



PRODUCT AND PROCESS CHANGE NOTIFICATION

Generic Copy

ISSUE DATE: 25-Apr-2014
NOTIFICATION: 16195
TITLE: I.MX31 AUTO SECOND SOURCE FINAL TEST (SCS)
EFFECTIVE DATE: 24-Jul-2014

DEVICE(S)

MPN
MCIMX31CJMN4C
MCIMX31CJMN4CR2
MCIMX31CJMN4D
MCIMX31CVMN4C
MCIMX31CVMN4CR2
MCIMX31CVMN4D
MCIMX31LCVMN4C
MCIMX31LCVMN4D
MCIMX31LCVMN4DR2

According to JEDEC Standard JESD46, lack of acknowledgement of this PCN within 30 days will be considered acceptance of change.

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AFFECTED CHANGE CATEGORIES

- SUBCONTRACTOR TEST SITE

DESCRIPTION OF CHANGE

Freescale Semiconductor is adding a second source external final test site, "SCS" (STATS-Singapore), for the i.MX31 19x19MAPBGA automotive devices to assure flexible manufacturing capacity and continuity of supply. The current Freescale final test site is "TJN" (Tianjin, China).

Table below provides sample part numbers:

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Sample Part Number	Package Description
MCIMX31CJMN4D	MAPBGA 473 19*19*.8P.8
MCIMX31LCVMN4D	MAPBGA 473 19*19*.8P.8

REASON FOR CHANGE

Adding a second final test site to maintain supply capacity and continuity.

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

No impact to form, fit, function, or reliability.

QUAL DATA AVAILABILITY DATE: 11-Apr-2014

QUALIFICATION STATUS: COMPLETED

QUALIFICATION PLAN:

Per the Freescale approved Test Qualification/Correlation and Acceptance Criteria:

_ (Bin to Bin) A minimum sample of 1200 units in total, from 3 different wafer lots (including 15 correlation rejects), shall be used for correlating bin-to-bin per current production test flow for every production test insertion.

_ (Class A) A minimum sample of 1200 good units in total, from 3 different wafer lots, shall be tested 100% at QA Gate. These lots need to be processed through final production test flow.

_ (Parametric comparison) A minimum sample of 30 good units between Site A and Site B shall be used for parametric comparison.

_ (Gage R&R) Consists of 10 Bin1 units. Less than 10% variance between each site. Variation above 10% shall be justified.

_ (Waveform check) Perform signal waveform scoping on power supply pins and critical IOs for over voltage (+15% from test VDD) and (-15%) under voltage spike.

RELIABILITY DATA SUMMARY:

(See attached qualification results)

Per the Freescale approved Test Qualification/Correlation and Acceptance Criteria:

_ (Bin to Bin) 1378 total Bin1 units from 3 different wafers lots and 15 correlation rejects tested by TJN and at SCS, per current production test program, show correlation.

_ (Class A) 1378 total from 3 different wafer lots show 100% correlation at QA Gate.

_ (Parametric comparison) Comparison between TJN and SCS passes.

_ (Gage R&R) Results between TJN and SCS correlate.

_ (Waveform check) Pass, results show zero spikes.

ELECTRICAL CHARACTERISTIC SUMMARY:

No change.

CHANGED PART IDENTIFICATION:

No change.

SAMPLE AVAILABILITY DATE: 11-Apr-2014

ATTACHMENT(S):

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

[16195_iMX31_19x19mm_Auto_SCS_2nd_FT_Site.pdf](http://cache.freescale.com/files/shared/doc/pcn/PCN16195.htm)
