

Product Change Notice PCN2002-05

Spartan™-IIE Wafer Fabrication Update

(Not applicable to Spartan and Spartan-II product families)

Overview:

This notification is to inform you of some important changes to the Spartan-IIE product family. The Spartan-IIE product family will transfer to a 0.18 μ m (transistor) / 0.15 μ m (interconnect) 6-layer metal hybrid process on 12-inch wafers at UMC, Taiwan. The Spartan-IIE family is currently manufactured using a 0.18 μ m 6-layer metal process on 8-inch wafers at UMC, Taiwan.

The Spartan-IIE 0.18 μ m / 0.15 μ m hybrid process on 12-inch wafers is pin, function, timing, and programming file compatible with the existing Spartan-IIE 0.18 μ m process on 8-inch wafers. All other key features, such as power supply voltage, and number of metallization layers remain unchanged. The change was initiated to improve Xilinx's ability to support this product effectively, competitively, and to accommodate our customers' high volume demand.

Key Dates:

The qualification of the 0.18 μ m / 0.15 μ m hybrid process on 12-inch wafers has been completed. Fully-qualified, production-released material is now available for customers to sample. Beginning August 15, 2002, customers may expect to receive Spartan-IIE products from either the 0.18 μ m (on 8-inch wafers) or the 0.18 μ m / 0.15 μ m processes (on 12-inch wafers) when ordering using the standard part number. Once inventory of the 0.18 μ m material on 8-inch wafers has been depleted, only material from the 0.18 μ m / 0.15 μ m process on 12-inch wafers will be used to manufacture the Spartan-IIE family.

Customers who want to specify only 0.18 μ m / 0.15 μ m process material (on 12-inch wafers) must use special ordering number SCD0775. To use SCD0775, append "0775" to the end of the standard ordering part number (e.g., XC2S50E-6PQ208C**0775**). Only 0.18 μ m / 0.15 μ m process material on 12-inch wafers will be used to fulfill SCD0775 orders. Use of SCD0775 will only be necessary for this purpose until inventory of the 0.18 μ m material has been depleted. SCD0775 is available for use on May 15, 2002, and will be discontinued after December 31, 2002.

Starting May 15, 2002, customers who need product manufactured on the 0.18 μ m process on 8-inch wafers may do so by using special ordering number SCD0776. To use SCD0776, append "0776" to the end of the standard ordering part number (e.g., XC2S50E-6PQ208C**0776**). Only 0.18 μ m process material will be used to fulfill SCD0776 orders. Note that SCD0776 will be discontinued after December 31, 2002.

The following table summarizes the SCD usage:

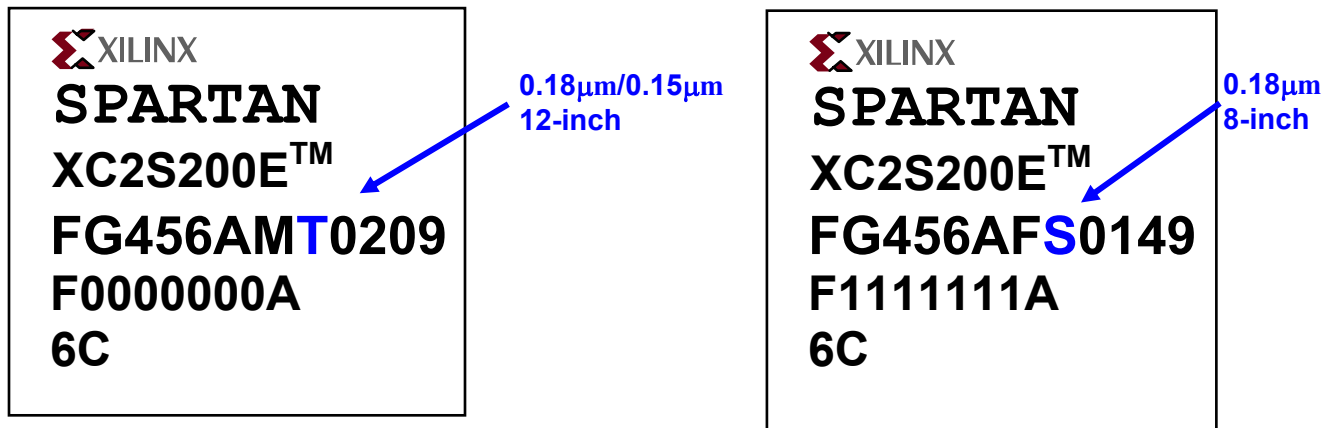
SCD #:	SCD DESCRIPTION:	EXAMPLE OF ORDERING PART #:	SCD AVAILABLE ON:	SCD DISCONTINUED ON:
SCD0775	12-inch wafers	XC2S50E-6PQ208C0775	May 15, 2002	December 31, 2002
SCD0776	8-inch wafers	XC2S50E-6PQ208C0776	May 15, 2002	December 31, 2002

Traceability:

These devices can be distinguished by a 3-letter code located on the second line of the package topmark in between the package/pin code and the datecode. The 3rd letter will be an “S” for product manufactured using the 0.18µm process on 8-inch wafers, and “T” for product manufactured using the 0.18µm / 0.15µm hybrid process on 12-inch wafers. See example below.

Amendment to this PCN: To enhance Xilinx's traceability system, a new wafer fabrication code "G" was added in October 2002 to identify all material manufactured at UMC's 12-inch wafer fabrication facility. The 2nd letter of the 3-letter code will be a "G" for any product built at UMC's 12-inch wafer fabrication facility.

Example of a package topmark:



Qualification Data: The following is the qualification data for the 0.18/0.15 μ m process at UMC's 12-Inch Wafer Fab:

Lot #	Part	Test	Quantity	Hours/Cy	Fails	Status
E11936 2	XC2S300E	HTOL	76	24	0	continue
		@145°C		48	0	continue
				168	0	continue
				256	0	continue
				500	0	continue
				1000	0	continue
				1500	0	complete
E11936A	XC2S300E	HTOL	76	24	0	continue
		@145°C		48	0	continue
				256	0	continue
				500	0	continue
				1000	0	complete
E11936A	XC2S300E	HTOL	76	24	0	continue
		@145°C		48	0	continue
				256	0	continue
				500	0	continue
				1000	0	complete
E11936	XC2S300E	HTOL	12	24	0	continue
		@145°C		48	0	continue
				256	0	continue
				500	0	continue
				1000	0	complete
E11936A	XC2S300E	Temp Cycle	76	200	0	continue
		@-65°C / +150°C		500	0	continue
		Condition C		1000	0	complete
E11936A	XC2S300E	HAST	76	100	0	complete
		@130°C/85%RH				

Response and Contact:

Per JEDEC Standard JESD46-B, customers should acknowledge receipt of the PCN within 30 days of delivery of the PCN. Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change. After acknowledgement, lack of additional response within the 90-day period constitutes acceptance of the change.

To obtain samples or production devices, please contact your [Xilinx Sales Representative](#). For additional information or questions on this PCN, please contact the Quality Assurance group via email at pcn@xilinx.com, or directly by fax at (408) 369-1718.