



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #16582Generic Copy

Issue Date: 16-March-2011

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

PROPOSED FIRST SHIP DATE: 16-Jul-2011

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Fab Site

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Denise Eribes <denise.eribes@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 90 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

Description of the change:

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

Tower Semiconductor Ltd. is certified according to the ISO/TS16949 standard.

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 to the previously qualified 0.6 um CMOS process.

The integrated circuits design and electrical specifications will remain identical.

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 standards.

**INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #16582**

The FACT process is expected to be qualified at Tower Semiconductor by the end of 2Q2011.

A final notification (FPCN) will be published in March 31, 2011, at least 90 days prior to the actual conversion. It will contain the qualification results and effective planned production release dates at Tower Semiconductor. Sampling will commence on March 31, 2011.

QUALIFICATION PLAN:

Qualification of each device type to be transferred is being performed to the following requirements:
Three temperature electrical characterization.

ESD testing Human Body Model (HBM 2000 V) and Machine Model (MM 200 V)

Latch up testing

Reliability tests include:

Test	Conditions	Duration/Sample Size
High Temp. Operating Life Life (HTOL)	Ta=+125°C, Bias	1008 hrs/77
Temp. Cycle (TC)*	-65°C to +150°C	500 cycles/77
Autoclave (AC) *	+121°C /15psig/100%RH	96hrs/77
High Temperature Storage Life (HTSL)	+150°C	504hrs/77
High Accelerated Stress Test* (HAST)	+130°C/85%RH Bias	96hrs/77
Wire Bond Pull Strength (BPS)	After TC, 30 bonds/5 units	
Wire Bond Shear Strength (BS)	30 bonds/5 units	

*Note: These tests may be performed with pre-conditioned parts depending upon the device type used.



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #16582

List of affected General Parts:

PARTS			
JLC1562BNG	MC74AC245DTR2G	MC74ACT02DTR2G	MC74ACT253DR2
MC74AC00DG	MC74AC245DWG	MC74ACT02MELG	MC74ACT253DR2G
MC74AC00DR2G	MC74AC245DWR2G	MC74ACT02NG	MC74ACT257DG
MC74AC00DTR2	MC74AC245MELG	MC74ACT04D	MC74ACT257DR2
MC74AC00DTR2G	MC74AC245MG	MC74ACT04DG	MC74ACT257DR2G
MC74AC00MELG	MC74AC245NG	MC74ACT04DR2G	MC74ACT257MEL
MC74AC00NG	MC74AC253DR2G	MC74ACT04DTR2	MC74ACT257MELG
MC74AC02DG	MC74AC257DR2	MC74ACT04DTR2G	MC74ACT257NG
MC74AC02DR2	MC74AC257DR2G	MC74ACT04MG	MC74ACT259DG
MC74AC02DR2G	MC74AC257MEL	MC74ACT04NG	MC74ACT259DR2
MC74AC02DTR2	MC74AC257MELG	MC74ACT05DG	MC74ACT259DR2G
MC74AC02DTR2G	MC74AC257NG	MC74ACT05DR2G	MC74ACT259NG
MC74AC02MELG	MC74AC259DG	MC74ACT05DTR2	MC74ACT273DTR2
MC74AC02NG	MC74AC259DR2	MC74ACT05DTR2G	MC74ACT273DTR2G
MC74AC04DG	MC74AC259DR2G	MC74ACT05MELG	MC74ACT273DW
MC74AC04DR2G	MC74AC259M	MC74ACT05NG	MC74ACT273DWG
MC74AC04DTR2	MC74AC259MELG	MC74ACT08DG	MC74ACT273DWR2
MC74AC04DTR2G	MC74AC259MG	MC74ACT08DR2G	MC74ACT273DWR2G
MC74AC04MELG	MC74AC259NG	MC74ACT08DR2GH	MC74ACT273M
MC74AC04NG	MC74AC273DTR2	MC74ACT08DTR2	MC74ACT273NG
MC74AC05DG	MC74AC273DTR2G	MC74ACT08DTR2G	MC74ACT32DG
MC74AC05DR2	MC74AC273DWG	MC74ACT08NG	MC74ACT32DR2G
MC74AC05DR2G	MC74AC273DWR2	MC74ACT10DR2G	MC74ACT32DTR2
MC74AC05MEL	MC74AC273DWR2G	MC74ACT10DTR2	MC74ACT32DTR2G
MC74AC05MELG	MC74AC273MELG	MC74ACT10DTR2G	MC74ACT32NG
MC74AC05NG	MC74AC273NG	MC74ACT10MEL	MC74ACT373DTR2
MC74AC08DG	MC74AC32DG	MC74ACT10MELG	MC74ACT373DTR2G
MC74AC08DR2G	MC74AC32DR2G	MC74ACT10NG	MC74ACT373DWG
MC74AC08DTR2	MC74AC32DTR2	MC74ACT11DR2	MC74ACT373DWR2
MC74AC08DTR2G	MC74AC32DTR2G	MC74ACT11DR2G	MC74ACT373DWR2G
MC74AC08MEL	MC74AC32MELG	MC74ACT11MELG	MC74ACT373MELG
MC74AC08MELG	MC74AC32NG	MC74ACT11NG	MC74ACT373NG
MC74AC08NG	MC74AC373DTR2	MC74ACT125D	MC74ACT374DTR2
MC74AC10DG	MC74AC373DTR2G	MC74ACT125DG	MC74ACT374DTR2G
MC74AC10DR2G	MC74AC373DWG	MC74ACT125DR2G	MC74ACT374DWG
MC74AC10NG	MC74AC373DWR2G	MC74ACT125DTR2	MC74ACT374DWR2
MC74AC11DG	MC74AC373MELG	MC74ACT125DTR2G	MC74ACT374DWR2G



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #16582

PARTS			
MC74AC11DR2G	MC74AC373NG	MC74ACT125MEL	MC74ACT374MELG
MC74AC11MELG	MC74AC374DTR2	MC74ACT125MELG	MC74ACT374NG
MC74AC11NG	MC74AC374DTR2G	MC74ACT125NG	MC74ACT377DWG
MC74AC125DG	MC74AC374DWG	MC74ACT132DG	MC74ACT377DWR2G
MC74AC125DR2	MC74AC374DWR2G	MC74ACT132DR2G	MC74ACT377MEL
MC74AC125DR2G	MC74AC374M	MC74ACT132MEL	MC74ACT377MELG
MC74AC125DTR2	MC74AC374MELG	MC74ACT132MELG	MC74ACT377NG
MC74AC125DTR2G	MC74AC374MG	MC74ACT132NG	MC74ACT540DTR2
MC74AC125M	MC74AC374NG	MC74ACT138DG	MC74ACT540DTR2G
MC74AC125MELG	MC74AC377DT	MC74ACT138DR2G	MC74ACT540DWG
MC74AC125MG	MC74AC377DTG	MC74ACT138DTR2	MC74ACT540DWR2G
MC74AC125NG	MC74AC377DTR2	MC74ACT138DTR2G	MC74ACT540MEL
MC74AC132DG	MC74AC377DTR2G	MC74ACT138NG	MC74ACT540MELG
MC74AC132DR2	MC74AC377DWG	MC74ACT139DG	MC74ACT540NG
MC74AC132DR2G	MC74AC377DWR2G	MC74ACT139DR2G	MC74ACT541DT
MC74AC132MEL	MC74AC377NG	MC74ACT139DTG	MC74ACT541DTG
MC74AC132MELG	MC74AC4040DG	MC74ACT139DTR2G	MC74ACT541DTR2
MC74AC132NG	MC74AC4040DR2	MC74ACT139MEL	MC74ACT541DTR2G
MC74AC138DG	MC74AC4040DR2G	MC74ACT139MELG	MC74ACT541DW
MC74AC138DR2G	MC74AC4040MELG	MC74ACT139NG	MC74ACT541DWG
MC74AC138DTR2	MC74AC4040NG	MC74ACT14DG	MC74ACT541DWR2G
MC74AC138DTR2G	MC74AC540DWG	MC74ACT14DR2G	MC74ACT541M
MC74AC138MELG	MC74AC540DWR2G	MC74ACT14DTR2	MC74ACT541MEL
MC74AC138NG	MC74AC540NG	MC74ACT14DTR2G	MC74ACT541MELG
MC74AC139DG	MC74AC541DTR2	MC74ACT14MELG	MC74ACT541MG
MC74AC139DR2G	MC74AC541DTR2G	MC74ACT14NG	MC74ACT541NG
MC74AC139DTR2	MC74AC541DWG	MC74ACT153DG	MC74ACT564DWR2G
MC74AC139DTR2G	MC74AC541DWR2G	MC74ACT153DR2	MC74ACT564NG
MC74AC139MEL	MC74AC541M	MC74ACT153DR2G	MC74ACT573DTR2
MC74AC139MELG	MC74AC541MEL	MC74ACT157DG	MC74ACT573DTR2G
MC74AC139NG	MC74AC541MELG	MC74ACT157DR2G	MC74ACT573DWG
MC74AC14DG	MC74AC541MG	MC74ACT157DTR2	MC74ACT573DWR2G
MC74AC14DR2G	MC74AC541NG	MC74ACT157DTR2G	MC74ACT573NG
MC74AC14DTR2	MC74AC573DTR2	MC74ACT157MELG	MC74ACT574DTR2
MC74AC14DTR2G	MC74AC573DTR2G	MC74ACT157NG	MC74ACT574DTR2G
MC74AC14MEL	MC74AC573DWG	MC74ACT161DG	MC74ACT574DWG
MC74AC14MELG	MC74AC573DWR2G	MC74ACT161DR2G	MC74ACT574DWR2G
MC74AC14NG	MC74AC573MELG	MC74ACT161MELG	MC74ACT574M
MC74AC157DG	MC74AC573NG	MC74ACT161NG	MC74ACT574MELG
MC74AC157DR2	MC74AC574DTR2	MC74ACT163DG	MC74ACT574MG



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #16582

PARTS			
MC74AC157DR2G	MC74AC574DTR2G	MC74ACT163DR2	MC74ACT574NG
MC74AC157DTR2	MC74AC574DWG	MC74ACT163DR2G	MC74ACT640DWG
MC74AC157DTR2G	MC74AC574DWR2	MC74ACT163MEL	MC74ACT640DWR2G
MC74AC157NG	MC74AC574DWR2G	MC74ACT163MELG	MC74ACT640MEL
MC74AC161DG	MC74AC574MEL	MC74ACT163NG	MC74ACT640MELG
MC74AC161DR2	MC74AC574MELG	MC74ACT20DG	MC74ACT640N
MC74AC161DR2G	MC74AC574MG	MC74ACT20DR2G	MC74ACT640NG
MC74AC161M	MC74AC574NG	MC74ACT20NG	MC74ACT646DWG
MC74AC161MG	MC74AC646DWG	MC74ACT240DTR2	MC74ACT646DWR2G
MC74AC161NG	MC74AC646DWR2	MC74ACT240DTR2G	MC74ACT646NG
MC74AC163DR2G	MC74AC646DWR2G	MC74ACT240DWG	MC74ACT652DWG
MC74AC163MEL	MC74AC652DWR2	MC74ACT240DWR2G	MC74ACT652DWR2G
MC74AC163NG	MC74AC652DWR2G	MC74ACT240MELG	MC74ACT652NG
MC74AC20DG	MC74AC74DG	MC74ACT240NG	MC74ACT74DG
MC74AC20DR2G	MC74AC74DR2G	MC74ACT241DTR2	MC74ACT74DR2G
MC74AC20M	MC74AC74DTR2	MC74ACT241DTR2G	MC74ACT74DTR2
MC74AC20MELG	MC74AC74DTR2G	MC74ACT241DWG	MC74ACT74DTR2G
MC74AC20MG	MC74AC74MELG	MC74ACT241DWR2G	MC74ACT74MELG
MC74AC20NG	MC74AC74NG	MC74ACT241MEL	MC74ACT74NG
MC74AC240DTR2	MC74AC86DG	MC74ACT241MELG	MC74ACT86D
MC74AC240DTR2G	MC74AC86DR2	MC74ACT244DTR2	MC74ACT86DG
MC74AC240DWG	MC74AC86DR2G	MC74ACT244DTR2G	MC74ACT86DR2G
MC74AC240DWR2G	MC74AC86DTR2	MC74ACT244DWG	MC74ACT86DTR2
MC74AC240MEL	MC74AC86DTR2G	MC74ACT244DWR2G	MC74ACT86DTR2G
MC74AC240MELG	MC74AC86NG	MC74ACT244M	MC74ACT86MELG
MC74AC240NG	MC74ACT00D	MC74ACT244MG	MC74ACT86NG
MC74AC244DTR2	MC74ACT00DG	MC74ACT244NG	MCW74AC04
MC74AC244DTR2G	MC74ACT00DR2G	MC74ACT245DT	NLVAC157DR2G
MC74AC244DWG	MC74ACT00DTR2	MC74ACT245DTG	NLVACT573DWR2G
MC74AC244DWR2	MC74ACT00DTR2G	MC74ACT245DTR2	SC54AC240DWR2G
MC74AC244DWR2G	MC74ACT00MELG	MC74ACT245DTR2G	SL74ACT573DWR2G
MC74AC244MELG	MC74ACT00NG	MC74ACT245DWG	
MC74AC244NG	MC74ACT02DG	MC74ACT245DWR2G	
MC74AC245DT	MC74ACT02DR2	MC74ACT245MELG	
MC74AC245DTG	MC74ACT02DR2G	MC74ACT245NG	
MC74AC245DTR2	MC74ACT02DTR2	MC74ACT253DG	

**INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #16582****List of affected Customer Specific Parts:**

PARTS	
SL74AC04DTR2	SL74AC04DTR2G