

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: 2011/06/14

Earliest Year/Work Week of Changed Product: 1125

Change Type Description: Mold Compound

Description of Change (From): Products assembled in the SOT23 and SSOT6 packages using the currently qualified non-green Mold Compound as shown below

Description of Change (To): Products assembled in the SOT23 and SSOT6 packages using the new green Mold Compound as shown below

Reason for Change : This is a change to the mold compounds used for Fairchild products assembled in the SOT23 and SSOT6 packages. These new alternative mold compounds are low halogen material with improved thermal and 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): Q20070414, Q20090383, Q20110077

Qualification :

Products assembled in the SOT23 and SSOT6 Packages have passed all required qualification testing with an MSL 1 rating.

Change From

Mfg Site / Subcon	Package	Mold Compound Change from	Qual Plan
Cebu, Philippines / Fairchild	SSOT6	Panasonic AMC-2RC	Q20110077
Cebu, Philippines / Fairchild	SOT23-5L	Panasonic AMC-2RC	Q20070414
Ayutthaya, Thailand / HANA	SOT23-5L/6L	Nitto MP8000AN	Q20090383

Change To

Mfg Site / Subcon	Package	Mold Compound Change to	Qual Plan
Cebu, Philippines / Fairchild	SSOT6	Panasonic CK5000A	Q20110077
Cebu, Philippines / Fairchild	SOT23-5L	Panasonic CK5000A	Q20070414
Ayutthaya, Thailand / HANA	SOT23-5L/6L	Sumitomo G600	Q20090383

Results/Discussion for Qual Plan Number(s): Q20070414

Test: (Autoclave) Conditions: 100%RH, 121C Standard: JESD22-A102					
Lot	Device	96-HOURS	Failure Code		
Q20070414AAACLV	NC7SZ66M5X	0/77			
Q20070414ABACLV	NC7SZ66M5X	0/77			
Q20070414BAACLV	NC7SZ125M5	0/77			
Q20070414BBACLV	NC7SZ125M5	0/77			
Q20070414CAACLV	FAN5332ASX	0/77			
Q20070414CBACLV	FAN5332ASX	0/77			

Test: (Precondition) Conditions: Standard: JESD22-A113			
Lot	Device	Results	Failure Code
Q20070414AAPCNL1A	NC7SZ66M5X	0/231	
Q20070414ABPCNL1A	NC7SZ66M5X	0/231	
Q20070414BAPCNL1A	NC7SZ125M5	0/231	
Q20070414BBPCNL1A	NC7SZ125M5	0/231	
Q20070414CAPCNL1A	FAN5332ASX	0/231	
Q20070414CBPCNL1A	FAN5332ASX	0/231	

Test: (Static Op Life) Conditions: 150C, 5.5V Standard: JESD22-A108					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20070414AASOPL1	NC7SZ66M5X	0/77			
			0/77		
				0/77	
Q20070414ABSOP1		0/77			
			0/77		
				0/77	
Q20070414BASOPL1	NC7SZ125M5	0/77			
			0/77		
				0/77	
Q20070414BBSOPL1		0/77			
			0/77		
				0/77	
Q20070414CASOPL1	FAN5332ASX	0/77			
			0/77		
				0/77	
Q20070414CBSOPL1		0/77			
			0/77		
				0/77	

Test: (Temperature Cycle) Conditions: -65C, 150C Standard: JESD22-A104				
Lot	Device	100-CYCLES	500-CYCLES	Failure Code
Q20070414AATMCL1	NC7SZ66M5X	0/77		
Q20070414AATMCL1	NC7SZ66M5X		0/77	
Q20070414ABTMCL1	NC7SZ66M5X	0/77		
Q20070414ABTMCL1	NC7SZ66M5X		0/77	
Q20070414BATMCL1	NC7SZ125M5	0/77		
Q20070414BATMCL1	NC7SZ125M5		0/77	

Q20070414BBTMCL1	NC7SZ125M5	0/77			
Q20070414BBTMCL1	NC7SZ125M5			0/77	
Q20070414CATMCL1	FAN5332ASX	0/77			
Q20070414CATMCL1	FAN5332ASX			0/77	
Q20070414CBTMCL1	FAN5332ASX	0/77			
Q20070414CBTMCL1	FAN5332ASX			0/77	
Test: (Temperature Humidity Biased Test) Conditions: 85%RH, 85C, 4.4V Standard: JESD22-A101					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20070414AATHBT	NC7SZ66M5X	0/77			
			0/77		
				0/77	
Q20070414ABTHBT		0/77			
			0/77		
				0/77	
Q20070414BATHBT	NC7SZ125M5	0/77			
			0/77		
				0/77	
Q20070414BBTHBT		0/77			
			0/77		
				0/77	
Q20070414CATHBT	FAN5332ASX	0/77			
			0/77		
				0/77	
Q20070414CBTHBT		0/77			
			0/77		
				0/77	

Results/Discussion for Qual Plan Number(s): Q20090383

Test: (Autoclave) Conditions: 100%RH, 121C Standard: JESD22-A102					
Lot	Device	96-HOURS			Failure Code
Q20090383AAACLV	NC7SZ125M5X	0/77			
Q20090383BAACLV	NC7SB3157P6X	0/77			
Q20090383CAACLV	NC7SZ125P5X	0/77			
Q20090383DAACLV	FHP3131IS6X	0/77			
Q20090383EAACLV	FSA66M5X	0/77			
Test: (Gate Leakage Negative) Conditions: 155C, -400V Standard: AEC-Q100-006					
Lot	Device	Results			Failure Code
Q20090383AAGATE-	NC7SZ125M5X	0/3			
Q20090383BAGATE-	NC7SB3157P6X	0/3			
Q20090383CAGATE-	NC7SZ125P5X	0/3			
Q20090383DAGATE-	FHP3131IS6X	0/3			
Q20090383EAGATE-	FSA66M5X	0/3			
Test: (Gate Leakage Positive) Conditions: 155C, 400V Standard: AEC-Q100-006					
Lot	Device	Results			Failure Code
Q20090383AAGATE+	NC7SZ125M5X	0/3			
Q20090383BAGATE+	NC7SB3157P6X	0/3			
Q20090383CAGATE+	NC7SZ125P5X	0/3			
Q20090383DAGATE+	FHP3131IS6X	0/3			
Q20090383EAGATE+	FSA66M5X	0/3			
Test: (High Temperature Storage Life) Conditions: 150C Standard: JESD22-A103					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20090383AAHTSL	NC7SZ125M5X	0/77			
			0/77		
				0/77	
Q20090383BAHTSL	NC7SB3157P6X	0/77			
			0/77		
				0/77	
Q20090383CAHTSL	NC7SZ125P5X	0/77			
			0/77		
				0/77	
Q20090383DAHTSL	FHP3131IS6X	0/77			
			0/77		
				0/77	
Q20090383EAHTSL	FSA66M5X	0/77			
			0/77		

						0/77
Test: (Highly Accelerated Stress Test) Conditions: 85%RH, 110C, TBDV Standard: JESD22-A110						
Lot	Device	264-HOURS			Failure Code	
Q20090383AAHAST2	NC7SZ125M5X	0/45				
Q20090383BAHAST2	NC7SB3157P6X	0/45				
Q20090383CAHAST2	NC7SZ125P5X	0/45				
Q20090383DAHAST2	FHP3131IS6X	0/45				
Q20090383EAHAST2	FSA66M5X	0/45				
Test: (Lead Integrity) Conditions: Standard: JESD22-B105						
Lot	Device	Results	Failure Code			
Q20090383AALINTB	NC7SZ125M5X	0/5				
Q20090383BALINTB	NC7SB3157P6X	0/5				
Q20090383CALINTB	NC7SZ125P5X	0/5				
Q20090383DALINTB	FHP3131IS6X	0/5				
Q20090383EALINTB	FSA66M5X	0/5				
Test: (Moisture Sensitivity) Conditions: Standard: J-STD_020						
Lot	Device	Results	Failure Code			
Q20090383AAMSLNL1A	NC7SZ125M5X	0/11				
Q20090383BAMSLNL1A	NC7SB3157P6X	0/11				
Q20090383CAMSLNL1A	NC7SZ125P5X	0/11				
Q20090383DAMSLNL1A	FHP3131IS6X	0/11				
Q20090383EAMSLNL1A	FSA66M5X	0/11				
Test: (Physical Dimensions) Conditions: Standard: JESD22-B100						
Lot	Device	Results	Failure Code			
Q20090383AAPHYD	NC7SZ125M5X	0/5				
Q20090383BAPHYD	NC7SB3157P6X	0/5				
Q20090383CAPHYD	NC7SZ125P5X	0/5				
Q20090383DAPHYD	FHP3131IS6X	0/5				
Q20090383EAPHYD	FSA66M5X	0/5				
Test: (Precondition) Conditions: Standard: JESD22-A113						
Lot	Device	Results	Failure Code			
Q20090383AAPCNL1A	NC7SZ125M5X	0/353				
Q20090383BAPCNL1A	NC7SB3157P6X	0/353				
Q20090383CAPCNL1A	NC7SZ125P5X	0/353				
Q20090383DAPCNL1A	FHP3131IS6X	0/353				
Q20090383EAPCNL1A	FSA66M5X	0/353				
Test: (Solderability) Conditions: Standard: JESD22-B102						
Lot	Device	Results	Failure Code			
Q20090383AASOLDCA	NC7SZ125M5X	0/11				
Q20090383AASOLDCB	NC7SZ125M5X	0/11				
Q20090383BASOLDCA	NC7SB3157P6X	0/11				
Q20090383BASOLDCB	NC7SB3157P6X	0/11				
Q20090383CASOLDCA	NC7SZ125P5X	0/11				
Q20090383CASOLDCB	NC7SZ125P5X	0/11				
Q20090383DASOLDCA	FHP3131IS6X	0/11				
Q20090383DASOLDCB	FHP3131IS6X	0/11				
Q20090383EASOLDCA	FSA66M5X	0/11				
Q20090383EASOLDCB	FSA66M5X	0/11				
Test: (Static Op Life) Conditions: 150C, TBDV Standard: JESD22-A108						
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code	
Q20090383AASOPL1	NC7SZ125M5X	0/77				
			0/77			
				0/77		
Q20090383BASOPL1	NC7SB3157P6X	0/77				
			0/77			
				0/77		
Q20090383CASOPL1	NC7SZ125P5X	0/77				
			0/77			
				0/77		
Q20090383DASOPL1	FHP3131IS6X	0/77				
			0/77			
				0/77		
Q20090383EASOPL1	FSA66M5X	0/77				
			0/77			
				0/77		

Test: (Temperature Cycle) Conditions: -65C, 150C Standard: JESD22-A104					
Lot	Device	100-CYCLES	500-CYCLES	Failure Code	
Q20090383AATMCL1	NC7SZ125M5X	0/77			
Q20090383AATMCL1	NC7SZ125M5X		0/77		
Q20090383BATMCL1	NC7SB3157P6X	0/77			
Q20090383BATMCL1	NC7SB3157P6X		0/77		
Q20090383CATMCL1	NC7SZ125P5X	0/77			
Q20090383CATMCL1	NC7SZ125P5X		0/77		
Q20090383DATMCL1	FHP3131S6X	0/77			
Q20090383DATMCL1	FHP3131S6X		0/77		
Q20090383EATMCL1	FSA66M5X	0/77			
Q20090383EATMCL1	FSA66M5X		0/77		

Results/Discussion for Qual Plan Number(s): Q20110077

Test: (Autoclave) Conditions: 100%RH, 121C Standard: JESD22-A102					
Lot	Device	96-HOURS	Failure Code		
Q20110077AAACLV	FDC637BNZ	0/77			
Q20110077ABACLV	FDC637BNZ	0/77			
Q20110077ACACLV	FDC637BNZ	0/77			
Q20110077BAACLV	FDC638APZ	0/77			
Q20110077BBACLV	FDC638APZ	0/77			
Q20110077BCACLV	FDC638APZ	0/77			
Q20110077CAACLV	FDC658AP	0/77			
Q20110077DAACLV	FAN2558SX	0/77			
Q20110077EAACLV	FDC365P	0/77			

Test: (High Humidity, High Temp, Rev. Bias) Conditions: 85%RH, 85C, 24V Standard: JESD22-A101B					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110077CAH3TRB	FDC658AP	0/77			
			0/77		
				0/77	

Test: (High Temperature Gate Bias) Conditions: 150C, 12V Standard: JESD22-A108					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110077AAHTGB	FDC637BNZ	0/77			
			0/77		
				0/77	

Test: (High Temperature Gate Bias) Conditions: 150C, 25V Standard: JESD22-A108					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110077CAHTGB	FDC658AP	0/77			
			0/77		
				0/77	

Test: (High Temperature Gate Bias) Conditions: 150C, 8V Standard: JESD22-A108					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110077BAHTGB	FDC638APZ	0/77			
			0/77		
				0/77	
Q20110077BBHTGB		0/77			
			0/77		
				0/77	
Q20110077BCHTGB		0/77			
			0/77		
				0/77	

Test: (High Temperature Reverse Bias) Conditions: 150C, 16V Standard: JESD22-A108					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110077AAHTRB	FDC637BNZ	0/77			
			0/77		
				0/77	
Q20110077BAHTRB	FDC638APZ	0/77			
			0/77		
				0/77	
Q20110077BBHTRB		0/77			
			0/77		
				0/77	
Q20110077BCHTRB		0/77			
			0/77		

				0/77	
Test: (High Temperature Reverse Bias) Conditions: 150C, 24V Standard: JESD22-A108					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110077CAHTRB	FDC658AP	0/77			
			0/77		
				0/77	
Test: (Highly Accelerated Stress Test) Conditions: 85%RH, 110C, 16V Standard: JESD22-A110					
Lot	Device	132-HOURS	264-HOURS		Failure Code
Q20110077AAHAST2	FDC637BNZ	0/77			
Q20110077AAHAST2	FDC637BNZ		0/77		
Q20110077BAHAST2	FDC638APZ	0/77			
Q20110077BAHAST2	FDC638APZ		0/77		
Q20110077BBHAST2	FDC638APZ	0/77			
Q20110077BBHAST2	FDC638APZ		0/77		
Q20110077BCHAST2	FDC638APZ	0/77			
Q20110077BCHAST2	FDC638APZ		0/77		
Test: (Highly Accelerated Stress Test) Conditions: 85%RH, 110C, 24V Standard: JESD22-A110					
Lot	Device	132-HOURS	264-HOURS		Failure Code
Q20110077CAHAST2	FDC658AP	0/77			
Q20110077CAHAST2	FDC658AP		0/77		
Test: (Power Cycle) Conditions: Delta 100CC, 2 Min cycle Standard: MIL-STD-750-1036					
Lot	Device	5000-CYCLES	10000-CYCLES		Failure Code
Q20110077CAPRCL	FDC658AP	0/77			
Q20110077CAPRCL	FDC658AP		0/77		
Q20110077EAPRCL	FDC365P	0/77			
Q20110077EAPRCL	FDC365P		0/77		
Test: (Power Cycle) Conditions: Delta 100°C, 2 Min cycle Standard: MIL-STD-750-1036					
Lot	Device	5000-CYCLES	10000-CYCLES		Failure Code
Q20110077AAPRCL	FDC637BNZ	0/77			
Q20110077AAPRCL	FDC637BNZ		0/77		
Q20110077BAPRCL	FDC638APZ	0/77			
Q20110077BAPRCL	FDC638APZ		0/77		
Q20110077BBPRCL	FDC638APZ	0/77			
Q20110077BBPRCL	FDC638APZ		0/77		
Q20110077BCPRCL	FDC638APZ	0/77			
Q20110077BCPRCL	FDC638APZ		0/77		
Test: (Precondition) Conditions: Standard: JESD22-A113					
Lot	Device	Results			Failure Code
Q20110077AAPCNL1A	FDC637BNZ	0/231			
Q20110077ABPCNL1A	FDC637BNZ	0/154			
Q20110077ACPCNL1A	FDC637BNZ	0/154			
Q20110077BAPCNL1A	FDC638APZ	0/231			
Q20110077BBPCNL1A	FDC638APZ	0/231			
Q20110077BCPCNL1A	FDC638APZ	0/231			
Q20110077CAPCNL1A	FDC658AP	0/308			
Q20110077DAPCNL1A	FAN2558SX	0/231			
Q20110077EAPCNL1A	FDC365P	0/154			
Test: (Resistance to Solder Heat) Conditions: Standard: JESD22-B106					
Lot	Device	Results			Failure Code
Q20110077AARSDH	FDC637BNZ	0/30			
Q20110077BARSDH	FDC638APZ	0/30			
Q20110077BBRSDH	FDC638APZ	0/30			
Q20110077BCRSDH	FDC638APZ	0/30			
Q20110077CARSDH	FDC658AP	0/30			
Q20110077DARSDH	FAN2558SX	0/30			
Q20110077EARSDH	FDC365P	0/30			
Test: (Static Op Life) Conditions: NA%RH, 150C Standard: JESD22-A108					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110077DASOPL1	FAN2558SX	0/77			
			0/77		
				0/77	
Test: (Temperature Cycle) Conditions: -65C, 150C Standard: JESD22-A104					
Lot	Device	100-CYCLES	500-CYCLES		Failure Code

Q20110077AATMCL1	FDC637BNZ	0/77		
Q20110077AATMCL1	FDC637BNZ		0/77	
Q20110077ABTMCL1	FDC637BNZ	0/77		
Q20110077ABTMCL1	FDC637BNZ		0/77	
Q20110077ACTMCL1	FDC637BNZ	0/77		
Q20110077ACTMCL1	FDC637BNZ		0/77	
Q20110077BATMCL1	FDC638APZ	0/77		
Q20110077BATMCL1	FDC638APZ		0/77	
Q20110077BBTMCL1	FDC638APZ	0/77		
Q20110077BBTMCL1	FDC638APZ		0/77	
Q20110077BCTMCL1	FDC638APZ	0/77		
Q20110077BCTMCL1	FDC638APZ		0/77	
Q20110077CATMCL1	FDC658AP	0/77		
Q20110077CATMCL1	FDC658AP		0/77	
Q20110077DATMCL1	FAN2558SX	0/77		
Q20110077DATMCL1	FAN2558SX		0/77	
Q20110077EATMCL1	FDC365P	0/77		
Q20110077EATMCL1	FDC365P		0/77	

Test: (Temperature Humidity Biased Test) | Conditions: 85%RH, 85C, 5V | Standard: JESD22-A101

Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110077DATHBT	FAN2558SX	0/77			
			0/77		
				0/77	

Product Id Description :

Affected FSIDs :

FAN2500S25X	FAN2500S30X	FAN2500S33X
FAN2500SX	FAN2501S25X	FAN2502S25X
FAN2503S33X	FAN2504S33X	FAN2510SX
FAN2512S33X	FAN2514S30X	FAN2514SX
FAN2515S25X	FAN2558S10X	FAN2558S12X
FAN2558S13X	FAN2558S15X	FAN2558S18X
FAN2558S25X	FAN2558S33X	FAN2558S35X
FAN2558S36X	FAN2558S38X	FAN2558SX
FAN3100CSX	FAN3100TSX	FAN3111CSX
FAN3111ESX	FAN4146ESX	FAN4146SX
FAN4147SX	FAN4174IS5X	FAN5307S18X
FAN5307SX	FAN5331SX	FAN5333ASX
FAN5333BSX	FAN5622SX	FHP3130IS5X
FIN1001M5X	FIN1001M5	FIN1002M5X
FIN1002M5	FPF2100	FPF2101
FPF2102	FPF2102_SBAA008Z	FPF2102_SBAA011
FPF2103	FPF2104	FPF2105
FPF2106	FPF2107	FPF2108
FPF2108_SBAA007	FPF2109	FPF2110
FPF2110_F065	FPF2116	FPF2123
FPF2124	FPF2124_SBAA009Z	FPF2124_SBAA010
FPF2125	FPV338L	FPV668L
NC7S00M5X	NC7S00M5	NC7S02M5X
NC7S02M5	NC7S04M5X	NC7S04M5X_F40
NC7S04M5	NC7S08M5X	NC7S08M5X_F40
NC7S08M5X_SF500951	NC7S08M5	NC7S14M5X
NC7S14M5X_SF500948	NC7S14M5	NC7S32M5X
NC7S32M5X_F40	NC7S32M5	NC7S86M5X

NC7S86M5	NC7ST00M5X	NC7ST00M5
NC7ST02M5X	NC7ST02M5	NC7ST04M5X
NC7ST04M5X_F135	NC7ST04M5	NC7ST08M5X
NC7ST08M5	NC7ST32M5X	NC7ST32M5
NC7ST86M5X	NC7ST86M5	NC7SU04M5X
NC7SU04M5	NC7SZ00M5X	NC7SZ00M5X_F40
NC7SZ00M5	NC7SZ02M5X	NC7SZ02M5
NC7SZ04M5X	NC7SZ04M5X_F40	NC7SZ04M5
NC7SZ05M5X	NC7SZ05M5	NC7SZ08M5X
NC7SZ08M5X_F40	NC7SZ08M5X_SN00135	NC7SZ08M5
NC7SZ125M5X	NC7SZ125M5X_F40	NC7SZ125M5
NC7SZ126M5X	NC7SZ126M5	NC7SZ14M5X
NC7SZ14M5	NC7SZ32M5X	NC7SZ32M5X_F40
NC7SZ32M5	NC7SZ384M5X	NC7SZ38M5X
NC7SZ38M5	NC7SZ66M5X	NC7SZ66M5X_F40
NC7SZ86M5X	NC7SZ86M5X_SF500979	NC7SZ86M5
NC7SZD384M5X	NC7SZU04M5X	NC7SZU04M5