

# KEMET CORP KEM

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by

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			2019	2020
Price:	21.00	EPS	0	0
Shares Out. (in M):	58	P/E	0	0
Market Cap (in \$M):	1,215	P/FCF	10	0
Net Debt (in \$M):	95	EBIT	0	0
TEV (\$):	1,300	TEV/EBIT	0	0

## Description

### Kemet Corporation (KEM)

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### Summary

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We focus on smaller companies with "Ft. Knox" balance sheets and large & sustainable free cash flow yields and we are typically seeking a double-digit FCF yield or higher on an unleveraged basis. The objective is for the sustainable FCF to eventually drive up the share price to a more reasonable valuation, through share buybacks, debt reductions, dividends, or accretive acquisitions. Obviously, it is important we have a management team that cares about shareholder value. We focus on small-cap stocks because there is a much better chance to find an attractive investment opportunity which is under-followed or undiscovered.

Kemet Corporation (KEM) is an under-valued manufacturer of passive electronic components under the Kemet brand worldwide. KEM has three segments – Solid Capacitors; Film and Electrolytic; and Magnetics, Sensors, & Actuators (MSA). There are several write up on KEM on VIC with the most recent by author Jmxi961 which provides excellent background on the structural changes both at KEM and its industry in recent years.

Solid Capacitors are by far the primary driver of revenues, profits, and cash flows. In fiscal year 2019 (ended March 31), Solid Capacitors generated revenues of \$936m with segment operating income of \$348m; Film & Electrolytic revenues were \$206m with operating income of \$8m; MSA revenues were \$241m with operating income of \$23m; and Corporate Expenses were \$178m. In fiscal year 2019, total revenues were \$1.38b and total operating income was \$217m. Segment financials are detailed below.

KEM's shares currently trade at about \$21 per share with about 58m shares outstanding for a market cap of \$1.2b. KEM has a "Ft. Knox" balance sheet with net debt of about \$95m (0.3x LTM adjusted EBITDA) as of 6/30/19 for a total enterprise value (EV) of about \$1.3b. LTM EBITDA is \$300m+. KEM is currently trading at about 4x LTM EBITDA. We think EBITDA can grow modestly by fiscal 2021 (ended 3/31) to \$325m or more.

Solid Capacitors segment is composed of the Ceramic and Polymer/Tantalum product lines. There is a strong demand for large case multilayer ceramic capacitors (MLCC's) which is driving KEM's Ceramics products line. During fiscal year 2019, KEM signed ten-year agreements to manufacture specific quantities for three different customers and is partnering with these customers to expand its current Ceramics business. This includes increasing prior capacity by 44% by fiscal 2022 while ensuring KEM's ability to meet the demand for large case MLCC ceramic products on time. KEM has effectively pre-sold about 33% of its future capacity under these agreements.

KEM is benefiting from several market trends that are centered around the increasing complexity of technology and electrical interconnectedness. These include the Electronic Vehicle market (the latest Tesla model has about 10,000 capacitors); Alternative Energy; the emergence of 5G Technology; the Internet of Things (IOT); Cloud Computing; and Smartphones. There is significant and sustainable demand for the ceramic capacitors that KEM is focused on, which have had historical market growth of about 7% per year which increased to 15% per year in 2017 and 2018. Major suppliers are exiting the larger case size multi-layer ceramic capacitor (MLCC) product lines where KEM is concentrated. KEM estimates the long-term growth of about 9% to 12% per annum for large case size MLCC capacitors.

While the market seems to treat KEM's recent strong results as a cyclical high that is likely not sustainable, we believe there are significant structural factors that could result in constrained supply, possibly for several years. Supply for large case size ceramic MLCC capacitors continues to be tight, and this is a major product line for KEM.

Below is a July 2019 letter from TTI (a major electronics component distributor, owned by Berkshire Hathaway) to its customers regarding the supply and demand dynamics of the capacitor markets.

[https://www.ttiinc.com/content/ttiinc/en/about/mlcc-shortage.html?wcmmode=disabled#TCTab\\_update](https://www.ttiinc.com/content/ttiinc/en/about/mlcc-shortage.html?wcmmode=disabled#TCTab_update)

TTI is one of the largest electronic component distributors in the world. The letter notes a continued increase in demand for electronic capacitors driven by new product areas (Automotive, 5G, Smart Cities, IOT, etc.) which, for large case size capacitors, which have greater and more reliable performance characteristics, and the supply of large case size MLCC capacitors is not likely to keep up with demand over the next few years.

We believe KEM's improved profitability could prove more sustainable over the next several fiscal years than its current valuation reflects. We also do not think KEM would undertake its current large capital expenditure program (which really just started, as capital expenditures increased from \$65m in fiscal 2018 to \$145m in fiscal 2019) unless it believed the returns on its capital investments could be sustained over a longer time period. We believe these capital expenditures are primarily "growth" capital expenditures which should help increase revenues and adjusted EBITDA over the next few years.

We believe KEM can sustainably generate close to \$130m of free cash flow per year. We are defining FCF as cash from operations less maintenance capital expenditures. LTM cash from operations is \$180m and our estimate of maintenance capital expenditures is about \$50m per year. Based on our definition, KEM currently trades at a 10% unlevered free cash flow yield in a world with 10-year treasury rates of 2%. We believe this valuation is attractive considering that KEM is using its strong cash flow to make major organic growth capital expenditures while it searches for strategic acquisitions at accretive prices.

Based on 7x our estimate of adjusted EBITDA of \$325m in fiscal 2021 and net debt zero by fiscal year end 2021, KEM would have a market cap of close to \$2.3b or about \$39 per share versus the current \$21 share price (+90%).

### **Business Description**

KEM manufactures and sells passive electronic components under the KEMET brand worldwide. The Company operates in three segments – Solid Capacitors; Film and Electrolytic; and Electro-Magnetic, Sensors, and Actuators (MSA). It offers tantalum, aluminum polymer, and ceramic capacitors; film, paper, and wet aluminum electrolytic capacitors; electromagnetic interference filters; and electro magnetic compatible materials and devices, piezo materials and actuators, and various types of sensors. The Company serves electronic original equipment manufacturers, electronic manufacturing services providers; and distributors in various industries, including automotive, communications, computer-related, industrial, consumer, military and aerospace, and alternative energy. It sells products through direct sales force and independent sales representatives. KEM was founded in 1919 and is headquartered in Ft. Lauderdale, FL.

Key product lines for KEM are summarized below.

**Ceramic product line** produced \$373m of revenue in fiscal 2019 and is driven by automotive, industrial, defense and aerospace, energy, and telecom markets, with an expected long-term organic growth rate of 9% to 12% per annum. KEM has a strong focus on segments that require reliability and performance and is focused on higher value-added solutions with longer product life cycles. In Ceramics, KEM has secured 33% of future capacity with long-term (10 year) customer agreements.

**Polymer/Tantalum product line** produced \$563m of revenue in fiscal 2019 and is driven by tablet/PC, Industrial, Consumer, Telecom/Cloud, and Automotive markets, with an expected long-term organic growth rates of 4% to 6% per year. In Polymer/Tantalum, KEM is the only vertically integrated, diversified, conflict free Ta supplier and has stable operations to support growth products.

**Film & Electrolytic product line** produced \$206m of revenue in fiscal 2019 and is driven by hybrid and electric vehicles, EV charging infrastructure, alternative energy, and power density and energy efficiency, with an expected long-term organic growth rate of about 2% to 4% per annum.

**Magnetics, Sensors, & Actuators (MSA) product line** produced \$241m of revenue in fiscal 2019 and focuses on end markets such as industrial, consumer, tablet/PC/server, automotive, medical, and others. Growth drivers include ADAS, Hybrid, EV's and Autonomous Driving, Industry 4.0, 5G Infrastructure & Connectivity, Data Growth in Servers and Edge Computing, and Power Density & Energy Efficiency. MSA is expected to have a long-term organic growth rate of 3% to 5% per year.

#### **Strong Management Team Oriented Towards Disciplined, Long-Term Growth**

We like the management team at KEM which is led by CEO William Lowe and CFO Greg Thompson. We believe these guys are conservative and disciplined, long-term operators. We believe they have a focused growth strategy for KEM after completing a major structural transformation over the last few years, concentrating on more stable, design-in, and higher value-added product lines servicing industry and OEM's which should prove more stable and resilient than consumer-oriented areas of the electronic components industry.

#### **Attractive Valuation with Large & Sustainable Free Cash Flow**

KEM is currently trading at about 4x EBITDA, which is attractive for a business that we expect to grow 5% to 10% per year over the next several years due to its strong position in Ceramic and Polymer Tantalum capacitors and electronic components that are in short supply globally and which are critical to end-user customers. Further, KEM produces large amounts of free cash flow based on maintenance capital expenditures. We believe KEM's maintenance capital expenditures are about \$50m per year (about equal to historical depreciation and amortization expense). Based on cash from operations of \$180m for LTM less maintenance capital expenditures of \$50m we believe KEM can sustainably generate free cash flow of close to \$130m per year. This compares to its enterprise value (EV) of about \$1.3b or about an unleveraged FCF yield of 10%+. We believe this is attractive when compared to 10-year treasury rates near 2% and in a world that is contemplating negative interest rates.

#### **Unique Position in Custom-Designed, Higher Margin Electronic Components/Capacitors**

KEM is uniquely positioned to capture the growing demand for custom-designed, higher margin electronic components and capacitors with strong industry tailwinds. KEM is one of the leading suppliers in Ceramic Capacitors which are used by industrial companies and has largely exited to more volatile consumer markets (smart phones, etc.). KEM has a strong focus on specialty, high CV ceramics products which are increasingly designed into OEM products. KEM does not sell ceramics into the cell phone market. Over the last few years, KEM has segmented its ceramics product line to focus on value-added applications with a design-in focus which creates greater stability.

### **Major Structural Transformation Since 2008 as Backward Integration Reduces Volatility and Increases Profitability**

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KEM's structural transformation included: (1) close to \$50m per year in cost savings from vertical integration since the base year of 2012; (2) greater raw material price stability as tantalum (Ta) powder cost reductions improved gross margins by close to 13 percentage points since base year 2012; (3) increased market share in polymer tantalum capacitors to over 50% of the global market; and (4) Automotive as a new growth market due to greater electronic components in automobiles.

KEM's structural transformation has resulted in increased and sustainable margins and an enhanced durability of the revenue base. Two additional major factors driving KEM's improved business model are: (1) since 2008, KEM's focus has shifted from Consumer Markets to Industrial Markets including Automotive, Defense and Aerospace, Medical, Energy, Telecom, and Industrial. These industrial markets are generally more stable than consumer markets. (2) KEM's competitors have increasingly focused on small case size multi-layer ceramic capacitors (MLCC's) while KEM has focused on large case size MLCC's. These large case size MLCC's have greater reliability, higher voltage, higher power and better margins and stability.

### **Focus on Higher Growth Capacitor Markets: One-Third of Ceramic Capacity Pre-Sold**

While general purpose capacitor markets have grown at less than 1% CAGR since 2010, the markets on which KEM is focused have grown at 17% per year since 2010. KEM is focused on higher growth areas of the capacitor market. Furthermore, 33% of total KEM ceramic capacity has been "pre-sold" through three customer capacity agreements over the next several years. KEM's growth has been driven by larger case size capacitors and higher capacitance MLCC's. KEM's focused industry segments include energy, defense and aerospace, industrial and medical, as well as automotive. In Solid Capacitors segment, polymer tantalum lead times have recently normalized but lead time remain constrained in Ceramic and high CV and large case size MLCC's.

### **Solid Fiscal 2020 Q1 Results**

KEM reported fiscal 2020 Q1 results (ended June 30) and reported revenue of \$345m or up 5% versus prior year driven by strong growth in ceramics capacitors. Non-GAAP gross margin was 35.2% versus 28.9% in prior year and adjusted EBITDA was \$82.6m, up 47% from \$56.2m in prior year. The Company again emphasized structural changes made over the past few years including segmenting the ceramics product line to focus on value-added applications with a design-in focus, vertically integrating the tantalum business to improve costs, focus on new polymer technologies, and acquisition of TOKIN to expand the product offering and improve the balance sheet. SG&A was relatively stable at about \$42.4m versus \$42.2m in prior year.

KEM gave a strong outlook for fiscal 2020 Q2 of \$320m to \$330m of revenue, down 6% to 8% versus prior year, due to distribution channel corrections within the industry, non-GAAP gross margin of 33.5% to 35%, and SG&A expenses of \$43m to \$45m. We believe KEM can achieved adjusted EBITDA of close to \$300m in fiscal 2020 and \$325m or more in fiscal 2021.

### **Major Acceleration in Capital Expenditures Likely to Drive Growth**

KEM has a "Ft. Knox" balance sheet and is generating very strong adjusted EBITDA and cash from operations. LTM EBITDA is \$300m+ and LTM cash from operations is close to \$180m. KEM is deploying these large cash flows into focused capital expenditure programs on specific product lines that are in high demand from customers who are dealing with capacity constrained supplies of critical electronic components. Capital expenditures ranged from \$20m to \$65m for fiscal years 2014 to 2018 but increased to \$146m in fiscal year 2019, with \$135m to \$145m expected for fiscal year 2020, excluding an additional \$40m related to the 10-year pre-sale capacity agreements with three customers. KEM has a major commitment to add capacity in its ceramics business via these large capital expenditure programs.

We believe these “growth” capital expenditures are likely to drive higher revenue and profits over the next few fiscal years for KEM. We do not believe the full potential impact of these large expenditure programs is fully appreciated by the Company’s current market valuation.

#### **TOKIN Acquisition Has Been Transformative**

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KEM completed the acquisition of TOKIN in April 2017 and prior thereto owned 34% of TOKIN. This acquisition has been transformative for KEM. TOKIN added \$240m in revenue in the Magnetic, Sensors, and Actuators segment and strengthened KEM’s balance sheet by reducing leverage and enabling a very low-cost refinancing in Japan, which enabled KEM to achieve \$21m in interest savings. TOKIN also provided product portfolio expansion and enabled cross-selling opportunities that supports KEM’s long tail strategy. TOKIN’s acquisition resulted in improved production capabilities, with production yield improvements of more than seven percentage points in KEM’s Polymer Tantalum lines. KEM’s legacy materials science expertise has also resulted in significant synergies to TOKIN. TOKIN provided a very complementary geographic footprint with KEM’s existing operations.

KEM net debt at fiscal year end 2017 was about \$280m, prior to the TOKIN acquisition, and net debt was reduced to about \$35m at fiscal year end 2018, after the TOKIN acquisition. TOKIN dramatically strengthened the Company’s balance sheet and has well-positioned KEM for potential accretive acquisitions and other shareholder-value enhancing actions.

#### **Strong Go-to-Market Strategy**

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The Company has a strong Go-to-Market Strategy, including a global sales team with 33 sales offices in 11 countries; (2) a design-in focus with high performance applications in growth segments, including Field Applications Engineering Teams; (3) a Service Long Tail, with over 180,000 customers, where top 1,000 customers represent about 50% of revenues, and include capabilities to service high mix and high value needs; and (4) a digital engagement platform, with market leading simulation and component search tools, and investing in new digital commerce and service solutions.

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#### **“Ft. Knox” Balance Sheet**

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KEM has a “Ft. Knox” balance sheet today with a net debt position of about \$90m versus LTM EBITDA of \$300m+ (0.3x). KEM has rapidly improved its balance sheet over the past five years due to reduced net debt and increased adjusted EBITDA. KEM’s “bargain purchase” of TOKIN was completed in April 2017. KEM previously owned 34% of TOKIN but had a fixed option to purchase the remaining shares. As TOKIN’s net cash position built up over the last several years, and TOKIN sold a major asset at a high price, KEM was able to purchase the remaining TOKIN shares on very attractive terms. The result has been a dramatic improvement in KEM’s financial position – in fiscal year 2015 KEM had net debt of \$335m with adjusted EBITDA of \$76m (4.4x) and in fiscal year 2019 net debt was \$95m with adjusted EBITDA of \$300m+ (0.3x). The Company’s “Ft. Knox” balance sheet and strong cash flows put it in a strong position to drive shareholder value with organic growth, acquisitions, and major share repurchase and dividend programs.

#### **Potential for Accretive Acquisitions, Share Repurchases, and Dividends**

KEM management has several tools at its disposal to drive long-term shareholder value. KEM has been focused on accretive acquisitions and in the last five years and we expect this focus to continue. However, with the substantial cash flow that KEM is generating, we believe large dividend and/or share repurchase programs will be closely considered by the Board.

#### **Well Positioned for Long Term Growth: Attractive Long-Term Growth Model**

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We believe KEM is well positioned to capture growing demand for custom designed, higher margin electronic components and capacitors which have strong industry tailwinds. KEM is focused on

ceramic capacitors which are in short supply for customers and this is expected to continue for several years.

Long-term growth opportunities for KEM include: first, projections indicate that by 2023, one of ten sold cars will be an EV and 8 out of 10 will include Advanced Drive Assist Electronics. The Transportation Electronics Market is expected to grow from \$226b in 2018 at a CAGR of about 6-7% per year. Second, 5G will likely fuel sustainable long-term growth in Automotive, Healthcare, and Smart Cities industries. Third, the Communications/Server/Data Storage Market is expected to grow from \$350b in 2018 at a CAGR of about 7-8% per year. Fourth, Industry 4.0 includes Smart Factories and Industrial Automation which will accelerate demand for electronic components and solutions. The Industrial Market is expected to grow from \$225b in 2018 at a CAGR of about 3-4% per year.

KEM's long-term Financial Target are very attractive, if they can be achieved:

- Organic Revenue Growth of 5% per year;
- Adjusted EBITDA Margins of 21% to 23%;
- Capex of 5% of Revenue;
- Incremental Revenue via Acquisitions of 5% CAGR.

#### Conclusion and Target Price

At 7x our estimate of adjusted EBITDA for fiscal 2021 of about \$325m and net debt of zero at year-end 2021, KEM would have a market value of close to \$2.3b or about \$39 per share (+90%). If KEM's management team continues to execute and its specialty segments in the passive electronic component industry continues their strong performance, we think our target prices could be achieved.

#### Major shareholders

Blackrock Inc.	8,388	15%
	3,628	
Vanguard Group	6%	
Dimensional Fund	3,049	5%
Marda Rama S	2,802	5%
	2,427	
Wellington Mgmt.	4%	
Nokomis Capital	1,589	3%

Price per share	\$21						
Shares outstanding	58.0						
Market value	\$1,218				1.24m		
52-week range	\$15.5	\$23.1					

**Income****statements**

<u>FYE 3/31</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>3mos 2019</u>	<u>3mos 2020</u>
Sales	\$823	\$735	\$757	\$1,200	\$1,383	\$327	\$345
Gross profit	\$159	\$164	\$185	\$339	\$459	\$94	\$121
SG&A expense	\$	\$98	\$106	\$166	\$197	\$59	\$60
EBITDA	\$76	\$81	\$105	\$192	\$290	\$48	\$75
EBIT (before items)	\$35	\$19	\$52	\$134	\$217	\$35	\$61
Net income	(\$14)	\$13	\$47	\$254	\$207	\$35	\$40
Adj. EPS	\$	\$	\$	\$1.74	\$3.57	\$0.55	\$0.82

**Cash flow****stmts.**

<u>FYE 3/31</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>3mos 2019</u>	<u>3mos 2020</u>
Net income	(\$14)	(\$54)	\$47	\$254	\$207	\$35	\$40
Dep & amort	\$41	\$39	\$38	\$51	\$53	\$13	\$14
Non-cash adjust	\$0	\$52	(\$35)	(\$193)	(\$11)	\$10	(\$5)
Working capital changes	(\$5)	(\$5)	\$20	\$5	(\$12)	(\$73)	(\$16)
<b>Cash from operations</b>	<b>\$24</b>	<b>\$32</b>	<b>\$72</b>	<b>\$121</b>	<b>\$132</b>	<b>(\$15)</b>	<b>\$33</b>
Capital expenditures	(\$22)	(\$20)	(\$26)	(\$65)	(\$146)	(\$16)	(\$37)
Dividends	\$0	(\$6)	(\$6)	(\$6)	(\$6)	\$0	(\$3)
Share repurchases	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$15	(\$12)	(\$13)	\$0	\$0	\$0	\$4
<b>Est. free cash flow</b>	<b>\$19</b>	<b>\$18</b>	<b>\$18</b>	<b>\$18</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>

**Balance sheets**

<u>FYE 3/31</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>6/30/19</u>
Cash	\$56	\$65	\$110	\$287	\$208	\$217
Total assets	\$747	\$700	\$734	\$1,223	\$1,318	\$1,391
Total debt	\$391	\$388	\$388	\$321	\$294	\$312
Shareholder equity	\$165	\$154	\$464	\$639	\$639	\$639
Net debt	\$335	\$323	\$278	\$34	\$86	\$95

Shares outstanding	45	46	55	59	59	59
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**Valuation & Valuation Ratios**

Market value	\$1,218	Enterprise value / EBITDA	4.1
Net debt	\$91	Enterprise value / EBIT	5.4
Preferred stock	\$0	Enterprise value / Cash from Ops	7.2
Enterprise value	\$1,309	Ent. value / Free cash flow	
		Market value / Cash from	8

Ops  
Market value / Free Cash  
Flow

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**Quarterly Consolidated Results**

	<u>Q3</u> <u>2018</u>	<u>Q4</u> <u>2018</u>	<u>Q1</u> <u>2019</u>	<u>Q2</u> <u>2019</u>	<u>Q3</u> <u>2019</u>	<u>Q4</u> <u>2019</u>	<u>Q1</u> <u>2020</u>
Net sales	\$307	\$318	\$328	\$349	\$350	\$356	\$345
Cost of sales	\$214	\$230	\$233	\$237	\$226	\$229	\$224
Gross profit	\$92	\$88	\$95	\$113	\$124	\$126	\$121
SG&A expense	\$48	\$48	\$49	\$52	\$48	\$54	\$49
R&D expense	\$10	\$10	\$11	\$11	\$12		\$12
Operating income	\$34	\$30	\$35	\$50	\$60		\$60
Adj. EBITDA	\$50	\$49	\$56	\$73	\$82	\$79	\$83
Adj. EPS		\$0.44	\$0.55	\$0.87	\$1.07	\$1.05	\$0.82

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**Quarterly Segment Results**

	<u>Q2</u> <u>2018</u>	<u>Q3</u> <u>2018</u>	<u>Q4</u> <u>2018</u>	<u>Q1</u> <u>2019</u>	<u>Q2</u> <u>2019</u>	<u>Q3</u> <u>2019</u>	<u>Q4</u> <u>2019</u>	<u>Q1</u> <u>2020</u>
<b>Net sales</b>								
Solid Capacitors	\$191	\$195	\$203	\$214	\$236	\$238	\$248	\$248
Film and Electrolytic	\$48	\$52	\$55	\$55	\$51	\$50	\$51	\$47
MSA	\$62	\$60	\$60	\$59	\$63	\$61	\$58	\$50
Total	\$302	\$307	\$318	\$328	\$349	\$350	\$357	\$345
<b>Operating income</b>								
Solid Capacitors	\$57	\$61	\$64	\$70	\$85	\$95	\$98	\$103
Film and Electrolytic	\$1	\$1	\$0	\$1	\$4	\$3	(\$1)	(\$3)
MSA	\$8	\$10	(\$2)	\$6	\$7	\$6	\$4	\$4

Corporate	(\$34)	(\$39)	€	(\$42)	(\$46)	(\$43)	€	(\$45)
Total	\$32	\$32		\$33	\$50	\$32		\$58

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**Annual Segment Results (1)**

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
<b>Net sales</b>								
Solid Capacitors	\$	\$	\$626	\$621	\$556	\$575	\$771	\$936
Film and Electrolytic MSA	\$	\$	\$207	\$202	\$179	\$183	\$202	\$206
	\$---	\$---	\$---	\$---	\$---	\$---	\$227	\$241
Total	\$	\$	\$834	\$823	\$735	\$758	\$1,200	\$1,383

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
<b>Operating income</b>								
Solid Capacitors	\$	\$	\$92	\$136	\$131	\$148	\$235	\$348
Film and Electrolytic	\$	\$	(\$18)	(\$17)	\$0	(\$8)	\$4	\$8

MSA	\$	\$	\$---	\$---	\$---	\$---	\$16	\$23
Corporate	\$	\$	(\$92)	(\$97)	(\$97)	(\$104)	(\$141)	(\$178)
Total	\$	\$	(\$18)	\$22	\$34	\$36	\$113	\$201

(1) TOKIN acquisition was completed in April 2017

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Annual Solid Capacitor Product Line Results

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Geographic Results

**Net sales**

APAC  
EMEA  
Americas  
JPKO  
Total

**Net Sales by Channel**

- 2012 2013 2014 2015 2016 2017 2018 - 2019

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D  
E

**Net sales**

Tantalum	\$	\$	\$390	\$378	\$337	\$342	\$495	\$563
Ceramic	\$	\$	\$236	\$243	\$219	\$233	\$276	\$373
Total Solid Capacitor	\$	\$	\$627	\$621	\$556	\$575	\$771	\$936

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C**Industry Comparable Public Companies**

	Kemet Corp.	Vishay Intertechnology VSH	AVX Corp.
	KEM (manufactures and sells passive electronic components)	(manufactures and supplies discrete semiconductors and passive components in U.S. Europe, Asia)	AVX (manufactures and supplies various electronic components and interconnect devices)
Cash	\$217	\$791	\$790
LTD	\$312	\$628	\$50
Net Debt	\$95	\$163	(\$740)
S/E	\$	\$	\$
Price	\$21	\$16.9	\$15.32

Market Cap	\$1.5b	\$2.0b	\$2.0b
Enter. Value (EV)	\$1.3b	\$2.4b	\$1.9b
Rev - LTM	\$1.4b	\$3.0b	\$1.7b
Adj EBITDA - LTM	\$310	\$594m	\$388
EV to Adj EBITDA	4.1x	3.8x	5.0x
EV to LTM Revenues	0.8x	0.7x	1.2x
Capex – LTM	\$161	\$223	\$125
Cash from ops – LTM	\$181	\$356	\$167
EV to OCF – LTM	7.5x	7.2x	11.5x

#### Catalysts

1. Strong free cash flow generation with LTM cash from operations of \$180m and \$50m per year of maintenance capital expenditures.
2. Low valuation of 4x LTM EBITDA and 10% unleveraged FCF yield.
3. Major "growth" capital expenditure program (\$135m to \$145m expected in fiscal 2020, plus \$40m from pre-sold capacity agreements with three customers) will increase KEM capacity by over 40% in large case size ceramic MLCC capacitors and drive increased profits and cash flows.
4. Shortage in large case ceramic MLCC capacitors is so severe that KEM has pre-sold close to one-third of its production capacity to three major customers.
5. Realization that KEM's product line focus on more stable industrial areas of passive electronics and higher CV and larger case size product line mix gives it some insulation from industry volatility in consumer segments.
6. "Ft. Knox" balance sheet with zero net debt by year-end fiscal 2021.
7. Major share repurchases or large special dividends.
8. Possible acquisition of KEM by a strategic or financial purchaser.

#### Risks

1. Economy turns down sharply, especially in KEM's markets.
2. KEM's financial results prior to the TOKIN acquisition were terrible; we believe KEM has undergone a sustainable transformation in its business model.
3. Our investment thesis assumes a continued shortage of large case ceramic capacitors (a major product line focus for KEM) over the next several years.
4. KEM misallocates capital into a poor acquisition.
5. New technologies or services materially impact the passive electronic components industry and KEM.

### **Disclaimer**

Disclaimer: We own shares of KEM. We may buy or sell these shares at any time without notice. The information in the write-up is believed to be correct as of the date written but VIC members should do their own verification of this information and analysis of this potential investment. We undertake no obligation to update this write-up if new information arises at a future date.

I do not hold a position with the issuer such as employment, directorship, or consultancy.  
I and/or others I advise do not hold a material investment in the issuer's securities.

### **Catalyst**

See Above

## Messages

**Subject** Overearning risk  
**Entry** 10/15/2019 04:10 AM  
**Member** jso1123

Thanks for your pitch. One thing you did not touch on was pricing and what happened with the severe MLCC shortage that developed from early/mid calendar 2017 to q4 2018. MLCCs (which historic always grew in demand by high single digits due to increased content in electronic applications) have typically experienced declining ASPs like any commodity electronics supply chain. Volume growth 8%, ASP down 3-5%, revenue grows 4% has been the historical growth algorithm. This changed during the extreme shortage with prices rising 50% or more and margins expanding rapidly for all the large operators (including Kemet which saw its EBIT margins expand by 1000bp in two years, driven entirely by margins in capacitors.

the cycle has gone in the opposite direction (as cycles tend to do) this year with prices/utilizations falling substantially. Lead times for most MLCCs are back to normal, although pockets of larger cases do remain more firm.

how did this pricing environment benefit Kemet's margins and how much will it have to give back? What % of MLCC sales are into the auto industry and how are those prices set? You mention this in your guidance where they guided to shrinking sales for q2 and declining gross margins for the first time since the capacitor up cycle - do you think their q2 margins are the floor? Why won't margins return to where they were before the cycle started as typically happens in these situations? Or is it different this time?

thanks

**Subject** Re: Overearning risk  
**Entry** 10/15/2019 01:36 PM  
**Member** andreas947

Hi JSO,  
 Thanks for the good questions. Very fair points. Our thesis is that it's maybe a bit different this time (always a dangerous thing to say). Our thesis is that KEM is focused on high capacitance, larger case size MLCC's and much of these sales are direct to OEM's which is about half of KEM sales. Our thesis is that the supply chain is shifting to more stable, longer term relationships between OEMs and suppliers like KEM. These are non-consumer products in industries like Aerospace and Defense, Medical, Auto, IOT, 5G, etc. which we believe might be more stable (but not absent of volatility) than smartphones. We also don't think it is so easy for these high capacitance, large case size MLCC manufacturers to switch on capacity and, in fact, it is hard to even get capital equipment to build that capacity. Not sure additional capacity for these large case size MLCC's is easily profitable and easy to ramp up. We are hoping this protects KEM's profit margins over the next few years and they might not moan on their ability to supply this stuff. We could be wrong but we have tried to study this carefully. We believe (hope) that KEM mgmt is carefully considering these major capital expenditure programs and making sure they can get a good long term and sustainable return on these investments. Companies that have had a "beat down" like KEM got several years back will usually consider future investments pretty carefully (but not a slam dunk). Sales through distribution (servicing, we think, their smaller customers) are obviously more volatile and there is excess inventory being worked off over the next few quarters. I attach below some background and forth between management and Matt Sheerin at Stifel asking these questions on the last conference call. Overall, we are betting it will not be easy to rebuild production capacity for large case size MLCC's, so maybe a bit different this time. Your questions are very fair. We are hoping KEM has created some differentiation with its OEM customers especially which might be hard for competitors or potential competitors to quickly respond to and that the potential profit margins might limit how aggressive the response is. First to admit we are no capacitor experts here but just thinking through how this might logically play out. Hope this is helpful to you. Best, Andreas

### Matt Sheerin

Yes, thanks. Good morning. And our first question, Bill, just regarding the gross margin and holding up despite revenue coming down. And it sounds like there is a cost measure you took particularly in MnO2 and F&E. What about the pricing environment, is that helping you on the MLCC, I know that you had some price increase kick in at the beginning of the year.

And what's the pricing environment like in the Tantalum space?

### William Lowe

Well Matt, most of our rates as we mentioned in our previous calls, most of our pricing lease certainly for our OEM contracts, are negotiated in the fall and they go into effect primarily in the first calendar quarter of the year. So, by and large from for half of that half of our business which is OEM related, those prices came in that first calendar quarter and they're under contract and those are holding. So, those are steady.

The market is still tight in large case ceramics as you know and at least in the high CV space. High CV pricing is stable. There is some certainly in the commercial when you get into lower CV and some of the commercial chips, there is some pricing pressure there, and we take that into where we see our margins going.

And then, from a Polymer Tantalum perspective, I think one reason I guess I emphasize the 70% polymer is that we aren't the same our dynamics for Tantalum G is different than it was years ago as MnO2 is declined, we are focused on growing polymer. And with that mix, that helps our margins as well as we did take steps to reduce manpower and get ahead of the curve as we saw where the market was kind of going with the MnO2 several months ago.

So, we were already positioned from a cost structure perspective for the most part as we came into this quarter to recognize the fact that we would have less volume both in the June quarter and the September quarter from MnO2.

### Matt Sheerin

Okay. Now, that's helpful. And then, if you look at the in the MLCC space where you play on in the high case size, high capacitance area, we've seen some of the major competitors have been moving away. Do you get a sense of when that's happening, I know some of those deadlines have been pushed out in I mean at that part of the backlog that you're seeing?

**William Lowe**

Yes. I mean, certainly it's contributing to keeping that where it is and I think it's actually a good thing that some of the those who have decided to exit certain case are doing it at a pace that's taking it out over time. Because it would make the situation I think with customers extremely difficult because the rest of us not just KE but others that are still making those case sizes would have the difficulty filling the gap immediately.

We're continue to increase our capacity, so and that happens over time. We're limited by how fast we can get the equipment in from the equipment manufacturers yes, it's still tight, they are still from what we hear and see, continue to say and continue to extract themselves from some case sized, they've spread out the time if they move back some of the drop dead date if you well or when they will completely stop making those.

So, I think that's actually as I said I think that's a positive, it's going to keep it tight for a while until all the capacity comes in line over the next literally over the next months, two years since it takes us to get all of our capacity. And then I think it's probably the same for our competitors who are all buying the equipment from who understand from virtually the same manufactures in Japan.

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**Subject** Re: Re: Overearning risk  
**Entry** 10/15/2019 01:47 PM

**Member** jso1123

OK thanks. Based on what you sent, they set OEM prices in Q4 for the forward year. Given they contracted in Q4 2017 and then Q4 2018 when capacitors were in shortage and MLCC prices were very (key reasons their margins expanded so rapidly in 2017/2018), it sounds like they have enjoyed less price declines this year than the Asian suppliers have shown in their numbers (Yageo, Semco, etc). why won't these contracts reset down in 2020 on this next round of negotiations? It seems like these contract prices are tracking pretty closely the directional trend in the spot market.

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**Subject** Re: Re: Re: Overearning risk  
**Entry** 10/15/2019 02:32 PM  
**Member** andreas947

we think they are focused on the product lines that are in shortage or constrained. less commodity areas. this is why customers would sign 10 year supply agreements to guarantee supply. sorry for perhaps too simple answer but that is how we are looking at it. why would they spend huge capex in 2020 if the prices they get paid are dropping a lot? not sure that helps you but that is how we are looking at it. OEM's want to make sure they have access to capacity.

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**Subject** Re: Re: Re: Re: Overearning risk  
**Entry** 10/17/2019 02:43 PM  
**Member** jso1123

Hmm okay. This will go down as the first auto supplier of a commodity product I've come across that has pricing leverage over the large auto OEMs. Auto suppliers typically get annual pricing downs my understanding is that it has always been the same for capacitors including Kemet prior to the 2017/2018 shortage. Will be really interesting to see how they fare through the next round of pricing negotiations this quarter given capacitor pricing has fallen substantially in all the other segments (mid/small case MLCCs, across tantalum capacitors). If they have strong pricing power, they'll be able raise prices again on the auto OEMs.

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**Subject** Re: Re: Re: Re: Re: Overearning risk  
**Entry** 10/17/2019 05:31 PM  
**Member** andreas947

i hear you. it is reasonable to be cautious. however, the tone of mgmt and their capex budget for calendar 2020 as these pricing discussions are probably happening now make us think a big down on pricing for next year is unlikely. auto electronic components per vehicle are increasing and there are other OEM areas of growth as well. we are betting the shortage in large case MLCC's could continue longer than the market is pricing in and it may not be so easy to profitably make these components such that alternatives can ramp up. not a slam dunk but we think a good risk-reward given that KEM spending close to \$140m in capex and another \$40m in customer funded expenditures in fiscal 2020 to help boost its capacity by 40% in fiscal 2022. we think a huge amount of that is growth oriented should drive incremental revenues and EBITDA. we will see.

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**Subject** Re: Re: Re: Re: Re: Re: Overearning risk  
**Entry** 10/17/2019 08:06 PM  
**Member** jso1123

Ok thanks for the discussion I appreciate it.  
Last questions:

1) what % of their MLCC capacity is high capacitance/large case size that you think will stay stronger for longer and maintain the disconnect with the rest of the MLCC market?

2) when I look back at the history of the industry, overall volumes grows +HSD % every year because the trend of more capacitors in electronics (content) has been underway since the 1960s and has happened with every tech wave (think what the introduction of smartphones with the first iPhone did to MLCC demand) - yet ASPs typically fall 3-5% like pretty much everything in the commodity elect supply chain. When I look at all the Asian suppliers (Taiyo Yuden, Semco, Murata, Yageo/Walsin, and the New Chinese entrants into the market (Fanghua most notably) they are all growing capacity 11 per year based on their guidance. So why does KEM's volume growth story stand out as particularly interesting/unique? To me it looks like the rest of the capacitor companies.

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**Subject** Re: Re: Re: Re: Re: Re: Re: Overearning risk  
**Entry** 10/19/2019 10:29 AM  
**Member** andreas947

if you look at the presentation from September 2019 on their website you can see page 18 and 19 shows their ceramic and polymer/tantalum product lines and the revenues underlying these product I these are the key drivers of profitability improvement. we think a very large share of ceramics is large case size MLCC's as they do not play in small case size and have repeatedly said this. we believe of their huge capital expenditure budget for this fiscal year and next is going towards large case MLCC's to plug the shortage for OEM's.

full disclosure - we are not long-time capacitor experts - we find companies generating large amounts of cash flow and then work backwards to see if we think can underwrite and understand the under business. perhaps we could get "schooled" here by the commodity nature of capacitor manufacturing but we think KEM's product focus gives it some differentiation from "the rest of the capacitor

companies" - the answer to that question will likely determine how succesful this investment is.

question back to you - are any of the Asian suppliers (Murata, etc.) adding capacity in large case size MLCC's? why not? management has repeatedly said they are reducing capacity in that area and it is hard to even get the equipment to build up capacity. we are continuning dig around to validate what they are saying but if you have any info or thoughts, please let us know.

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**Subject** Great work!  
**Entry** 11/11/2019 07:09 PM  
**Member** MSLM28

Good call. I was hoping they'd execute through the downturn and put up 30% or close GMs. Then this would get comp'd to LFUS. A win is a win

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**Subject** Re: Great work!  
**Entry** 11/12/2019 10:31 AM  
**Member** andreas947  
 thanks...

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**Subject** update..  
**Entry** 11/12/2019 10:32 AM  
**Member** andreas947

## Yageo to Acquire KEMET for US\$27.20 Per Share in Cash



GlobeNewswire • November 11, 2019

*Strengthens Position as a Leading Global Manufacturer of Passive Electronic Components*

*Adds Global Operational Scale Across North America, Europe and Asia*

*Enhances Presence in Attractive, High-Growth Segments and Applications*

*Creates Best-in-Class Manufacturing and R&D Operations to Deliver Superior Service and Continued Innovation to Customers*

NEW TAIPEI CITY, Taiwan and FORT LAUDERDALE, Fla., Nov. 11, 2019 (GLOBE NEWSWIRE) -- Yageo Corporation (TAIEX:2327) ("Yageo") and KEMET Corporation ("KEMET") ([KEM](#)) today announced that they have entered into a definitive agreement under which Yageo will acquire all of the outstanding shares of KEMET's common stock for US\$27.20 per share in an all-cash transaction valued at US \$1.8 billion, including the assumption of net debt. The transaction has been approved by the Boards of Directors of both companies.

The purchase price represents a premium of 26% to KEMET's volume weighted average price ("VWAP") for the last 30 trading days and 37% to its VWAP for the last 90 trading days.

Established in 1919 and headquartered in Fort Lauderdale, Florida, KEMET is a leading global supplier of high-end electronic components with a global footprint that includes 23 manufacturing facilities and approximately 14,000 employees located in 22 countries in the Americas, Asia and Europe. KEMET's main products include tantalum capacitors, ceramic capacitors, magnetic, sensors and actuators, and film and electrolytic capacitors. KEMET's products serve a number of applications, such as advanced automotive electronics, industrial applications, aerospace, medical, as well as smartphones, cloud/networking equipment,

wireless communications, alternative energy and 5G technology. Holding more than 1,600 patents and trademarks worldwide, KEMET has established a leading position for its products via its advanced R&D and technical staff and design-in capabilities.

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**Subject** Author Exit Recommendation  
**Entry** 05/01/2020 05:47 PM  
**Member** andreas947  
The author has recommended exiting the position