



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

19-JUN-2003

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #12961

TITLE: Qualification of Renesas Electronics for 14/16 LEAD PDIP Package for Select MC14XXXBCP and MC74HC/HCTXXXAN Devices

EFFECTIVE DATE: 19-Oct-2003

AFFECTED CHANGE CATEGORY: Subcontractor Assembly/Test Site

AFFECTED PRODUCT DIVISION: Logic Products Div

ADDITIONAL RELIABILITY DATA: None

SAMPLES: No

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Representative or Tom Bruner <RPP920@onsemi.com>

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 60 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

This is an initial PCN announcing ON Semiconductor is qualifying Renesas Semiconductor facility located in Kedah, Malaysia as an additional source for MC14xxxBCP and MC74HC/HCTxxxAN device types. Renesas is a fully certified ISO9002 and ISO14001 supplier. There will be no change in the wafer/die source, therefore no electrical performance or specifications will change. This change is classified as a capacity expansion since the devices listed below may be packaged and tested at either Renesas or the existing AIT qualified site once the final PCN expires.



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QUALIFICATION PLAN:

Reliability Plan: Package = 14 ld PDIP; Device = MC14066BCP
 Package = 16 ld PDIP; Device = MC74HC595AN

Test	Conditions	Interval	Sample Size (lots x units)
HTOL	Ta=+145c, Vcc=5V	504 hrs	4x80
HTB	Ta=+150c,	1008 hrs	4x80
HTB	Ta=+175c	504 hrs	4x80
Temp Cycle	Ta=-65 to +150c	1000 cycles	4x110
A/clave	Ta=+121c, P=15 psig, RH=100%	96 hrs	4x80
HAST	Ta=+130c, P=18.8 psig, RH=85% Vcc=5V	96 hrs	4x80
RSH	+310c (Resistance to Solder Heat)		2x30
RSH	+260c (Resistance to Solder Heat)		2x30
PD	Physical imensions		3x10
BPS	Bond pull strength, Cond. C or D; Cpk less than 1.33		1x5
BS	Bond Shear Test Cpk less than 1.33		1x5
WP	Wire pull		1x5

ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical Characterization Plan:

Datasheet specifications and product electrical performance will remain unchanged.

Characterizatin on the qualification devices will be performed to the following requirements:

- 1) ESD performance (HBM, MM, CDM) on 5 units
- 2) Electrical characterization on 30 units
- 3) Latch-up testing on 6 units from 1 lot

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

- MC14007UBCP
- MC14017BCP
- MC14018BCP
- MC14022BCP
- MC14553BCP
- MC14559BCP
- MC74HC126AN
- MC74HC4316AN
- MC74HC589AN
- MC74HCT138AN
- MC74HCT14AN