ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16582B

Generic Copy

Issue Date: 06-Mar-2012

TITLE: Final Notification for FACT Integrated Circuits Die Manufacturing Facility from ON Semiconductor Aizu (Japan) to Tower Semiconductor (Israel).

PROPOSED FIRST SHIP DATE: 06-Jun-2012

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Fab Site

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Won Kang <won.kang@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available 2Q 2012
Contact your local ON Semiconductor Sales Office or Lakshmi Kari <lakshmi.kari@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <quality@onsemi.com>.

DESCRIPTION AND PURPOSE:

The transfer and qualification of the FACT Logic CMOS process from the ON Semiconductor Aizu facility (Japan) to Tower Semiconductor Ltd. (Israel) for PDIP package only.

Tower Semiconductor Ltd. is certified according to the ISO/TS16949 standard. The FACT product family is being transferred to Tower Semiconductor and will achieve the same electrical and reliability performances as the Aizu wafer fab. The transfer includes a process change from 1.2 um (Aizu) to 0.6 um (Israel) CMOS process. The 0.6 um CMOS process in Tower fab has previously been qualified by ON Semiconductor for HSL, LCX, VHC family of products. Devices assembled in PDIP packages will use gold wire bonds.

The integrated circuits design and electrical specifications will remain identical to AIZU devices. A full electrical characterization over the temperature range will be performed for each product to check the device functionality and electrical specifications.

Qualification tests are designed to show that the reliability of transferred devices will continue to meet or exceed ON Semiconductor reliability standards.

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QUALIFICATION RESULT:

Qualification of each device associated with the transfer has the following requirements:
Three temperature electrical characterization
ESD testing Human Body Model and Machine Model
Latch up testing

Qualification Vehicle: MC74ACT14NG
Package: PDIP 14

Qualification Results and Analysis:

Test:	Conditions:	Interval:	Results
HAST	TA= +130°C, RH = 85%, PSIG= 18.8	96 Hrs	0/80
TC	-65/+150 C	500 Cycles	0/85
UHAST	130C/85%RH, 18.8psig	96 Hrs	0/80
HTSL	TA=150C	504 Hrs	0/80
HTOL	TA=125C	504 Hrs	0/80

List of Affected General Parts:

MC74AC00NG	MC74AC373NG	MC74ACT163NG
MC74AC02NG	MC74AC374NG	MC74ACT20NG
MC74AC04NG	MC74AC377NG	MC74ACT240NG
MC74AC05NG	MC74AC4040N	MC74ACT244N
MC74AC08NG	MC74AC4040NG	MC74ACT244NG
MC74AC10NG	MC74AC540NG	MC74ACT245N
MC74AC11NG	MC74AC541NG	MC74ACT245NG
MC74AC125NG	MC74AC573NG	MC74ACT257NG
MC74AC132NG	MC74AC574NG	MC74ACT259NG
MC74AC138NG	MC74AC74NG	MC74ACT273NG
MC74AC139NG	MC74AC86NG	MC74ACT32NG
MC74AC14NG	MC74ACT00NG	MC74ACT373NG
MC74AC157NG	MC74ACT02NG	MC74ACT374NG
MC74AC161NG	MC74ACT04NG	MC74ACT377NG
MC74AC163NG	MC74ACT05NG	MC74ACT540NG
MC74AC20NG	MC74ACT08NG	MC74ACT541NG
MC74AC240N	MC74ACT10NG	MC74ACT564NG
MC74AC240NG	MC74ACT11NG	MC74ACT573NG
MC74AC244N	MC74ACT125NG	MC74ACT574NG
MC74AC244NG	MC74ACT132NG	MC74ACT640NG
MC74AC245NG	MC74ACT138NG	MC74ACT646NG
MC74AC257NG	MC74ACT139NG	MC74ACT652NG
MC74AC259NG	MC74ACT14NG	MC74ACT74NG
MC74AC273NG	MC74ACT157NG	MC74ACT86NG
MC74AC32NG	MC74ACT161NG	