



Date Created: 12/8/2003

Date Issued: 1/26/2004

PCN # 20034903

FORECAST CHANGE NOTIFICATION

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. This is a preliminary notification. A final PCN will be issued when qualification is complete and data is available.

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

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

Name: Rivero, Doug M.
E-Mail: Doug.Rivero@notes.fairchildsemi.com
Phone: 1-408-822-2143

PCN Originator

Name: Knapp, Paul E.
E-mail: Paul.Knapp@notes.fairchildsemi.com
Phone: 408-822-2133

REL Engineer

Name: Chamberlin, Clint
E-mail: Clint.Chamberlin@notes.fairchildsemi.com
Phone: 570-474-3240

PCN Type: Alternate Fab Location

Effectivity

Expected 1st Device Shipment Date: 4/16/2004
Earliest Year/Work Week of Changed Product: 0416
(Note: Package marking may differ from this format)

Product ID (Description):

The change will affect certain products currently run on our 6-inch and 8-inch wafer fab lines in Mountain Top, PA.. The products affected by this change are listed below in the "Affected FSIDs" section.

Description of Change:

The Fairchild Mountain Top 6-inch fab line is scheduled for closure. The Mountain Top 8-inch fab line will remain open. The products currently run on the 6-inch and 8-inch lines, identified in the attached "Affected FSIDs" list, will be transferred to our foundry ASMC facility for wafer fabrication. This will be an alternate fab for the 8-inch line.

ASMC and Fairchild Semiconductor fab 6-inch/8-inch addresses:

Advanced Semiconductor Manufacturing Corp. of Shanghai (ASMC)
385 Hong Cao Road
Shanghai 200233
P.R. China

Fairchild Semiconductor
Crestwood Industrial Park
125 Crestwood Road
Mountain Top, PA 18707

Limited samples will be available starting in August-September time frame.

Effect of Change:

The transfer of wafer fabrication of these devices to another QS9000 approved wafer fab site will have no effect on device specifications, performance, function, quality, or reliability.

Qualification:

Qualification testing will be comprised of four (4) technology vehicles (3 lots each), representing the most demanding die size for that technology. The test vehicles are as follows:

HUFA75345P3, Ultra FET 55 volt
HUF75652G3, Ultra FET 100 volt
HUFA76633S3, Ultra FET 100 volt
HUFA76429D3, Ultra FET 60 volt

Qual/REL Plan Numbers

Additional Qualification Data

Title

Qualification of ASMC Fab as an alternate wafer foundry for UltraFET planar technologies.

Background/Description

ASMC China wafer foundry is being qualified as an alternate wafer fabrication site for all Ultrafet Planar technologies. They will be assembled in existing qualified packages. Qualification vehicles have been chosen to represent the most demanding device for that technology. Where products are currently qualified at automotive customers, testing will be done per AECQ101.

Scope

This qualification plan applies to all UltraFET planar devices as specified in the PCN.

Qualification Vehicles

DEVICE	VDS/VGS Rating	TECHNOLOGY	PKG	Comments
HUFA75345P3	55/20	UltraFET	TO-220	3 lots each
HUF75652G3	100/20	UltraFET	TO-247	3 lots each
HUFA76633S3	100/20	UltraFET	TO-263	3 lots each
HUFA76429D3	60/20	UltraFET	TO-252	3 lots each

QUALIFICATION REQUIREMENTS

A) RELIABILITY TESTS, COMPONENT LEVEL

TEST DESCRIPTION/CONDITION	DURATION	NBR OF LOTS(1)	SAMPLE SIZE	ACC/REJ	Ref Specs	Remarks
Pre-Post Stress Electrical Tests	All parts tested per the requirements of device specification		N/A	0/1	Datasheet Specification	Test is performed at room temperature
Parametric Verification		3 + 1	25	N/A	Data sheet	-40 C, 25 C and 150C on Test and Control
ACLV @ 121 °C, 15psi, 100% RH	96 Hrs	3	77	0/1	JESD22-A102	Note 2
TMCL@ -55C to 150 C, 30 min/cycle	500,1k cycles	3	77	0/1	JESD22-A104	Note 2
HAST @ 130°C, 85% RH, Electrical bias or THBT 85 C/ 85% RH, Electrical bias	96hrs or 168,500,1k hours	3	77	0/1	JESD22-A110-B JESD22A-101	Bias as required per device ratings. Note 2
PRCL @ delta Tj of 100C	5k,10k,15K	3	77	0/1	JESD22-A105	No. of cycles dependent upon Pkg. Note 2.
HTRB @ 80% of Rated BV, Max rated Tj	168, 500, 1k hrs	3	77	0/1	JESD22-A108	
HTGB @ 100 % Rated VGS, Max rated Tj	168, 500, 1k hrs	3	77	0/1	JESD22-A108-B	When applicable

1. Qualification of a technology transfer requires a minimum 3 production lots of worse-case vehicles in the family, for either die size and/or voltage. Devices that fall within the range of die size(s) and voltages qualified from the technology qualification will not require additional reliability testing for initial release if they are used in previously qualified packages.
2. Where SMD packages are used, they will be preconditioned to MSL-1 for tests where Note 2 appears.

Affected FSIDs

HUF75545P3
HUF75545S3ST
HUF75631SK8T
HUF75639S3
HUF75645P3
HUF75652G3
HUF76419D3ST
HUF76419S3ST
HUF76429S3ST
HUF76429S3ST
HUF76429D3
RFD12N06RLESM9A
RFD14N05LSM9A

HUF75545S3
HUF75631P3
HUF75639G3
HUF75639S3S
HUF75645S3S
HUF76129D3ST_S2515
HUF76419P3
HUF76429D3ST
HUF76633P3
PCF75652W_R4800
RFD14N05L
RFP14N05L

HUF75545S3S
HUF75631S3ST
HUF75639P3
HUF75639S3ST
HUF75645S3ST
HUF76419D3
HUF76419S3S
HUF76429P3
HUF76633S3ST
RFD12N06RLE
RFD14N05LSM
RFP22N10