

Establishing Competitive Semiconductor Manufacturing for 0.13um Copper Technology and Beyond

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In order to stay competitive in the rapidly advancing, international semiconductor industry, a manufacturing company needs to continually focus on improving profits while maintaining customer satisfaction. Several measurable factors contribute to this goal including rapid yield learning, manufacturing cost, statistical process control limits, process yield, equipment availability, cycle time, turns per direct labor hour, customer on time delivery and zero customer defects. To hold a competitive position in the semiconductor market, performance to these measurable factors must be maintained regardless of the technology generation. In this presentation, the methodology applied by Freescale Semiconductor to improve manufacturing effectiveness to a world-class level in these areas, including a 40% reduction in cycle time, an 80% improvement in turns per direct labor hour and a 30% reduction in manufacturing cost, will be discussed.