FAIRCHILD
SEMICONDUCTOR®
The Right Technology for Your Success

PCN# : P236A
Issue Date : May. 08, 2012

DESIGN/PROCESS CHANGE NOTIFICATION

This is to inform you that a change is being made to the products listed below.

Unless otherwise indicated in the details of this notification, the identified change will have no impact on product quality, reliability, electrical, visual or mechanical performance and affected products will remain fully compliant to all published specifications. Products incorporating this change may be shipped interchangeably with existing unchanged products.

This change is planned to take effect in 90 calendar days from the date of this notification. Please work with your local Fairchild Sales Representative to manage your inventory of unchanged product if your evaluation of this change will require more than 90 calendar days.

Please contact your local Customer Quality Engineer within 30 days of receipt of this notification if you require any additional data or samples. Alternatively, you may send an email request for data, samples or other information to PCNSupport@fairchildsemi.com.

Implementation of change:

Expected First Shipment Date for Changed Product : Aug. 06, 2012

Expected First Date Code of Changed Product :1228

Description of Change (From) :

Fairchild Semiconductor Maine bump, Penang, Malaysia test and chip scale process flow.

Description of Change (To) :

Fairchild Semiconductor Maine bump, Penang, Malaysia test and chip scale process flow and the addition of Amkor Technology, site K4 Gwangiu, Korea bump, site T3 Hsinchu, Taiwan test and chip scale process flow.

There are no changes in electrical specifications/datasheets and no change to package drawing/dimensions.

Package dimensions from both sites.

	Fairchild	Amkor
Length	1.5mm +/- 0.03	1.5mm +/- 0.03
Width	1.0mm +/- 0.03	1.0mm +/- 0.03
Silicon thickness	0.310mm +/- 0.018	0.310mm +/- 0.018
Bump height	0.250mm +/- 0.025	0.250mm +/- 0.025
Laminate	0.022mm	0.022mm
Nominal height	0.582mm +/- 0.043	0.582mm +/- 0.043

UBM composition and stackup from both sites.

	Fairchild	Amkor
Oxide	0.3uM	0.3uM
Passivation SiN	1.15uM	1.15uM
Re-Passivation Polymide	10uM	10uM
UBM		
99.5%Al/.5%Cu	2.4uM	2.4uM
Cu	0.15uM	0.15uM
Ni	2.0uM	2.0uM
Au	0.5uM	0.5uM
Solder Ball		
PB Free	Yes	Yes
Diameter	250uM	250uM
Composition	SAC396	SAC405

Marking and traceability coding

Line 1 12KK
12 = 2 alphanumeric device mark
KK = 2 alphanumeric lot code

Line 2 o XYZ
o = Pin 1 marker
X = Alpha year code
Y = 2 week date code
Z = Assembly plant code

	Fairchild	Amkor
Topmark	RAKK oXYP	RAKK oXYT

Reason for Change:

To further ensure critical supply chain continuity to our key customers, Fairchild is expanding the use of an existing and fully qualified source for alternate wafer level chip scale device processing. This change is planned to take effect immediately upon customer approval. Please contact your local Customer Quality Engineer immediately upon receipt of this notification if you require any additional data or samples. Timely approval of this PCN will help to protect your supply chain against any unforeseen supply disruptions.

Affected Product(s):

FPF1048BUCX		

FS35 Maine Fab - K4 Bump

Qualification Plan	Device	Package	Process	No. of Lots
Q20080051	FSA9480UMX	UCBBU025	FS35BCDMOS5_40_4LM	1
Q20080070				1
Q20080258				1

Test Description:	**Condition:**	**Standard :**	**Duration:**	**Results:**
Autoclave	121C, 100%RH	JESD22-A102	96 hrs	0/231
Highly Accelerated Stress Test	130C, 85%RH, 3.3V	JESD22-A110	96 hrs	0/135
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/231
Static Op Life	150C, 5V	JESD22-A108	1000 hrs	0/231
Temperature Cycle	-40C, 125C	JESD22-A104	1000 Cycles	0/231

Qualification Plan	Device	Package	Process	No. of Lots
Q20080084	FPF1003A	UCBBU006	FS35C52B	1

Test Description:	**Condition:**	**Standard :**	**Duration:**	**Results:**
Charged Device ESD	1.5kV	JESD22-C101		0/3
Human Body Model ESD	5.5 kV	JESD22-A114		0/3
Latch Up	8.25, +/- 100mA	JESD78		0/6
Static Op Life	150C, 5V	JESD22-A108	1000 hrs	0/77
Temperature Cycle	-40C, 125C	JESD22-A104	1000 Cycles	0/77

Qualification Plan	Device	Package	Process	No. of Lots
Q20080255	FPF1003	UCBBU006	FS35C52B	1

Test Description:	**Condition:**	**Standard :**	**Duration:**	**Results:**
Dynamic Op Life	125C, 5V	JESD22-A108	1000 hrs	0/77