

TSMC Announces 0.18-Micron Automotive Grade Embedded Flash IP

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Taiwan Semiconductor Manufacturing Company today announced the 0.18-micron automotive Embedded Flash IP as its second generation Embedded Flash IP that passed AEC-Q100 product qualification requirements for a wide range of automotive applications.

TSMC's 0.18-micron automotive Embedded Flash IP macro features 27 percent area reduction compared to an equivalent 0.25-micron Embedded Flash IP. The 0.18um technology generation hits a cost and performance sweet spot as vast amount of IPs have been developed for many applications. The addition of this 0.18-micron automotive qualified Embedded Flash IP enables customers to extend their current 0.18-micron product portfolios to automotive micro-controller applications.

The 0.18-micron automotive Embedded Flash process entered initial volume production last year. More than 38000 8-inch wafers or an equivalent number of 43 Million automotive MCU units have been shipped. So far TSMC had observed lower failure rate as compared to the previous generation 0.25 um in which 0.1ppm or less has been achieved.

Much of the learning in bringing the 0.25-micron Embedded [Flash technology](#) to production readiness has also resulted in a quicker time in achieving this new record for the new IP.

“This new milestone results from a truly synergistic alignment between

TSMC’s strength in manufacturing consistency and our customers’ expertise in test methodology. It underscores TSMC’s relentless pursuit to meet the stringent automotive electronics requirements,” said Kuotung Cheng, director of automotive program at TSMC.

TSMC is the only foundry that provides AEC-Q100 qualified 0.25-micron and 0.18-micron Embedded Flash IP as general offers to all its customers.

Source: Taiwan Semiconductor Manufacturing Company

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