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**INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION**  
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**31-OCT -2003**

**SUBJECT: ON Semiconductor Initial Product/Process Change Notification #13157**

**TITLE: Addition of Tower Fab for Minigate, LCX, VHC, FST and Analog Switch Products.**

**EFFECTIVE DATE: 28-Feb-2004**

**AFFECTED CHANGE CATEGORY: Subcontractor Fab Site**

**AFFECTED PRODUCT DIVISION: Logic Products Div**

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact Sales Office or Michele Workman <R26828@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:**

ON Semiconductor is pleased to announce the addition of Tower Semiconductor for wafer fabrication of the MiniGate™, LCX, VHC, FST and Analog Switch product families. ON Semiconductor will implement 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 re-designed using Tower's 0.6um design rules for their double layer metal, single polysilicon gate standard CMOS process. No performance changes are expected for the MiniGate, LCX, FST and Analog Switch products. VHC designs will have some parameters (output drive and propagation delay) that will be retargeted to better match industry standards. All product performance will meet the existing 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.

The anticipated timeframe for this program will begin January 2004 and continue through November 2004. Final PCN's will be issued periodically and will contain specific information for each set of devices.

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Samples will be available per FPCN.

Due to changes in market conditions the original scope and timing of this project has changed. This IPCN supersedes PCN#10770 and PCN#12313.

**QUALIFICATION PLAN:**

Reliability testing will be performed on 3 wafer lots.

<b>Test</b>	<b>Conditions</b>	<b>ss/Interval</b>
HTOL	TA=145 deg C, bias	80x3/504 hrs
HTB	TA= 150 deg C	80x3/1008 hrs
MSL1 PC	3 IR	Readout
AC-PC	TA=121C, 100%RH, 15 psig	80x3/96 hrs
HAST-PC	TA=130C, 85%RH,18.8 psig, bias	80x3/96 hrs
Temp Cycle-PC	TA= -65 to +150C	80x3/500 cycles

**ELECTRICAL CHARACTERIZATION PLAN :**

Characterization will be performed to the following requirements :

- 1) ESD performance (HBM, MM)
- 2) Latchup
- 3) Three temperature electrical characterization

**AFFECTED DEVICE LIST (WITHOUT SPECIALS):****PART**

74FST3125D  
74FST3125DR2  
74FST3125DT  
74FST3125DTR2  
74FST3126D  
74FST3126DR2  
74FST3126DT  
74FST3126DTR2  
74FST3244DT  
74FST3244DTR2  
74FST3244DW  
74FST3244DWR2  
74FST3245DT  
74FST3245DTR2  
74FST3245DW  
74FST3245DWR2  
74FST3251D  
74FST3251DR2  
74FST3251DT  
74FST3251DTR2  
74FST3253D  
74FST3253DR2  
74FST3253DT  
74FST3253DTR2  
74FST3257D



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74FST3257DR2  
74FST3257DT  
74FST3257DTR2  
74FST3345DT  
74FST3345DTR2  
74FST3345DW  
74FST3345DWR2  
74FST3383DT  
74FST3383DTR2  
74FST3383DW  
74FST3383DWR2  
74FST3384DT  
74FST3384DTR2  
74FST3384DW  
74FST3384DWR2  
74FST3400DT  
74FST3400DTR2  
74FST3400DW  
74FST3400DWR2  
74FST3861DT  
74FST3861DTR2  
74FST3861DW  
74FST3861DWR2  
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MC74HC1G08DFT1  
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MC74HC1G14DTT1  
MC74HC1G32DFT1  
MC74HC1G32DFT2  
MC74HC1G32DTT1  
MC74HC1GU04DFT1  
MC74HC1GU04DFT2  
MC74HC1GU04DTT1  
MC74LCX00D  
MC74LCX00DR2  
MC74LCX00DT  
MC74LCX00DTR2  
MC74LCX00MEL  
MC74LCX02D  
MC74LCX02DR2  
MC74LCX02DT



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MC74LCX02DTR2  
MC74LCX02MEL  
MC74LCX04D  
MC74LCX04DR2  
MC74LCX04DT  
MC74LCX04DTR2  
MC74LCX04MEL  
MC74LCX06D  
MC74LCX06DR2  
MC74LCX06DT  
MC74LCX06DTR2  
MC74LCX06M  
MC74LCX06MEL  
MC74LCX07D  
MC74LCX07DR2  
MC74LCX07DT  
MC74LCX07DTR2  
MC74LCX07M  
MC74LCX07MEL  
MC74LCX08D  
MC74LCX08DR2  
MC74LCX08DT  
MC74LCX08DTR2  
MC74LCX08MEL  
MC74LCX125D  
MC74LCX125DR2  
MC74LCX125DT  
MC74LCX125DTR2  
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MC74LCX14DT  
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MC74LCX14M  
MC74LCX14MEL  
MC74LCX157DR2  
MC74LCX157DT  
MC74LCX157DTR2  
MC74LCX158DR2  
MC74LCX158DT  
MC74LCX158DTR2  
MC74LCX16240DTR2  
MC74LCX16244DT  
MC74LCX16244DTR2  
MC74LCX16373DT  
MC74LCX16373DTR2  
MC74LCX16374DT  
MC74LCX16374DTR2



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MC74LCX245DW  
MC74LCX245DWR2  
MC74LCX245M  
MC74LCX245MEL  
MC74LCX257DR2  
MC74LCX257DT  
MC74LCX257DTR2  
MC74LCX258DR2  
MC74LCX258DT  
MC74LCX258DTR2  
MC74LCX32DR2  
MC74LCX32DT  
MC74LCX32DTR2  
MC74LCX32MEL  
MC74LCX373DT  
MC74LCX373DTR2  
MC74LCX373DWR2  
MC74LCX373MEL  
MC74LCX374DTR2  
MC74LCX374DWR2  
MC74LCX374MEL  
MC74LCX540DT  
MC74LCX540DTR2  
MC74LCX540DWR2  
MC74LCX540MEL  
MC74LCX541DT  
MC74LCX541DTR2  
MC74LCX541DW  
MC74LCX541DWR2  
MC74LCX541MEL  
MC74LCX573DT  
MC74LCX573DTR2  
MC74LCX573DW  
MC74LCX573DWR2  
MC74LCX573M  
MC74LCX573MEL  
MC74LCX574DT  
MC74LCX574DTR2  
MC74LCX574DWR2  
MC74LCX574MEL  
MC74LCX74D  
MC74LCX74DR2  
MC74LCX74DT  
MC74LCX74DTR2  
MC74LCX74MEL  
MC74LCX86DR2  
MC74LCX86DTR2  
MC74LCX86M  
MC74LCX86MEL  
MC74LCXU04D  
MC74LCXU04DR2  
MC74LCXU04DT  
MC74LCXU04DTR2  
MC74LCXU04MEL  
MC74LVX8051DR2  
MC74LVX8051DT



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MC74LVX8051DTR2  
MC74LVX8053DR2  
MC74LVX8053DTR2  
MC74LVXT8051D  
MC74LVXT8051DR2  
MC74LVXT8051DTR2  
MC74LVXT8053DR2  
MC74LVXT8053DTR2  
MC74VHC00DR2  
MC74VHC00DT  
MC74VHC00DTR2  
MC74VHC00MEL  
MC74VHC02DR2  
MC74VHC02DTR2  
MC74VHC04DR2  
MC74VHC04DTR2  
MC74VHC08DR2  
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MC74VHC125MEL  
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MC74VHC132MEL  
MC74VHC138D  
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MC74VHC139DR2  
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MC74VHC14D  
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MC74VHC1G04DFT1  
MC74VHC1G04DFT2  
MC74VHC1G04DTT1  
MC74VHC1G05DFT1  
MC74VHC1G05DFT2



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MC74VHC1G05DFT1  
MC74VHC1G05DTT1  
MC74VHC1G07DFT1  
MC74VHC1G07DFT2  
MC74VHC1G07DFT1  
MC74VHC1G07DTT1  
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MC74VHC1GT32DFT1  
MC74VHC1GT32DTT1  
MC74VHC1GT50DFT1



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MC74VHC1GT50DFT2  
MC74VHC1GT50DTT1  
MC74VHC1GT66DFT1  
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MC74VHC541DWR2  
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MC74VHC573DWR2  
MC74VHC574DT  
MC74VHC574DTR2  
MC74VHC574DW  
MC74VHC574DWR2  
MC74VHC74DR2  
MC74VHC74DT  
MC74VHC74DTR2





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MC74VHC74MEL  
MC74VHC86DR2  
MC74VHC86DTR2  
MC74VHC86MEL  
MC74VHCT00ADR2  
MC74VHCT00ADTR2  
MC74VHCT02ADR2  
MC74VHCT02ADTR2  
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MC74VHCT08ADTR2  
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MC74VHCT126AMEL  
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MC74VHCT139AMEL  
MC74VHCT14ADR2  
MC74VHCT14ADTR2  
MC74VHCT157AD  
MC74VHCT157ADR2  
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MC74VHCT157ADTR2  
MC74VHCT157AM  
MC74VHCT157AMEL  
MC74VHCT240ADTR2  
MC74VHCT240ADWR2  
MC74VHCT244ADT  
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MC74VHCT244ADWR2  
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MC74VHCT245ADTR2  
MC74VHCT245ADW  
MC74VHCT245ADWR2  
MC74VHCT257AD  
MC74VHCT257ADR2  
MC74VHCT257ADT  
MC74VHCT257ADTR2



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MC74VHCT257AM  
MC74VHCT257AMEL  
MC74VHCT259AD  
MC74VHCT259ADR2  
MC74VHCT259ADT  
MC74VHCT259ADTR2  
MC74VHCT32ADR2  
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NL17SZ08XV5T2  
NL17SZ125DFT2  
NL17SZ126DFT2  
NL17SZ14DFT2  
NL17SZ14XV5T2  
NL17SZ16DFT2  
NL17SZ16XV5T2  
NL17SZ17DFT2



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NL17SZ17XV5T2  
NL17SZ32DFT2  
NL17SZ32XV5T2  
NL17SZ74US  
NL17SZ86DFT2  
NL17SZU04DFT2  
NL17SZU04XV5T2  
NL27WZ00US  
NL27WZ02US  
NL27WZ04DFT2  
NL27WZ04DTT1  
NL27WZ06DFT2  
NL27WZ06DTT1  
NL27WZ07DFT2  
NL27WZ07DTT1  
NL27WZ08US  
NL27WZ125US  
NL27WZ126US  
NL27WZ14DFT2  
NL27WZ14DTT1  
NL27WZ17DFT2  
NL27WZ32US  
NL27WZ86US  
NL27WZU04DFT2  
NL27WZU04DTT1  
NL37WZ04US  
NL37WZ06US  
NL37WZ07US  
NL37WZ14US  
NL37WZ16US  
NL37WZ17US  
NL7WB66US  
NLAS1053US  
NLAS2066US  
NLAS323US  
NLAS324US  
NLAS325US  
NLAS44599DTR2  
NLAS44599MNR2  
NLAS4599DFT2  
NLAST44599DTR2  
NLAST44599MNR2  
NLAST4599DFT2  
NLVAS4599DFT2  
NLVHC1G04DFT2  
NLVHC1G08DFT1  
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NLVHC1G14DFT2  
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NLVHC1G32DFT2  
NLVVHC1G00DFT1  
NLVVHC1G00DFT2  
NLVVHC1G04DFT1  
NLVVHC1G08DFT2  
NLVVHC1G32DFT1  
NLVVHC1G32DFT2



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NLVVHC1G86DFT2  
NLVVHC1GT04DFT2  
NLVVHC1GT08DFT2  
NLVVHC1GT125DF1  
NLVVHC1GT126DF1  
NLVVHC1GT126DF2  
NLVVHC1GT14DFT1  
NLVVHC1GT14DFT2  
NLVVHC1GT32DFT1  
NLVVHC1GT50DFT1  
NLVVHC1GU04DFT2  
NLVVHC244DTR2  
SL000LCX32DTR2  
SL000VHCT138ADTR  
SL000VHCT374ADTR  
SL000VHCT574ADTR