Gartner Says Worldwide Semiconductor Capital Equipment Spending to Decline 19.5 Per Cent in 2012

Impact of Weakening Economy and Natural Disasters Impact Equipment Spending in 2012

STAMFORD, Conn. December 14, 2011 — Worldwide semiconductor capital equipment spending is expected to total $51.7 billion in 2012, a 19.5 per cent decline from projected 2011 spending of $64.2 billion, according to Gartner, Inc.

"Natural disasters and the economy have certainly impacted the semiconductor capital equipment market in 2011, but we expect equipment spending to increase 13.7 per cent in 2011," said Klaus Rinnen, managing vice president at Gartner. "However, equipment providers will not be as lucky in 2012. The impact of the slowing macro economy, high inventories and a sluggish PC industry — due to both weak demand and the flooding in Thailand — will temper the outlook for 2012."

Gartner expects the slowdown to last through the second quarter of 2012. By that time, the supply and demand should be in balance with the semiconductor side possibly even beginning to see some undersupply. Once the supply is balanced, DRAM and foundry will need to begin to increase spending to meet an increase in demand as consumers resume spending and the PC market rebounds. 2013 is expected to be the next growth year, with capital spending growing 19.2 per cent (see Table 1).

Table 1
Worldwide Semiconductor Capital Equipment Spending Forecast, 2009-2015 (Millions of Dollars)

	2010	2011	2012	2013	2014	2015
Semiconductor Capital Spending ($M)	56,526.2	64,242.7	51,706.5	61,624.5	63,549.4	60,966.0
Growth	118.4%	13.7%	-19.5%	19.2%	3.1%	-4.1%
Capital Equipment ($M)	40,639.1	43,200.0	34,010.5	42,528.9	43,893.6	41,664.5
Growth	142.7%	6.3%	-21.3%	25.0%	3.2%	-5.1%
Wafer Fab Equipment ($M)	31,624.7	34,729.6	26,764.0	33,119.3	34,729.9	31,886.4
Growth	145.5%	9.8%	-22.9%	23.7%	4.9%	-8.2%
Packaging and Assembly Equipment ($M)	6,154.6	5,782.1	5,001.2	6,313.2	6,161.4	6,608.4
Growth	127.2%	-6.1%	-13.5%	26.2%	-2.4%	7.3%
Automated Test Equipment ($M)	2,859.8	2,688.3	2,245.4	3,096.4	3,002.3	3,169.8
Growth	148.7%	-6.0%	-16.5%	37.9%	-3.0%	5.6%
Other Spending ($M)	15,887.0	21,042.7	17,696.0	19,095.6	19,655.7	19,301.5
Growth	73.9%	32.5%	-15.9%	7.9%	2.9%	-1.8%

Source: Gartner (December 2011)

Wafer fab equipment (WFE) revenue is expected to grow 9.8 per cent in 2011. In 2011, continued demand for leading-edge WFE technologies is again benefiting the high-priced 193 nm immersion lithography segment and associated equipment in the lithography cell. WFE spending in 2012 will be primarily on leading-edge technology as the 20 nm and 28/32 nm ramp-ups continue. Gartner expects WFE to decline by 22.9 per cent in 2012, rebounding in 2013 to 23.7 per cent.

Orders for packaging and assembly equipment (PAE) have softened more aggressively than previously expected as supply comes in line with expectations. For back-end process providers' capital expenditure (capex) purchases, 3D packaging and copper wire bonding for lower-cost solutions will still be the focus, but at a reduced pace. Gartner said that most major tool segments will see slightly negative sales in 2011, but advanced tooling will again be stronger than the general market this year. For 2012, traditional tooling segments will see substantial declines in sales, while advanced packaging segments are expected to fall less than is traditional when compared with 2011. The pause in copper bonding solutions is expected to continue through next year, before an aggressive ramp-up in 2013.

For 2011, the automated test equipment (ATE) market is expected to decline modestly over 2010. Gartner's 2011 expectations are driven by the moderated demand of system-on-chip and the advanced radio frequency segments of the market. Memory ATE will likely pull back in 2011 as DRAM capex has continued to soften. However, NAND testing platforms are expected to be stronger than the general memory test market this year. For 2012, analysts expect a significant decline in tester sales, though memory systems should hold up reasonably well compared with most cycles as DRAM capex returns. Beyond 2012, Gartner predicts solid growth in 2013.

This research is produced by Gartner's Semiconductor Manufacturing programme. This research programme, which is part of the overall semiconductor research group, provides a comprehensive view of the entire semiconductor industry, from manufacturing to device and application market trends. More information on Gartner's semiconductor research can be found in the Gartner Semiconductor Manufacturing Focus Area
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