

Product / Process Change Notification JLIO-7J7TZ3[Home](#)

The information below reflects a change that is being implemented.

Notice Date: 03/27/2009

Product Category: dsPIC; Ethernet Communication; LIN Communication; PIC16xxx; PIC18xxx; PIC24xxx

Notification Subject: CANCELLED CCB#848: QUALIFICATION OF 28L QFN (6X6X0.9MM) PACKAGE AT ASAT LIMITED, CHINA (ASAC) ASSEMBLY

Notification Body:
PCN Status:
Cancellation 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.
[CCB#848_Microchip_Catalog_Part#s_Affected.xls](#)
[CCB#848_Microchip_Catalog_Part#s_Affected.pdf](#)

Description of Change:
This qualification was originally performed to qualify 28L QFN (6X6X0.9MM) package at ASAT Limited China (ASAC) assembly.

Impacts to Data Sheet:
Not applicable

Reason for Change:
Current production demand for this 28L QFN package does not require additional assembly capacity.

Change Implementation Status:
Not applicable

Estimated Change Implementation Date(s)
Not applicable

Markings to Distinguish Revised from Unrevised Devices: (e.g.: Date Code, Device Marking, Ship Container Marking)
Not applicable

Attachment(s):

[CCB#848_Microchip_Catalog_Part#s_Affected.pdf](#) [CCB#848_Microchip_Catalog_Part#s_Affected.xls](#)

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[PCN_JLIO-7J7TZ3_28L QFN_ASAC_CCB848 Qual Plan.pdf](#)



MICROCHIP

QUALIFICATION PLAN

**CCB 848
JLIO-7J7TZ3
August 15, 2008**

**28L QFN 6x6x0.9mm
At
ASAT Limited, China (ASAC) Assembly**

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Purpose: _____ To qualify ASAC assembly site for 28L QFN
6x6x0.9mm package.
MP code: _____ DEBG47M4XVL1
Part No.: _____ PIC18LF2410-I/MLVAO
Bonding No.: _____ BDE-000625 Rev 01

Package:

Type _____ 28L QFN 6x6
Width or Size _____ 6x6 mm
Die thickness: _____ 11 mils
Die size: _____ 145.7x146.9 mils

Lead frame:

Paddle size: _____ 177x177 mils
Material _____ QPL China-Ci194
Surface _____ Bare Cu
Process _____ Etched
Lead Lock _____ Half Etched
Part Number _____ 11606058-2

Wire:

Material _____ Au – Tanaka Japan
Wire Diameter _____ 1.0 mil

Die Attach Epoxy:

Part Number _____ A2200 – Ablestik USA
Conductive _____ Yes

Mold Compound: _____ G770 C – Sumitomo Singapore

Reliability Test plan: _____ See attached , STD Package Reliability Test plan for
28L QFN 6x6

Package Reliability Tests								
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	Cpk > 1.33 or 0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	Cpk > 1.33	5	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0 and Cpk > 1.33	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.	231	15	3	738	0	15	Spares should be properly identified.

Package Reliability Tests								
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.

Microchip Catalog Part Numbers Affected
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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
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DSPIC30F2020-30I/MMB32
DSPIC30F2020T-20E/MM
DSPIC30F2020T-30I/MM
DSPIC30F2020T-30I/MMB32
DSPIC33FJ128GP202-E/MM
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