

Gartner Says Worldwide Semiconductor Capital Equipment Spending to Grow 76 Per Cent in 2010

STAMFORD, Conn. March 8, 2010 – Worldwide semiconductor capital equipment spending is projected to surpass \$29.4 billion in 2010, a 76.1 per cent increase from 2009 spending of \$16.7 billion, according to Gartner, Inc.

"The dramatic semiconductor industry recovery rate over the last three quarters has necessitated a renewed growth for equipment spending," said Jim Walker, research vice president at Gartner. "Spending by the memory and foundry markets, along with the advancement to new technology nodes, will drive the semiconductor equipment segment in the first half of 2010. Quarterly growth will see a slight slowdown in the second half before capacity additions start ramping up the equipment industry again going into 2011."

Following the significant declines in 2009, all segments of the semiconductor capital equipment market will experience extremely strong double-digit growth in 2010 (see Table 1).

Table 1

Worldwide Semiconductor Capital Equipment Spending Forecast 2009 — 2014 (Millions of Dollars)

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------------------------|----------|----------|----------|----------|----------|----------|
| Semiconductor Capital Spending | 25,934.9 | 40,429.9 | 51,291.5 | 61,898.6 | 54,167.5 | 52,953.2 |
| Growth (%) | -41.1 | 55.9 | 26.9 | 20.7 | -12.5 | -2.2 |
| Capital Equipment | 16,677.1 | 29,372.6 | 36,413.3 | 42,919.6 | 35,694.2 | 35,965.5 |
| Growth (%) | -45.6 | 76.1 | 24.0 | 17.9 | -16.8 | 0.8 |
| Wafer Fab Equipment | 12,976.8 | 22,924.7 | 28,793.3 | 34,351.3 | 29,176.7 | 28,581.6 |
| Growth (%) | -46.4 | 76.7 | 25.6 | 19.3 | -15.1 | -2.0 |
| Packaging and Assembly Equipment | 2,382.6 | 4,181.7 | 5,013.2 | 5,716.4 | 4,335.5 | 4,977.0 |
| Growth (%) | -40.4 | 75.5 | 19.9 | 14.0 | -24.2 | 14.8 |
| Automated Test Equipment | 1,317.7 | 2,266.2 | 2,606.8 | 2,851.9 | 2,182.1 | 2,406.8 |
| Growth (%) | -46.1 | 72.0 | 15.0 | 9.4 | -23.5 | 10.3 |
| Other Spending | 9,257.8 | 11,057.3 | 14,878.2 | 18,979.0 | 18,473.3 | 16,987.8 |
| Growth (%) | -30.8 | 19.4 | 34.6 | 27.6 | -2.7 | -8.0 |

Source Gartner (March 2010)

Overall worldwide wafer fab equipment (WFE) spending declined 46.4 per cent in 2009, a slight improvement from the fourth quarter of 2009 forecast. Worldwide WFE spending in 2010 will grow 76.6 per cent from 2009. WFE spending will be driven by aggressive technology upgrades, especially for the leading memory companies. Utilisation rates continue to run in the mid-80s to high 80s for total utilisation and in the low 90s for leading edge. Leading-edge utilisation will hit the mid-90-per cent range by the end of 2010, which will start to drive stronger capacity additions in 2011.

After declining 40 per cent in 2009, the worldwide packaging and assembly equipment (PAE) market is expected to increase by more than 75 per cent in 2010. Decent PAE market growth is expected through

2012. The modest decline expected for 2013 is based on a more traditional inventory-based market contraction. On a regional basis, Asia/Pacific will improve its share of PAE consumption throughout the forecast period. From about 77 per cent of PAE shipments in 2010, Asia/Pacific will account for nearly 85 per cent of all PAE sales by 2014. China will be the largest individual consumer of PAE in 2012, accounting for nearly 27 per cent of the total market that year.

2010 will bring the worldwide automated test equipment (ATE) market its first positive growth year since 2006. After bottoming out in the first quarter of 2009, the ATE market has realised substantial quarterly gains and is expected to grow by more than 70 per cent in 2010. Growth is expected to continue during the next several quarters as device demand improves. Gartner's 2010 growth expectations are driven heavily by the expected transition to DDR3 memory devices. On a regional basis, test equipment revenues will be driven by increased shipments to the Asia/Pacific region. By 2014, shipments to Asia/Pacific will grow to nearly 80 per cent of the ATE market.

"The semiconductor equipment industry will experience a very strong growth spurt in 2010, as we emerge from a very costly recession, and this growth is expected to continue throughout 2012," said Mr Walker. "However, we expect this upturn to be one of the first in which the peak revenue in capital equipment does not surpass previous growth cycles, which may well help to mitigate the boom/bust scenario that we have seen in the past."

Additional information is available in the Gartner report "Forecast: Strong Growth Propels Semiconductor Capital Equipment Market In 2010." The report is available on Gartner's website at <http://www.gartner.com/resId=1313119>.

This research is produced by Gartner's Semiconductor Manufacturing program. This research program, 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 Focus Area at http://www.gartner.com/it/products/research/asset_129175_2395.jsp.

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