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PCN# : P312A
Issue Date : Jan. 16, 2014

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 : Apr. 16, 2014

Expected First Date Code of Changed Product :1415

Description of Change (From) :

Fairchild Semiconductor Micropak (6- and 8-lead) packages currently assembled at Fairchild Semiconductor Penang, Malaysia and Hana Semiconductor AYT, Thailand and UMLP (8-,10-,16-,20-lead) packages currently assembled at Fairchild Semiconductor_Penang, Malaysia, Hana Semiconductor AYT and UTACThailand. See below table for current site/package details.

Manufacturing Site	HanaAYT		FSPM		UTAC-TH
Package	BT Micropak	Chip On Lead Micropak	Premolded Micropak	uMLP	uMLP Chip On Lead
Package size/lead count	BT Micropak: 1.0x1.45,6L	Micropak MLP:1.0x1.45,6L; 1.6x1.6,8L uMLP: 1.2x1.4 ,8L; 1.4x1.8,10L; 1.8x2.6,16L	Micropak MLP:1.0x1.45,6L; 1.6x1.6,8L; uMLP:1.2x1.4 ,8L; 1.4x1.8,10L; 1.8x2.6,16L;	uMLP3X4,20L	uMLP:1.4x1.8,10L
Leadframe/ Substrate	Bismaleimide Triazine (BT) CCL-HL832 with NiAu plated	Cu Leadframe C7025 Full hard with NiPdAu pre-plated	Cu Leadframe A194 Full hard with NiPdAu pre-plated	Cu Leadframe C194 with NiPdAu pre-plated	Cu Leadframe EFTEC64T with NiPdAu pre-plated
Die attach material	Non conductive die attach film LE5003	Non conductive epoxy 8006NS	Non conductive die attach film LE5003	Non conductive die attach film LE5003	Non conductive epoxy 8006NS
Wire	0.8mils Au wire	0.8mils Au wire	0.8mils Au wire	0.8mils Au wire	0.8mils Au wire
Mold Compound	GE-100-LFCG (Green)	CEL9220HF13H (Green)	CK203P (Premold), CK203M (Final Mold) - Green	CEL9220HF13F(green)	G770HCD (Green)
Terminal finish	NiAu	NiPdAu flash	NiPdAu flash	NiPdAu flash	NiPdAu flash

Description of Change (To) :

Addition of Hana Microelectronics JiaXing, China for Chip on Lead (COL) Micropak (6- and 8-lead) and UMLP (8-,10-,16- and 20-lead) packages. Refer to below table for Hana JX site/package details. No changes to current Package specifications and dimension drawings.

Manufacturing Site	HanaJX	
Package Technology	Chip On Lead Micropak MLP/uMLP	uMLP
Package size/lead count	Micropak MLP:1.0x1.45,6L; 1.6x1.6,8L; uMLP: 1.2x1.4 ,8L; 1.4x1.8,10L; 1.8x2.6,16L	uMLP3X4,20L
Leadframe	Cu Leadframe C7025 Full hard with NiPdAu pre-plated	Cu Leadframe C7025 Full hard with NiPdAu pre-plated
Die attach material	Non conductive epoxy 8006NS	Henkel 8600
Wire	0.8mils Au wire	0.8mils Au wire
Mold Compound	CEL9220HF13H (Green)	CEL9220HF13H (Green)
Terminal finish	NiPdAu flash	NiPdAu flash

Reason for Change:

Hana JiaXing is being added as an additional manufacturing site for increased manufacturing capacity for the affected products listed in this PCN. The affected products will remain fully compliant to all published specifications and may be shipped interchangeably with existing products.

Affected Product(s): Please refer to the list of affected products in the addendum attached in the PCN email you received. This list is based on an analysis of your company’s procurement history.

Qualification Plan	Device	Package	Process	No. of Lots
Q20120206	74AUP1G57L6X	MicroPak-6	FS35CLV	1

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	**JESD22-A113**		0/286
Highly Accelerated Stress Test	110C, 85%RH, 4.0V	**JESD22-A110**	264 hrs	0/45
High Temperature Storage Life	150C	**JESD22-A103**	1000 hrs	0/77
Static Operation Life	150C, 4.0V	**JESD22-A108**	1000 hrs	0/77
Temperature Cycle	-65C, 150C	**JESD22-A104**	500 cycles	0/77
Solderability	8 hr Steam Age, 215C Solder Dip	**JESD22-B102**	5 secs	0/11
Solderability	8 hr Steam Age, 245C Solder Dip	**JESD22-B102**	5 secs	0/11
Delamination	Pre and Post Preconditioning			0/10

Qualification Plan	Device	Package	Process	No. of Lots
Q20120206	NC7SZ74L8X	MicroPak -8	CS80C	1

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	**JESD22-A113**		0/286
Highly Accelerated Stress Test	130C, 85%RH, 5.5V	**JESD22-A110**	264 hrs	0/45
High Temperature Storage Life	150C	**JESD22-A103**	1000 hrs	0/77
Static Operation Life	150C, 5.5V	**JESD22-A108**	1000 hrs	0/77
Temperature Cycle	-65C, 150C	**JESD22-A104**	500 cycles	0/77
Solderability	8 hr Steam Age, 215C Solder Dip	**JESD22-B102**	5 secs	0/11
Solderability	8 hr Steam Age, 245C Solder Dip	**JESD22-B102**	5 secs	0/11
Delamination	Pre and Post Preconditioning			0/10

Qualification Plan	Device	Package	Process	No. of Lots
Q20120206	FSA2267AL10X	MicroPak -10	FS35C32B	1

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	**JESD22-A113**		0/286
Highly Accelerated Stress Test	130C, 85%RH, 4.3V	**JESD22-A110**	264 hrs	0/45
High Temperature Storage Life	150C	**JESD22-A103**	1000 hrs	0/77
Static Operation Life	150C, 4.3V	**JESD22-A108**	1000 hrs	0/77
Temperature Cycle	-65C, 150C	**JESD22-A104**	500 cycles	0/77
Solderability	8 hr Steam Age, 215C Solder Dip	**JESD22-B102**	5 secs	0/11
Solderability	8 hr Steam Age, 245C Solder Dip	**JESD22-B102**	5 secs	0/11
Delamination	Pre and Post Preconditioning			0/10

Qualification Plan	Device	Package	Process	No. of Lots
Q20120206	FSA2467UMX	uMLP-16	FS35C32B	1

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	**JESD22-A113**		0/286
Highly Accelerated Stress Test	130C, 85%RH, 4.3V	**JESD22-A110**	264 hrs	0/45
High Temperature Storage Life	150C	**JESD22-A103**	1000 hrs	0/77
Static Operation Life	150C, 4.3V	**JESD22-A108**	1000 hrs	0/77
Temperature Cycle	-65C, 150C	**JESD22-A104**	500 cycles	0/77
Solderability	8 hr Steam Age, 215C Solder Dip	**JESD22-B102**	5 secs	0/11
Solderability	8 hr Steam Age, 245C Solder Dip	**JESD22-B102**	5 secs	0/11
Delamination	Pre and Post Preconditioning			0/10

Qualification Plan	Device	Package	Process	No. of Lots
Q20120362A	FSA9290AUMX	MLP-20	FS35C32B	3

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	**JESD22-A113**		0/1059
Autoclave	121C, 100%RH	**JESD22-A102**	96 hrs	0/231
Highly Accelerated Stress Test	110C, 85%RH, 3.3V	**JESD22-A110**	96 hrs	0/135
High Temperature Storage Life	150C	**JESD22-A103**	1000 hrs	0/231
Static Operation Life	150C, 5.25/3.5V	**JESD22-A108**	1000 hrs	0/231
Temperature Cycle	-65C, 150C	**JESD22-A104**	500 cycles	0/231
Solderability	8 hr Steam Age, 215C Solder Dip	**JESD22-B102**	5 secs	0/33
Solderability	8 hr Steam Age, 245C Solder Dip	**JESD22-B102**	5 secs	0/33
Delamination	Pre and Post Preconditioning			0/30