Date Created : **2010/12/08**
Date Issued On : **2011/03/25**
PCN# : **P0C1A**

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: 2011/06/19

Earliest Year/Work Week of Changed Product: 1126

Change Type Description: Die Attach Material, Mold Compound

Description of Change (From): 28-lead SSOP package using Sumitomo EME6300H mold compound and Ablebond 84-1LMISR4 die attach epoxy.

Description of Change (To): 28-lead SSOP package using Sumitomo EME-G600 mold compound and Ablebond 8290 die attach epoxy.

Reason for Change : This is a change to the mold compound and die attach epoxy used for Fairchild products assembled in the 28-lead SSOP package. The qualified alternative mold compound and die attach epoxy are low halogen materials with improved thermal-mechanical properties. This 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 products. If you require data or samples to evaluate this change, please contact Fairchild Semiconductor within 30 days of receipt of this notification. 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 needs if your evaluation of this change will require more than 90 calendar days.

Qual/REL Plan Number(s): Q20090104

Qualification :

Products assembled in the 28-lead SSOP package have passed all required qualification testing with an MSL 3 rating.

Change From

Current	Non- Green BOM
Die Attach	Ablebond 84-1LMISR4
Mold Compound	Sumitomo EME-6300H

Change To

New	Green BOM
Die Attach	Ablebond 8290
Mold Compound	Sumitomo EME-G600

Results/Discussion for Qual Plan Number(s): Q20090104

Test: (Gate Leakage Negative) | Conditions: 155C, -400V | Standard: AEC-Q100-006			
Lot	Device	Results	Failure Code
Q20090104AAGATE-B	74ACTQ244MSAX	0/3	
Q20090104BAGATE-B	74LCX543MSAX	0/3	
Q20090104CAGATE-B	FMS6501MSA28	0/3	
Q20090104CBGATE-B	FMS6501MSA28	0/3	

Test: (Gate Leakage Positive) | Conditions: 155C, 400V | Standard: AEC-Q100-006			
Lot	Device	Results	Failure Code
Q20090104AAGATE+B	74ACTQ244MSAX	0/3	
Q20090104BAGATE+B	74LCX543MSAX	0/3	
Q20090104CAGATE+B	FMS6501MSA28	0/3	
Q20090104CBGATE+B	FMS6501MSA28	0/3	

Test: (High Temperature Storage Life) | Conditions: 150C | Standard: JESD22-A103					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20090104AAHTSLB	74ACTQ244MSAX	0/77			
			0/77		
				0/77	
Q20090104BAHTSLB	74LCX543MSAX	0/77			
			0/77		
				0/77	
Q20090104CAHTSLB	FMS6501MSA28	0/77			
			0/77		
				0/77	
Q20090104CBHTSLB		0/77			
			0/77		
				0/77	

Test: (Highly Accelerated Stress Test) | Conditions: 85%RH, 110C, Biased V | Standard: JESD22-A110			
Lot	Device	264-HOURS	Failure Code
Q20090104AAHAST2B	74ACTQ244MSAX	0/45	
Q20090104BAHAST2B	74LCX543MSAX	0/45	

Test: (Moisture Sensitivity) | Conditions: | Standard: J-STD_020			
Lot	Device	Results	Failure Code
Q20090104AAMSLNL1AB	74ACTQ244MSAX	0/11	
Q20090104BAMSLNL1AB	74LCX543MSAX	0/11	
Q20090104CAMSLNL1AB	FMS6501MSA28	0/11	
Q20090104CBMSLNL1AB	FMS6501MSA28	0/11	

Test: (Precondition) | Conditions: | Standard: JESD22-A113			
Lot	Device	Results	Failure Code
Q20090104AAPCNL1AB	74ACTQ244MSAX	0/199	
Q20090104BAPCNL1AB	74LCX543MSAX	0/199	
Q20090104CAPCNL1AB	FMS6501MSA28	0/199	
Q20090104CBPCNL1AB	FMS6501MSA28	0/154	

Test: (Resistance to Solder Heat) | Conditions: | Standard: JESD22-B106			
Lot	Device	Results	Failure Code

Q20090104AARSDHB	74ACTQ244MSAX	0/5	
Q20090104BARSDHB	74LCX543MSAX	0/5	
Q20090104CARSDHB	FMS6501MSA28	0/5	
Q20090104CBRSDHB	FMS6501MSA28	0/5	

Test: (Temperature Cycle) | Conditions: -65C, 150C | Standard: JESD22-A104

Lot	Device	100-CYCLES	500-CYCLES	Failure Code
Q20090104AATMCL1B	74ACTQ244MSAX	0/77		
Q20090104AATMCL1B	74ACTQ244MSAX		0/77	
Q20090104BATMCL1B	74LCX543MSAX	0/77		
Q20090104BATMCL1B	74LCX543MSAX		0/77	
Q20090104CATMCL1B	FMS6501MSA28	0/77		
Q20090104CATMCL1B	FMS6501MSA28		0/77	
Q20090104CBTMCL1B	FMS6501MSA28	0/77		
Q20090104CBTMCL1B	FMS6501MSA28		0/77	

Test: (Unbiased HAST) | Conditions: 85%RH, 110C | Standard: JESD22-A118

Lot	Device	264-HOURS	Failure Code
Q20090104CAUHAST2B	FMS6501MSA28	0/45	

Product Id Description :

Affected FSIDs :

FMS6419MSA28X_SB82232	FMS6501MSA28X	FMS6501MSA28X_NA3L222