



PRODUCT AND PROCESS CHANGE NOTIFICATION

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ISSUE DATE: 23-Feb-2016
NOTIFICATION: 16999
TITLE: MC9S12ZVC/ZVL 48/32LQFP Mold Compound 9240HF16FL with 11mil Wafer Thickness Qualification in NXP-TJN-FM
EFFECTIVE DATE: 27-Aug-2016

DEVICE(S)

MPN
MC912ZVL32MLC
MC912ZVL32MLF
P912ZVCA19AF0MLF
PC912ZVL32F0MLC
PC912ZVL32F0MLF
S912ZVC12F0MLF
S912ZVC12F0MLFR
S912ZVC12F0VLF
S912ZVC12F0VLFR
S912ZVC19F0MLF
S912ZVC19F0MLFR
S912ZVC64F0MLF
S912ZVC64F0MLFR
S912ZVC64F0VLF
S912ZVC96F0MLF
S912ZVC96F0MLFR
S912ZVCA19F0MLF
S912ZVCA19F0MLFR
S912ZVCA19F0VLF
S912ZVCA19F0VLFR
S912ZVCA64F0MLF
S912ZVCA96F0MLF
S912ZVCA96F0MLFR
S9S12ZVL16F0CLC
S9S12ZVL16F0CLCR
S9S12ZVL16F0MLC
S9S12ZVL16F0MLCR
S9S12ZVL16F0VLC
S9S12ZVL16F0VLF
S9S12ZVL32F0CLC
S9S12ZVL32F0CLCR
S9S12ZVL32F0CLF
S9S12ZVL32F0MLC
S9S12ZVL32F0MLCR
S9S12ZVL32F0MLF

S9S12ZVL32F0VLC
S9S12ZVL32F0VLCR
S9S12ZVL32F0VLF
S9S12ZVL32F0VLF
S9S12ZVL32F0VLF
S9S12ZVL32F0VLF

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AFFECTED CHANGE CATEGORIES

- ASSEMBLY PROCESS

DESCRIPTION OF CHANGE

NXP announces the conversion of molding compound, lead frame and die thickness for the MC9S12ZVC on 48LQFP and conversion of mold compound for the MC9S12ZVL on the 48/32LQFP products assembled at NXP TJN assembly site, Tianjin, China.

MC9S12ZVC using lead frame with 4.8x4.8mm flag size will change to using 5.33x5.33mm flag size. There is no electrical connection to the leadframe. Die thickness of 13mils will be standardized to 11mils.

MC9S12ZVC/ZVL devices using a molding compound Hitachi CEL9200HF10M will be standardized to Hitachi CEL9240HF16FL.

FAB SITE	ASSY SITE	Part #	PACK DESCRIPTION	Lead Frame Flag Size		MOLD		Die Thickness	
				Original	New	Original	New	Original	New
ATMC	NXP-TJN	MC9S12ZVC	LQFP 48 7*7*1.4P0.5	4.8x4.8	5.33x5.33	Hitachi CEL9200HF10M	Hitachi CEL9240HF16FL	13mils	11mils
		MC9S12ZVL	LQFP 48 7*7*1.4P0.5	3.81x3.81	No Change	Hitachi CEL9200HF10M	Hitachi CEL9240HF16FL	11mils	No Change
			LQFP 32 7*7*1.4P0.8	3.81x3.81	No Change				

REASON FOR CHANGE

The mold compound, lead frame flag size and die thickness change is for standardization and to enable a more robust packaging.

ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)

Mold compound, lead frame flag and die thickness the only change to form. No Impact to fit or function. Reliability is equivalent or improved.

According to JEDEC Standard JESD46, lack of acknowledgement of this PCN within 30 days will be considered acceptance of change. To request further data or inquire about the notification, please enter a [Support Case](#). **Be aware that after you select this link to enter your request, you must choose the topic "Product Change Notification" once on the Salesforce page.**

For sample inquiries - please go to www.nxp.com

QUAL DATA AVAILABILITY DATE: 04-Nov-2015

QUALIFICATION STATUS: COMPLETED

QUALIFICATION PLAN:

See attached qualification results

RELIABILITY DATA SUMMARY:

See attached qualification results

ELECTRICAL CHARACTERISTIC SUMMARY:

No change to datasheet.

Electrical Distribution comparison, pre and post HTOL are included in this notification. Results show no difference in Electrical Distributions.

CHANGED PART IDENTIFICATION:

There is no change to orderable part number. The Tracecode marking on the device includes assembly site and datecode. NXP will have traceability by assembly site and datecode.

Device	Old molding compound	New molding compound	Package Description
MC9S12ZVC	S912ZVCA19F0MLF	K912ZVCA19F0MLF	LQFP 48 7*7*1.4P0.5
MC9S12ZVL	S9S12ZVL32F0MLF	K9S12ZVL32F0MLF	LQFP 48 7*7*1.4P0.5
	S9S12ZVL32F0MLC	K9S12ZVL32F0MLC	LQFP 32 7*7*1.4P0.8

SAMPLE AVAILABILITY DATE: 29-Feb-2016

ATTACHMENT(S):

External attachment(s) FOR this notification can be viewed AT:

[16999 Hearst 48LQFP Official HTOL Electrical Distribution \(280um thickness\) PCN16999 3.pdf](#)

[16999 Mold Compound Change for MC9S12ZVL 48 32LQFP DeQuMa PCN16999 3.pdf](#)

[16999 Mold Compound, Lead frame & Die Thickness Change for MC9S12ZVC 48LQFP Assembled in NXP-TJN-FM DeQuMa PCN16999 3.pdf](#)

[16999 CofDC Comparison PCN16999.pdf](#)

[16999 Hearst 48LQFP MC LF Die Thickness Change Qual Result 6.pdf](#)
