chips based on next-generation process technologies. Also, higher government spending and momentum in investments aimed at technology modernization across the United States is a positive. Notably, shares of Keysight have outperformed the industry on a year-to-date basis. However, coronavirus crisis-led weakness in automotive and general electronics sectors, and sluggish spending across Europe and Huawei related headwinds are major concerns.

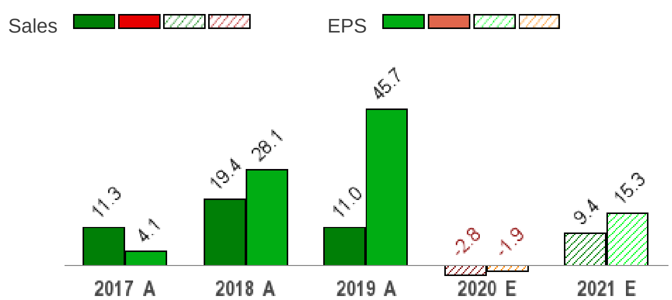
Price, Consensus & Surprise

Source: Zacks Investment Research

Data Overview

52-Week High-Low	**$110.00 - $77.93**
20-Day Average Volume (Shares)	**1,999,674**
Market Cap	**$18.7 B**
Year-To-Date Price Change	**-2.8%**
Beta	**1.07**
Dividend / Dividend Yield	**$0.00 / 0.0%**
Industry	**Electronics - Measuring Instruments**
Zacks Industry Rank	**Top 49% (123 out of 251)**
Last EPS Surprise	**41.7%**
Last Sales Surprise	**10.1%**
EPS F1 Estimate 4-Week Change	**9.9%**
Expected Report Date	**11/24/2020**
Earnings ESP	**1.1%**
P/E TTM	**21.9**
P/E F1	**21.5**
PEG F1	**2.2**
P/S TTM	**4.5**

Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2021	1,124 E	1,120 E	1,152 E	1,214 E	4,577 E
2020	1,095 A	895 A	1,011 A	1,183 E	4,184 E
2019	1,006 A	1,090 A	1,087 A	1,120 A	4,303 A

EPS Estimates

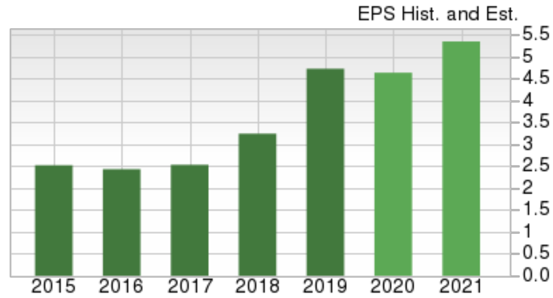
	Q1	Q2	Q3	Q4	Annual*
2021	$1.23 E	$1.30 E	$1.30 E	$1.43 E	$5.34 E
2020	$1.26 A	$0.78 A	$1.19 A	$1.45 E	$4.63 E
2019	$0.93 A	$1.22 A	$1.25 A	$1.33 A	$4.72 A

*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 09/01/2020. The reports text is as of 09/02/2020.

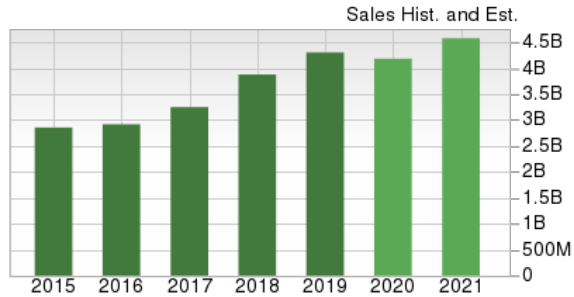
Overview

Based in Santa Rosa, CA, Keysight Technologies, Inc. is a provider of electronic design and test instrumentation systems. In 2013, Agilent Technologies announced that it will split into two independent companies. One of the companies was named Keysight Technologies, which became a fully independent electronic measurement company on Nov 1, 2014 and got listed on the New York Stock Exchange on Nov 3, 2014, with ticker symbol KEYS.



In fiscal 2019, the company generated non-GAAP revenues of $4.312 billion.

Beginning first-quarter fiscal 2020, the company's financial reporting comprises two segments — Electronic Industrial Solutions Group (EISG) and Communications Solutions Group (CSG). In third-quarter fiscal 2020, the company generated non-GAAP revenues of $1.011 billion.



Under CSG segment (75% of the non-GAAP revenues in third-quarter fiscal 2020), the company offers radio frequency (RF) and microwave test instruments and allied software, and electronic design automation (EDA) software instruments, laser source products, optical amplifiers, and other software solutions.

Notably, Ixia Solutions Group (ISG) segment reporting has been aligned with the CGS segment. ISG was formed after conclusion of Ixia buyout in Apr 18, 2017. Keysight's test and visibility solutions, and software maintenance services, were formerly under ISG.

CSG includes commercial communications (CC) and aerospace, defense & government (ADG) end markets.

In third-quarter fiscal 2020, CC and ADG revenues came in at $468 million and $185 million, respectively.

EISG (25%) accounts for design verification devices; general purpose test and measurement equipment; end-to-end manufacturing systems, and material analysis devices.

The company generated 36% of non-GAAP revenues from Americas in third-quarter fiscal 2020. Meanwhile, revenues from Europe and Asia Pacific came in at 16% and 48%, respectively.

Source: Zacks Investment Research

Reasons To Buy:

> Robust adoption driven by high demand for 5G design and test solutions primarily from telecom vendors, and a strong pipeline for new business bookings are key catalysts.

- ▲ Electronic devices form the very fulcrum of Internet of Things (IoT) services, wireless devices, data centers and 5G technologies. The rapid adoption of these devices is increasing demand for electronics testing equipment. Further, ongoing technical advancement in mobile communications, semiconductors and automotive markets are likely to drive growth. Moreover, rising demand for power management applications is a key catalyst. Sturdy efforts toward the ongoing modification of the Internet infrastructure, evolution of smart cars & autonomous-driving vehicles bode well. Additionally, medical devices and pharmaceutical markets hold immense potential, thanks to growing usage of electronics-based testing equipment in these markets. In fact, per MarketsandMarkets data, test and measurement equipment market is projected to be $32.3 billion by 2024 at a CAGR of 3.9% from the estimated valuation of approximately $25.7 billion in 2018.

- ▲ Keysight is gaining from strong industry wide growth. The company is witnessing solid adoption of its electronic design and test solutions. Strong demand for its solutions has been a key catalyst behind robust top-line growth. The company boasts a solid clientele comprising Alphabet, Amazon, Boeing, Facebook, MediaTek, Microsoft, Nvidia, Samsung, TSMC, and Tesla, to mention a few. Moreover, the company has a strong pipeline of new business bookings.

- ▲ Keysight boasts of a robust 5G portfolio. The company's 5G product design validation solutions ranging from Layer 1 to 7 enable telecom and semiconductor companies to accelerate their 5G initiatives. Further, Keysight's 5G network emulation solutions facilitate end-to-end processes from development to deployment, accelerating the 5G device architecture. The solutions offer cost-efficient test techniques with high flexibility and control capabilities, reducing time-to-market. Notably, over past three years, Keysight witnessed CAGR of more than 60% in order growth in 5G domain. Intensive infrastructure investments in 5G deployment and positive trial testing results hold promise. In fact, per ResearchAndMarkets data, global 5G market is expected to reach $277 billion by 2025, witnessing a CAGR of around 111% between 2019 and 2025. Based on its portfolio strength, we believe that the company is well poised to gain from this robust growth prospect.

- ▲ Apart from strength in 5G domain, Keysight's efforts in other emerging growth markets like Internet of Things (IoT) and high-speed data centers, bodes well for the top line. Particularly, management's focus on Automotive and Energy, and Aerospace and Defense domains augur well in the long haul. In fact, growth in revenues from Aerospace, Defense and Government end-market deserves a special mention. Moreover, estimated higher spending on aerospace and defense as reflected in the fiscal 2021 defense budget proposal bodes well. If approved, such a stupendous budgetary amendment will reflect massive growth prospects. The company is expected to benefit from the growing proliferation of electronic content in vehicles, momentum in space and satellite applications, and rising adoption of driver-assistance systems globally.

- ▲ The company has been active on the acquisition front. Keysight recently acquired Thales Calibration Services, a subsidiary of Thales Group. The buyout is likely to expand the company's current electrical portfolio, aiding Keysight in gaining foothold in the defense and security space. Similarly, buyouts like Ixia (January 2017), Electroservices Enterprises and Anite (August 2015), and Eagleware-Elanix (August 2005) have aided growth by expanding product portfolio at various levels and adding competence and domain expertise.

- ▲ Keysight is also expanding its business through collaborations with established sector players. Notably, the company is extending Ixia's CloudLens visibility platform capabilities, enabling it to offer access to packet data in leading cloud platforms including Amazon Web Services ("AWS"), Microsoft Azure, Google Cloud Platform, Alibaba Cloud, among others. This move is expected to augment adoption of CloudLens, which in turn favors top-line growth. Furthermore, Keysight's collaborations with the likes of Softbank, OPPO, ASUS, Motorola, Verizon Communications and Qualcomm Technologies, are enabling it to achieve 5G commercialization related milestones. Additionally, tie-ups with fabless semiconductor companies engaged in providing 5G chipsets, like UNISOC, MediaTek, among others, enhances Keysight's prospects in the 5G domain, favoring top-line growth. Moreover, the company is also part of China-based Phase I Step 3 5G trials led by IMT-2020 Promotion Group. The extended collaborations augur well for the company in the long haul.

- ▲ Management execution has been good amid the coronavirus-induced crisis scenario. As of Jul 31, 2020, Keysight had cash & cash equivalents of $1.697 billion and $450 million of further liquidity available for use under untapped revolving credit facility. As on Jul 31, 2020, the company reported long-term debt of $1.789 billion. Solid near-term liquidity position provides the company with the flexibility required to pursue any growth strategy, whether by way of acquisitions or otherwise. Moreover, cash flow from operations during the third quarter of fiscal 2020 came in at $183 million and free cash flow was $151 million. The strong cash flows are expected to help Keysight to continue shareholder-friendly initiatives of share repurchase.

Risks

- Keysight derives a significant proportion of its revenues from outside the United States (64% of total non-GAAP revenues in third-quarter fiscal 2020), subjecting the company to exchange rate volatility. Unfavorable movement in exchange rates of foreign currencies like renminbi, euro, pound sterling, Costa Rican colon, and yen related to the U.S. dollar can adversely impact results and undermine its growth potential to some extent.

- Keysight is considerably exposed particularly to the demand environment in China (19.1% of revenues in fiscal 2019), which is at present quite sluggish. Further, imposition of tariffs owing to trade war between the United States and China is anticipated to negatively impact growth prospects. The uncertainty over the trade war truce has impacted investors' confidence and is likely to remain an overhang on the company's performance.

- Moreover, the coronavirus outbreak led global supply chain disruptions and shutdown of production facilities and associated macroeconomic challenges are expected to impede Keysight's near-term growth prospects. The coronavirus crisis-induced weakness in automotive and general electronics sectors, and sluggish spending across Europe, remain major headwinds.

- Keysight's frequent acquisitions have escalated integration risks. Moreover, we note that the buyouts negatively impacted the company's balance sheet in the form of high level of goodwill and net intangible assets, which comprised of 26.9% of total assets as of Jul 31, 2020.

- Keysight is trading at premium in terms of Price/Book (P/B). Keysight currently has a trailing 12-month P/B ratio of 5.56X. This level compares unfavorably with what the industry witnessed in the prior year. Consequently, the valuation looks slightly stretched from P/B perspective.

Last Earnings Report

Keysight Q3 Earnings Beat Estimates, Revenues Down Y/Y

Quarter Ending	07/2020
Report Date	**Aug 20, 2020**
Sales Surprise	**10.05%**
EPS Surprise	**41.67%**
Quarterly EPS	**1.19**
Annual EPS (TTM)	**4.56**

Keysight Technologies, Inc. reported third-quarter fiscal 2020 non-GAAP earnings of $1.19 per share, outpacing the Zacks Consensus Estimate by 41.7%. However, the bottom line declined 4.8% from the year-ago quarter.

Non-GAAP revenues declined 7% year over year to $1.011 billion. Non-GAAP core revenues (excluding the impact of currency and revenues from acquisitions in a year's time) declined 7% on a year-over-year basis to $1.007 billion. Moreover, GAAP revenues slumped 7% from the prior-year quarter to $1.011 billion. The Zacks Consensus Estimate for revenues was pegged at $919 million.

The coronavirus crisis-induced weakness in automotive and general electronics sectors, and sluggish spending across Europe, primarily led to year-over-year decline.

Nevertheless, improving supply chain management, uptick in 5G test solutions on accelerated 5G deployment, and demand recovery across Asia Pacific led to better-than-expected performance.

Also, robust growth in Software and services revenues (represented more than 30% of total revenues) are providing buoyancy to Keysight's business model, bolstering recurring revenue growth and leading to expansion in gross margins.

During the reported quarter, Keysight concluded the acquisition of Eggplant from The Carlyle Group with an aim to boost software test automation capabilities.

Quarter in Detail

Orders fell 4% on a year-over-year basis to $1.067 billion during the reported quarter. Notably, core orders declined 4%.

Beginning first-quarter fiscal 2020, the company's financial reporting comprises two segments — Electronic Industrial Solutions Group (EISG) and Communications Solutions Group (CSG). Ixia Solutions Group (ISG) segment reporting has been aligned with the CGS segment.

CSG includes commercial communications (CC) and aerospace, defense & government (ADG) end markets. CSG revenues of $760 million declined 4% on year-over-year and core basis. CSG contributed 75% to total non-GAAP revenues in the fiscal third quarter.

CC revenues of $559 million were up 2% year over year due to robust 5G order growth primarily fueled by 5G investments despite coronavirus crisis-induced supply chain disruption.

5G commercial deployment led to improvement in orders from 5G device and design developers. Moreover, expansion of investments in O-RAN (or Open Radio Access Network) and virtualization technologies contributed to recovery.

ADG revenues of $201 million were down 17% year over year, due to coronavirus pandemic induced lower spending in aerospace, defense and government across Europe and Asia. However, higher government spending and momentum in investments aimed at technology modernization across the United States was a positive.

EISG revenues declined 15% to $251 million. Challenges pertaining to coronavirus crisis induced softness in automotive and general electronics sector weighed on revenues. However, management noted momentum in first-to-market solutions, and strong demand for the company's solutions in process node technology testing, in semiconductor end-market. EISG contributed 25% to total non-GAAP revenues in third-quarter fiscal 2020.

Markedly, solid momentum in semiconductor measurement solutions was driven by growing clout of high-speed networking, smartphone processors, and high-performance data center applications.

Revenue Breakup by Geography

Non-GAAP revenues from Americas were $365 million, down 18% (down 18% on a core basis) year over year on sluggishness in CC and EISG domains, on account of COVID-19 led disruptions. Robust order demand in ADG vertical failed to mitigate the decline.

Non-GAAP revenues from Europe of $159 million declined 13% (down 14% on a core basis) on a year-over-year basis. Solid order demand in EISG vertical could not offset coronavirus crisis induced sluggishness in ADG and CC domains.

Non-GAAP revenues from Asia Pacific of $487 million improved 5% (up 5% on a core basis) on a year-over-year basis. Strength in order demand across CC and EISG offset the softness in ADG domain.

Americas, Europe and Asia Pacific contributed 36%, 16% and 48%, respectively, to total non-GAAP revenues in the reported quarter.

Margin Highlights

Non-GAAP gross margin expanded 110 basis points (bps) to 64.5% during the reported quarter. CSG gross margin of 65.2% expanded 110 bps, while EISG's gross margin of 62.4% expanded 90 bps on a year-over-year basis.

Non-GAAP operating expenses fell 6.5% to $388 million. As a percentage of revenues, the figure expanded 30 bps to 38.4%.

Non-GAAP operating margin expanded 90 bps to 26.1%.

Balance Sheet & Cash Flow

As of Jul 31, 2020, Keysight had cash & cash equivalents of $1.697 billion, compared with $1.841 billion as of Apr 30, 2020. The cash balance reflects impact of $319 million of expenses pertaining to acquisition of Eggplant. At the end of the quarter, the company also had $450 million of further liquidity available for use under untapped revolving credit facility.

As on Jul 31, 2020, the company reported long-term debt of $1.789 billion, compared with $1.788 billion as of Apr 30, 2020.

Cash flow from operations during the quarter was $183 million compared with $298 million reported in the prior quarter.

Free cash flow was $151 million compared with the previous quarter's $275 million.

During the reported quarter, the company did not repurchase any shares.

Guidance

Keysight is improving production and services operations, and anticipates returning to 100% capacity by the end of the fiscal fourth quarter despite persistent supply chain challenges.

For fourth-quarter fiscal 2020, the company expects revenues to be $1.17-$1.19 billion. The guidance includes impact from ongoing coronavirus crisis. Non-GAAP earnings per share are projected to be $1.42-$1.48.

Recent News

On Sep 1, Keysight announced that its CX3300 Device Current Waveform Analyzer along with anomalous waveform analytics (AWA) software has been implemented by Waseda University with an aim to conduct research on hardware Trojan detection technology. Notably, machine learning (ML) capabilities of the analytics software accelerates detection of security threats hidden in electronic circuits.

On Aug 27, Keysight announced that its 5G device test solutions have been selected by Taiwan-based leading original design manufacturer (ODM), Compal, in a bid to validate 5G devices in form factors across 3GPP-compliant frequency band for implementation across both standalone (SA) and non-standalone (NSA) modes.

On Aug 26, Keysight announced that its 5G device test solutions have been adopted by Jabil for 5G product validation in manufacturing and design.

On Aug 19, Keysight announced that its connected car test solutions have been implemented by China FAW Group Co, Ltd (or FAW).

On Aug 18, Keysight announced that its 5G device test solutions have been adopted by Korea-based Telecommunications Technology Association (TTA) to provide radio resource management (RRM) and 5G new radio (NR) radio frequency (RF) conformance validation services.

On Aug 12, Keysight announced that Baicells has adopted its 5G User Equipment Emulation (UEE) solutions in a bid to validate the performance of base stations.

On Jul 27, Keysight announced collaboration with IPG Automotive and Nordsys in a bid to codevelop and accelerate design of a new modular test platform aimed at accelerating the validation process of advanced driver-assistance systems (ADAS) and related functions for autonomous driving.

On Jul 22, Keysight announced that its 5G user equipment emulation (UEE) solutions have been adopted by Mavenir to facilitate development of advanced software for 5G radio access network (RAN) and innovative 5G core (5GC) platforms.

On Jul 14, Keysight expanded its Scienlab Charging Discovery System (CDS) portfolio with two latest certification and test solutions for charging interfaces within an electric vehicle (EV) or electric vehicle supply equipment (EVSE). The first solution offers high-power charging, while the second is an EMC optimized version that aids AC or DC charging.

On Jul 9, Keysight announced that its conformance and carrier acceptance test solutions have been adopted by SGS to comply with 5G new radio (NR) certification criteria set by 3GPP and mobile operators in the United States and Asia-Pacific (APAC).

On Jul 7, Keysight rolled out a new test solution in a bid to aid 5G device vendors optimize the performance of 5G devices, which utilize MIMO and massive MIMO technology, and increase data throughput and enhance network capacity.

On Jun 29, Keysight announced that its 5G test platforms were selected by Arcadyan to validate consumer premises equipment (CPE) for fixed wireless access applications (FWA).

On Jun 25, Keysight concluded the acquisition of Eggplant from The Carlyle Group with an aim to boost software test automation capabilities. Notably, the deal is worth $330 million.

On Jun 18, Keysight launched a new family of photovoltaic (PV) array simulators that are the first to deliver 2000 V and 20 kW of power in a 3U format. The simulators enable engineers to maximize solar power conversion.

On Jun 16, Keysight announced the launch of two new bidirectional, regenerative DC power supplies that provide high power and voltage for battery and electronics testing in hybrid-electric/electric vehicles (HEV/EV).

On Jun 10, Keysight announced that its 5G and 4G LTE test platforms have been selected by Gemtek — a Taiwan-based original design manufacturer (ODM) of wireless broadband communications equipment — to validate data rate performance of mobile devices and consumer premises equipment (CPE).

On Jun 4, Keysight announced that its 5G test platforms have been selected by Sporton, a Taiwan-based test laboratory, to certify 5G devices in compliance with standards specified by 3GPP, and other regulatory measures.

On Jun 2, Keysight announced that its end-to-end 5G emulation solutions have been adopted by CETECOM to comply with 5G new radio (NR) certification criteria per the latest 3GPP standards.

On May 28, Keysight announced that its 5G verification solutions have been selected by Audix, a Taiwan-based test laboratory, to authenticate safe levels of radio frequency (RF) and microwave emissions from wireless devices.

On May 20, Keysight announced that its 5G device testing solutions have been selected by China Unicom to ensure 5G smartphones and consumer premises equipment (CPE) comply to the latest 5G new radio (NR) standards.

Valuation

Keysight's shares are down 2.8% in the year-to-date period but up 5.2% over the trailing 12-month period. Stocks in the Zacks sub-industry are down 3.1%, while the same in the Zacks Computer & Technology sector are up 16.7% in the year-to-date period. Over the past year, the Zacks sub-industry and the sector are up 15.8% and 32.7%, respectively.

The S&P 500 index is up 3.8% in the year-to-date period and 15.3% in the past year.

The stock is currently trading at 19.08X forward 12-month earnings compared with 25.62X for the Zacks sub-industry, 27.97X for the Zacks sector and 23.2X for the S&P 500 index.

In the past five years, the stock has traded as high as 24.71X and as low as 8.96X, with a five-year median of 17.94X. Our Outperform recommendation indicates that the stock will perform better than the market. Our $114 price target reflects 21.81X forward 12-month earnings.

The table below shows summary valuation data for KEYS

Valuation Multiples - KEYS

		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	19.08	25.62	27.97	23.2
	5-Year High	24.71	31.58	27.97	23.2
	5-Year Low	8.96	12.94	16.72	15.25
	5-Year Median	17.94	23.42	19.7	17.6
P/S F12M	Current	4.13	3.35	4.34	3.93
	5-Year High	4.73	3.71	4.34	3.93
	5-Year Low	1.19	0.98	2.32	2.53
	5-Year Median	2.49	1.71	3.15	3.07
EV/Sales TTM	Current	4.55	3.43	4.56	3.25
	5-Year High	4.81	3.58	5.02	3.44
	5-Year Low	1.44	1.1	2.56	2.11
	5-Year Median	3	2.16	3.64	2.86

As of 09/01/2020

Industry Analysis **Zacks Industry Rank:** Top 49% (123 out of 251)

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Garmin Ltd. **(GRMN)**	Outperform	2
Lam Research Corporation **(LRCX)**	Outperform	1
AAON, Inc. **(AAON)**	Neutral	4
ASML Holding N.V. **(ASML)**	Neutral	3
Amtech Systems, Inc. **(ASYS)**	Neutral	3
Cadence Design Systems, Inc. **(CDNS)**	Neutral	2
Nova Measuring Instruments Ltd. **(NVMI)**	Neutral	3
Canon, Inc. **(CAJ)**	Underperform	5

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

Industry Comparison Industry: Electronics - Measuring Instruments

	KEYS	X Industry	S&P 500	ASML	ASYS	CAJ
				Industry Peers		
Zacks Recommendation (Long Term)	Outperform	-	-	Neutral	Neutral	Underperform
Zacks Rank (Short Term)	1	-	-	3	3	5
VGM Score	D	-	-	C	D	B
Market Cap	18.66 B	70.22 M	23.95 B	162.42 B	82.04 M	17.53 B
# of Analysts	6	1.5	14	3	2	3
Dividend Yield	0.00%	0.00%	1.61%	0.64%	0.00%	4.47%
Value Score	F	-	-	D	C	A
Cash/Price	0.09	0.15	0.07	0.03	0.59	0.25
EV/EBITDA	17.00	4.94	13.32	44.83	6.11	3.41
PEG F1	2.15	3.59	3.05	1.97	NA	29.96
P/B	5.56	3.55	3.21	11.61	1.00	0.69
P/CF	16.47	17.69	12.92	47.69	14.61	5.28
P/E F1	21.54	25.16	21.84	44.92	NA	29.96
P/S TTM	4.53	1.18	2.52	11.48	1.16	0.59
Earnings Yield	4.64%	3.57%	4.39%	2.23%	-9.08%	3.34%
Debt/Equity	0.53	0.10	0.70	0.36	0.12	0.03
Cash Flow ($/share)	6.05	0.68	6.93	8.11	0.40	3.12
Growth Score	C	-	-	B	D	C
Historical EPS Growth (3-5 Years)	18.31%	18.62%	10.41%	23.00%	-46.92%	-7.30%
Projected EPS Growth (F1/F0)	-1.91%	-1.55%	-4.75%	25.01%	-289.29%	-48.11%
Current Cash Flow Growth	-28.59%	-24.28%	5.22%	-4.32%	-45.26%	-27.71%
Historical Cash Flow Growth (3-5 Years)	15.69%	17.64%	8.49%	14.58%	20.49%	-6.35%
Current Ratio	3.34	3.11	1.35	2.91	8.21	1.75
Debt/Capital	34.78%	9.35%	42.92%	26.70%	10.82%	2.85%
Net Margin	14.68%	0.75%	10.25%	22.70%	-18.28%	2.18%
Return on Equity	25.02%	4.52%	14.66%	23.21%	1.58%	2.51%
Sales/Assets	0.60	0.88	0.50	0.56	0.62	0.68
Projected Sales Growth (F1/F0)	-2.77%	0.00%	-1.40%	15.43%	-29.43%	-7.34%
Momentum Score	A	-	-	C	F	C
Daily Price Change	1.24%	1.27%	0.29%	3.40%	2.82%	-3.96%
1-Week Price Change	1.51%	1.01%	2.59%	1.98%	7.74%	-0.40%
4-Week Price Change	-0.56%	-2.58%	3.53%	4.47%	11.45%	-2.20%
12-Week Price Change	-3.27%	4.87%	2.09%	10.76%	11.24%	-23.60%
52-Week Price Change	5.22%	17.37%	4.31%	75.85%	9.98%	-36.32%
20-Day Average Volume (Shares)	1,999,674	51,952	1,816,754	517,831	72,627	496,698
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	9.90%	8.07%	0.20%	0.00%	-200.00%	-46.09%
EPS F1 Estimate 12-Week Change	9.90%	9.59%	3.86%	18.53%	-200.00%	-64.43%
EPS Q1 Estimate Monthly Change	8.44%	6.25%	0.00%	0.00%	-270.00%	0.00%

Source: Zacks Investment Research

Zacks Style Scores

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

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

Value Score	F
Growth Score	C
Momentum Score	A
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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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 mediumterm 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 mostrecent 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.