



PCN# : P49HAA  
Issue Date : Dec. 30, 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 : Mar. 30, 2015

Expected First Date Code of Changed Product :1527

Description of Change (From) :  
Assembly and Test in Fairchild Semiconductor Penang, Malaysia.

Assembly Site	Fairchild Semiconductor Penang Malaysia
Package	Punched MLP33
Leadframe	C194 NiPdAu Pre-plated Leadframe
Die attach material	Epoxy QMI 519
Wire	99.99% Cu Wire
Mold Compound	Hitachi CEL9220HF13FC

Description of Change (To) :  
Assembly and Test in Fairchild Semiconductor Cebu Philippines

Assembly Site	Fairchild Semiconductor Cebu Philippines
Package	Punched MLP33
Leadframe	C194 NiPdAu Pre-plated Leadframe
Die attach material	Epoxy QMI 519
Wire	99.99% Cu Wire
Mold Compound	Hitachi CEL9220HF13FC

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 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): 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
Q20140195	FDMC8884	MLJEUC08	PT4 N-Ch	1

Test Description:	Condition:	Standard :	Duration:	Results:
High Temperature Gate Bias	150C, 20V	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C, 24V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Highly Accelerated Stress Test	85%RH, 130C, 24V	JESD22-A118	96 hrs	0/77
Power Cycle	Delta 100CC, 2 Min cycle	MIL-STD-750-1036	10000 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
Q20140195	FDMC0310AS	MLDEUC08	PT8 N-SYNCFET	1

Test Description:	Condition:	Standard :	Duration:	Results:
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
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Highly Accelerated Stress Test	85%RH, 110C, 24V	JESD22-A118	264 hrs	0/77
Power Cycle	Delta 100CC, 2 Min cycle	MIL-STD-750-1036	10000 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
Q20140195	FDMC86244	MLQEUC08	PT5 N MV	1

Test Description:	Condition:	Standard :	Duration:	Results:
High Temperature Gate Bias	150C, 20V	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C, 120V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Highly Accelerated Stress Test	85%RH, 130C, 42V	JESD22-A118	96 hrs	0/77
Power Cycle	Delta 100CC, 2 Min cycle	MIL-STD-750-1036	10000 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