

Date Created : 2007/08/14
Date Issued On : 2007/08/22
PCN# : Q1070501-C

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:

Technical Contact:
Name: Ti, CS
E-mail: CS.Ti@fairchildsemi.com
Phone: 604-6437211 ext 685

PCN Originator:
Name: Ti, CS
E-mail: CS.Ti@fairchildsemi.com
Phone: 604-6437211 ext 685

Implementation of change:
Expected 1st Device Shipment Date: 2007/10/01

Earliest Year/Work Week of Changed Product: H2

Change Type Description: Bond Wire Material Composition

Description of Change (From): Wire bond material currently used for our MLP 5x6 discrete products assembled from Fairchild (M), FSPM facility will be changed from Au wire to Cu wire. Package with this change will have an identifier. There will be no change in terms of wire diameter and type of thermosonic bonding process applied.

Description of Change (To): From Au wire used in MLP 5x6 Discrete products to Cu wire

Reason for Change : Change from Au wire to Cu wire a more robust wire bonding process. There will be no adverse impact on products' quality and reliability. Products will be assembled at the same quality level as before.

Qual/REL Plan Numbers : Q20060405

Qualification :

Project Qualification of Penang 5X6 MLP with 2 mil Cu wire Conclusion All reliability tests outlined in Q20060405 qualification plan were completed successfully with no failure and meet the requirements for release. As such, FSPM MLP 5*6 8L is qualified.

Results/Discussion

Test: (Autoclave)			
Lot	Device	96-HOURS	Failure Code
Q20060405AAACLV	FDMS8690	0/79	
Q20060405ABACLV	FDMS8690	0/79	

Q20060405ACACLV	FDMS8690	0/79	
Q20060405ADACLV	FDMS8690	0/79	
Q20060405BAACLV	FDMS2572	0/79	

Test: (High Temperature Gate Bias)

Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20060405AAHTGB	FDMS8690	0/79			
			0/79		
				0/79	
Q20060405ABHTGB		0/79			
			0/79		
				0/79	
Q20060405ACHTGB		0/79			
			0/79		
				0/79	
Q20060405ADHTGB		0/79			
			0/79		
				0/79	
Q20060405BAHTGB	FDMS2572	0/79			
			0/79		
				0/79	

Test: (High Temperature Reverse Bias)

Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20060405AAHTRB	FDMS8690	0/79			
			0/79		
				0/79	
Q20060405ABHTRB		0/79			
			0/79		
				0/79	
Q20060405ACHTRB		0/79			
			0/79		
				0/79	
Q20060405ADHTRB		0/79			
			0/79		
				0/79	
Q20060405BAHTRB	FDMS2572	0/79			
			0/79		
				0/79	

Test: (High Temperature Storage Life)

Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20060405AAHTSL	FDMS8690	0/79			
			0/79		
				0/79	
Q20060405ABHTSL		0/79			
			0/79		
				0/79	
Q20060405ACHTSL		0/79			
			0/79		
				0/79	
Q20060405ADHTSL		0/79			
			0/79		
				0/79	
Q20060405BAHTSL	FDMS2572	0/79			
			0/79		
				0/79	

Test: (Power Cycle)

Lot	Device	5000-CYCLES	10000-CYCLES	Failure Code
Q20060405AAPRCL	FDMS8690	0/79		
Q20060405AAPRCL	FDMS8690		0/79	
Q20060405ABPRCL	FDMS8690	0/79		
Q20060405ABPRCL	FDMS8690		0/79	
Q20060405ACPRCL	FDMS8690	0/79		
Q20060405ACPRCL	FDMS8690		0/79	
Q20060405ADPRCL	FDMS8690	0/79		
Q20060405ADPRCL	FDMS8690		0/79	
Q20060405BAPRCL	FDMS2572	0/79		
Q20060405BAPRCL	FDMS2572		0/79	

Test: -65C, 150C (Temperature Cycle)				
Lot	Device	100-CYCLES	500-CYCLES	Failure Code
Q20060405AATMCL1	FDMS8690	0/79		
Q20060405AATMCL1	FDMS8690		0/79	
Q20060405ABTMCL1	FDMS8690	0/79		
Q20060405ABTMCL1	FDMS8690		0/79	
Q20060405ACTMCL1	FDMS8690	0/79		
Q20060405ACTMCL1	FDMS8690		0/79	
Q20060405ADTMCL1	FDMS8690	0/79		
Q20060405ADTMCL1	FDMS8690		0/79	
Q20060405BATMCL1	FDMS2572	0/79		
Q20060405BATMCL1	FDMS2572		0/79	

Test: 130C (Highly Accelerated Stress Test)			
Lot	Device	96-HOURS	Failure Code
Q20060405AAHAST1	FDMS8690	0/79	
Q20060405ABHAST1	FDMS8690	0/79	
Q20060405ACHAST1	FDMS8690	0/79	
Q20060405ADHAST1	FDMS8690	0/79	
Q20060405BAHAST1	FDMS2572	0/79	

Test: MSL(1), PKG(Small), PeakTemp(260c), Cycles(3) (Precondition)			
Lot	Device	Results	Failure Code
Q20060405AAPCNL1A	FDMS8690	0/237	
Q20060405ABPCNL1A	FDMS8690	0/237	
Q20060405ACPCNL1A	FDMS8690	0/237	
Q20060405ADPCNL1A	FDMS8690	0/237	
Q20060405BAPCNL1A	FDMS2572	0/237	

Product Id Description :

Affected FSIDs :

FDMS2672	FDMS2734	FDMS5672
----------	----------	----------