



PCN# : P496AA
Issue Date : Sep. 24, 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 : Dec. 23, 2014

Expected First Date Code of Changed Product :1447

Description of Change (From) :

Fairchild Semiconductor SOIC-N (7-, 8-, and 14- lead) packages currently assembled at Fairchild Penang Assembly manufacturing, UTAC Thailand, Unisem Malaysia, AIC Semiconductor Malaysia, Amkor Philippines, Greatek Semiconductor Taiwan, PSTS China and Nantong Fujitsu Microelectronics China (NFME). See below table for current site/ package details.

Manufacturing Site	Fairchild Semiconductor Penang		Unisem	AIC	UTAC	Amkor	Greatek	NFME	PSTS
BOM #	1	2	3	4	5	6	7	8	9
Package size/ lead count	SOIC-N 7/8 lds	SOIC-N 14 lds	SOIC-N 8 lds	SOIC-N 8 lds	SOIC-N 8 lds	SOIC-N 8 lds	SOIC-N 8 lds	SOIC-N 8 lds	SOIC-N 8/14 lds
Leadframe	Copper with Spot Ag	Cu Ag spot LF/ Samsung UPG PPF	Copper with Spot Ag	Copper with Spot Ag	Copper with Spot Ag	Copper with Spot Ag	Copper with Spot Ag	Copper with Spot Ag	Copper with Spot Ag/ Copper with PPF
Die attach material	Henkel 84-1LMISR4/ QMI 519	Hitachi Poly 6/ QMIS19	Ablebond 8290	Henkel 84-1LMISR4	Ablebond 2200D	Henkel 84-1LMISR4	Ablestik 8352L	Ablestik 8200T	Able 84-1MISR4/ Able 8351C
Wire	1.0 mil/ 1.3 mil/ 2.0 mil Au	0.9 mil/ 1.0 mil Au	1.0 mil Au	1.3 mil Au	1.0 mil Au	1.3 mil Au	1.0 mil Au	1.0 mil Au	1.0 mil Au
Mold compound	HENKEL GR828FC1/ AMC-2P/ CEL8240HF10LYR	AMC-2P/ Sumitomo EME-1100R (B14)/ CEL-8240HF10LYR	Sumitomo G600	Sumitomo G600	Sumitomo G600	Sumitomo G600	Sumitomo G600	Nitto MP8000CH4EN	KTMC-2036SA/ KTMC-5900GM/ KTMC-2036FS/KTMC-5850RM
Terminal finish	100% tin plate	NiPdAuAg	100% tin plate	100% tin plate	100% tin plate	100% tin plate	100% tin plate	100% tin plate	100% tin plate/ NiPdAu

Description of Change (To) :

Hana Semiconductor, Ayutthaya is being added as assembly and test site. Refer to below table for package details. No changes to current package specification and dimension drawings.

Manufacturing Site	HanaAYT
BOM #	10
Package size/lead count	SOIC-N 7/8/14 lds
Leadframe	Samsung RT UPG1
Die attach material	Henkel QMI519
Wire	0.9mil /1.0mil /1.3mil/2.0mil Au wire
Mold Compound	Hitachi CEL8240HF10LYR
Terminal finish	NiPdAuAg

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.
- Hana has successfully manufactured Fairchild products for many years, including the US8, BT micropak and MLP packages. 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
Q20140119	SMC0517	NMSON 8L	MXIC 0.5UM/700V	1

Test Description:	Condition:	Standard :	Duration:	Results:
Gate Leakage (positive)	155C, 400V	AEC-Q100-006		0/3
Gate Leakage (negative)	155C, -400V	AEC-Q100-006		0/3
High Temperature Operating Life	115C, 560V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Humidity Bias Test	85%RH, 85C, 100V	JESD22-A101	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Unbias Highly Accelerated Stress Test	85%RH, 110C	JESD22-A118	264 hrs	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/5
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		0/11

Qualification Plan	Device	Package	Process	No. of Lots
Q20140119	FMS6406CSX	NMSON 8L	Maine FS50BC5SD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Static Operating Life	150C, 5V	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, 5V	JESD22-A118	96 hrs	0/77
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/11

Qualification Plan	Device	Package	Process	No. of Lots
Q20140119	FIN1018MX	NMSON 8L	TSMC TSMC0.35	1

Test Description:	Condition:	Standard :	Duration:	Results:
Static Operating Life	150C, 4V	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, 3.3V	JESD22-A118	96 hrs	0/77
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/11

Qualification Plan	Device	Package	Process	No. of Lots
Q20140274	FAN7390AMX1	NMSON 14L	Bucheon HDG4D	1

Test Description:	Condition:	Standard :	Duration:	Results:
Static Operating Life	150C, 20V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Humidity Bias Test	85%RH, 85C, 10V	JESD22-A101	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Unbias Highly Accelerated Stress Test	85%RH, 110C	JESD22-A118	264 hrs	0/77
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/11

Qualification Plan	Device	Package	Process	No. of Lots
Q20140274	MM74HC132MX	NMSON 14L	80CD	1

Test Description:	Condition:	Standard :	Duration:	Results:
Static Operating Life	150C, 5V	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000 hrs	0/77
Temperature Humidity Bias Test	85%RH, 85C, 5V	JESD22-A101	1000 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
Unbias Highly Accelerated Stress Test	85%RH, 110C	JESD22-A118	264 hrs	0/77
Resistance to Solder Heat	260°C	JESD22-B106	3X @ 10s	0/5
MSLNL1A	PeakTemp(260°C), Cycles 3X	J-STD_020		0/11

Appendix A: Changed Products

PCN Number : P496AA

Customer Name : DIGI-KEY CORPORATION

Customer Code :

Product	Customer Part Number	BBB	Drawing
74AC00SCX		Y	N
74AC04SC	74AC04SC-ND	Y	N
74AC04SCX		Y	N
74AC08SC	74AC08SC-ND	Y	N
74AC08SCX		Y	N
74AC14SC		Y	N
74AC14SCX		Y	N
74AC32SCX		Y	N
74AC86SCX		Y	N
74ACT00SC	74ACT00SC-ND	Y	N
74ACT00SCX		Y	N
74ACT04SC	74ACT04SC-ND	Y	N
74ACT04SCX		Y	N
74ACT08SC	74ACT08SC-ND	Y	N
74ACT08SCX		Y	N
74ACT14SC		Y	N
74ACT14SCX		Y	N
74ACT32SCX		Y	N
74LCX00MX		Y	N
74LCX02M		Y	N
74LCX04MX		Y	N
74LCX06MX		Y	N
74LCX07M		Y	N
74LCX07MX		Y	N
74LCX08MX		Y	N
74LCX11M		Y	N
74LCX11MX		Y	N
74LCX125M		Y	N
74LCX125MX		Y	N
74LCX126MX		Y	N
74LCX14M		Y	N
74LCX14MX		Y	N
74LCX32MX		Y	N
74LCX38M		Y	N
74LCX38MX		Y	N
74LCX74M		Y	N
74LCX74MX		Y	N
74LCX86MX		Y	N
74LVQ04SCX		Y	N
74LVTH125M		Y	N

74LVTH125MX		Y	N
74LVX04M		Y	N
74LVX08M		Y	N
74LVX125M	74LVX125M-ND	Y	N
74LVX125MX		Y	N
74LVX132MX		Y	N
74LVX14MX		Y	N
74LVX74MX		Y	N
74LVX86MX		Y	N
74VHC04M		Y	N
74VHC04MX		Y	N
74VHC08M		Y	N
74VHC08MX		Y	N
74VHC125M		Y	N
74VHC125MX		Y	N
74VHC132MX		Y	N
74VHC14M		Y	N
74VHC14MX		Y	N
74VHC164MX		Y	N
74VHC27MX		Y	N
74VHC32MX		Y	N
74VHC393M		Y	N
74VHC74M		Y	N
74VHC74MX		Y	N
74VHC86MX		Y	N
74VHCT00AM		Y	N
74VHCT04AMX		Y	N
74VHCT08AMX		Y	N
74VHCT14AMX		Y	N
74VHCT74AMX		Y	N
74VHCU04M		Y	N
FAN3121CMX		Y	N
FAN3122CMX		Y	N
FAN3122TMX		Y	N
FAN3213TMX		Y	N
FAN3214TMX		Y	N
FAN3216TMX		Y	N
FAN3217TMX		Y	N
FAN3223TMX		Y	N
FAN3224CMX		Y	N
FAN3224TMX		Y	N
FAN3225CMX		Y	N
FAN3225TMX		Y	N
FAN3226TMX		Y	N
FAN3227CMX		Y	N
FAN3227TMX		Y	N
FAN3229CMX		Y	N
FAN3229TMX		Y	N
FAN3241TMX		Y	N
FAN3268TMX		Y	N

FAN3278TMX		Y	N
FAN6208MY		Y	N
FAN6224M		Y	N
FAN6747WALMY		Y	N
FAN6751MRMY		Y	N
FAN6754AMRMY		Y	N
FAN6754BMLMY		Y	N
FAN6754BMRMY		Y	N
FAN6754WAMRMY		Y	N
FAN73711MX		Y	N
FAN73901MX		Y	N
FAN7390MX		Y	N
FAN73932MX		Y	N
FAN73933MX		Y	N
FAN7393AMX		Y	N
FAN7601BMX		Y	N
FAN7602BMX		Y	N
FAN7602CMX		Y	N
FAN7930BMX		Y	N
FAN7930CMX		Y	N
FAN8303MX		Y	N
FIN1017MX		Y	N
FIN1018MX		Y	N
FIN1019MX		Y	N
FIN1027AMX		Y	N
FIN1027M		Y	N
FIN1028M		Y	N
FIN1028MX		Y	N
FIN1101MX		Y	N
FL7701MX		Y	N
FL7930BMX		Y	N
FL7930CMX		Y	N
FLS0116MX		Y	N
FMS6143ACSX		Y	N
FMS6143CSX		Y	N
FMS6363CSX		Y	N
FMS6404CSX		Y	N
FPF2300MX		Y	N
FPF2302MX		Y	N
FPF2303MX		Y	N
FPF2700MX		Y	N
FPF2701MX		Y	N
FPF2702MX		Y	N
FQS4901TF		Y	N
FST3125MX		Y	N
KA258ADTF		Y	N
KA2904DTF		Y	N
KA324ADTF		Y	N
KA358DTF		Y	N
KA431ADTF		Y	N

KA4558DTF		Y	N
KA78L05ADTF		Y	N
KA78L05AIDTF		Y	N
LF353MX		Y	N
LM239AMX		Y	N
LM258AMX		Y	N
LM2901M		Y	N
LM2901MX		Y	N
LM2902M		Y	N
LM2902MX		Y	N
LM2903M		Y	N
LM2903MX		Y	N
LM2904MX		Y	N
LM317LM		Y	N
LM319MX		Y	N
LM324AM		Y	N
LM324AMX		Y	N
LM324M		Y	N
LM339AM		Y	N
LM339AMX		Y	N
LM339M		Y	N
LM339MX		Y	N
LM358AM		Y	N
LM358AMX		Y	N
LM358M		Y	N
LM358MX		Y	N
LM393AMX		Y	N
LM393MX		Y	N
LM431CIMX		Y	N
LM555CM		Y	N
LM555CMX		Y	N
LMV324AM14X		Y	N
LMV358AM8X		Y	N
LP2951CM		Y	N
LP2951CMX		Y	N
MC78L05ACDX		Y	N
MM74HC00M	MM74HC00M-ND	Y	N
MM74HC00MX		Y	N
MM74HC02M	MM74HC02M-ND	Y	N
MM74HC02MX		Y	N
MM74HC04M	MM74HC04M-ND	Y	N
MM74HC04MX		Y	N
MM74HC08M	MM74HC08M-ND	Y	N
MM74HC08MX		Y	N
MM74HC126M		Y	N
MM74HC126MX		Y	N
MM74HC132M		Y	N
MM74HC132MX		Y	N
MM74HC14M	MM74HC14M-ND	Y	N
MM74HC14MX		Y	N

MM74HC164MX		Y	N
MM74HC32M		Y	N
MM74HC32MX		Y	N
MM74HC74AM	MM74HC74AM-ND	Y	N
MM74HC86MX		Y	N
MM74HCT04MX		Y	N
MM74HCT05M		Y	N
MM74HCT05MX		Y	N
MM74HCT08M		Y	N
MM74HCT08MX		Y	N
MM74HCT14MX		Y	N
RV4141AMT		Y	N
RV4145AMT		Y	N
SG5842JASZ		Y	N
SG6742WMRSY		Y	N
SG6846ALSZ		Y	N
USB1T11AMX		Y	N