

Date Created : 2006/09/11  
Date Issued On : 2006/10/24  
PCN# : Q3063802

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: 2006/12/15

Earliest Year/Work Week of Changed Product: 0650

Change Type Description: Alternate Fab Location, Die Shrink

Description of Change (From): Fairchild Semiconductor products, 74AC240, 74ACT240, 74AC244 and 74ACT244 are currently manufactured in South Portland, Maine using a 6-inch FACT2.0 process.

Description of Change (To): Fairchild Semiconductor will produce these products at wafer fab, CSMC, located in WuXi, China (PRC). The products listed in the FSID list at the bottom of this document will be manufactured on 6-inch wafers using a CS80C process. All current product package materials, dimensions, markings and electrical specifications will remain unchanged.

Reason for Change : To improve product availability and manufacturing flexibility.

Qual/REL Plan Numbers : Q20060204

Qualification :

Qualification Q20060204 describes standards, conditioning and test results for a device fabricated using the CS80C process. This qualification data is pertinent to the products listed on this PCN.

**Results/Discussion**

Test: (Autoclave)			
Lot	Device	96-HOURS	Failure Code
Q20060204AAACLV	74LCX245MSA	0/77	
Q20060204BAACLV	74LCX245MTC	0/77	
Q20060204CAACLV	74LCX245SJ	0/77	
Q20060204DAACLV	74LCX245WM	0/77	

Test: (Gate Leakage Negative)				
Lot	Device	Results	Failure Code	
Q20060204AAGATE-	74LCX245MSA	0/3		
Q20060204BAGATE-	74LCX245MTC	0/3		
Q20060204CAGATE-	74LCX245SJ	0/3		
Q20060204DAGATE-	74LCX245WM	0/3		

Test: (Gate Leakage Positive)				
Lot	Device	Results	Failure Code	
Q20060204AAGATE+	74LCX245MSA	0/3		
Q20060204BAGATE+	74LCX245MTC	0/3		
Q20060204CAGATE+	74LCX245SJ	0/3		
Q20060204DAGATE+	74LCX245WM	0/3		

Test: (High Temperature Storage Life)				
Lot	Device	168-HOURS	1000-HOURS	Failure Code
Q20060204AAHTSL	74LCX245MSA	0/77		
Q20060204AAHTSL	74LCX245MSA		0/77	
Q20060204BAHTSL	74LCX245MTC	0/77		
Q20060204BAHTSL	74LCX245MTC		0/77	
Q20060204CAHTSL	74LCX245SJ	0/77		
Q20060204CAHTSL	74LCX245SJ		0/77	
Q20060204DAHTSL	74LCX245WM	0/77		
Q20060204DAHTSL	74LCX245WM		0/77	

Test: (Static Op Life)					
Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20060204AASOPL1	74LCX245MSA	0/77			
			0/77		
				0/77	
Q20060204BASOPL1	74LCX245MTC	0/77			
			0/77		
				0/77	
Q20060204CASOPL1	74LCX245SJ	0/77			
			0/77		
				0/77	
Q20060204DASOPL1	74LCX245WM	0/77			
			0/77		
				0/77	

Test: -65C, 150C (Temperature Cycle)				
Lot	Device	500-CYCLES	Failure Code	
Q20060204AATMCL1	74LCX245MSA	0/77		
Q20060204BATMCL1	74LCX245MTC	0/77		
Q20060204CATMCL1	74LCX245SJ	0/77		
Q20060204DATMCL1	74LCX245WM	0/77		

Test: 130C (Highly Accelerated Stress Test)				
Lot	Device	96-HOURS	Failure Code	
Q20060204AAHAST1	74LCX245MSA	0/45		
Q20060204BAHAST1	74LCX245MTC	0/45		
Q20060204CAHAST1	74LCX245SJ	0/45		
Q20060204DAHAST1	74LCX245WM	0/45		

Test: MSL(1), PKG(Small), PeakTemp(260c), Cycles(3) (Precondition)				
Lot	Device	Results	Failure Code	
Q20060204AAPCNL1A	74LCX245MSA	0/276		
Q20060204BAPCNL1A	74LCX245MTC	0/276		
Q20060204CAPCNL1A	74LCX245SJ	0/276		
Q20060204DAPCNL1A	74LCX245WM	0/276		

Product Id Description :

Affected FSIDs :

74AC240MTC	74AC240MTCX	74AC240PC
74AC240PC_F091	74AC240PC_NL	74AC240SC
74AC240SCX	74AC240SCX_NL	74AC240SC_NL
74AC240SJ	74AC240SJX	74AC240SJX_F042

74AC244MTC	74AC244MTCX	74AC244MTCX_NL
74AC244PC	74AC244PC_F042	74AC244PC_F091
74AC244PC_F40	74AC244PC_NF042	74AC244PC_NL
74AC244SC	74AC244SCX	74AC244SCX_NL
74AC244SC_NL	74AC244SJ	74AC244SJX
74AC244SJX_F042	74ACT240MTC	74ACT240MTCX
74ACT240MTCX_F40	74ACT240MTCX_NL	74ACT240PC
74ACT240PC_F091	74ACT240PC_F40	74ACT240PC_NL
74ACT240SC	74ACT240SCX	74ACT240SCX_F094
74ACT240SCX_NL	74ACT240SC_NL	74ACT240SJ
74ACT240SJX	74ACT240SJX_NL	74ACT244MSA
74ACT244MSAX	74ACT244MSAX_NL	74ACT244MSA_NL
74ACT244MTC	74ACT244MTCX	74ACT244MTCX_F40
74ACT244MTCX_NF40	74ACT244MTCX_NL	74ACT244MTC_F40
74ACT244PC	74ACT244PC_F042	74ACT244PC_F091
74ACT244PC_F40	74ACT244PC_NL	74ACT244SC
74ACT244SCX	74ACT244SCX_F094	74ACT244SCX_NL
74ACT244SC_NL	74ACT244SJ	74ACT244SJX
74ACT244SJX_F042	74ACT244SJX_NL	