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**Worldwide Semiconductor Manufacturing Equipment Spending Declined 16 Per Cent in 2012, According to Final Results by Gartner**

STAMFORD, Conn., 22 April, 2013 — Worldwide semiconductor capital equipment spending totalled \$37.8 billion in 2012, a 16.1 per cent decline from 2011, according to final results by Gartner, Inc. Wafer-level manufacturing underperformed the market in 2012, pulled down by weakness in lithography and deposition. Among the major sectors, those more strongly driven by logic manufacturing, 28/20-nanometer (nm) processing and yield ramps-ups did better.

"Continued oversupply in DRAM and the shift to NAND into oversupply led to a reduced need for capacity," said Klaus-Dieter Rinnen, managing vice president at Gartner. "Memory manufacturing-related purchases declined significantly. Logic-related spending provided only a weak counterforce, impacted by slowing overall semiconductor device demand in the second half of 2012 and bulging inventories. Consequently, manufacturing equipment sales realised a declining quarterly pattern, starting in the second quarter through the end of the year."

Applied Materials reclaimed the No. 1 spot based on its relative strength in deposition and process control (see Table 1). Weakness in lithography and limited sales in extreme ultraviolet (EUV) caused ASML's decline. Similar to Applied, Tokyo Electron Ltd. (TEL) benefited from its relative strength in the nonlithography sectors it serves. Lam Research moved into the No. 4 position with its merger with Novellus Systems.

**Table 1  
 Top 10 Worldwide Semiconductor Manufacturing Equipment Vendors by Revenue Estimates  
 (Millions of US Dollars)**

2012 Rank	2011 Rank	Company	2012 Revenue	2012 Market Share (%)	2011 Revenue	2011-2012 Growth (%)
1	2	Applied Materials	5,513	14.4	5,877	-6.2
2	1	ASML	4,887	12.8	6,790	-28.0
3	3	Tokyo Electron	4,219	11.1	5,098	-17.2
4	5	Lam Research	2,835	7.4	2,314	22.5
5	4	KLA-Tencor	2,464	6.5	2,507	-1.7
6	6	Dainippon Screen	1,484	3.9	1,810	-18.0
7	9	Advantest	1,423	3.7	1,162	22.5
8	11	Hitachi High-Technologies	1,138	3.0	986	15.4
9	7	Nikon	1,007	2.6	1,378	-27.0
10	8	ASM International	965	2.5	1,332	-27.5
		Others	12,226	32.0	16,277	-24.9
		<b>All Companies</b>	<b>38,161</b>	<b>100,0</b>	<b>45,530</b>	<b>-16.2</b>
		OEM Elimination	328		451	-27.3
		<b>Net Market Total</b>	<b>37,833</b>		<b>45,079</b>	<b>-16.1</b>

Source: Gartner (April 2013)

"Notable is the further rise of the sales share of the top 10 vendors, now approaching 70 per cent, compared with 61 per cent in 2008," said Mr Rinnen. "The advance of these large players symbolises losses of smaller players in the competitive race and an increasing market dependence on a few vendors in the equipment market."

The back-end segment, and especially the wafer-level packaging (WLP)-related segments, outperformed the market. These segments were either tied to the relative strength of logic investments, such as advanced RF or system-on-chip (SoC) test equipment, or to the increasing popularity of bump, flip-chip and other WLP processes, such as stud bump bonding and wafer bonders for through-silicon vias (TSVs).

The process control segments outperformed the total wafer fab equipment market as companies ramped up production at the 32/28 nm node and needed increased inspection and defect review tools to monitor increasingly complex processes. Within the process control segments, e-beam patterned wafer inspection saw the best performance, up 36 per cent in 2012.

Additional information is provided in the Gartner report "Market Share Analysis: Semiconductor Manufacturing Equipment, Worldwide, 2012". The report provides rankings and market share for the top 20 vendors. The report is available on Gartner's web site at <http://www.gartner.com/resId=2427915>.

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