



Title of Change:	Long boot issue on the Ezairo 5920 hybrid for 0W635-004-XTP.	
Proposed first ship date:	26 July 2018	
Contact information:	Contact your local ON Semiconductor Sales Office or < christophe.waelchli@onsemi.com >	
Samples:	Contact your local ON Semiconductor Sales Office or < christophe.waelchli@onsemi.com >	
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or < paul.syndergaard@onsemi.com >	
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact < PCN.Support@onsemi.com >.	
Change Part Identification:	A new OPN will be available and the chip ID will be modified as follow: Old OPN: 0W635-004-XTP / Old chip ID: 1.02.00. New OPN: 0W635-006-XTP / New chip ID: 1.02.10.	
Change category:	<input type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input checked="" type="checkbox"/> Other: <u>Silicon Change</u>	
Change Sub-Category(s):	<input type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input checked="" type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input checked="" type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____	
Sites Affected:	ON Semiconductor Sites: ON Burlington, Canada	External Foundry/Subcon Sites: None
Description and Purpose:		
<p>On the current version of the Ezairo 5920 hybrid (OPN: 0W635-004-XTP), on a small percentage of parts, the VDDC voltage of the Ezairo 5900 DSP (used in the Ezairo 5920 hybrid) is not reaching its final value quick enough when VBAT is higher than 1.5V, which leads to a boot delay. A metal mask update of the Ezairo 5900 DSP was made to ensure the settling time of the VDDC voltage is better controlled. This will allow the Ezairo 5920 to always boot with the expected timing.</p> <p>The 0W635-004-XTP is being replaced by the 0W635-006-XTP, which includes the Ezairo 5900 with the metal mask update mentioned above.</p> <p>On the Ezairo 5900 DSP series, the chip version is commonly written as X.YY.ZZ, where X is the chip version number, YY is the major revision number, and ZZ is the minor revision number. Please refer to Section 2.9 DEVICE IDENTIFICATION of the HW reference manual of the Ezairo 5900 for more details.</p> <p>The chip version of the Ezairo 5900 DSP used in 0W635-004-XTP (old version of Ezairo 5920) is 1.02.00. The chip version of the Ezairo 5900 DSP used in 0W635-006-XTP (new version of Ezairo 5920) is 1.02.10.</p> <p>The datasheet for the 0W635-006-XTP is available on MyON.</p> <p>The 0W635-006-XTP qualification data is available upon request.</p>		
	Before Change Description	After Change Description
Ezairo 5900	Metal2 reticle 380C: On a small percentage of parts, the VDDC voltage of the Ezairo 5900 DSP (used in the Ezairo 5920 hybrid) is not reaching its final value quick enough when VBAT is higher than 1.5V, which leads to a boot delay. Chip version is 1.02.00	Metal2 reticle 380C: A modification to the silicon has been made to ensure the settling time of VDDC voltage is better controlled so that the chip will always boot with the expected timing. Chip version is 1.02.10

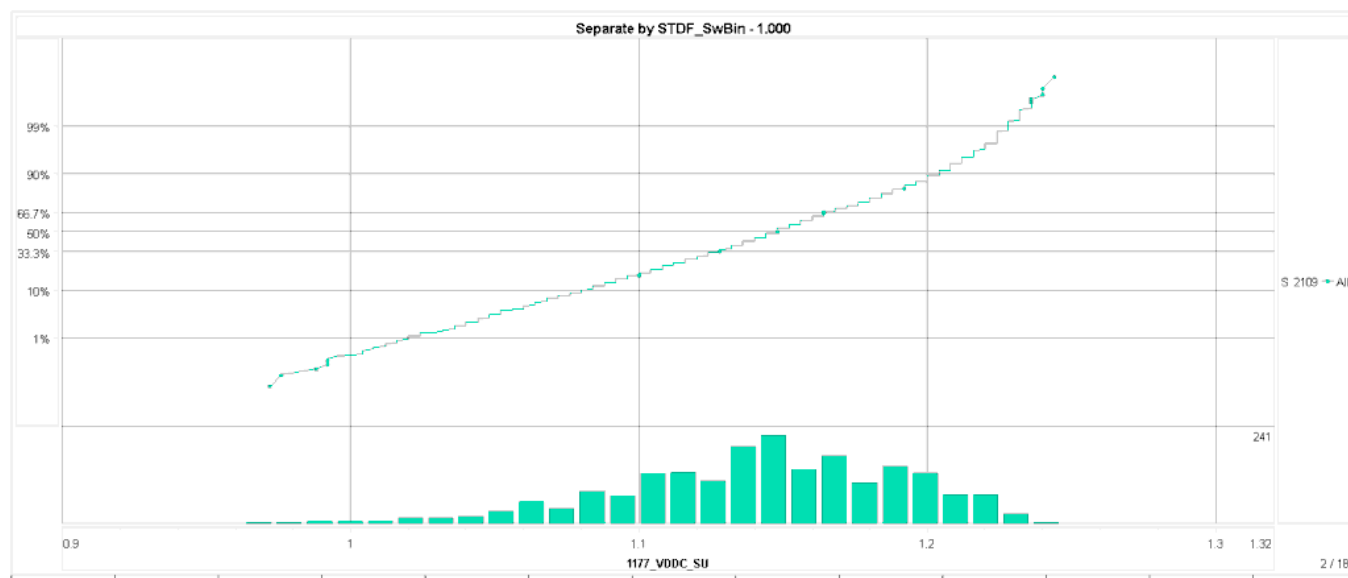


Reliability Data Summary:

See Ezairo 5900 FPCN22074Y called "Metal 2 update to reduce the regulator start-up time to avoid sporadic occurrence of long application start-up when using VBAT > 1.5V."

Electrical Characteristic Summary:

The following graph shows the VDDC startup voltage after 100 ms on the 0W635-006-XTP. After 100 ms, VDDC reaches its controlled final value on all tested units.



List of Affected Standard Parts:

Current Part Number	New Part Number	Qualification Vehicle
0W635-004-XTP	0W635-006-XTP	0W635-004-XTP



Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle
0W635-004-XTP		NA