

PCN Number: PCN20131216001 **PCN Date:** 12/19/2013

Title: Transfer of select devices in the .35um-UMC-F8J process to UMC-F8E Wafer Fab Facility

Customer Contact: [PCN Manager](#) **Phone:** +1(214)480-6037 **Dept:** Quality Services

Proposed 1st Ship Date: 03/19/2014 **Estimated Sample Availability:** Date provided at sample request.

Change Type:		
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>
<input type="checkbox"/>	Design	<input type="checkbox"/>
<input type="checkbox"/>	Test Site	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>
<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>
<input type="checkbox"/>	Part number change	<input type="checkbox"/>
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>
<input type="checkbox"/>	Test Process	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Bump Process	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Fab Process	<input type="checkbox"/>

PCN Details

Description of Change:

This notification is to announce the transfer of select devices in the .35um-UMC-F8J process to UMC-F8E Wafer Fab Facility.

Currently Qualified Sites, process, wafer dia.	Additional Sites, process, wafer dia.
UMC-F8J, .35um-UMC-F8J Process, 200mm	UMC-F8E, 0.35 DPQM Process, 200mm

The .35um-UMC-F8J Process was qualified at UMC-F8E on 7/12/2013. Details are provided in the Qual Data Section.

Reason for Change:

Continuity of supply due to site shutdown

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Changes to product identification resulting from this PCN:

Current		
Chip Site	Chip site code (20L)	Chip country code (21L)
UMC-F8J	U8J	JPN
New		
Chip Site	Chip site code (20L)	Chip country code (21L)
UMC-F8E	U8E	TWN

Sample product shipping label (not actual product label)

 <p>MADE IN: Malaysia 2DC: 2d</p> <table border="1"> <tr> <td>MSL 2 / 260C/1 YEAR</td> <td>SEAL DT</td> </tr> <tr> <td>MSL 1 / 235C/UNLIM</td> <td>03/29/04</td> </tr> </table> <p>OPT: ITEM: 39 LBL: 5A (L)T0:1750</p>	MSL 2 / 260C/1 YEAR	SEAL DT	MSL 1 / 235C/UNLIM	03/29/04		<p>(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 0033317 (20L) CSO: SHE (21L) CCO:USA (22L) ASS: MLA (23L) ACO: HYS</p>
MSL 2 / 260C/1 YEAR	SEAL DT					
MSL 1 / 235C/UNLIM	03/29/04					

Product Affected:

PCM1690DCA	PCM1789PW	PCM1789PWRG4	PCM3168APAPRG4
PCM1690DCAR	PCM1789PWG4	PCM3168APAP	
PCM1690DCARG4	PCM1789PWR	PCM3168APAPR	

Qualification Data (Approved: 7/12/2013)

This qualification has been developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qualification Device 1: PCM1753TDBQRQ1

Wafer Fab Site:	UMC-F8E	Wafer Fab Process:	0.35 DPTM
Wafer Diameter:	200mm		

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size/Fails		
		Lot#1	Lot#2	Lot#3
High Temp Operating Life	140C(480 Hrs)	79/0	83/0	81/0
Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
**High Temp Storage Bake	150C (420 Hrs)	75/0	79/0	80/0
**Biased HAST	130C/85%RH (96 Hrs)	80/0	80/0	80/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	79/0	72/0
**Temp Cycle	-65C/+150C (500 Cycles)	77/0	79/0	80/0
ESD CDM	1500V	3/0	3/0	3/0
ESD HBM	4000V	3/0	3/0	3/0
Ball Bond Shear	76 balls, 3 units min	76/0	76/0	76/0
Bond Pull	76 Wire, 3 units min	76/0	76/0	76/0
Die Shear	-	10/0	10/0	10/0
Latch-up	(Per JESD78)	8/0	6/0	6/0
Manufacturability (Assembly)	Per Mfg. Site Specification	Pass	-	-
Manufacturability (Fab)	Per Mfg. Site Specification	Pass	Pass	Pass

** Preconditioning sequence: (Level 3/260C)

Qualification Device 2: PCM3168ATPAPRQ1					
Wafer Fab Site:	UMC-F8E	Wafer Fab Process:	0.35 DPTM		
Wafer Diameter:	200mm				
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Sample Size/Fails			
		Lot#1	Lot#2	Lot#3	
Life Test	125C(1000 Hrs)	79/0	79/0	79/0	
Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	
**Autoclave	121C, 2 atm (96 Hrs)	80/0	80/0	-	
**Temp Cycle	-65C/+150C (500 Cycles)	77/0	77/0	80/0	
ESD CDM	250V	3/0	3/0	3/0	
ESD HBM	1000V	3/0	3/0	3/0	
Ball Bond Shear	76 balls, 3 units min	80/0	80/0	80/0	
Bond Pull	76 Wire, 3 units min	80/0	80/0	80/0	
Die Shear	-	10/0	10/0	10/0	
Latch-up	(Per JESD78)	6/0	6/0	6/0	
Manufacturability (Fab)	Per Mfg. Site Specification	Pass	-	-	
** Preconditioning sequence: (Level 3/260C)					

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com