

# Strong growth seen for advanced photomasks

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- After the pain of mediocre growth in 2006, the semiconductor photomask market regained its strong advance last year with growth of 9.4 percent , reaching sales of \$2.5 billion, according to...

Demand for photomasks is directly a function of design activity rather than sales volume from products using photomasks, so an increase in the semiconductor market does not necessarily translate to an increase in photomask sales, notes.... "For example, the semiconductor market grew 8.9 percent and 3.8 percent in 2006 and 2007, respectively, but the photomask market grew 5.4 percent and 9.4 percent in the same period," said Castellano. Production of 45-nm masks ramped up last year, while use of 65-nm masks moved into volume production, said the market research group.

**A 65-nm mask set is comprised of 40 photomasks, five of which are critical (45-nm design rule) and 15 subcritical (90-nm design rule).**

According to TIN, a 65-nm mask set can cost 1.8 times that of a 90-nm set, while a 45-nm mask set can cost 2.2 times that of a 65-nm version.

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- Toppan led the worldwide merchant market last year for advanced photomasks, with a 42 percent share, followed by DNP and U.S. based Photronics,....

TIN estimates logic ICs will grow 10 percent this year. Since these parts require more masks and at a higher price, and coupled with a further ramp in 45- and 60-nm mask set consumption, this is predicted to translate into an increase of 14 percent for photomask sales....



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