November 1, 2018

Zacks Small-Cap Research

Sponsored – Impartial - Comprehensive

Lisa Thompson
312-265-9517
lthompson@zacks.com

scr.zacks.com **10 S. Riverside Plaza, Chicago, IL 60606**

O2Micro International Ltd (OIIM-NASDAQ)

OIIM: Revenue Growth Accelerates, But Profitability is Still Elusive

Using an industry average value to trailing 12-month sales of 5.0 times and OIIM's $61.3 m trailing 12-month revenue, we would calculate an enterprise value of $307, a market cap of $348 m and a price of **$13.37 per share**, if the company could reach breakeven.

OUTLOOK

O_2Micro International is a fabless semiconductor firm that designs, develops and markets high performance integrated circuits primarily for power management and battery management for TV backlighting, LED lighting, and portable tools and appliances, and smartphones. It has struggled to reach profitability and cash flow breakeven. The company trades at an enterprise value of $2.2 million, well below the value of its non-cash assets.

Current Price (10/31/18)	$1.64
Valuation	**$13.37**

SUMMARY DATA

52-Week High	**$2.37**
52-Week Low	**$1.33**
One-Year Return (%)	**-9.9**
Beta	**0.6**
Average Daily Volume (sh)	**54,250**
Shares Outstanding (mil)	**26**
Market Capitalization ($mil)	**$42**
Short Interest Ratio (days)	**1.0**
Institutional Ownership (%)	**41**
Insider Ownership (%)	**10.6**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**-4.4**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/M**
P/E using 2018 Estimate	**N/M**
P/E using 2019 Estimate	**N/M**

Risk Level	**Above Average**
Type of Stock	**Small-Value**
Industry	**Elec Comp-Semis**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2016	13.0 A	13.2 A	14.4 A	15.9 A	57 A
2017	15.0 A	14.5 A	15.5 A	15.2 A	60 A
2018	14.1 A	15.2 A	16.8 A	16.8 E	63 E
2019					68 E

Earnings Per Share
(non-GAAP EPS before non-recurring items)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2016	-$0.08 A	-$0.06 A	-$0.04 A	$0.01 A	-$0.16 A
2017	-$0.04 A	-$0.04 A	-$0.04 A	-$0.06 A	-$0.18 A
2018	-$0.09 A	-$0.05 A	-$0.05 A	-$0.04 E	-$0.23 E
2019					-$0.12 E

Zacks Projected EPS Growth Rate - Next 5 Years % **8**

© Copyright 2018, Zacks Investment Research. All Rights Reserved.

WHAT'S NEW

Q3 As Expected; Q4 Should Show Slight Improvement

O2Micro reported Q3 2018 revenues of $16.8 million, up 10.6% sequentially, and 8.3% year over year and within the range of guidance of up 6-14% sequentially. Guidance for revenue for the fourth quarter of 2018 is sequentially flat plus or minus 5% from Q3 2018. The midpoint in revenue guidance would result in revenues being up 11% from a year ago. Management believes that its business is no longer seasonal as it has diversified its product line away from TV dependence. If Q1 2019 is then sequentially flat with Q4 2018, that would show year over year growth of 19%, or four quarters in a row of accelerating revenue growth.

The nine months of 2018 showed 2.5% revenue growth over the first nine months of 2017.

Gross margin was 50.4%, down sequentially from 52.1%, and year over year from 50.3%, due to product mix.

As expected, the company had a higher level of spending for R&D in the quarter due to a push to complete new battery management products. It spent $5.2 million in the quarter versus $4.7 million last quarter and in the year ago quarter. In Q4 the company expects R&D costs to go back down to previous levels.

Operating expenses in the quarter were $10.2 million versus $9.5 million last year, and $9.7 million in Q2 2018. SG&A spending was virtually flat with last year and last quarter.

Operating losses in Q3 were the same as last year at $1.7 million despite higher revenues and higher gross margin due entirely to increased spending.

In the quarter the company had an unrealized loss of $1.7 million on a long-term investment. This unrealized loss was from ownership of the stock of Excelliance MOS Corp. (5299.TWO). From June 30 2018 to September 30, 2018, the stock declined 7.6% or ten points. Since September 30, 2018 the stock has declined another 40 points. If the stock stays at that price we expect the unrealized loss to be much more than that in Q4.

The company reported GAAP net loss of $3.5 million versus a loss of $1.4 million last year. This yielded fully diluted GAAP loss per share of $0.13 versus a loss of $0.05 a year ago.

Non-GAAP net loss was a loss of $1.3 million, versus a loss of $1.1 million last year. The company reported a **non-GAAP EPS loss of $0.05, versus a loss of $0.04 last year**.

On September 30, 2018, the company had $41.2 million in cash and equivalents (or $1.58 per ADS), up $375,000 sequentially. During the quarter EBITDA was a negative $965,000. We expect that loss to go down based on reduced spending on R&D matched with similar revenues as in the Q3 quarter.

The company believes it can be EBITDA positive between $17 million to $19 million in quarterly revenues, and profitable between $19 million to $21 million in revenues.

Business Units

I**ntelligent lighting** saw a significant increase of backlighting orders in Q3 and increasing business projections for 2019. The shortage of MOFSET has spurred the adoption of its line of backlighting products with integrated MOSFET. Also higher-end TVs and monitors are adding more highly integrated

application-specific devices, including O2Micro's local dimming products. The market for televisions continues to improve, especially at the high end. According to Futuresource Consulting, 2018 will be the year 4K UHD moves mainstream and will account for nearly 50% of all TVs shipped worldwide by year-end. It believes that by 2022, the installed base of 4K UHD TVs will be three times larger than today, achieving 37% global household penetration. Overall, the company expects the Intelligent Lighting segment to remain stable with modest growth.

Battery management is the company's second largest sector and fastest growing as the industry continues to move to lithium ion batteries. Customers selling products such as e-bikes, e-vehicles, and vacuums and UPS power supplies are making the business less cyclical than when most of the product went to power tools. The company is providing the industry with more cost effective products, as well as more complex patent protected products for high-end solutions. More customers are being attracted to its proprietary cell balancing methodology.

Power Products continue to expand its product line, increase its design wins, and serve a broader array of customers. O2Micro's new power products have begun to ramp into production through Q3 and Q4, however legacy products suffered a shortfall as there were serious shortages to process the products at several of its customers. The company had further design wins in smartphones and tablets for its new charger IC, on-the-go charger booster, and accurate gas gauge. The company expects opportunities for new business to increase after Apple announced a deal with Dialog Semiconductor as its customers seek and alternative to an Apple controlled supplier.

VALUATION

Company Has Significant Upside If It Can End Cash Burn

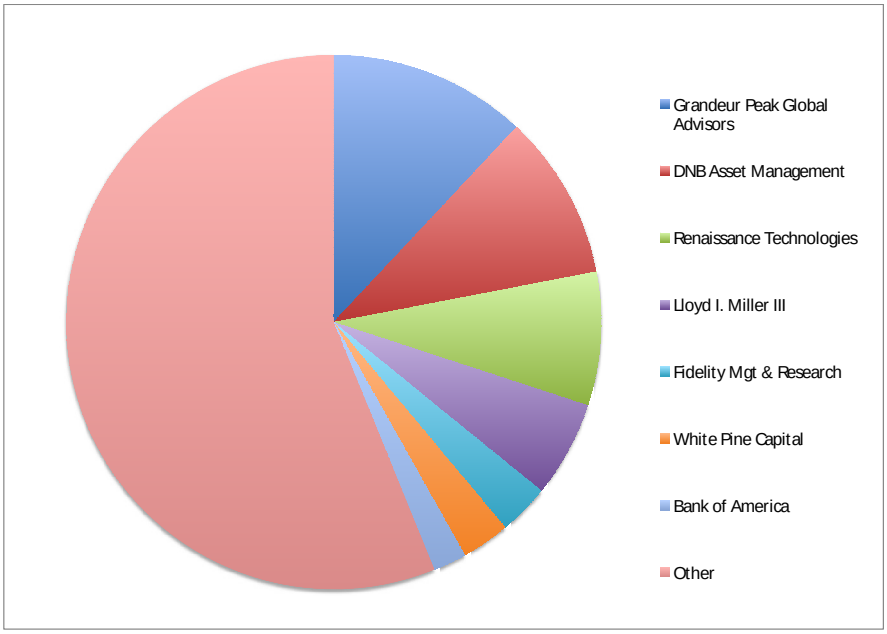
The company trades at an **enterprise value of $2 million**. Last year the company looked as if it had turned the corner and was approaching profitability but panel shortages for TVs nixed that progress and the valuation of the company slipped. Now it looks like these shortages have ended and business has been mostly normalized. At the end of Q3 2018, the company had $41.2 million (or $1.58 per ADS) in cash and equivalents, no debt, and valuable real estate in China and California. In California it owns a 37,180 square foot building where it has its USA operations, which was bought for $4.6 million in May 2004 and believe it is now worth at least $7 million. Plus it also owns other real estate in China. Also on the balance sheet are long-term investments in other companies, including approximately 3.4 million shares of stock in Excelliance MOS. The company has a very high liquidation as well as acquisition value. Activists had tried to encourage a transaction with an acquirer, but the company has no interest in a sale and due to restrictions, it is difficult to force one.

In May, Microchip Technology bought Microsemi for $10.15 billion, which was a valuation of 5.5 times its trailing twelve-month revenues of $1.845 billion. Two other comparable companies we had been using, Intersil and Linear Technology, were acquired at very high valuations. Intersil was acquired by Renesas for $3.2 billion at a valuation of 5.9xs the company's trailing $542.1 million in revenue. Analog Devices acquired linear Technology for $14.8 billion. This was 9.9 times its trailing four quarters of revenue of $1.5 billion.

Were we to use the average enterprise value to trailing twelve-month sales of 5.0 times and apply it to OIIM's trailing 12-month $61.3 million revenues, we would calculate an enterprise value of $307 million. Adding to it $41.2 million in cash gives us a market cap of $348 million or **$13.37 per share**. We believe that once the company shows sustainable revenue growth and cash breakeven, the market should afford it a valuation closer to this price.

	Competitors	EV	TTM Sales	EV/Sales
Monolithic Power Systems	**MPWR**	4,550	527	8.6
Cree Inc.	**CREE**	3,640	1,540	2.4
Microchip Technology	**MCHP**	26,530	4,220	6.3
Maxim	**MXIM**	13,060	2,480	5.3
Texas Instruments	**TXN**	97,400	15,670	6.2
Cirrus Logic	**CRUS**	2,010	1,470	1.4
	Average			5.0

OWNERSHIP



RISKS

- O_2Micro has high exposure to the global demand for TVs, which can be hurt in recessions. It is depending on free dimming and high power LED lighting, 4K and 8K and other high end TVs, battery management, and successful penetration of and volume sales to the smartphone market to give it meaningful revenue and margin growth.

- It may be difficult for the company to capture market share in smartphones and tablets as a new entrant in an established field competing primarily with giant Texas Instruments and other larger firms.

- The firm is currently not at GAAP breakeven, is still cash flow negative, and has recently been unable to grow revenues faster than low single digits.

- Given its large number of patents, litigation risk is a possibility as the company enforces its patents.

- It also has geopolitical risk as countries move to adjust tariffs for various products.

INCOME STATEMENT

	March Q1 17	June Q2 17	Sept Q3 17	Dec Q4 17	March Q1 18	June Q2 18	Sept Q3 18	Dec Q4 18E	2016	2017	2018E	2019E
REVENUE												
Net Revenue	15.0	14.5	15.5	15.2	14.1	15.2	16.8	16.8	56.6	60.2	62.9	68.0
Yr-to-yr Gr.	15%	10%	7%	-4%	-6%	5%	8%	11%	3%	6%	5%	8%
OPERATING EXPENSES												
Cost of goods sold	7.1	7.1	7.7	7.5	6.9	7.3	8.3	8.4	27.3	29.4	30.9	33.3
Gross Margin	7.9	7.4	7.8	7.7	7.2	7.9	8.5	8.4	29.2	30.8	32.0	34.7
% of Sales	52.7%	50.9%	50.3%	50.5%	51.2%	52.1%	50.5%	50.0%	51.7%	51.1%	50.9%	51.0%
R&D	4.1	4.5	4.7	4.8	4.8	4.7	5.2	4.8	15.6	18.0	19.5	19.0
SG&A	5.1	4.4	4.9	4.7	5.0	5.0	4.9	5.0	19.5	19.0	19.9	20.0
One-time expenses & Adj.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	0.0
Tot Operating Exp.	9.1	8.9	9.5	9.4	9.8	9.7	10.2	9.8	35.1	37.0	39.4	39.0
Operating Income	(1.2)	(1.6)	(1.7)	(1.8)	(2.5)	(1.8)	(1.7)	(1.3)	(5.9)	(6.2)	(7.4)	(4.3)
Interest income	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.3
Unrealized fair value on LT Investment	0.0	0.0	0.0	0.0	9.8	3.1	(1.7)	(6.7)	0.0	0.0	4.5	0.0
Foreign exchange loss	(0.2)	0.1	0.3	(0.0)	(0.2)	0.2	0.0	0.0	0.1	0.1	0.0	0.0
Gain on sale of real estate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
Other (rent) - net	0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.9	0.7	0.6	0.5
Total other Income	0.0	0.4	0.6	0.2	10.0	3.6	(1.5)	(6.5)	3.9	1.1	5.5	0.8
Pretax Income	(1.2)	(1.2)	(1.1)	(1.6)	7.5	1.7	(3.2)	(7.9)	(1.9)	(5.1)	(1.9)	(3.5)
Pretax margin	-8.3%	-8.3%	-7.4%	-10.2%	52.8%	11.5%	-18.9%	-46.8%	-3.4%	-8.5%	-2.9%	-5.1%
Taxes	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	1.1	1.0	1.1	1.1
Tax Rate	-18.0%	-19.1%	-20.0%	-21.2%	3.6%	15.2%	-8.9%	-3.6%	-54.9%	-19.7%	-59.0%	-32.4%
GAAP Net Income	(1.5)	(1.4)	(1.4)	(1.9)	7.2	1.5	(3.5)	(8.2)	(3.0)	(6.1)	(2.9)	(4.6)
Non-GAAP Net Income	(1.0)	(1.1)	(1.0)	(1.5)	(2.2)	(1.3)	(1.4)	(1.1)	(4.4)	(4.6)	(6.0)	(3.0)
GAAP EPS-Basic	($0.06)	($0.06)	($0.05)	($0.07)	$0.28	$0.06	($0.13)	($0.31)	($0.12)	($0.24)	($0.11)	($0.18)
GAAP EPS-Fully dil.	($0.06)	($0.06)	($0.05)	($0.07)	$0.27	$0.06	($0.13)	($0.31)	($0.12)	($0.24)	($0.11)	($0.18)
Non-GAAP	**($0.04)**	**($0.04)**	**($0.04)**	**($0.06)**	**($0.08)**	**($0.05)**	**($0.05)**	**($0.04)**	**($0.16)**	**($0.18)**	**($0.23)**	**($0.12)**

BALANCE SHEET

	Sept 30, 2018	June 30, 2018	Sep-June % Change	Sept 30, 2017	Yr-to-Yr % Change
CURRENT ASSETS					
Cash and cash equivalents	$33,856	$23,576	43.6%	$25,176	34.5%
Restricted cash	34	34	0.0%	34	0.0%
Short-term investments	7,331	17,236	-57.5%	21,000	-65.1%
Accounts receivable, net	11,291	11,313	-0.2%	8,966	25.9%
Inventories	9,960	9,990	-0.3%	10,539	-5.5%
Prepaid expenses and other current assets	2,326	1,492	55.9%	1,382	68.3%
Total current assets	**64,798**	**63,641**	1.8%	**67,097**	-3.4%
LONG-TERM INVESTMENTS	13,104	15,967	-17.9%	4,245	208.7%
PROPERTY AND EQUIPMENT, NET	13,703	13,545	1.2%	13,880	-1.3%
OTHER ASSETS	2,132	2,164	-1.5%	2,552	-16.5%
Total other assets	28,939	31,676	-8.6%	20,677	40.0%
TOTAL ASSETS	93,737	95,317	-1.7%	87,774	6.8%
CURRENT LIABILITIES					
Notes and accounts payable	5,138	4,339	18.4%	4,031	27.5%
Income tax payable	435	271	60.5%	371	17.3%
Accrued expenses and other current liabilities	4,654	3,816	22.0%	4,346	7.1%
Total current liabilities	10,227	8,426	21.4%	8,748	16.9%
OTHER LONG-TERM LIABILITIES					
Accrued pension liabilities	333	338	-1.5%	289	15.2%
Deferred tax liabilities	1,099	1,092	0.6%	826	33.1%
Other liabilities	86	85	1.2%	86	0.0%
Total long-term liabilities	1,518	1,515	0.2%	1,201	26.4%
Total liabilities	11,745	9,941	18.1%	9,949	18.1%
SHAREHOLDERS EQUITY					
Ordinary shares	33	33	0.0%	33	0.0%
Additional paid-in capital	142,794	142,451	0.2%	142,621	0.1%
Retained earnings (accumulated deficits)	(42,780)	(39,293)	8.9%	(45,638)	-6.3%
Accumulated other comprehensive income	4,759	5,048	-5.7%	5,081	-6.3%
Treasury stock	(22,814)	(22,863)	-0.2%	(24,272)	-6.0%
Total shareholders equity	81,992	85,376	-4.0%	77,825	5.4%
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	93,737	95,317	-1.7%	87,774	6.8%
Cash and equivalents	$41,187	$40,812	0.9%	$46,176	-10.8%
Change in cash and equivalents	375	(5,309)	-107.1%	(1,314)	-128.5%
Market value	43,425,560	48,958,400	-11.3%	51,436,000	-15.6%
Enterprise value	2,204,560	8,112,400	-72.8%	5,226,000	-57.8%
DSO	60	57	5.3%	52	15.4%
Inventory Days	108	121	-10.7%	120	-10.0%

ANNUAL CASH FLOW

	12 Months Ended December 31,				
	2017	2016	2015	2014	2013
OPERATING ACTIVITIES					
Net loss	$ (6,145)	$ (2,986)	$ (21,095)	$ (15,057)	$ (19,099)
Adjustments to reconcile net loss to net cash used in operating activities:					
Depreciation and amortization	1,667	1,682	2,446	3,718	4,685
Stock-based compensation	1,589	1,606	1,912	2,120	2,609
Loss on asset write-off	0	0	0	82	
Inventory write-downs	642	1,527	913	1,538	900
Gain on sale of long-term investments	(20)	(948)	(8)	(436)	
Impairment loss on long-term investments	0	0	4,953	83	
Gain on disposal of property & equipment, net	(137)	(1,726)	(738)	(428)	(106)
Deferred income taxes	40	(1,231)	1,989	78	41
Other, net	0	0	0	(36)	(1)
Changes in operating assets and liabilities:					
Accounts receivable, net	(1,979)	(2,008)	1,592	3,235	(1,251)
Inventories	(697)	(1,140)	(1,933)	(2,963)	(200)
Prepaid expenses and other current assets	(139)	(6)	191	130	510
Deferred charges	(553)	(375)	(416)	(985)	(1,366)
Notes and accounts payable	(1,869)	996	1,202	(2,038)	413
Income tax payable	161	(2,065)	1,595	412	(124)
Accrued expenses and other current liabilities	186	(1,064)	(1,039)	577	(1,083)
Accrued pension liabilities	13	(4)	(11)	(12)	(25)
Other liabilities	3	(56)	(168)	(346)	(8,893)
Net cash used in operating activities	(7,238)	(7,798)	(8,615)	(10,328)	(22,990)
Acquisition of:					
Short-term investments	(8,505)	(28,797)	(7,128)	(22,346)	(15,496)
Long-term investments	0	0			(250)
Property and equipment	(704)	(673)	(724)	(1,004)	(743)
Decrease (increase) in:					
Restricted assets	0	0			10,000
Restricted cash	0	0	132	(1)	1
Other assets	22	40	82	116	108
Proceeds from:					
Sale of short-term investments	12,635	18,331	16,755	34,333	52,131
Sale of long-term investments	0	5,982	167	1,304	0
Return of capital from LT investment	1,163	17	370	0	
Disposal of property and equipment	145	3,837	3,205	1,982	166
Net cash provided by investing activities	4,756	(1,263)	12,859	14,384	45,917
FINANCING ACTIVITIES					
Acquisition of treasury stock	(708)	(619)	(3,233)	(4,965)	(8,279)
Proceeds from:					
Exercise of stock options	29	2	31	44	25
Issuance of ordinary shares under the Employee Stock Purchase Plan	84	73	180	258	335
Net cash used in financing activities	(595)	(544)	(3,022)	(4,663)	(7,919)
EFFECTS OF CHANGES IN FOREIGN EXCHANGE RATE	265	(262)	(1,092)	(617)	(613)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(2,812)	(9,867)	130	(1,224)	14,395
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR	31,332	41,199	41,069	42,293	27,898
CASH AND CASH EQUIVALENTS AT END OF THE YEAR	28,520	31,332	41,199	41,069	42,293
SUPPLEMENTAL DISCLOSURES OF CASH FLOWS					
Cash paid for tax	$ 818	$ 4,349	$ 1,068	$ 697	$ 1,064
Cash Flow	(2,364)	(2,076)	(9,628)	(8,338)	(10,971)
Free cash flow	(3,068)	(2,749)	(10,352)	(9,342)	(11,714)

HISTORICAL STOCK PRICE



DISCLOSURES

The following disclosures relate to relationships between Zacks Small-Cap Research ("Zacks SCR"), a division of Zacks Investment Research ("ZIR"), and the issuers covered by the Zacks SCR Analysts in the Small-Cap Universe.

ANALYST DISCLOSURES

I, Lisa Thompson, hereby certify that the view expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report. I believe the information used for the creation of this report has been obtained from sources I considered reliable, but I can neither guarantee nor represent the completeness or accuracy of the information herewith. Such information and the opinions expressed are subject to change without notice.

INVESTMENT BANKING AND FEES FOR SERVICES

Zacks SCR does not provide investment banking services nor has it received compensation for investment banking services from the issuers of the securities covered in this report or article.
Zacks SCR has received compensation from the issuer directly or from an investor relations consulting firm engaged by the issuer for providing non-investment banking services to this issuer and expects to receive additional compensation for such non-investment banking services provided to this issuer. The non-investment banking services provided to the issuer includes the preparation of this report, investor relations services, investment software, financial database analysis, organization of non-deal road shows, and attendance fees for conferences sponsored or co-sponsored by Zacks SCR. The fees for these services vary on a per-client basis and are subject to the number and types of services contracted. Fees typically range between ten thousand and fifty thousand dollars per annum. Details of fees paid by this issuer are available upon request.

POLICY DISCLOSURES

This report provides an objective valuation of the issuer today and expected valuations of the issuer at various future dates based on applying standard investment valuation methodologies to the revenue and EPS forecasts made by the SCR Analyst of the issuer's business.
SCR Analysts are restricted from holding or trading securities in the issuers that they cover. ZIR and Zacks SCR do not make a market in any security followed by SCR nor do they act as dealers in these securities. Each Zacks SCR Analyst has full discretion over the valuation of the issuer included in this report based on his or her own due diligence. SCR Analysts are paid based on the number of companies they cover. SCR Analyst compensation is not, was not, nor will be, directly or indirectly, related to the specific valuations or views expressed in any report or article.

ADDITIONAL INFORMATION

Additional information is available upon request. Zacks SCR reports and articles are based on data obtained from sources that it believes to be reliable, but are not guaranteed to be accurate nor do they purport to be complete. Because of individual financial or investment objectives and/or financial circumstances, this report or article should not be construed as advice designed to meet the particular investment needs of any investor. Investing involves risk. Any opinions expressed by Zacks SCR Analysts are subject to change without notice. Reports or articles or tweets are not to be construed as an offer or solicitation of an offer to buy or sell the securities herein mentioned.