decrease in distributor sales across the APAC and JPKO regions and a \$3.8 million decrease in OEM sales across the Americas, APAC, and JPKO regions.

## Reportable Segment Operating Income

Segment operating income of \$22.5 million in fiscal year 2019 increased \$6.9 million from \$15.7 million in fiscal year 2018. The increase in operating income was primarily due to a \$6.6 million decrease in SG&A expenses resulting from a decrease in payroll expenses that was caused by a reduction in head count. Also contributing to the increase in operating income was a \$2.9 million decrease in restructuring charges, a \$1.3 million decrease in net loss on write down and disposal of long-lived assets, and a \$0.2 million decrease in R&D expenses. Partially offsetting these improvements was a \$4.1 million decrease in gross margin, which was primarily driven by a change in the sales mix to lower margin products.

## Consolidated Comparison of Fiscal Year 2018 to Fiscal Year 2017

## Net sales

Net sales of \$1.2 billion for fiscal year 2018 increased 58.5% from \$757.3 million for fiscal year 2017. Solid Capacitor and Film and Electrolytic sales increased by \$196.1 million and \$19.7 million, respectively and net sales for MSA, our new reportable segment in fiscal year 2018, was \$227.0 million. Prior to the acquisition of TOKIN on April 19, 2017, the Company did not have any MSA sales.

The increase in Solid Capacitors net sales was primarily driven by the addition of net sales of \$133.8 million resulting from the TOKIN acquisition and an increase in net sales to the legacy products distributor channel of \$81.7 million. To a lesser degree, an increase in legacy Ceramic products' net sales of \$6.0 million in the EMS channel across all regions and \$10.2 million in the OEM channel in the EMEA and APAC regions also contributed to the increase in Solid Capacitors net sales. These increases were partially offset by a \$28.0 million decrease in net sales in the OEM channel for legacy Tantalum products across all regions. In addition, Solid Capacitors net sales was favorably impacted by \$6.1 million from foreign currency exchange due to the change in the value of the Euro compared to the U.S. dollar.

The increase in Film and Electrolytic net sales was driven by an increase in net sales in the distributor channel across the APAC and EMEA regions of \$13.7 million, and to a lesser degree, a \$3.3 million increase in net sales in the OEM channel of the EMEA region and a \$4.2 million increase in the EMS channel across the Americas, EMEA, and APAC regions. These increases were partially offset by a decrease in net sales of \$1.2 million in the OEM channel across the Americas, APAC, and JPKO regions. In addition, there was a favorable impact of \$7.6 million from foreign currency exchange primarily due to the change in the value of the Euro compared to the U.S. dollar.

In fiscal years 2018 and 2017, net sales by region were as follows (dollars in thousands):

	Fiscal Year 2018				Fiscal Year 2017			
	Net Sales		% of Total	Net Sales		% of Total		
APAC	\$	479,987	40.0%	\$	288,764	38.1%		
EMEA		277,898	23.1%		237,437	31.4%		
Americas		259,105	21.6%		224,056	29.6%		
JPKO		183,191	15.3%		7,081	0.9%		
Total	\$	1,200,181		\$	757,338			

In fiscal years 2018 and 2017, the percentages of net sales by channel to total net sales were as follows:

	1	Fiscal Year 2018	Fiscal Year 2017			
	Net Sal	es % of Total	Net Sales		% of Total	
OEM	\$ 563	3,495 46.9%	\$ 2	246,397	32.5%	
Distributors	470	),324 39.2%	3	354,639	46.8%	
EMS	160	5,362 13.9%	1	156,302	20.7%	
Total	\$ 1,200	),181	\$	757,338		

## Gross Margin

Gross margin for the fiscal year ended March 31, 2018 of \$339.4 million (28.3% of net sales) increased \$154.0 million or 83.1% from \$185.4 million (24.5% of net sales) in the prior fiscal year. Gross margin as a percentage of net sales improved 380 basis points.