



PRODUCT AND PROCESS CHANGE NOTIFICATION

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ISSUE DATE: 06-Nov-2013
NOTIFICATION: 15932
TITLE: S08DZ60 (32ld) S08DZ128 (48ld) Copper Wire Qualification
EFFECTIVE DATE: 04-Feb-2014

DEVICE(S)

MPN
MC9S08DN16ACLC
MC9S08DN16AMLC
MC9S08DN32AMLC
MC9S08DN60AMLC
MC9S08DV16ACLC
MC9S08DV16AMLC
MC9S08DV32ACLC
MC9S08DV32AMLC
MC9S08DV32AMLCR
MC9S08DV48ACLC
MC9S08DV48AMLC
MC9S08DV60ACLC
MC9S08DV60AMLC
MC9S08DV60MLC
MC9S08DZ128CLF
MC9S08DZ128MLF
MC9S08DZ16ACLC
MC9S08DZ16AMLC
MC9S08DZ16CLC
MC9S08DZ32ACLC
MC9S08DZ32AMLC
MC9S08DZ48ACLC
MC9S08DZ48AMLC
MC9S08DZ60ACLC
MC9S08DZ60AMLC
MC9S08DZ96CLF
MC9S08DZ96MLF
S9S08DN16F1CLC
S9S08DN16F2CLC
S9S08DN32F1CLC
S9S08DN32F1CLCR

S9S08DN32F1VLC
S9S08DN32F2CLC
S9S08DN32F2CLCR
S9S08DN32F2MLC
S9S08DN32F2VLC
S9S08DN32F2VLCR
S9S08DN48F1VLC
S9S08DN48F2VLC
S9S08DV128F2CLF
S9S08DV128F2CLFR
S9S08DV16F2CLC
S9S08DV16F2MLC
S9S08DV32F1VLC
S9S08DV32F1VLCR
S9S08DV32F2MLC
S9S08DV32F2MLCR
S9S08DV32F2VLC
S9S08DV32F2VLCR
S9S08DV48F2CLC
S9S08DV60F2MLC
S9S08DV96F2CLF
S9S08DV96F2CLFR
S9S08DZ128F2CLF
S9S08DZ128F2MLF
S9S08DZ16F1CLC
S9S08DZ16F1MLC
S9S08DZ16F2CLC
S9S08DZ16F2MLC
S9S08DZ32F1CLC
S9S08DZ32F1MLC
S9S08DZ32F1MLCR
S9S08DZ32F1VLC
S9S08DZ32F1VLCR
S9S08DZ32F2CLC
S9S08DZ32F2MLC
S9S08DZ32F2MLCR
S9S08DZ32F2VLC
S9S08DZ32F2VLCR
S9S08DZ60F1CLC
S9S08DZ60F1MLC
S9S08DZ60F2CLC
S9S08DZ60F2MLC
S9S08DZ60F2MLCR

S9S08DZ60F2VLC
S9S08DZ60F2VLCR
S9S08DZ96F2CLF
S9S08DZ96F2CLFR
S9S08DZ96F2MLF
S9S08DZ96F2VLF
S9S08DZ96F2VLFR

AFFECTED CHANGE CATEGORIES

- BILL OF MATERIAL CHANGE (SAME ASSEMBLY SITE)

DESCRIPTION OF CHANGE

Copper Wire is being added as a wirebond material option for the devices listed in this notification. These devices are currently assembled with Gold wire at Freescale TJN assembly site, Tianjin, China:

The part number of the mold compound will be updated per the table below. The new part number indicates a tightening of the mold compound specifications for use with Cu (Copper) wire.

Current Mold Compound	MC Hitachi 9200HF10M
Updated Mold Compound	CEL-9200HF10M Cu Wire

32LQFP and 48LQFP Cu wire products at Freescale TJN assembly site, Tianjin, China will also be qualified with a new lead frame. The change to Cu wire also includes a change in leadframe flag type. Products currently utilizing an X-Flag will convert to a Solid Flag. Note that there is no electrical connection to the flag.

As a reminder, Device Migration 15069 was issued July 2012 announcing end of life for the 1M74K maskset. Remaining orders on the 1M74K will be supported with the current Bill of Materials (Gold Wire).

REASON FOR CHANGE

The transfer from Gold to Copper wire is required to mitigate against raw material cost increases and for supply assurance.

This leadframe flag change enables a robust Cu wirebond process.

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

Wire composition and Leadframe flag type are the only change to form. No Impact to fit or function. Reliability is equivalent or improved.

Freescale will consider specific conditions of acceptance of this change submitted within 30 days of receipt of this notice on a case by case basis. To request further data or inquire about the notification, please enter a [Service Request](#).

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

QUAL DATA AVAILABILITY DATE: 25-Oct-2013

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, Gold wire versus Copper wire is 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. Freescale will have traceability by assembly site and datecode.

Table below provides sample part numbers:

Sample Part Number	Package Description
K530301DZ60MLC	LQFP 32 7*7*1.4P0.8
K530301DZ60MLCR	LQFP 32 7*7*1.4P0.8
K9S08DZ60F2MLC	LQFP 32 7*7*1.4P0.8
K9S08DZ60F2MLCR	LQFP 32 7*7*1.4P0.8
K9S08DZ32F2MLC	LQFP 32 7*7*1.4P0.8
K9S08DZ32F2MLCR	LQFP 32 7*7*1.4P0.8
K9S08DN32F2MLC	LQFP 32 7*7*1.4P0.8
K9S08DV32F2MLCR	LQFP 32 7*7*1.4P0.8
K9S08DZ128F2MLF	LQFP 48 7*7*1.4P0.5
K9S08DZ96F2MLFR	LQFP 48 7*7*1.4P0.5

K9S08DV128F2CLFR | LQFP 48 7*7*1.4P0.5

SAMPLE AVAILABILITY DATE: 13-Nov-2013

ATTACHMENT(S):

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

[15932_0.25_S08_Cu_vs_Gold_Electrical_Distribution_Report_32LQFPDZ60_and_48LQFP_DZ128.pdf](#)
[15932_Qual_Report_for_Auto_Cu_wire_conversion-DZ60_32LQFP&DZ128_48LQFP.pdf](#)
