

Date Created : 2008/02/28
Date Issued On : 2008/04/15
PCN# : Q1080908

DESIGN/PROCESS CHANGE NOTIFICATION -- FINAL

This is to inform you that a design and/or process change will be made to the following product(s). This notification is for your information and concurrence.

If you require data or samples to qualify this change, please contact **Fairchild Semiconductor within 30 days of receipt of this notification.**

Updated process quality documentation, such as FMEAs and Control Plans, are available for viewing upon request.

If you have any questions concerning this change, please contact:

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PCN Originator:
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Implementation of change:
Expected 1st Device Shipment Date: 2008/10/01

Earliest Year/Work Week of Changed Product: 0840

Change Type Description: Alternate Fab Location

Description of Change (From): Selected UFT Trench (60-75V) products currently manufactured using the 8-inch line in Mountain Top, Pennsylvania. Address: Crestwood Industrial Park 125 Crestwood Road Mountain Top, PA 18707.

Description of Change (To): Selected UFT Trench (60-75V) devices currently fabricated at Fairchild Semiconductor 8-inch line in Mountain Top, Pennsylvania will be also manufactured using the 6-inch line at Fairchild Semiconductor located in Bucheon, Korea. Address: 82-3, Dodang-dong, Wonmi-gu, Bucheon-si, Gyeonggi-do, Korea. There will be no additional changes to the die layout, die size, geometry, substrate, assembly and packaging, product datasheet, performance and function of any affected devices. Quality and reliability will remain at highest standard.

Reason for Change : To provide an alternative wafer fabrication location.

Qual/REL Plan Numbers : Q20070283

Qualification :

To qualify an alternate Fairchild's 6-inch fabrication location located in Bucheon, Korea for the selected UFT Trench (60-75V) products.

Results/Discussion

| | | | |
|-------------------|--------|----------|--------------|
| Test: (Autoclave) | | | |
| Lot | Device | 96-HOURS | Failure Code |

| | | | |
|----------------|--------------|------|--|
| Q20070283AAACL | FDD2572 | 0/77 | |
| Q20070283BAACL | FDB2532 | 0/77 | |
| Q20070283CAACL | FDP2532 | 0/77 | |
| Q20070283DAACL | FDH038AN08A1 | 0/77 | |

Test: (High Humidity, High Temp, Rev. Bias)

| Lot | Device | 168-HOURS | 500-HOURS | 1000-HOURS | Failure Code |
|------------------|--------------|-----------|-----------|------------|--------------|
| Q20070283AAH3TRB | FDD2572 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283BAH3TRB | FDB2532 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283CAH3TRB | FDP2532 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283DAH3TRB | FDH038AN08A1 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |

Test: (High Temperature Gate Bias)

| Lot | Device | 168-HOURS | 500-HOURS | 1000-HOURS | Failure Code |
|-----------------|--------------|-----------|-----------|------------|--------------|
| Q20070283AAHTGB | FDD2572 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283BAHTGB | FDB2532 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283CAHTGB | FDP2532 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283DAHTGB | FDH038AN08A1 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |

Test: (High Temperature Reverse Bias)

| Lot | Device | 168-HOURS | 500-HOURS | 1000-HOURS | Failure Code |
|-----------------|--------------|-----------|-----------|------------|--------------|
| Q20070283AAHTRB | FDD2572 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283BAHTRB | FDB2532 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283CAHTRB | FDP2532 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283DAHTRB | FDH038AN08A1 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |

Test: (Power Cycle)

| Lot | Device | 5000-CYCLES | 10000-CYCLES | 15000-CYCLES | Failure Code |
|-----------------|---------|-------------|--------------|--------------|--------------|
| Q20070283AAPRCL | FDD2572 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |

Test: -55, 150C (Temperature Cycle)

| Lot | Device | 100-CYCLES | 500-CYCLES | 1000 | Failure Code |
|------------------|--------------|------------|------------|------|--------------|
| Q20070283DATMCL3 | FDH038AN08A1 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |

Test: -65C, 150C (Temperature Cycle)

| Lot | Device | 100-CYCLES | 500-CYCLES | 1000 | Failure Code |
|------------------|---------|------------|------------|------|--------------|
| Q20070283AATMCL1 | FDD2572 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283BATMCL1 | FDB2532 | 0/77 | | | |
| | | | 0/77 | | |
| | | | | 0/77 | |
| Q20070283CATMCL1 | FDP2532 | 0/77 | | | |

| | | | | | | |
|---|--------------|------------|--------------|------------|------------|--------------|
| | | | 0/77 | | | |
| | | | | 0/77 | | |
| Test: MSL(1), PKG(Small), PeakTemp(260c), Cycles(3) (Precondition) | | | | | | |
| Lot | Device | Results | Failure Code | | | |
| Q20070283AAPCNL1A | FDD2572 | 0/308 | | | | |
| Q20070283BAPCNL1A | FDB2532 | 0/308 | | | | |
| Test: Medium Size Pkg's (TO-220, D2) (Power Cycle) | | | | | | |
| Lot | Device | 3000-CYCLE | 3000-CYCLE | 3000-CYCLE | 3572-CYCLE | Failure Code |
| Q20070283BAPRCL1 | FDB2532 | | 0/77 | | | |
| | | | | | 0/77 | |
| Q20070283CAPRCL1 | FDP2532 | | 0/77 | | | |
| | | | | | 0/77 | |
| Q20070283DAPRCL1 | FDH038AN08A1 | 0/77 | | | | |
| | | | | 0/77 | | |

Product Id Description : Fairchild Semiconductor's selected UFT Trench (60-75V) devices currently manufactured using Fairchild's 8-inch fabrication process in Mountain Top, Pennsylvania. Please refer to the affected FSID list

Affected FSIDs :

| | | |
|----------------------|----------------|----------------------|
| FDB045AN08A0 | FDB050AN06A0 | FDB060AN08A0 |
| FDB070AN06A0 | FDB10AN06A0 | FDB13AN06A0 |
| FDB16AN08A0 | FDB20AN06A0 | FDD10AN06A0 |
| FDD13AN06A0 | FDD16AN08A0 | FDD16AN08A0_NF054 |
| FDD20AN06A0 | FDD26AN06A0 | FDH038AN08A1 |
| FDH047AN08A0 | FDI038AN06A0 | FDI047AN08A0 |
| FDP038AN06A0 | FDP047AN08A0 | FDP047AN08A0_NB82013 |
| FDP047AN08A0_NB82014 | FDP050AN06A0 | FDP050AN06A0_NF063 |
| FDP060AN08A0 | FDP070AN06A0 | FDP10AN06A0 |
| FDP13AN06A0 | FDP16AN08A0 | FDP20AN06A0 |
| PCF045AN08W_R4800 | PCF2532W_R4800 | PCF3632W_R4800 |