Lead-Frame Plating Composition Change For Legacy Eutectic Products

XCN18024 (v1.0) October 29, 2018

Overview

The purpose of this notification is to announce the transition into Pre-Plated Lead-Frame (PPF) manufacturing for Spartan®-II and Spartan®-3 FPGAs, CoolRunner-II™ CPLD and QPro™ PROM wire-bond package eutectic products. There is no change to the fit, form, function or Moisture Sensitivity Level (MSL) rating of the packages.

Description

Xilinx will be changing lead-frame plating composition from the current tin-lead (Sn/Pb) to palladium-nickel-gold (Pd/Ni/Au) using a pre-plated lead-frame. Xilinx has qualified this package change since the tin-lead plating line is being discontinued by Xilinx's supplier. The PPF palladium-nickel-gold lead-frame has been used for more than 20 years in industry, is considered a standard lead-frame, and is compatible with both Sn/Pb and lead-free plating processes.

This change will not affect fit, form, function or MSL rating of the affected packages.

Products Affected

This change affects all speeds and temperature grades such as commercial / industrial "XC" and defense "XQ" of the device packages as defined in the tables below (Table 1, Table 2 and Table 3). Any associated specification control document (SCD) versions of the standard part numbers are also affected.

Table 1: **Spartan-II and Spartan-3 FPGA QFP Device-Packages Affected**

Device	Package-Pin	Device	Package-Pin	Device	Package-Pin
XC2S100	PQ208	XC3S100E	TQ144	XC3S400	PQ208
XC2S100	TQ144	XC3S100E	VQ100	XC3S400	TQ144
XC2S15	TQ144	XC3S200	PQ208	XC3S50	PQ208
XC2S15	VQ100	XC3S200	TQ144	XC3S50	TQ144
XC2S150	PQ208	XC3S200	VQ100	XC3S50	VQ100
XC2S200	PQ208	XC3S200A	VQ100	XC3S500E	PQ208
XC2S30	TQ144	XC3S250E	VQ100	XC3S50A	TQ144
XC2S30	VQ100	XC3S250E	PQ208	XC3S50A	VQ100
XC2S50	PQ208	XC3S250E	TQ144	XC3S50AN	TQ144
XC2S50	TQ144				

Table 2: **CoolRunner-II CPLD QFP Device-Packages Affected**

Device	Package-Pin	Device	Package-Pin	Device	Package-Pin
XC2C128	TQ144	XC95144XL	TQ100	XCR3032XL	VQ44
	VQ100		TQ144	XCR3064XL	VQ100
XC2C256	PQ208	XC95288XL	PQ208		VQ44
	TQ144		TQ144	XCR3128XL	TQ144
	VQ100	XC9536XL	VQ44		VQ100
XC2C32A	VQ44		VQ64	XCR3256XL	PQ208
XC2C384	PQ208	XC9572XL	TQ100		TQ144
	TQ144		VQ44	XCR3384XL	PQ208
XC2C512	PQ208		VQ64		TQ144
XC2C64A	VQ100			XCR3512XL	PQ208
	VQ44				

Table 3: **QPro PROM QFP Device-Package Affected**

Device	Package-Pin
XQ17V16	VQ44

Key Dates and Ordering Information

Xilinx will begin shipping products using Pre-Plated Lead-Frame (PPF) starting January 1st, 2020.
Any change on cut-over date will be communicated through XTP526.

Qualification Data

Qualification data is available upon request.

Required Action

Acknowledgement required within 30 days of receipt of this notice. No feedback or response of the PCN within 30 days constitutes acceptance of the change. For additional information or questions, please contact your Xilinx sales representative.

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Revision History

The following table shows the revision history for this document.

Date	Version	Revision
10/29/2018	1.0	Initial release.

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