

DESIGN/PROCESS CHANGE NOTIFICATION -- FINAL

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:

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Implementation of change:
Expected 1st Device Shipment Date: 2009/12/04

Earliest Year/Work Week of Changed Product: 0949

Change Type Description: Bond Wire Material Composition

Description of Change (From): Wirebond material using 2.0 mil Gold (Au) wire.

Description of Change (To): Wirebond material using 2.0 mil Copper (Cu) wire.

Reason for Change : The conversion to copper wire is to increase process robustness: (1) Higher wire pull and ball shear readings which means stronger interconnect; (2) Slower Intermetallic Growth (due to lower diffusion rate of Cu to Al) resulting to no kirkendall voids and longer part life span; (3) Better electrical performance in terms of lower resistivity and better conductivity.

Qual/REL Plan Numbers : Q20090036

Qualification :

All reliability tests defined in Qual Plan No. Q20090036 have been completed without failures. Therefore Fairchild Semiconductor is qualified to convert the devices listed in Affected FSID from Au to Cu wire.

Results/Discussion for Qual Plan Number Q20090036

Test: (High Temperature Storage Life) Conditions: 150C Standard: JESD22-A103					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20090036AAHTSL	FDMA430NZ	0/79			
			0/79		
				0/79	
Q20090036ABHTSL		0/79			
			0/79		

				0/79	
Q20090036BAHTSL	FDMA520PZ	0/79			
			0/79		
				0/79	
Q20090036CAHTSL	FDMA291P	0/79			
			0/79		
				0/79	
Test: (Highly Accelerated Stress Test) Conditions: 85%RH, 130C, Biased V Standard: JESD22-A110					
Lot	Device	96-HOURS		Failure Code	
Q20090036AAHAST1	FDMA430NZ	0/79			
Q20090036ABHAST1	FDMA430NZ	0/79			
Q20090036BAHAST1	FDMA520PZ	0/79			
Q20090036CAHAST1	FDMA291P	0/79			
Test: (Moisture Sensitivity) Conditions: Standard: J-STD_020					
Lot	Device	Results		Failure Code	
Q20090036AAMSLNL1A	FDMA430NZ	0/22			
Q20090036ABMSLNL1A	FDMA430NZ	0/22			
Q20090036BAMSLNL1A	FDMA520PZ	0/22			
Q20090036CAMSLNL1A	FDMA291P	0/22			
Test: (Power Cycle) Conditions: Delta 100CC, 2 Min cycle Standard: MIL-STD-750-1036					
Lot	Device	5000-CYCLES	10000-CYCLES	15000-CYCLES	Failure Code
Q20090036AAPRCL	FDMA430NZ	0/79			
			0/79		
Q20090036ABPRCL		0/79			
			0/79		
Q20090036BAPRCL	FDMA520PZ	0/79			
			0/79		
Q20090036CAPRCL	FDMA291P	0/79		0/79	
			0/79		
Test: (Precondition) Conditions: Standard: JESD22-A113					
Lot	Device	Results		Failure Code	
Q20090036AAPCNL1A	FDMA430NZ	0/158			
Q20090036ABPCNL1A	FDMA430NZ	0/158			
Q20090036BAPCNL1A	FDMA520PZ	0/158			
Q20090036CAPCNL1A	FDMA291P	0/158			
Test: (Resistance to Solder Heat) Conditions: Standard: JESD22-B106					
Lot	Device	Results		Failure Code	
Q20090036AARSDH	FDMA430NZ	0/22			
Q20090036ABRSDH	FDMA430NZ	0/22			
Q20090036BARSDH	FDMA520PZ	0/22			
Q20090036CARSDH	FDMA291P	0/22			
Test: (Temperature Cycle) Conditions: -65C, 150C Standard: JESD22-A104					
Lot	Device	100-CYCLES	500-CYCLES	Failure Code	
Q20090036AATMCL1	FDMA430NZ	0/79			
Q20090036AATMCL1	FDMA430NZ		0/79		
Q20090036ABTMCL1	FDMA430NZ	0/79			
Q20090036ABTMCL1	FDMA430NZ		0/79		
Q20090036BATMCL1	FDMA520PZ	0/79			
Q20090036BATMCL1	FDMA520PZ		0/79		
Q20090036CATMCL1	FDMA291P	0/79			
Q20090036CATMCL1	FDMA291P		0/79		

Product Id Description : Fairchild Semiconductor's selected Mosfet devices assembled in MLP 2x2 package will be affected by this change. Please refer to the Affected FSIDs section.

Affected FSIDs :

FDMA291P	FDMA410NZ	FDMA420NZ
FDMA430NZ	FDMA510PZ	FDMA520PZ
FDMA530PZ		