



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16582AGeneric Copy

Issue Date: 01-Feb-2012**TITLE:** Final Notification for FACT Integrated Circuits Die Manufacturing Facility from ON Semiconductor Aizu (Japan) to Tower Semiconductor (Israel).**PROPOSED FIRST SHIP DATE:** 01-May-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 TSSOP packages 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 TSSOP packages will use copper 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.



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 16582A

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

RELIABILITY DATA SUMMARY:

Qualification Vehicle: MC74AC244DTR2G

Package: TSSOP 20L

Qualification Results and Analysis:

Test:	Conditions:	Interval:	Results
PC –HAST	TA= +130°C, RH = 85%, PSIG= 18.8	96 Hrs	0/80
PC-TC	-65/+150 C	500 Cycles	0/128
PC-UHAST	130C/85%RH, 18.8psig	96 Hrs	0/80
HTSL	TA=150C	1008 Hrs	0/80
HTOL	TA=150C	504 Hrs	0/80

List of Affected General Parts:

MC74AC00DTR2G	MC74AC377DTG	MC74ACT157DTR2G
MC74AC02DTR2G	MC74AC377DTR2G	MC74ACT240DTR2G
MC74AC04DTR2	MC74AC541DTR2G	MC74ACT241DTR2G
MC74AC04DTR2G	MC74AC573DTR2G	MC74ACT244DTR2G
MC74AC08DTR2G	MC74AC574DTR2G	MC74ACT245DTG
MC74AC125DTR2G	MC74AC74DTR2G	MC74ACT245DTR2G
MC74AC138DTR2G	MC74AC86DTR2G	MC74ACT273DTR2G
MC74AC139DTR2G	MC74ACT00DTR2G	MC74ACT32DTR2G
MC74AC14DTR2G	MC74ACT02DTR2G	MC74ACT373DTR2G
MC74AC157DTR2G	MC74ACT04DTR2G	MC74ACT374DTR2G
MC74AC240DTR2G	MC74ACT05DTR2G	MC74ACT540DTR2G
MC74AC244DTR2G	MC74ACT08DTR2G	MC74ACT541DTG
MC74AC245DTG	MC74ACT10DTR2G	MC74ACT541DTR2G
MC74AC245DTR2G	MC74ACT125DTR2G	MC74ACT573DTR2G
MC74AC273DTR2G	MC74ACT138DTR2G	MC74ACT574DTR2G
MC74AC32DTR2G	MC74ACT139DTG	MC74ACT74DTR2G
MC74AC373DTR2G	MC74ACT139DTR2G	MC74ACT86DTR2G
MC74AC374DTR2G	MC74ACT14DTR2G	