October 1, 2001

Product Change Notification PCN2001-08

Spartan-II - Change in Fab Process Technology

Overview:

The Spartan-II family is currently manufactured using two different process technologies; a 0.25µ 5-layer metal process and a 0.22µ / 0.18µ 6-layer metal hybrid process. This is to inform you that the family members manufactured on the 0.25µ process will migrate to the 0.22µ / 0.18µ hybrid process. As a result, all Spartan-II products will be manufactured on the existing 0.22µ / 0.18µ hybrid process.

This change was initiated to improve Xilinx's ability to support this product effectively, competitively, and to accommodate our customers' high volume demand.

Description of Change:

Some members of the Spartan-II family are currently manufactured at UMC's 8-inch fab in Taiwan using a 0.25µ 5-layer metal process. The remaining members of the Spartan-II family are manufactured at UMC's 8-inch fab using a 0.22µ (transistor) / 0.18µ (interconnect) 6-layer metal process.

The devices being transitioned to the 0.22µ / 0.18µ hybrid process are the -5 speed grade (Commercial-grade and Industrial-grade) of the XC2S50, XC2S100, XC2S150, and XC2S200.

The devices that are currently manufactured on the 0.22µ / 0.18µ hybrid process will remain unchanged. These devices are XC2S15, XC2S30, XC2S50-6C, XC2S100-6C, XC2S150-6C, XC2S200-6C.

The 0.22µ / 0.18µ hybrid process is a pin, function, timing, and programming file compatible with the existing Spartan-II 0.25µ process. All other key features, such as power supply voltage remain unchanged.

Beginning in January 2002, customers may receive devices from either the 0.25µ or 0.22µ / 0.18µ processes when ordering -5 speed grade (Commercial-grade and Industrial-grade) of the XC2S50, XC2S100, XC2S150, and XC2S200.

This PCN is not applicable to the Spartan (5 volt) or Spartan-XL (3.3 volt) product families.

Qualification Data / Key Dates:

Xilinx anticipates shipping the newly transitioned Spartan-II products fabricated with the 0.22µ / 0.18µ hybrid process beginning January 2002 per the following schedule:

Process Qualification:	Qualification Date
UMC 8-inch, 0.22µ / 0.18µ Process Qualification	Completed, see table below

Lot #	Part	Package	Test	Quantity	Hours/Cy	Fails	Status
X7917R	XCV300	PQ240	HTOL	76	48	0	continue
					168	0	continue
					256	0	continue
					500	0	continue
					1000	0	complete
X7833R	XCV800	HQ240	HTOL	31	48	0	continue
					168	0	continue
					256	0	continue
					500	0	continue
					1000	0	complete
X7864R	XCV600	HQ240	HTOL	76	48	0	continue
					168	0	continue
					256	0	continue
					500	0	complete
X7272R	XCV300E	PQ240	HAST	76	100	0	complete
X7537R	XCV1000	BG560	T/C	19	200	0	continue
					500	0	continue
					1000	0	complete
X7538R	XCV1000	FG680	T/C	6	200	0	continue
					500	0	continue
					1000	0	complete

Mask Qualification:

Xilinx Device	Wafer Diameter	0.22µ / 0.18µ Mask Qualification	Availability of Production Qualification Samples	Availability of Production Devices
XC2S50	8-inch	Complete	Now	January, 2002
XC2S100	8-inch	Complete	Now	January, 2002
XC2S150	8-inch	Complete	Now	January, 2002
XC2S200	8-inch	Complete	Now	January, 2002

Note: Please contact your Xilinx Sales Representative to request qualification samples.

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 second letter in this 3-letter code will be an "F" indicating the wafer fabrication source. The third letter will be an "S" for product manufactured using the 0.22µ / 0.18µ hybrid process. See example below.

Example of a package topmark:

	ACTUAL TOPMARK	DESCRIPTION OF TOPMARK
Line 1:	XC2S150™	Xilinx Device Type
Line 2:	FG256AFS0104	FG256 = Package Type A = Circuit Stepping F = UMC Wafer Fab S = 0.22µ / 0.18µ Fab Process 0104 = Date Code
Line 3:	A1234567A	Assembly Lot Number
Line 4:	5C	5 = Speed C = Commercial Grade

Response and Contact:

Per JEDEC Standard 46-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.

Please contact your Xilinx Sales Representative to obtain qualification samples or production devices. For additional information or questions, please send email to the Quality Assurance group at pcn@xilinx.com, or directly by fax at (408) 369-1718.