

Date Created : 2007/09/11  
Date Issued On : 2007/10/12  
PCN# : Q3073705

DESIGN/PROCESS CHANGE NOTIFICATION -- FINAL

Final PCN Q3073705 is an addendum for Final PCN Q1070805.

This is to inform you that a design and/or process change will be made to the following product(s). This notification is for your information and concurrence.

If you require data or samples to qualify this change, please contact **Fairchild Semiconductor within 30 days of receipt of this notification.**

Updated process quality documentation, such as FMEAs and Control Plans, are available for viewing upon request.

If you have any questions concerning this change, please contact:

Technical Contact:

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PCN Originator:

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Implementation of change:

Expected 1st Device Shipment Date: 2007/12/10

Earliest Year/Work Week of Changed Product: 0750

Change Type Description: Bond Wire Material Composition

Description of Change (From): Wirebond material using 2mil Gold (Au) wire for SO8 devices manufactured in subcontractor site, GEM Electronics Ltd Shanghai China.

Description of Change (To): Wirebond material using 2mil Copper (Cu) wire for SO8 devices manufactured in subcontractor site, GEM Electronics Ltd Shanghai China.

Reason for Change : Qualification of GEM as alternate site for Cu wire bonded parts for SO-8. Products will be shipped for an interim period of time with Au wire until the inventory is depleted and then converted to Cu wire. GEM Electronics Ltd., Shanghai China is TS-16949 certified.

Qual/REL Plan Numbers : Q20070231

Qualification :

This change will have no impact on any of the electrical parameters of the products involved. The product test conditions, test limits and performance will remain unchanged. Products will be built with the same level of quality and reliability as with the existing products. The devices for qualification and qualification requirements are defined in the table below.

**Results/Discussion**

Test: (Autoclave)
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Lot	Device	96-HOURS	Failure Code
Q20070231AAACLV	FDS6912A	0/77	
Q20070231BAACLV	FDS3570	0/77	
Q20070231CAACLV	FDS3672	0/77	
Q20070231DAACLV	FDS8870	0/77	

**Test: (High Temperature Gate Bias)**

Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20070231AAHTGB	FDS6912A	0/77			
			0/77		
				0/77	
Q20070231BAHTGB	FDS3570	0/77			
			0/77		
				0/77	
Q20070231CAHTGB	FDS3672	0/77			
			0/77		
				0/77	
Q20070231DAHTGB	FDS8870	0/77			
			0/77		
				0/77	

**Test: (High Temperature Reverse Bias)**

Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20070231AAHTRB	FDS6912A	0/77			
			0/77		
				0/77	
Q20070231BAHTRB	FDS3570	0/77			
			0/77		
				0/77	
Q20070231CAHTRB	FDS3672	0/77			
			0/77		
				0/77	
Q20070231DAHTRB	FDS8870	0/77			
			0/77		
				0/77	

**Test: (Power Cycle)**

Lot	Device	5000-CYCLES	10000-CYCLES	Failure Code
Q20070231AAPRCL	FDS6912A	0/77		
Q20070231AAPRCL	FDS6912A		0/77	
Q20070231BAPRCL	FDS3570	0/77		
Q20070231BAPRCL	FDS3570		0/77	
Q20070231CAPRCL	FDS3672	0/77		
Q20070231CAPRCL	FDS3672		0/77	
Q20070231DAPRCL	FDS8870	0/77		
Q20070231DAPRCL	FDS8870		0/77	

**Test: -65C, 150C (Temperature Cycle)**

Lot	Device	100-CYCLES	500-CYCLES	Failure Code
Q20070231AATMCL1	FDS6912A	0/77		
Q20070231AATMCL1	FDS6912A		0/77	
Q20070231BATMCL1	FDS3570	0/77		
Q20070231BATMCL1	FDS3570		0/77	
Q20070231CATMCL1	FDS3672	0/77		
Q20070231CATMCL1	FDS3672		0/77	
Q20070231DATMCL1	FDS8870	0/77		
Q20070231DATMCL1	FDS8870		0/77	

**Test: 130C (Highly Accelerated Stress Test)**

Lot	Device	96-HOURS	Failure Code
Q20070231AAHAST1	FDS6912A	0/77	
Q20070231BAHAST1	FDS3570	0/77	
Q20070231CAHAST1	FDS3672	0/77	
Q20070231DAHAST1	FDS8870	0/77	

**Test: MSL(1), PKG(Small), PeakTemp(260c), Cycles(3) (Precondition)**

Lot	Device	Results	Failure Code
Q20070231AAPCNL1A	FDS6912A	0/231	
Q20070231BAPCNL1A	FDS3570	0/231	
Q20070231CAPCNL1A	FDS3672	0/231	
Q20070231DAPCNL1A	FDS8870	0/231	

Product Id Description : This change affects certain SO-8 products currently assembled in our Pg. 2 subcontractor site, GEM Electronics Ltd. The products affected by this change are listed below in the "Affected FSIDs" section.

Affected FSIDs :

FDS2572	FDS2572_NL	FDS2582
FDS2582_NL	FDS2670_NL	FDS3512_NL
FDS3590_F095	FDS3601	FDS3601_NL
FDS3672	FDS3672_NL	FDS3682
FDS3692	FDS3812_NL	FDS3890_NL
FDS3912_NL	FDS3992	FDS4410A_NL
FDS4410_NL	FDS4435A_F095	FDS4435_F095
FDS4465_F095	FDS4470_NF40	FDS4470_NL
FDS4480_NF40	FDS4480_NL	FDS4501H_F065
FDS4501H_NL	FDS4885C_NF40	FDS4885C_NL
FDS4935A_NF40	FDS4953_NF40	FDS4953_NL
FDS5670_NF40	FDS5670_NL	FDS5672
FDS5680_NF40	FDS5680_NL	FDS5682
FDS5690_F095	FDS5692Z	FDS6294_NL
FDS6298	FDS6375_NF40	FDS6570A_NF40
FDS6574A_NL	FDS6575_NF40	FDS6575_NL
FDS6576_NL	FDS6609A_NL	FDS6670A_NF40
FDS6672A_NL	FDS6680A_F095	FDS6680A_NF40
FDS6680A_NL	FDS6682_NL	FDS6688_F095
FDS6690A_F095	FDS6694_NF40	FDS6694_NL
FDS6812A_NL	FDS6875_NF40	FDS6875_NL
FDS6890A_NF40	FDS6890A_NL	FDS6892AZ_NL
FDS6892A_NF40	FDS6892A_NL	FDS6894AZ_NL
FDS6894A_NL	FDS6898AZ_NF40	FDS6898AZ_NL
FDS6898A_F095	FDS6898A_NF40	FDS6898A_NL
FDS6910_NF40	FDS6910_NL	FDS6912A_NF40
FDS6912A_NL	FDS6912_NL	FDS6961A
FDS6961A_F011	FDS6961A_NF011	FDS6961A_NF40
FDS6961A_NL	FDS6982AS	FDS6982AS_NL
FDS6982_NL	FDS6990A_NL	FDS8333C
FDS8812NZ	FDS8813NZ	FDS8817NZ
FDS8878_F095	FDS8958A_NF40	FDS8960C
FDS8962C_NL	FDS9400A	FDS9400A_NL
FDS9412_NL	FDS9435A_NF40	FDS9435A_NL
FDS9926A_NF40	FDS9926A_NL	FDS9933A_NL
FDS9933_NL	FDS9934C_NL	FDS9953A
FDS9953A_NL	FDS9958	NDS8425_NF40
NDS8425_NL	NDS9407_F095	NDS9435A_NL
SI4542DY_NL	SI9933BDY	