



PCN# : P5CEAAB
Issue Date : Feb. 18, 2016

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.

Implementation of change:

Expected First Shipment Date for Changed Product :May. 18, 2016

Expected First Date Code of Changed Product :1621

Description of Change (From) :

Assembly and Test sites at HANA AYT, Thailand for MLP & uMLP packages

Assembly Site	Hana AYT	Hana AYT
Package	Molded Leadless Package (MLP)/ Ultrathin MLP (uMLP)	Micropak/ MicroMLP (uMLP)
Lead frame	<u>HaeSung</u> DS RT UPG1 PPF	ASM ME2 PPF/ <u>Kinsus</u> BT CCL-HL832 substrate
Die attach	Henkel 8600/ CDF215	Henkel 8006NS Lintec LE5003 (<u>Hana</u>)
Wire	0.8, 1, 1.3, 1.5, 2 mil Au wire / 1.0, 1.5, 2 mil Cu/ <u>PdCu</u> (Hana)	Au 0.8mils
Mold Compound	Hitachi CEL9220HF13H (Green)	Hitachi CEL9220HF13H (Green) Nitto GE-100-LFCG (Green)
Terminal Finish	NiPdAuAg	<u>NiPdAu</u> / <u>NiAu</u>

Description of Change (To) :

Assembly and Test sites at HANA AYT, Thailand and UTAC, Bangkok, Thailand for MLP & uMLP packages

Assembly Site	UTAC	UTAC
Package	Molded Leadless Package (MLP)/ Ultrathin MLP (UMLP)	Micropak/ MicroMLP (uMLP)
Lead frame	<u>HaeSung</u> DS RT UPG1 PPF	HaeSung DS RT UPG1 PPF/ Sumitomo selective PPF
Die attach	Henkel 8600/ CDF515	Henkel 8006NS Henkel 8600 (UTAC)
Wire	0.8, 1, 1.3, 1.5, 2 mil Au wire / 1.0, 1.5, 2 mil Cu/ <u>PdCuAg</u> (UTAC)	Au 0.8mils
Mold Compound	Sumitomo G700LTD/ G770HCD (Green)	Sumitomo G770HCD/ G700LTD/ Panasonic CV8715BT (Green)
Terminal Finish	NiPdAuAg	<u>NiPdAuAg/ NiPdAu</u>

Reason for Change:

Improved supply flexibility.

Better quality and yields through equipment and facility upgrades.

- Increased automation in handling and inspection in assembly.

Fairchild partnerships with foundries and assembly subcontractors.

- Best manufacturing practices- access to many customer methods and practices.

- Advanced technology for fast ramp of future new products and technologies.

Affected Product(s):

FDMA420NZ	FDMC6679AZ	FDMC7200
FSA3041UMX	FSA3230UMX	FSA3341UMX
FSA8008UMX	FSA8009UMX	FSA8028UMX
FSA8029UMX	FSA8039AUMSX	FSA8039UMSX_F106
FSA8058UMX	FSA831AL10X	FSA831AL10X_F131
FSA831L10X	FSA831L10X_F131	FSA832L10X
FSA832L10X_F131	FSA880UMX	FSA880UMX_F106
FSA881UMX	FSA9280AUMX_F065	FSA9280AUMX_F106
FXL2TD245L10X	FXL6408UMX	FXLA0104QFX
FXLP34L6X	NC7S08L6X	NC7SP74L8X
NC7SV17L6X	NC7SV32L6X	NC7SZ04L6X
NC7SZ08L6X	NC7SZ125L6X	NC7SZ32L6X
NC7SZ57L6X	NC7SZ58L6X	NC7SZ74L8X
NC7WZ04L6X	NC7WZ07L6X	NC7WZ14L6X
NC7WZ16L6X	NC7WZ86L8X	

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	NC7SV08FHX	MicroPak2 6L	Maine 35CTNYBD	3

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/231
Highly Accelerated Stress Test	85%RH, 130C, 3.6V	JESD22-A110	96 hrs	0/231
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/231
Static Operating Life	150C, 3.3V	JESD22-A108	1000 hrs	0/231
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/231
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/30
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/33
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/33
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/66

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	FSA642UMX	UMLP 2.5x3.4 24L	Maine FS35C32BD	3

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/231
Highly Accelerated Stress Test	85%RH, 130C, 4.6V	JESD22-A110	96 hrs	0/231
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/231
Static Operating Life	150C, 4.6V	JESD22-A108	1000 hrs	0/231
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/231
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/30
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/33
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/33
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/66

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	FDMA6023PZT	UMLP 2x2 6L	Bucheon ST3 BGBM	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, -16V	JESD22-A110	96 hrs	0/77
High Temperature Gate Bias	150C, -8V	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C, -16V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Power Cycle	Delta 100C, 2 Min cycle	MIL-STD-750-1036	10000 cycles	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	FPF1018	UMLP 2x2 6L	Maine FS35C32BD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 1.8V	JESD22-A110	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Static Operating Life	150C, 1.8V	JESD22-A108	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	FSA9280AUMX	UMLP 3x4 20L	Maine 35D540SBD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 3.3V	JESD22-A110	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Static Operating Life	150C, Vcc=5.5V, VLD=3.3V	JESD22-A108	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	FSA1211UMX	UMLP 3.5x4.0 28L	Maine FS35C32BD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	FXLA0104QFX	UMLP 1.7x2 12L	Maine FS35CD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Unbias Highly Accelerated Stress Test	85%RH, 130C	JESD22-A118	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	FSA8038UMSX_F106	UMLP 1.4 X 1.8 10L	Maine 35D540BD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 4.5V	JESD22-A110	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Static Operating Life	150C, 3.0V	JESD22-A108	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	NC7SZ00L6X	MicroPak 1x1.45 6L	Maine C5LBPOAD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 5.0V	JESD22-A110	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Static Operating Life	150C, 5.0V	JESD22-A108	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140207	FAN256L8X_F106	MicroPak 1.6x1.6 8L	Maine FS50BPOAD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 5.0V	JESD22-A110	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Static Operating Life	150C, 5.0V	JESD22-A108	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FAN2106MPX	MLP 6X5 25L	Maine CBIH30VD Salt Lake PT3 N/PT3 N S	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FDMF6704	MLP 5X5 32L	Jazz US JAZZBC05D Salt Lake RP5 N/RP5 N S	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FDMS2734	MLP 5X6 8L	Mountain Top UFET Trench	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 42V	JESD22-A110	96 hrs	0/77
High Temperature Gate Bias	150C, 20V	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C, 200V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Power Cycle	Delta 100C, 2 Min cycle	MIL-STD-750-1036	10000 cycles	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FDMS7620S	MLP 5X6 8L	TSMC Taiwan PT7 N/PT7 N S	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 24V	JESD22-A118	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Power Cycle	Delta 100C, 2 Min cycle	MIL-STD-750-1036	10000 cycles	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FIN210ACMLX	MLP 5X5 32L	Maine FS35C3LMD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FXLA108BQX	MLP 2.5X4.5 20L	Maine 35CTINYBD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 3.6V	JESD22-A118	96 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Static Operating Life	150C, 3.6V	JESD22-A108	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FDML7610S	MLP 3X4.5 8L	Salt Lake PT7 N/PT7 N S	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 24V	JESD22-A118	96 hrs	0/77
High Temperature Gate Bias	150C, 20V	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	125C, 24V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Power Cycle	Delta 100C, 2 Min cycle	MIL-STD-750-1036	10000 cycles	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FDMA7628	MLP 2X2 6L	Salt Lake PT4 N	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, 16V	JESD22-A118	96 hrs	0/77
High Temperature Gate Bias	150C, 8V	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C, 16V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Power Cycle	Delta 100C, 2 Min cycle	MIL-STD-750-1036	10000 cycles	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FDMC6683	MLP 3.3X3.3 8L	Salt Lake ST3 P	1

Test Description:	Condition:	Standard :	Duration:	Results:
Auto Clave	100%RH, 121C	JESD22-A102	96 hrs	0/77
Highly Accelerated Stress Test	85%RH, 130C, -16V	JESD22-A118	96 hrs	0/77
High Temperature Gate Bias	150C, -8V	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C, -16V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Power Cycle	Delta 100C, 2 Min cycle	MIL-STD-750-1036	10000 cycles	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/10
Solderability, Condition A	215°C, 5 sec	JESD22-B102	8 hrs	0/11
Solderability, Condition B	245°C, 5 sec	JESD22-B102	8 hrs	0/11
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22

Qualification Plan	Device	Package	Process	No. of Lots
Q20140208A	FDMC86261P	MLP 3.3X3.3 8L	Salt Lake MV5 P	1

Test Description:	Condition:	Standard :	Duration:	Results:
High Temperature Reverse Bias	150C, -120V	JESD22-A108	1000 hrs	0/77
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/22