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Product / Process Change Archive

Product / Process Change Notification CYAR-7RTN2J

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The information below reflects a change that is being implemented.

Notice Date: 05/07/2009

Product Category: dsPIC; PIC18xxx; PIC24xxx

Notification Subject: CCB# 894: Qualification of 28L QFN-S package at UTL (NSEB) assembly site.

Notification Body:

PCN Status:

Initial notification

Microchip Part#s Affected (please see the link for these files at the end of this PCN):

See attachment of Affected package/device in Qualification plan.

[Microchip_Catalog_Part#s_Affected.xls](#)

[Microchip_Catalog_Part#s_Affected.pdf](#)

Description of Change:

New assembly site

Impacts to Data Sheet:

None

Reason for Change:

Improve on time delivery performance

Change Implementation Status:

In Progress

Estimated First Ship Date:

August 14, 2009 (Date code 0931)

Markings to Distinguish Revised from Unrevised Devices: (e.g.: Date Code, Device Marking, Ship Container Marking)

Traceability code

CATALOG PART NBR
DSPIC30F1010-20E/MM
DSPIC30F1010-30I/MM
DSPIC30F1010T-20E/MM
DSPIC30F1010T-30I/MM
DSPIC30F2010-20E/MM
DSPIC30F2010-20I/MM
DSPIC30F2010-30I/MM
DSPIC30F2010-30V/MMA31
DSPIC30F2010T-20E/MM
DSPIC30F2010T-20E/MM021
DSPIC30F2010T-20E/MM022
DSPIC30F2010T-20E/MMG
DSPIC30F2010T-20E/MMG020
DSPIC30F2010T-20I/MM
DSPIC30F2010T-30I/MM
DSPIC30F2010T-30I/MMG
DSPIC30F2010T-30V/MMA31
DSPIC30F2020-20E/MM
DSPIC30F2020-30I/MM
DSPIC30F2020-30I/MMB32
DSPIC30F2020-30I/MMB35
DSPIC30F2020T-20E/MM
DSPIC30F2020T-30I/MM
DSPIC30F2020T-30I/MM020
DSPIC30F2020T-30I/MMB32
DSPIC30F2020T-30I/MMB35
DSPIC33FJ06GS102-E/MM
DSPIC33FJ06GS102-I/MM
DSPIC33FJ06GS102T-E/MM
DSPIC33FJ06GS102T-I/MM
DSPIC33FJ06GS202-E/MM
DSPIC33FJ06GS202-I/MM
DSPIC33FJ06GS202T-E/MM
DSPIC33FJ06GS202T-I/MM
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DSPIC33FJ128GP202T-I/MM
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DSPIC33FJ128GP802T-I/MM
DSPIC33FJ128MC202-E/MM
DSPIC33FJ128MC202-I/MM
DSPIC33FJ128MC202T-E/MM
DSPIC33FJ128MC202T-I/MM
DSPIC33FJ128MC802-E/MM
DSPIC33FJ128MC802-I/MM
DSPIC33FJ128MC802T-E/MM
DSPIC33FJ128MC802T-I/MM
DSPIC33FJ16GS402-E/MM
DSPIC33FJ16GS402-I/MM
DSPIC33FJ16GS402T-E/MM
DSPIC33FJ16GS402T-I/MM
DSPIC33FJ16GS502-E/MM
DSPIC33FJ16GS502-I/MM
DSPIC33FJ16GS502T-E/MM
DSPIC33FJ16GS502T-I/MM
DSPIC33FJ32GP202-E/MM
DSPIC33FJ32GP202-I/MM
DSPIC33FJ32GP202T-E/MM
DSPIC33FJ32GP202T-I/MM
DSPIC33FJ32GP302-E/MM
DSPIC33FJ32GP302-I/MM
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DSPIC33FJ32MC202-I/MM
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DSPIC33FJ64GP802-I/MM
DSPIC33FJ64GP802T-E/MM
DSPIC33FJ64GP802T-I/MM
DSPIC33FJ64MC202-E/MM
DSPIC33FJ64MC202-I/MM
DSPIC33FJ64MC202T-E/MM
DSPIC33FJ64MC202T-I/MM
DSPIC33FJ64MC802-E/MM
DSPIC33FJ64MC802-I/MM
DSPIC33FJ64MC802T-E/MM
DSPIC33FJ64MC802T-I/MM
PIC18F2331-E/MM
PIC18F2331-I/MM
PIC18F2331T-I/MM
PIC18F2431-E/MM
PIC18F2431-E/MMC01
PIC18F2431-I/MM
PIC18F2431T-I/MM
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PIC18F2480-I/ML
PIC18F2480T-E/ML
PIC18F2480T-I/ML
PIC18F2580-E/ML
PIC18F2580-I/ML
PIC18F2580T-I/ML
PIC18F2580T-I/MLC02
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PIC24HJ128GP202T-E/MM
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PIC24HJ128GP502-E/MM
PIC24HJ128GP502-I/MM
PIC24HJ128GP502T-E/MM
PIC24HJ128GP502T-I/MM
PIC24HJ32GP202-E/MM
PIC24HJ32GP202-I/MM
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PIC24HJ64GP202-I/MM
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PIC24HJ64GP502T-E/MM
PIC24HJ64GP502T-I/MM

CATALOG PART NBR
DSPIC30F1010-20E/MM
DSPIC30F1010-30I/MM
DSPIC30F1010T-20E/MM
DSPIC30F1010T-30I/MM
DSPIC30F2010-20E/MM
DSPIC30F2010-20I/MM
DSPIC30F2010-30I/MM
DSPIC30F2010-30V/MMA31
DSPIC30F2010T-20E/MM
DSPIC30F2010T-20E/MM021
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DSPIC30F2010T-30I/MM
DSPIC30F2010T-30I/MMG
DSPIC30F2010T-30V/MMA31
DSPIC30F2020-20E/MM
DSPIC30F2020-30I/MM
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DSPIC30F2020T-30I/MM
DSPIC30F2020T-30I/MM020
DSPIC30F2020T-30I/MMB32
DSPIC30F2020T-30I/MMB35
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DSPIC33FJ06GS102T-I/MM
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DSPIC33FJ06GS202-I/MM
DSPIC33FJ06GS202T-E/MM
DSPIC33FJ06GS202T-I/MM
DSPIC33FJ128GP202-E/MM
DSPIC33FJ128GP202-I/MM
DSPIC33FJ128GP202T-E/MM
DSPIC33FJ128GP202T-I/MM
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DSPIC33FJ32GP302-I/MM
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PIC18F2480T-I/ML
PIC18F2580-E/ML
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PIC18LF2331T-I/MM
PIC18LF2431-I/MM
PIC18LF2431T-I/MM
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PIC24HJ128GP202T-E/MM
PIC24HJ128GP202T-I/MM
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PIC24HJ64GP202T-E/MM
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PIC24HJ64GP502-I/MM
PIC24HJ64GP502T-E/MM
PIC24HJ64GP502T-I/MM



QUALIFICATION PLAN

CCB#: 894
PCN#: CYAR-7RTN2J

Date:
April 30, 2009

**Qualification of 28L QFN-S (6x6x0.9mm) Package at
UTL (NSEB) Assembly Site.**

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Purpose: _____ Qualification of 28L QFN-S (6x6x0.9mm) Package at UTL (NSEB) Assembly Site.

Mask: _____ DFAR14M2XA20

Part No.: _____ DSPIC30F1010-20E/MM

Package:

Type _____ 28L QFN-S

Width or Size: _____ 6x6x0.9 mm

Die thickness: _____ 11 mils

Die size: _____ 172.70 x 181.90 mils

Lead frame:

Paddle size: _____ 193x193 mils

Material _____

Surface _____ Cu (Ag on Lead)

Process _____ Etched

Lead Lock _____

Part Number _____ FR0410

Wire:

Material _____ Au

Die Attach Epoxy:

Part Number _____ 8200T

Conductive _____ Yes

Mold Compound: _____ G770HCD

Reliability Test plan: _____ See attached, STD Package Reliability Test plan for 28L QFN-S (6x6x0.9) Package at UTL (NSEB).

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Quantity of Lots	Total Units	Fail Accept #	Est. Dur. Days	Special Instructions
Solderability	JESD22 B102; Perform 8 hour steam aging prior to testing.	22	0	1	22	> 95% lead coverage	5	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0	5	30 bonds from a min. of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	30 bonds from a min. of 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	
External Visual	Mil. Std. 883-2009/2010	ALL	0	3	ALL	0	5	All devices prior to submission for qualification testing
Preconditioning - * Required for surface mount devices	+150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020C for package type; Electrical test pre and post stress at +25°C. Perform SAM analysis using the standard sample size. MSL1/260°C	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Quantity of Lots	Total Units	Fail Accept #	Est. Dur. Days	Special Instructions
HAST *	+130 °C/85% RH for 96 hours. Electrical test pre and post stress at +25 and +85°C.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Autoclave *	+121 °C/15 psig for 96 hours. Electrical test pre and post stress at +25 °C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle*	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at +85°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.