

Advanced Product Change Notification

202102010A: Incorporation of Tape Holder for TSSOP48/TSSOP56 Assembly

Note: This notice is NXP Company Proprietary.

Issue Date: Feb 20, 2021

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Management summary

Implement tape holder R970 at wire bond to prevent ball neck breaks due to lead frame vibration. Change MSL rating from MSL1 to MSL3 to maintain consistent classification among package types.

Change Category

[]Wafer Fab Process	[]Assembly Process	[]Product Marking	[]Test Process	[]Design
[]Wafer Fab Materials	[X]Assembly Materials	[]Mechanical Specification	[]Test Equipment	[]Errata
[]Wafer Fab Location	[]Assembly Location	[X]Packing/Shipping/Labeling	[]Test Location	[]Electrical spec./Test coverage
[]Firmware	[]Other			

PCN Overview

Description

Two changes will be made:

- 1) NXP will implement a leadframe tape holder to provide long lead stability at wire bond.
- 2) Realign MSL rating to MSL3 to be consistent with other package types. (which results in a change from non-drybagged to a dry bag ship format)

Reason

- 1) Implement a 'tape holder' in the assembly process where the leadframe is affixed to the platen in the wire-bond process. This is being done to eliminate vibration during wire bonding thereby improving wire bond robustness. Its key to note that the current assembly methodology is robust as Millions of the TSSOP48/56 package have been produced without the tape and there has been only 1 return where a broken ball neck was observed. This implementation is in-line with on going continuous improvement and in support of customer delivery needs. The 'to-be' implemented tape solution has been successfully employed on several package types within NXP.
- 2) To further improve package robustness, ratings on those TSSOP48/56 products with rating MSL1 will be changed to MSL3 to be internally consistent within the package family. This change virtually eliminates package delamination after assembly reflow. As there will be a reclassification from MSL1 to MSL3, the associated orderable 12NC will need to also be changed. The Final PCN will contain the updated 12NC information.

Identification of Affected Products

Packing Labels

Packing labels will reflect an MSL3.

Product Availability

Sample Information

Samples are available upon request

Production

Anticipated Impact on Form, Fit, Function, Reliability or Quality

No Impact on form, fit, function, reliability or quality

Data Sheet Revision

A new datasheet will be issued

Disposition of Old Products

Existing inventory will be shipped until depleted

Existing inventory will be shipped until depleted, however material that has changed to MSL3 will have a new orderable 12NC and a new datasheet will be issued.

Timing and Logistics

The Self Qualification Report will be ready on Feb 15, 2021.

The Final PCN is planned to be issued on: Mar 17, 2021.

In compliance with JEDEC J-STD-046, your acknowledgement of this change is expected by Mar 22, 2021.

Contact and Support

For all inquiries regarding the ePCN tool application or access issues, please contact NXP "Global Quality Support Team".

For all Quality Notification content inquiries, please contact your local NXP Sales Support team.

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NXP Quality Management Team.

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Changed OPN	12NC	Changed OPN	12NC
PCF85162T/1,118	935290708118	PCF8536BT/1,118	935296323118
PCF8562TT/2,118	935276218118	PCA8536AT/Q900/1,1	935296484118
PCA85262ATT/AJ	935303863118	PCA8536BT/Q900/1,1	935296485118
PCA85162T/Q900/1,1	935291388118	PCF8545ATT/AJ	935302987118
PCF8562TT/S400/2,1	935287129118	PCF8545BTT/AJ	935302988118
PCF8576DT/S400/2,1	935287131118	PCA8546ATT/AJ	935302989118
PCF85176T/1,118	935290075118	PCA8546BTT/AJ	935302991118
PCA85176T/Q900/1,1	935290076118	PCA85276ATT/AJ	935303864118
PCF8553DTT/AJ	935304762118	PCA9698DGG,512	935278614512
PCA8553DTT/AJ	935306067118	PCA9698DGG,518	935278614518
PCF8576DT/2,118	935276166118	PCA9506DGG,518	935280798518
PCA9505DGG,118	935284486118	SC28L202A1DGG,118	935276109118
PCF8536AT/1,118	935294042118		