RESEARCH BULLETIN

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Seven Top-20 Semiconductor Suppliers Show Double-Digit Gains in 2Q16

MediaTek and AMD register the fastest 2Q16/1Q16 growth rates of 32% and 23%, respectively.

IC Insights will release its August *Update* to the 2016 *McClean Report* later this month. This *Update* includes an update of the semiconductor industry capital spending forecast, an analysis of the IC foundry industry, and a look at the ***top-25*** semiconductor suppliers for 1H16, including a forecast for the full year ranking (the top 20 1H16 semiconductor suppliers are covered in this research bulletin).

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The top-20 worldwide semiconductor (IC and O-S-D—optoelectronic, sensor, and discrete) sales ranking for 1H16 is shown in Figure 1. It includes eight suppliers headquartered in the U.S., three in Japan, three in Taiwan, three in Europe, two in South Korea, and one in Singapore, a relatively broad representation of geographic regions.

The top-20 ranking includes three pure-play foundries (TSMC, GlobalFoundries, and UMC) and six fabless companies. If the three pure-play foundries were excluded from the top-20 ranking, China-based fabless supplier HiSilicon ($1,710 million), U.S.-based IDM ON Semiconductor ($1,695 million), and U.S.-based IDM Analog Devices ($1,583 million) would have been ranked in the 18th, 19th, and 20th positions, respectively.

IC Insights includes foundries in the top-20 semiconductor supplier ranking since it has always viewed the ranking as a top supplier list, not a marketshare ranking, and realizes that in some cases the semiconductor sales are double counted. With many of our clients being vendors to the semiconductor industry (supplying equipment, chemicals, gases, etc.), excluding large IC manufacturers like the foundries would leave significant "holes" in the list of top semiconductor suppliers. As shown in the listing, the foundries and fabless companies are identified. In the April Update to The McClean Report, marketshare rankings of IC suppliers by product type were presented and foundries were excluded from these listings.

Overall, the top-20 list shown in Figure 1 is provided as a guideline to identify which companies are the leading semiconductor suppliers, whether they are IDMs, fabless companies, or foundries.

1H16 Top 20 Semiconductor Sales Leaders ($M, Including Foundries)

1H16 Rank	2015 Rank	Company	Headquarters	1Q16 Tot IC	1Q16 Tot O-S-D	1Q16 Tot Semi	2Q16 Tot IC	2Q16 Tot O-S-D	2Q16 Tot Semi	2Q16/1Q16 % Change	1H16 Tot Semi
1	1	Intel	U.S.	13,115	0	13,115	12,956	0	12,956	-1%	26,071
2	2	Samsung	South Korea	8,765	575	9,340	9,686	640	10,326	11%	19,666
3	3	TSMC (1)	Taiwan	6,155	0	6,155	6,848	0	6,848	11%	13,003
4	6	Broadcom Ltd. (2)	Singapore	3,175	375	3,550	3,410	320	3,730	5%	7,280
5	5	Qualcomm (2)	U.S.	3,337	0	3,337	3,853	0	3,853	15%	7,190
6	4	SK Hynix	South Korea	2,971	92	3,063	3,281	102	3,383	10%	6,446
7	9	TI	U.S.	2,625	179	2,804	2,854	193	3,047	9%	5,851
8	7	Micron	U.S.	2,909	0	2,909	2,940	0	2,940	1%	5,849
9	10	Toshiba	Japan	2,139	307	2,446	2,166	320	2,486	2%	4,932
10	8	NXP	Europe	1,728	496	2,224	1,844	521	2,365	6%	4,589
11	13	MediaTek (2)	Taiwan	1,691	0	1,691	2,239	0	2,239	32%	3,930
12	11	Infineon	Europe	1,066	710	1,776	1,106	738	1,844	4%	3,620
13	12	ST	Europe	1,184	417	1,601	1,258	440	1,698	6%	3,299
14	17	Apple (2)*	U.S.	1,390	0	1,390	1,520	0	1,520	9%	2,910
15	15	GlobalFoundries (1)	U.S.	1,360	0	1,360	1,450	0	1,450	5%	2,810
16	14	Renesas	Japan	1,104	311	1,415	1,061	305	1,366	-3%	2,781
17	18	Nvidia (2)	U.S.	1,271	0	1,271	1,321	0	1,321	4%	2,592
18	16	Sony	Japan	165	960	1,125	160	975	1,135	1%	2,260
19	19	UMC (1)	Taiwan	1,038	0	1,038	1,139	0	1,139	10%	2,177
20	21	AMD (2)	U.S.	832	0	832	1,027	0	1,027	23%	1,859
—	—	Top 20 Total	—	58,020	4,422	62,442	62,119	4,554	66,673	7%	129,115

(1) Pure-play foundry (2) Fabless supplier (3) Purchased Atmel in 2Q16.

Source: Companies, IC Insights' Strategic Reviews Database *Custom processors for internal use made by TSMC and Samsung foundry services.

Figure 1

Thirteen of the top-20 companies had sales of at least $3.0 billion in 1H16. As shown, it took $1.86 billion in sales just to make it into the 1H16 top-20 semiconductor supplier list. There was one new entrant into the top-20 ranking in 1H16 as compared to the 2015 ranking—AMD, which replaced Japan-based Sharp. In 2Q16, AMD registered a strong 23% increase in sales while Sharp was moving in the opposite direction logging a 13% decline in its 2Q16/1Q16 revenue.

Intel remained firmly in control of the number one spot in the top-20 ranking in 1H16. In fact, it increased its lead over Samsung's semiconductor sales from only 20% in 2015 to 33% in 1H16. The biggest upward move in the ranking was made by Apple, which jumped up three positions in the 1H16 ranking as compared to 2015. Other companies that made noticeable moves up the ranking include MediaTek and the new Broadcom Ltd. (the merger of Avago and Broadcom), with each company moving up two positions.

Apple is an anomaly in the top-20 ranking with regards to major semiconductor suppliers. The company designs and uses its processors only in its own products—there are no sales of the company's MPUs to other system makers. IC Insights estimates that Apple's custom ARM-based SoC processors had a "sales value" of $2.9 billion in 1H16, which placed them in the 14th position in the top-20 ranking.

In total, the top-20 semiconductor companies' sales increased by 7% in 2Q16/1Q16. Although, in total, the top-20 2Q16 semiconductor companies registered a 7% increase, there were seven companies that displayed a double-digit 2Q16/1Q16 jump in sales and only two that registered a decline (Intel and Renesas).

The fastest growing top-20 company in 2Q16 was Taiwan-based MediaTek, which posted a huge 32% increase in sales over 1Q16. Although worldwide smartphone unit volume sales are forecast to increase by only 5% this year, MediaTek's application processor shipments to the fast-growing China-based smartphone suppliers (e.g., Oppo and Vivo), helped drive its stellar 2Q16/1Q16 increase. Overall, IC Insights expects MediaTek to register about $8.8 billion in sales in 2016, which would represent a 31% surge over the $6.7 billion in sales the company had last year.

As expected, given the possible acquisitions and mergers that could/will occur over the next few years, the top-20 ranking is likely to undergo a significant amount of upheaval as the semiconductor industry continues along its path to maturity.

Report Details: *The 2016 McClean Report*

Additional details on semiconductor sales rankings by company are included in the 2016 edition of IC Insights' flagship report, *The McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry*. A subscription to *The McClean Report* includes **free** monthly updates from March through November (including a 250+ page *Mid-Year Report*), and **free** access to subscriber-only webinars throughout the year. An individual-user license to the 2016 edition of *The McClean Report* is priced at $3,890 and includes an Internet access password. A multi-user worldwide corporate license is available for $6,890.

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