## MKS INSTRUMENTS, INC. GAAP REVENUE BY DIVISION AND MARKET 2016-2019 (in 000's)

QUARTER E	quipment & Soluti	ons Division (1)	Light & Motion	Division (2)	Vacuum & Analy	sis Division	Consolidate	ed MKS
ENDED	REVENUE	% TOTAL	REVENUE	% TOTAL	REVENUE	% TOTAL	REVENUE	% TOT
Semiconductor Market	0	0.0%	0	0.0%	134,676	73.3%	134,676	73.3%
Advanced Markets	0	0.0%	0	0.0%	49,005	26.7%	49,005	26.7%
Q1-16	0	0.0%	0	0.0%	183,681	100.0%	183,681	100.0
Semiconductor Market	0	0.0%	21,934	18.5%	147,082	70.9%	169.015	51.9%
Advanced Markets	0	0.0%	96,561	81.5%	60,286	29.1%	156,846	48.19
Q2-16	0	0.0%	118,494	100.0%	207,367	100.0%	325,861	100.0
Semiconductor Market	0	0.0%	28,560	18.9%	172,736	75.4%	201,296	52.99
Advanced Markets	0	0.0%	122.877	81.1%	56,486	24.6%	179,363	47.19
Q3-16	0	0.0%	151,437	100.0%	229,223	100.0%	380,660	100.0
Semiconductor Market	0	0.0%	28,285	18.5%	190,215	75.4%	218,500	53.9
Advanced Markets	0 <b>0</b>	0.0% <b>0.0%</b>	124,708 <b>152,993</b>	81.5% 100.0%	61,933 <b>252,148</b>	24.6% 100.0%	186,641 <b>405,140</b>	46.1° <b>100.</b> 0
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Semiconductor Market	0	0.0%	78,778	18.6%	644,709	73.9%	723,487	55.99
Advanced Markets	0	0.0%	344,145	81.4%	227,710	26.1%	571,855	44.1
2016 YTD TOTAL	0	0.0%	422,924	100.0%	872,420	100.0%	1,295,342	100.0
Semiconductor Market	0	0.0%	29,700	18.7%	218,804	78.7%	248,504	56.89
Advanced Markets	0	0.0%	129,393	81.3%	59,257	21.3%	188,650	43.29
Q1-17	0	0.0%	159,093	100.0%	278,060	100.0%	437,153	100.0
Semiconductor Market	0	0.0%	36,426	21.3%	246,092	79.4%	282,518	58.8
Advanced Markets	0	0.0%	134,446	78.7%	63,793	20.6%	198,239	41.29
Q2-17	0	0.0%	170,872	100.0%	309,885	100.0%	480,757	100.0
Semiconductor Market	0	0.0%	34,137	19.2%	246,511	80.0%	280,649	57.79
Advanced Markets	0 0	0.0%	143,860 177,998	80.8% <b>100.0%</b>	61,758 <b>308,269</b>	20.0% <b>100.0%</b>	205,618 <b>486,267</b>	42.39 <b>100.0</b>
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Semiconductor Market	0	0.0%	36,001	18.0%	248,290	79.8%	284,291	55.59
Advanced Markets	0	0.0%	164,557	82.0%	62,952	20.2%	227,509	44.5
Q4-17	0	0.0%	200,557	100.0%	311,242	100.0%	511,800	100.0
Semiconductor Market	0	0.0%	136,264	19.2%	959,697	79.5%	1,095,961	57.29
Advanced Markets	0	0.0%	572,256	80.8%	247,759	20.5%	820,015	42.89
2017 YTD TOTAL	0	0.0%	708,520	100.0%	1,207,457	100.0%	1,915,977	100.0
Semiconductor Market	0	0.0%	37,813	18.4%	275,701	79.1%	313,514	56.69
Advanced Markets	0	0.0%	168,118	81.6%	72,643	20.9%	240,761	43.4
Q1-18	0	0.0%	205,931	100.0%	348,344	100.0%	554,275	100.0
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Semiconductor Market Advanced Markets	0 0	0.0% 0.0%	39,493 165,320	19.3% 80.7%	296,917 71,410	80.6% 19.4%	336,410 236,730	58.7° 41.3°
Q2-18	0	0.0%	204,812	100.0%	368,327	100.0%	573,140	100.0
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Semiconductor Market Advanced Markets	0 0	0.0% 0.0%	41,273 159,841	20.5% 79.5%	218,180 67,858	76.3% 23.7%	259,453 227,699	53.3° 46.7°
Q3-18	0	0.0%	201,114	100.0%	286,038	100.0%	487,152	100.0
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Semiconductor Market	0	0.0%	40,111	19.8%	194,405	75.3%	234,515	50.9
Advanced Markets	0	0.0%	162,278	80.2%	63,748	24.7%	226,026	49.19
Q4-18	0	0.0%	202,388	100.0%	258,153	100.0%	460,541	100.0
Semiconductor Market	0	0.0%	158,689	19.5%	985,203	78.1%	1,143,892	55.19
Advanced Markets	0	0.0%	655,557	80.5%	275,659	21.9%	931,216	44.9
2018 YTD TOTAL	0	0.0%	814,246	100.0%	1,260,862	100.0%	2,075,108	100.0
Semiconductor Market	6,585	18.7%	36,897	19.0%	176,859	75.5%	220,341	47.5
Advanced Markets	28,634	81.3%	157,091	81.0%	57,495	24.5%	243,220	52.5°
Q1-19	35,218	100.0%	193,988	100.0%	234,355	100.0%	463,561	100.0
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Semiconductor Markets	3,703 52,174	6.6% 93.4%	34,045	18.6% 81.4%	176,267 59,388	74.8% 25.2%	214,015 260,096	45.1° 54.9°
Advanced Markets	52,174 <b>55,877</b>	100.0%	148,534 <b>182,579</b>	100.0%	235,655	100.0%	474,111	100.0
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Semiconductor Market	6,852	13.9%	33,879	19.6%	182,173	75.7%	222,903	48.2
Advanced Markets	42,456	86.1%	138,582	80.4%	58,509	24.3%	239,546	51.89
Q3-19	49,308	100.0%	172,460	100.0%	240,681	100.0%	462,449	100.0
Semiconductor Market	17,140	12.2%	104,821	19.1%	535,299	75.3%	657,259	46.99
Advanced Markets	123,263	87.8%	444,206	80.9%	175,392	24.7%	742,862	53.19
				100.0%	710,691	100.0%		

<sup>(1)</sup> MKS acquired Electro Scientific Industries, Inc. on February 1, 2019. This is now called the Equipment & Solutions Division. (2) MKS acquired Newport Corporation, Inc. on April 29, 2016. This is now called the Light & Motion Division.