



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

19-JAN-2005

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13886

TITLE: Addition of Tower Semiconductor Fab for Minigate, LCX, LVX, Analog Switch and VHC Logic Products

EFFECTIVE DATE: 19-MAR-2005

AFFECTED CHANGE CATEGORY: Subcontractor Fab Site

AFFECTED PRODUCT DIVISION: Logic Products

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Representative or Ken Fergus <RRST50@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Representative
or Anna Carmona <FFTZDC@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact Sales Representative or Lyle Stewart <RJJ930@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce continued expansion of wafer capacity for MiniGate, LCX, LVX, Analog Switch and VHC Logic products utilizing Tower Semiconductor.

ON Semiconductor is implementing this increase in capacity to support rapidly growing demand for these Logic products in an effort to assure our customers of ON Semiconductor's continued commitment to assured supply, on time delivery and continuous quality improvement.

The products will be redesigned using Tower Semiconductor's 0.6um design rules for their double layer metal, single polysilicon gate standard CMOS process. No performance changes are expected for these products. All product performance will meet the current datasheet specifications.

Tower Semiconductor is a high volume Silicon supplier for flash memory, image sensors, mixed signal and standard CMOS products. They are located in Migdal Haemek, Israel, and are an ISO9001/QS9000 certified facility.



Final Product/Process Change Notification #13886

RELIABILITY DATA SUMMARY:

Tower 0.6 micron CMOS MiniGate(TM) reliability summary:

SC88A package, 1 lot ea. of 74VHC1GT00, 74VHC1G00, 74VHC1GT08:

Test	Conditions	Results (#fail/total SS)
High Temp Op Life	TA=150C for 504hrs	0/77, 0/77, 0/77
High Temp Bake	150C for 504 hrs	0/77, 0/77, 0/77
RSH	260C, 10 seconds	0/30, 0/30, 0/30
PC-Temp Cycle	-65/+150C for 500 cyc	0/77, 0/77, 0/77
PC-Autoclave	121C/100%RH/15psig for 96hrs	0/77, 0/77, 0/77
PC-HAST	131C/80%RH for 96 hrs	0/77, 0/77, 0/77
PC	168hrs 85C/85%, 3 IR at 260C	0/231, 0/231, 0/231

Tower 0.6 micron CMOS Multigate reliability summary:

Two lots of the MC74VHC00D, 2 lots of the MC74VHCT00D, 77 pcs/lot per test:

Test	Conditions	Results (#fail/total SS)
High Temp Bake	TA=150C, 1008 hrs	0/308
MSL1 precondition	3 IR at 260C	0/924
TC+MSL1	-65/+150C, 1000 cyc	0/308
HAST+MSL1	TA=+130C,RH=85%,PSIG=18.8,bias,192hrs	0/308
Autoclave+MSL1	TA=121C,RH=100%,PSIG=15,192hrs	0/308

ELECTRICAL CHARACTERISTIC SUMMARY:

All product performance meets current datasheet specifications. Data is available upon request.

CHANGED PART IDENTIFICATION:

Devices Shipped After WW11 2005 may be manufactured in Tower.

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

- MC74LCX00MEL
- MC74LCX02MEL
- MC74LCX04MEL
- MC74LCX06M
- MC74LCX06MEL
- MC74LCX07M
- MC74LCX07MEL
- MC74LCX08MEL
- MC74LCX138MEL
- MC74LCX14M
- MC74LCX14MEL
- MC74LCX158M
- MC74LCX158MEL
- MC74LCX240DWR2



Final Product/Process Change Notification #13886

MC74LCX244DW
MC74LCX244DWG
MC74LCX244DWR2
MC74LCX244DWR2G
MC74LCX244MEL
MC74LCX245DW
MC74LCX245DWR2
MC74LCX245M
MC74LCX257M
MC74LCX257MEL
MC74LCX258M
MC74LCX258MEL
MC74LCX32MEL
MC74LCX373DWR2
MC74LCX373MEL
MC74LCX374DWR2
MC74LCX374MEL
MC74LCX540DWR2
MC74LCX540DWR2G
MC74LCX540MEL
MC74LCX541DW
MC74LCX541DWG
MC74LCX541DWR2
MC74LCX541DWR2G
MC74LCX541MEL
MC74LCX574DWR2
MC74LCX574MEL
MC74LCX86M
MC74LCX86MEL
MC74LCXU04M
MC74LCXU04MEL
MC74LVX00M
MC74LVX00MEL
MC74LVX04M
MC74LVX04MEL
MC74LVX08M
MC74LVX08MEL
MC74LVX125M



Final Product/Process Change Notification #13886

- MC74LVX125MEL
- MC74LVX126M
- MC74LVX126MEL
- MC74LVX132M
- MC74LVX132MEL
- MC74LVX138M
- MC74LVX138MEL
- MC74LVX139M
- MC74LVX139MEL
- MC74LVX240DWR2
- MC74LVX240M
- MC74LVX240MEL
- MC74LVX244DWR2
- MC74LVX244M
- MC74LVX244MEL
- MC74LVX245DWR2
- MC74LVX245M
- MC74LVX245MEL
- MC74LVX257M
- MC74LVX257MEL
- MC74LVX259M
- MC74LVX259MEL
- MC74LVX32M
- MC74LVX32MEL
- MC74LVX373DWR2
- MC74LVX373M
- MC74LVX373MEL
- MC74LVX374DWR2
- MC74LVX374M
- MC74LVX374MEL
- MC74LVX4051M
- MC74LVX4051MEL
- MC74LVX4052M
- MC74LVX4052MEL
- MC74LVX4053M
- MC74LVX4053MEL
- MC74LVX4066M
- MC74LVX4066MEL



Final Product/Process Change Notification #13886

MC74LVX4245DW
MC74LVX4245DWR2
MC74LVX4245DWR2G
MC74LVX50M
MC74LVX50MEL
MC74LVX540M
MC74LVX540MEL
MC74LVX541DW
MC74LVX541M
MC74LVX541MEL
MC74LVX573DWR2
MC74LVX573M
MC74LVX573MEL
MC74LVX574DWR2
MC74LVX574M
MC74LVX574MEL
MC74LVX74M
MC74LVX74MEL
MC74LVX8051M
MC74LVX8051MEL
MC74LVX8053M
MC74LVX8053MEL
MC74LVX86M
MC74LVX86MEL
MC74LVXC3245DWR2
MC74LVXT4051M
MC74LVXT4051MEL
MC74LVXT4052M
MC74LVXT4052MEL
MC74LVXT4053M
MC74LVXT4053MEL
MC74LVXT4066M
MC74LVXT4066MEL
MC74LVXT8051M
MC74LVXT8051MEL
MC74LVXT8053M
MC74LVXT8053MEL
MC74LVXU04M



Final Product/Process Change Notification #13886

- MC74VHC04MEL
- MC74VHC08MEL
- MC74VHC125M
- MC74VHC240DWR2
- MC74VHC244DWR2
- MC74VHC244MEL
- MC74VHC245DW
- MC74VHC245DWR2
- MC74VHC257M
- MC74VHC257MEL
- MC74VHC259M
- MC74VHC259MEL
- MC74VHC373DWR2
- MC74VHC373MEL
- MC74VHC374DWR2
- MC74VHC374MEL
- MC74VHC540DWR2
- MC74VHC541DWR2
- MC74VHC541MEL
- MC74VHC573DWR2
- MC74VHC573MEL
- MC74VHC574DW
- MC74VHC574DWR2
- MC74VHC74MEL
- MC74VHC86MEL
- MC74VHCT04AMEL
- MC74VHCT08AM
- MC74VHCT08AMEL
- MC74VHCT125AM
- MC74VHCT125AMEL
- MC74VHCT126AM
- MC74VHCT126AMEL
- MC74VHCT139AM
- MC74VHCT139AMEL
- MC74VHCT14AM
- MC74VHCT14AMEL
- MC74VHCT157AM
- MC74VHCT157AMEL



Final Product/Process Change Notification #13886

MC74VHCT240ADWR2
MC74VHCT244ADWR2
MC74VHCT244AMEL
MC74VHCT245ADW
MC74VHCT245ADWR2
MC74VHCT245ADWRG
MC74VHCT245AMEL
MC74VHCT257AM
MC74VHCT257AMEL
MC74VHCT259AM
MC74VHCT259AMEL
MC74VHCT32AM
MC74VHCT32AMEL
MC74VHCT373ADWR2
MC74VHCT374ADWR2
MC74VHCT374AMEL
MC74VHCT50AM
MC74VHCT50AMEL
MC74VHCT540AM
MC74VHCT540AMEL
MC74VHCT541ADW
MC74VHCT541ADWR2
MC74VHCT541AMEL
MC74VHCT573ADW
MC74VHCT573ADWR2
MC74VHCT574ADW
MC74VHCT574ADWR2
MC74VHCT574ADWRG
MC74VHCT86AM
MC74VHCT86AMEL
MC74VHCU04MEL