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2016 Top 25 Firm

as ranked by Accounting Today

2015 Best of the Best Firm

as ranked by Accounting Today

2014 Fastest Growing Firm

as ranked by Inside Public Accounting

Strategic Thinking.
Sound Insights.
Positive Action.

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Semiconductor Update

MARKET HIGHLIGHTS

With an increase of 3.2%, the **Semiconductor & Semiconductor Equipment Index outperformed the S&P 500 over 3 months**. The index also outperformed the SP 500 over 12 and 24 months.

All semiconductor sectors showed a modest median stock price increase over the last 3 months. With a decrease of 12.6% over 12 months, the EDA & IP segment showed the biggest decline, followed by IDMs & Foundries (-7.4%). Both the Fabless segment (+3.7%) and semiconductor tools (+3.3%) showed a modest increase over 12 months.

Stock price movement within the sectors showed substantial volatility: The IDM/Foundry segment showed changes ranging from -18.7% (Skyworks Solutions) to +46.3% (Toshiba). Within the Fabless segment, changes over three months ranged from -29% (Himax) to +79.7% (AMD). Semiconductor Equipment segment saw changes ranging from -13.2% (ASM International) to +42.9% (SCREEN

Holdings). The EDA/IP segment saw decreases as high as -12.7% up to stock price increases of +12.4% (Synopsys).

With the exception of the IDM & Foundry segment, median revenue multiples increased over three months. With the exception of the Fabless segment, all other segments showed negative momentum for their revenue multiple over 12 months. Increase for EBITDA multiple was strongest in the Fabless and EDA & IP segment; increasing both over 3 and 12 months.

The two best individual performers in Q2 were AMD (+79.7% over 3 months and 114.2% over 12 months) **and Toshiba** (+46.3%). The individual companies that declined the most in Q2 were Himax (-29.2%), Skyworks Solutions (-18.7%), and Renesas Electronics (-15.6%).

MARKET SECTOR	Median % Change		PEG Ratio	Earnings Ratio	
	Price				
	3 mo	12 mo	2016E	LTM	2016E
Integrated Device Manufacturers (IDMs) & Foundries	0.6%	(7.4%)	1.2x	17.6x	14.6x
Fabless Semiconductor Manufacturers	2.0%	3.7%	1.0x	24.9x	16.8x
Semiconductor Equipment	1.0%	3.3%	1.1x	18.7x	17.1x
Electronic Design Automation & IP	3.2%	(12.6%)	2.1x	32.6x	23.4x

EV/REVENUE MULTIPLES

MARKET SECTOR	Median 6/30/16	LTM		NTM
		Median % Change		Median
		3 mo	12 mo	6/30/16
Integrated Device Manufacturers (IDMs) & Foundries	2.2x	(0.7%)	(11.4%)	2.2x
Fabless Semiconductor Manufacturers	3.1x	4.6%	6.5%	2.6x
Semiconductor Equipment	2.1x	1.6%	(5.1%)	2.2x
Electronic Design Automation & IP	3.8x	3.8%	(8.2%)	3.8x

EV/EBITDA MULTIPLES

MARKET SECTOR	Median 6/30/16	Median % Change		NTM
		LTM EBITDA Multiples		Median
		3 mo	12 mo	6/30/16
Integrated Device Manufacturers (IDMs) & Foundries	7.2x	(0.5%)	0.3%	6.7x
Fabless Semiconductor Manufacturers	15.9x	3.3%	9.7%	10.7x
Semiconductor Equipment	9.1x	(2.4%)	(10.0%)	9.4x
Electronic Design Automation & IP	16.5x	7.3%	5.4%	12.2x

INDICIES	Price	% Change			
	6/30/16	3 mo	6 mo	12 mo	24 mo
S&P 500 Index	2,098.86	1.7%	1.7%	1.7%	7.1%
Dow Jones Industrial Average	17,929.99	1.2%	1.9%	1.8%	6.6%
NASDAQ Composite Index	4,842.67	(0.5%)	(4.4%)	(2.9%)	9.9%
Russell 2000 Index	1,151.92	3.7%	0.2%	(8.1%)	(3.4%)
S&P Composite 1500 Information Technology (Sector) Index	735.70	(2.9%)	(2.2%)	2.7%	12.4%
S&P Composite 1500 Semiconductor & Semiconductor Equipment (Industry) Index	558.43	3.2%	0.9%	5.3%	11.7%
S&P Composite 1500 - Semiconductors (Sub Ind) (30-APR-03) Index	545.70	2.8%	(0.2%)	6.2%	14.2%
S&P Composite 1500 - Semiconductor Equipment & Products (30-APR-03) Index	388.85	6.3%	9.5%	(0.2%)	(2.6%)

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 6/30/16	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2016E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2015	2016E	LTM	2016E		
Integrated Device Manufacturers (IDMs) & Foundries																		
Samsung Electronics Co. Ltd.	A005930	\$1,235.96	7.9%	9.0%	\$1,257.64	\$895.96	\$198,317	\$150,482	\$ 176,345	\$ 42,576	\$178,516	\$42,551	\$106.83	\$132.48	10.8x	10.1x	1.5x	
Intel Corporation	INTC	32.80	0.3%	7.8%	35.59	24.87	154,882	165,199	56,276	23,057	57,512	21,019	2.33	2.41	14.0x	14.6x	1.5x	
TSMC Limited	2330	5.04	0.6%	10.9%	5.15	3.49	130,657	118,112	25,580	16,887	29,197	19,057	0.35	0.38	14.6x	13.9x	1.2x	
Texas Instruments Inc.	TXN	62.65	7.3%	21.6%	63.31	43.49	62,915	64,233	12,858	5,272	12,975	5,388	2.82	3.12	21.9x	20.8x	2.1x	
Sony Corporation	6758	29.10	14.0%	2.8%	36.21	21.41	36,706	41,189	78,930	5,954	76,098	6,874	(0.94)	1.02	25.4x	0.0x	0.0x	
NXP Semiconductors NV	NXPI	78.34	(4.2%)	(20.2%)	100.26	61.61	26,835	34,652	6,858	1,820	9,703	3,948	6.10	5.78	17.6x	13.8x	0.7x	
SK Hynix Inc.	A000660	28.10	12.0%	(25.7%)	37.38	22.25	19,840	20,027	15,296	7,227	13,900	5,887	5.10	2.15	6.7x	13.5x	0.9x	
Infineon Technologies AG	IFX	14.41	0.5%	16.2%	15.76	9.24	16,216	16,186	7,052	1,720	7,482	1,989	0.61	0.81	19.4x	18.5x	1.2x	
Skyworks Solutions Inc.	SWKS	63.28	(18.7%)	(39.2%)	106.50	54.50	12,038	10,861	3,393	1,372	3,302	1,462	4.10	5.48	12.3x	12.3x	0.6x	
Toshiba Corporation	6502	2.69	46.3%	(21.8%)	4.15	1.51	11,396	19,425	55,199	(4,404)	51,143	2,898	(0.07)	(1.08)	NM	0.0x	0.0x	
Linear Technology Corporation	LLTC	46.53	3.9%	5.2%	47.89	36.41	11,125	9,762	1,430	691	1,496	730	2.12	2.01	23.0x	24.1x	2.1x	
Maxim Integrated Products, Inc.	MXIM	35.69	(2.3%)	3.2%	42.18	29.47	10,147	9,287	2,211	712	2,274	898	0.71	1.63	44.1x	23.3x	2.1x	
Renesas Electronics Corporation	6723	5.64	(15.6%)	(21.2%)	8.71	5.41	9,399	7,919	6,751	1,366	6,378	1,204	0.41	0.24	11.2x	23.5x	1.6x	
STMicroelectronics NV	STM	5.83	4.9%	(28.9%)	8.39	4.98	5,024	4,656	6,651	875	6,901	982	0.12	0.21	61.6x	27.9x	0.7x	
United Microelectronics Corporation	2303	0.39	(4.9%)	(7.4%)	0.42	0.31	4,770	4,836	4,390	1,701	4,679	1,977	0.03	0.02	16.8x	16.7x	5.6x	
ON Semiconductor Corp.	ON	8.82	(9.2%)	(24.6%)	11.64	6.97	3,658	4,424	3,442	618	3,492	765	0.48	0.84	20.0x	11.3x	1.1x	
Cypress Semiconductor Corporation	CY	10.55	20.6%	(10.3%)	12.46	6.30	3,289	3,960	1,818	79	1,836	285	(1.25)	0.48	NM	23.2x	1.2x	
Median			0.6%	(7.4%)											17.6x	14.6x	1.2x	

COMPANY	TICKER	EV/REVENUE MULTIPLES					NTM
		TTM		% Change		NTM	
		Trailing		3 mo	12 mo		
Integrated Device Manufacturers (IDMs) & Foundries							
Samsung Electronics Co. Ltd.	A005930	0.9x	0.8x	0.7x	6.0%	17.9%	0.8x
Intel Corporation	INTC	2.9x	2.7x	2.6x	7.2%	14.8%	2.9x
TSMC Limited	2330	4.6x	4.6x	4.0x	1.1%	15.2%	4.0x
Texas Instruments Inc.	TXN	5.0x	4.6x	4.2x	8.9%	20.2%	5.0x
Sony Corporation	6758	0.5x	0.6x	0.6x	(5.3%)	(12.2%)	0.5x
NXP Semiconductors NV	NXPI	5.1x	5.9x	4.4x	(14.0%)	14.5%	3.6x
SK Hynix Inc.	A000660	1.3x	1.0x	1.7x	27.1%	(23.1%)	1.4x
Infineon Technologies AG	IFX	2.3x	2.3x	2.6x	(0.7%)	(11.4%)	2.2x
Skyworks Solutions Inc.	SWKS	3.2x	4.1x	6.6x	(21.0%)	(51.2%)	3.3x
Toshiba Corporation	6502	0.4x	0.4x	0.5x	(11.2%)	(35.5%)	0.4x
Linear Technology Corporation	LLTC	6.8x	6.5x	6.5x	4.5%	5.5%	6.5x
Maxim Integrated Products, Inc.	MXIM	4.2x	4.3x	4.0x	(3.2%)	6.3%	4.1x
Renesas Electronics Corporation	6723	1.2x	1.6x	1.7x	(24.7%)	(32.6%)	1.2x
STMicroelectronics NV	STM	0.7x	0.6x	0.9x	16.2%	(21.1%)	0.7x
United Microelectronics Corporation	2303	1.1x	1.2x	1.1x	(7.3%)	1.3%	1.0x
ON Semiconductor Corp.	ON	1.3x	1.4x	1.7x	(6.4%)	(26.0%)	1.3x
Cypress Semiconductor Corporation	CY	2.2x	2.0x	5.6x	10.4%	(60.9%)	2.2x
Median		2.2x	2.0x	2.6x	(0.7%)	(11.4%)	2.2x

COMPANY	TICKER	EV/EBITDA MULTIPLES					NTM
		TTM		% Change		NTM	
		Trailing		3 mo	12 mo		
Integrated Device Manufacturers (IDMs) & Foundries							
Samsung Electronics Co. Ltd.	A005930	3.5x	3.4x	3.5x	4.7%	0.6%	3.5x
Intel Corporation	INTC	7.2x	6.6x	5.9x	9.0%	22.1%	7.9x
TSMC Limited	2330	7.1x	7.0x	6.1x	1.4%	16.7%	6.2x
Texas Instruments Inc.	TXN	12.2x	11.2x	10.3x	8.3%	18.5%	11.9x
Sony Corporation	6758	6.3x	5.1x	7.6x	23.6%	(16.8%)	6.0x
NXP Semiconductors NV	NXPI	19.0x	21.0x	16.5x	(9.7%)	14.8%	8.8x
SK Hynix Inc.	A000660	2.8x	2.1x	3.4x	32.2%	(17.8%)	3.4x
Infineon Technologies AG	IFX	9.6x	10.2x	10.8x	(5.4%)	(10.6%)	8.1x
Skyworks Solutions Inc.	SWKS	7.9x	10.4x	19.2x	(23.7%)	(58.7%)	7.4x
Toshiba Corporation	6502	NM	NM	7.0x	NM	NM	6.7x
Linear Technology Corporation	LLTC	14.1x	13.4x	12.9x	5.6%	9.2%	13.4x
Maxim Integrated Products, Inc.	MXIM	13.0x	13.4x	12.9x	(2.4%)	1.3%	10.3x
Renesas Electronics Corporation	6723	5.3x	6.3x	8.0x	(15.4%)	(34.1%)	6.6x
STMicroelectronics NV	STM	5.5x	4.7x	6.4x	16.7%	(14.2%)	4.7x
United Microelectronics Corporation	2303	2.9x	3.0x	2.9x	(5.2%)	(0.1%)	2.4x
ON Semiconductor Corp.	ON	7.2x	7.6x	9.7x	(5.9%)	(26.1%)	5.8x
Cypress Semiconductor Corporation	CY	55.7x	72.9x	46.5x	(23.6%)	19.7%	13.9x
Median		7.2x	7.3x	8.0x	(0.5%)	0.3%	6.7x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 6/30/16	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2016E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2015	2016E	LTM	2016E		
Fabless Semiconductor Manufacturers																		
QUALCOMM Incorporated	QCOM	\$ 53.57	5.1%	(14.5%)	\$ 66.05	\$ 42.24	\$ 78,690	\$ 74,222	\$22,614	\$ 8,272	\$ 23,184	\$ 9,051	\$ 3.22	\$ 4.09	16.9x	13.4x	1.1x	
Broadcom Limited	AVGO	155.40	(1.0%)	16.9%	166.00	100.00	61,464	77,491	8,887	3,510	15,609	8,879	4.95	10.97	NM	14.7x	0.9x	
NVIDIA Corporation	NVDA	47.01	31.5%	133.8%	48.54	19.09	25,103	21,787	5,164	1,222	5,656	1,399	1.12	1.57	40.1x	NM	NM	
Xilinx Inc.	XLNX	46.13	(3.6%)	4.5%	50.72	38.70	11,684	9,930	2,214	738	2,335	735	2.35	2.04	22.5x	NM	NM	
MediaTek Inc.	2454	7.57	(2.2%)	(44.5%)	13.24	5.95	11,831	8,178	6,872	872	8,095	965	0.50	0.48	16.5x	15.7x	1.6x	
Marvell Technology Group Ltd.	MRVL	9.53	(7.7%)	(27.7%)	13.49	7.40	4,933	2,629	2,967	208	2,528	357	0.84	0.39	NM	25.8x	2.2x	
Mellanox Technologies, Ltd.	MLNX	47.96	(12.5%)	(1.3%)	55.80	32.24	2,285	2,298	708	120	909	261	1.94	3.53	30.5x	14.4x	0.7x	
Cirrus Logic Inc.	CRUS	38.79	6.8%	14.0%	40.98	24.57	2,417	2,348	1,169	239	1,344	338	0.85	2.22	20.7x	NM	NM	
Advanced Micro Devices, Inc.	AMD	5.14	79.7%	114.2%	5.52	1.61	4,079	5,599	3,793	(222)	4,143	101	(0.84)	(0.27)	NM	NM	NM	
Himax Technologies, Inc.	HIMX	8.26	(29.2%)	2.9%	12.00	5.65	1,420	1,438	693	44	854	105	0.14	0.41	57.7x	22.2x	1.0x	
Silicon Laboratories Inc.	SLAB	48.74	7.8%	(9.8%)	54.72	36.56	2,035	1,857	643	77	691	148	0.69	2.42	71.6x	21.1x	2.1x	
Silicon Motion Technology Corp.	SIMO	47.80	19.8%	38.1%	47.80	20.01	1,686	1,495	393	94	468	114	1.72	2.96	24.9x	17.8x	0.9x	
Median			2.0%	3.7%											24.9x	16.8x	1.0x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change		6/30/16	
		3 mo	12 mo	3 mo	12 mo		
Fabless Semiconductor Manufacturers							
QUALCOMM Incorporated	QCOM	3.3x	2.9x	3.2x	11.3%	3.0%	3.2x
Broadcom Limited	AVGO	8.7x	9.1x	6.0x	(3.7%)	44.3%	5.0x
NVIDIA Corporation	NVDA	4.2x	3.1x	1.6x	34.0%	168.5%	3.9x
Xilinx Inc.	XLNX	4.5x	4.7x	4.1x	(4.8%)	10.0%	4.3x
MediaTek Inc.	2454	1.2x	1.3x	2.4x	(9.1%)	(49.6%)	1.0x
Marvell Technology Group Ltd.	MRVL	0.9x	1.0x	1.2x	(13.5%)	(28.8%)	1.0x
Mellanox Technologies, Ltd.	MLNX	3.2x	3.2x	3.5x	1.7%	(8.0%)	2.5x
Cirrus Logic Inc.	CRUS	2.0x	1.9x	2.3x	7.5%	(13.9%)	1.7x
Advanced Micro Devices, Inc.	AMD	1.5x	0.9x	0.6x	57.2%	134.9%	1.4x
Himax Technologies, Inc.	HIMX	2.1x	3.0x	1.6x	(29.7%)	29.2%	1.7x
Silicon Laboratories Inc.	SLAB	2.9x	2.7x	3.3x	8.2%	(13.5%)	2.7x
Silicon Motion Technology Corp.	SIMO	3.8x	3.3x	3.1x	15.7%	21.7%	3.2x
Median		3.1x	3.0x	2.7x	4.6%	6.5%	2.6x

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change		6/30/16	
		3 mo	12 mo	3 mo	12 mo		
Fabless Semiconductor Manufacturers							
QUALCOMM Incorporated	QCOM	9.0x	8.8x	9.0x	2.0%	0.0%	8.2x
Broadcom Limited	AVGO	22.1x	21.4x	15.6x	3.3%	41.7%	8.7x
NVIDIA Corporation	NVDA	17.8x	13.8x	7.3x	29.4%	144.5%	15.6x
Xilinx Inc.	XLNX	13.4x	14.0x	11.3x	(3.8%)	18.6%	13.5x
MediaTek Inc.	2454	9.2x	9.0x	10.7x	2.1%	(14.0%)	8.5x
Marvell Technology Group Ltd.	MRVL	12.6x	14.6x	9.4x	(13.5%)	35.1%	7.4x
Mellanox Technologies, Ltd.	MLNX	19.2x	18.0x	31.3x	6.3%	(38.6%)	8.8x
Cirrus Logic Inc.	CRUS	9.8x	9.2x	13.4x	6.5%	(26.9%)	7.0x
Advanced Micro Devices, Inc.	AMD	NM	NM	13.9x	NM	NM	55.3x
Himax Technologies, Inc.	HIMX	32.9x	44.8x	15.7x	(26.5%)	109.2%	13.6x
Silicon Laboratories Inc.	SLAB	24.1x	22.0x	23.9x	9.7%	0.9%	12.5x
Silicon Motion Technology Corp.	SIMO	15.9x	13.9x	NM	14.4%	NM	13.1x
Median		15.9x	14.0x	13.4x	3.3%	9.7%	10.7x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 6/30/16	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2016E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2015	2016E	LTM	2016E		
Semiconductor Equipment																		
ASML Holding NV	ASML	\$ 98.16	(3.0%)	(4.9%)	\$109.86	\$ 78.02	\$ 41,864	\$ 39,656	\$ 6,631	\$ 2,094	\$ 7,817	\$ 2,259	\$ 4.06	\$ 3.56	0.0x	28.6x	1.5x	
Applied Materials, Inc.	AMAT	23.97	13.9%	24.7%	24.65	14.25	26,107	26,810	9,565	1,980	11,277	2,865	1.12	1.53	22.2x	17.1x	1.1x	
Lam Research Corporation	LRCX	84.06	2.3%	3.3%	87.19	61.20	13,416	11,257	5,821	1,360	6,267	1,698	3.70	6.22	18.7x	14.1x	0.9x	
KLA-Tencor Corporation	KLAC	73.25	1.0%	30.3%	75.17	44.95	11,406	12,262	2,822	929	3,205	1,151	2.24	4.29	20.1x	17.6x	0.9x	
Tokyo Electron Limited	8035	83.50	30.5%	31.8%	84.90	53.74	13,697	11,395	5,909	1,219	6,839	1,402	3.33	3.98	18.6x	NM	NM	
Teradyne Inc.	TER	19.69	(8.7%)	2.1%	21.84	16.06	4,001	3,271	1,728	418	1,749	463	0.97	1.41	18.5x	14.8x	1.1x	
ASM Pacific Technology Ltd.	522	7.15	(9.9%)	(27.8%)	10.16	6.06	2,903	2,928	1,648	229	1,729	295	0.31	0.39	27.9x	19.1x	0.7x	
Disco Corporation	6146	89.49	6.9%	8.0%	119.38	80.82	3,202	2,649	1,138	327	1,209	346	4.68	5.47	14.3x	NM	NM	
ASM International NV	ASM	38.70	(13.2%)	(16.2%)	49.06	30.22	2,386	1,924	740	198	767	162	2.72	2.44	21.5x	16.0x	1.4x	
MKS Instruments, Inc.	MKSI	43.06	15.3%	13.5%	43.06	29.00	2,298	1,631	783	158	1,366	241	2.28	2.29	21.7x	20.1x	1.3x	
Entegris, Inc.	ENTG	14.47	6.6%	(0.7%)	15.20	10.37	2,038	2,349	1,085	231	1,118	251	0.57	0.82	25.4x	18.4x	1.6x	
SCREEN Holdings Co., Ltd.	7735	10.77	42.9%	70.8%	11.19	4.97	2,543	2,620	2,311	254	2,629	330	0.43	0.64	13.9x	NM	NM	
ULVAC, Inc.	6728	30.33	(9.0%)	96.8%	39.10	15.88	1,497	1,875	1,788	243	2,107	299	1.21	2.93	11.1x	10.3x	NM	
Advantest Corporation	6857	11.05	19.4%	6.1%	12.59	8.19	1,929	1,537	1,446	153	1,502	154	0.73	0.35	27.6x	NM	NM	
Median			1.0%	3.3%											18.7x	17.1x	1.1x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		6/30/16	3 mo	12 mo	3 mo	12 mo	
Semiconductor Equipment							
ASML Holding NV	ASML	6.0x	5.7x	6.3x	5.1%	(5.1%)	5.1x
Applied Materials, Inc.	AMAT	2.8x	2.5x	2.4x	11.5%	16.8%	2.4x
Lam Research Corporation	LRCX	1.9x	1.9x	2.3x	4.1%	(15.2%)	1.8x
KLA-Tencor Corporation	KLAC	4.3x	4.3x	3.5x	1.6%	22.7%	3.8x
Tokyo Electron Limited	8035	1.8x	1.4x	1.7x	25.6%	1.7%	1.7x
Teradyne Inc.	TER	1.9x	2.2x	2.0x	(15.3%)	(3.4%)	1.9x
ASM Pacific Technology Ltd.	522	1.8x	1.9x	2.1x	(8.0%)	(14.2%)	1.7x
Disco Corporation	6146	2.1x	2.2x	2.5x	(4.7%)	(16.5%)	2.2x
ASM International NV	ASM	2.7x	3.0x	3.9x	(9.9%)	(31.7%)	2.5x
MKS Instruments, Inc.	MKSI	2.1x	1.6x	2.1x	27.2%	(1.9%)	1.2x
Entegris, Inc.	ENTG	2.2x	2.1x	2.3x	5.3%	(6.0%)	2.1x
SCREEN Holdings Co., Ltd.	7735	1.0x	0.8x	0.8x	29.7%	24.6%	1.0x
ULVAC, Inc.	6728	1.0x	1.1x	0.8x	(13.4%)	24.0%	0.9x
Advantest Corporation	6857	1.0x	0.9x	1.1x	6.4%	(11.8%)	1.0x
Median		2.1x	2.2x	2.4x	1.6%	(5.1%)	2.2x

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		6/30/16	3 mo	12 mo	3 mo	12 mo	
Semiconductor Equipment							
ASML Holding NV	ASML	18.9x	16.9x	19.5x	12.2%	(3.0%)	17.6x
Applied Materials, Inc.	AMAT	13.5x	12.1x	11.6x	11.6%	16.9%	9.4x
Lam Research Corporation	LRCX	8.3x	7.9x	10.7x	4.8%	(22.4%)	6.6x
KLA-Tencor Corporation	KLAC	13.2x	13.5x	13.7x	(2.5%)	(3.8%)	10.7x
Tokyo Electron Limited	8035	8.5x	6.7x	9.6x	28.4%	(11.5%)	8.1x
Teradyne Inc.	TER	7.8x	9.3x	8.7x	(16.0%)	(10.0%)	7.1x
ASM Pacific Technology Ltd.	522	12.8x	13.1x	12.2x	(2.4%)	5.2%	9.9x
Disco Corporation	6146	7.4x	7.7x	9.8x	(4.5%)	(24.6%)	7.7x
ASM International NV	ASM	9.1x	12.0x	11.5x	(23.8%)	(20.7%)	11.9x
MKS Instruments, Inc.	MKSI	10.3x	7.4x	9.9x	40.4%	4.5%	6.8x
Entegris, Inc.	ENTG	10.2x	9.6x	10.5x	6.1%	(2.2%)	9.3x
SCREEN Holdings Co., Ltd.	7735	9.4x	7.6x	9.0x	23.6%	5.0%	7.9x
ULVAC, Inc.	6728	7.0x	8.8x	8.2x	(21.0%)	(14.4%)	6.3x
Advantest Corporation	6857	9.2x	9.1x	9.1x	0.3%	0.1%	10.0x
Median		9.1x	12.0x	11.5x	(2.4%)	(10.0%)	9.4x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 6/30/16	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2016E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2015	2016E	LTM	2016E		
Electronic Design Automation & IP																		
ARM Holdings plc	ARM	\$ 15.04	2.0%	(7.8%)	\$ 17.71	\$ 10.79	\$ 21,161	\$ 20,038	\$ 1,352	\$ 604	\$ 1,574	\$ 841	\$ 0.35	\$ 0.47	46.4x	33.4x	2.2x	
Synopsys Inc.	SNPS	54.08	12.4%	6.8%	54.10	39.26	8,211	7,501	2,317	408	2,441	700	1.43	2.99	36.1x	18.3x	2.0x	
Ansys, Inc.	ANSS	90.75	2.5%	(0.5%)	98.39	80.51	7,990	7,126	951	435	1,017	514	2.76	3.56	32.6x	25.6x	2.0x	
Cadence Design Systems Inc.	CDNS	24.30	4.0%	NA	25.49	18.13	7,311	7,097	1,739	429	1,843	555	0.81	1.21	28.2x	21.3x	2.2x	
Mentor Graphics Corp.	MENT	21.26	5.1%	(19.6%)	28.09	16.10	2,274	2,331	1,136	185	1,233	303	1.26	1.40	26.9x	NM	NM	
Rambus Inc.	RMBS	12.08	(12.7%)	(16.6%)	14.67	9.86	1,330	1,264	296	104	333	110	1.80	0.21	6.9x	59.4x	11.9x	
Imagination Technologies Group Plc	IMG	2.58	(7.1%)	(25.8%)	3.52	1.34	709	757	221	(19)	188	33	(0.07)	(0.05)	NM	NM	NM	
PDF Solutions Inc.	PDFS	13.99	4.4%	(12.6%)	16.36	8.70	437	308	96	18	111	32	0.39	0.77	51.6x	19.0x	1.0x	
Median			3.2%	(12.6%)											32.6x	23.4x	2.1x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		6/30/16	3 mo	12 mo	3 mo		
Electronic Design Automation & IP							
ARM Holdings plc	ARM	14.8x	14.2x	16.6x	4.3%	(11.0%)	12.7x
Synopsys Inc.	SNPS	3.2x	3.0x	3.3x	7.8%	(1.1%)	3.1x
Ansys, Inc.	ANSS	7.5x	7.5x	7.9x	0.5%	(5.3%)	7.0x
Cadence Design Systems Inc.	CDNS	4.1x	4.0x	3.4x	3.2%	21.6%	3.9x
Mentor Graphics Corp.	MENT	2.1x	1.8x	2.4x	15.2%	(15.6%)	1.9x
Rambus Inc.	RMBS	4.3x	4.7x	5.2x	(9.1%)	(17.7%)	3.8x
Imagination Technologies Group Plc	IMG	3.4x	3.4x	3.5x	1.2%	(2.9%)	4.0x
PDF Solutions Inc.	PDFS	3.2x	3.0x	3.7x	7.2%	(14.0%)	2.8x
Median		3.8x	3.7x	3.6x	3.8%	(8.2%)	3.8x

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		6/30/16	3 mo	12 mo	3 mo		
Electronic Design Automation & IP							
ARM Holdings plc	ARM	33.2x	30.9x	37.2x	7.3%	(10.8%)	23.8x
Synopsys Inc.	SNPS	18.4x	17.0x	17.0x	8.1%	8.3%	10.7x
Ansys, Inc.	ANSS	16.4x	16.3x	17.2x	0.8%	(4.8%)	13.9x
Cadence Design Systems Inc.	CDNS	16.5x	16.5x	15.7x	0.4%	5.4%	12.8x
Mentor Graphics Corp.	MENT	12.2x	9.1x	11.0x	33.3%	10.5%	7.7x
Rambus Inc.	RMBS	12.2x	13.0x	14.7x	(6.3%)	(17.2%)	11.5x
Imagination Technologies Group Plc	IMG	NM	NM	NM	NM	NM	22.7x
PDF Solutions Inc.	PDFS	17.6x	12.5x	12.3x	40.6%	42.3%	9.5x
Median		16.5x	16.3x	15.7x	7.3%	5.4%	12.2x

Source: Capital IQ. (\$ in '000, except per share)

CORPORATE FINANCE SERVICES

The sale of a company can represent the culmination of years of effort by its investors and management. With this in mind, Armanino guides our clients through the sale process, bringing to bear extensive structuring, preparation, negotiation, valuation and corporate finance experience and judgment to optimize value.

Our team has developed its expertise through many M&A, divestiture and strategic partnering transactions for closely-held businesses across most major technology sectors.

Corporate Finance Services include:

- Sell-Side Representation
- Buy-Side Representation
- Intellectual Property and Patents Sales
- Purchaser Representative (SEC Reg 501)

The professionals in our practice have many years of business valuation and corporate finance experience with companies in every major industrial sector and size to deliver superior results for private technology companies in Silicon Valley.

SELL SIDE M&A ADVISORY

We help companies pursuing a sale or merger involving all or part of their business, as well as organizations interested in partial divestitures of a division or assets. We provide end-to-end strategic advisory, introducing the company to potential acquirers and managing a rigorous process to optimize competition, achieve strategic valuations and successfully close transactions.

BUY SIDE M&A ADVISORY

We represent clients pursuing strategic acquisitions, such as asset purchases, mergers, and intellectual property procurements. Our financial advisory includes market analyses, target identification, financial modeling, deal negotiations, preliminary due diligence and final negotiation of the definitive agreements.

IP AND PATENT SALES

Armanino is among Silicon Valley's most experienced financial advisory firms for technology companies that seek to monetize assets including intellectual property (IP).

PURCHASER REPRESENTATIVE SERVICES

A Purchaser Representative may be necessary in merger and acquisition transactions where the consideration is not all cash, but includes securities that are not registered with the SEC.

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