

Product Change Notification - CYER-16KWYW724

Date: 22 Aug 2013

Product Category: Analog (Linear & Mixed Signal) AND Interface; Analog (Thermal, Power Management & Safety); Memory

Notification subject: CCB 1328.01 Initial Notice: Qualification 3L SC70 and 5L SC70 packages with conductive die attach at ANAP (ATP) assembly site.

Notification text:

PCN Status:

Initial notification

Microchip Parts Affected:

See attachments of affected catalog part numbers (CPN) labeled as...

PCN_CYER-16KWYW724_Affected_CPN.xls

PCN_CYER-16KWYW724_Affected_CPN.pdf

Description of Change:

Qualification 3L SC70 and 5L SC70 packages with conductive die attach at ANAP (ATP) assembly site.

Impacts to Data Sheet:

None

Reason for Change:

To improve manufacturability

Change Implementation Status:

In Progress

Estimated First Ship Date:

November 10, 2013 (date code: 1345)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Markings to Distinguish Revised from Unrevised Devices:

Traceability code

Revision History:

August 22, 2013: Issued initial notification.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachment(s):

[PCN_CYER-16KWYW724_Affected CPN.pdf](#) [PCN_CYER-16KWYW724_Qual Plan.pdf](#) [PCN_CYER-16KWYW724_Affected CPN.xlsx](#)

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PCN_CYER-16KWYW724
CATALOG_PART_NBR
24AA01HT-I/LT
24AA01T-I/LT
24AA02HT-I/LT
24AA02T-I/LT
24LC01BHT-E/LT
24LC01BHT-I/LT
24LC01BT-E/LT
24LC01BT-E/LT16KV03
24LC01BT-I/LT
24LC02BHT-E/LT
24LC02BHT-I/LT
24LC02BT-E/LT
24LC02BT-I/LT
MCP102T-195I/LB
MCP102T-240E/LB
MCP102T-270E/LB
MCP102T-300E/LB
MCP102T-315E/LB
MCP102T-450E/LB
MCP102T-475E/LB
MCP121T-195I/LB
MCP121T-240E/LB
MCP121T-270E/LB
MCP121T-300E/LB
MCP121T-300E/LBV02
MCP121T-300E/LBV03
MCP121T-315E/LB
MCP121T-450E/LB
MCP121T-475E/LB
MCP131T-195I/LB
MCP131T-240E/LB
MCP131T-240E/LBVAO
MCP131T-270E/LB
MCP131T-270E/LBV04
MCP131T-270E/LBVAO
MCP131T-300E/LB
MCP131T-315E/LB
MCP131T-315E/LBV02
MCP131T-450E/LB
MCP131T-475E/LB
MCP131T-475E/LBV01
MCP131T-475E/LBV03
MCP4019T-103E/LT
MCP4019T-104E/LT
MCP4019T-502E/LT

MCP4019T-503E/LT
MCP40D19T-103E/LT
MCP40D19T-104E/LT
MCP40D19T-502E/LT
MCP40D19T-503E/LT
MCP6001T-E/LT
MCP6001T-E/LTV05
MCP6001T-E/LTVAO
MCP6001T-I/LT
MCP6231UT-E/LT
MCP6231UT-E/LTAPL
MCP6231UT-E/LTVAO
MCP6241UT-E/LT
MCP6401T-E/LT
MCP6401T-H/LTVAO
MCP6441T-E/LT
MCP6541UT-I/LT
MCP6546UT-I/LT
MCP6561T-E/LT
MCP6561T-E/LTVAO
MCP6566T-E/LT
MCP6L01T-E/LT
MCP9700AT-E/LT
MCP9700AT-E/LTV03
MCP9700AT-E/LTV04
MCP9700AT-E/LTV05
MCP9700AT-E/LTVAO
MCP9700T-E/LT
MCP9700T-E/LTAAA
MCP9700T-E/LTV01
MCP9700T-E/LTV02
MCP9700T-E/LTVAO
MCP9700T-H/LT
MCP9700T-H/LTVAO
MCP9701AT-E/LT
MCP9701AT-E/LTVAO
MCP9701T-E/LT
TC1016-1.85VLTTR
TC1016-1.8VLTTR
TC1016-2.6VLTTR
TC1016-2.7VLTTR
TC1016-2.85VLTTR
TC1016-2.8VLTTR
TC1016-2.8VLTTRAAA
TC1016-2.8VLTTRAAAB
TC1016-2.9VLTTR
TC1016-3.0VLTTR

TC1016-3.0VLTTR-VAO
TC1016-3.3VLTTR
TC1016-4.0VLTTR
TC1017-1.85VLTTR
TC1017-1.8VLTTR
TC1017-1.9VLTTR
TC1017-2.5VLTTR
TC1017-2.6VLTTR
TC1017-2.7VLTTR
TC1017-2.85VLTTR
TC1017-2.8VLTTR
TC1017-2.8VLTTRAAD
TC1017-2.9VLTTR
TC1017-2.9VLTTRAAC
TC1017-3.0VLTTR
TC1017-3.0VLTTRA AF
TC1017-3.2VLTTR
TC1017-3.3VLTTR
TC1017-3.3VLTTRA AE
TC1017-4.0VLTTR
TC1017R-1.85VLTTR
TC1017R-1.8VLTTR
TC1017R-2.5VLTTR
TC1017R-2.6VLTTR
TC1017R-2.7VLTTR
TC1017R-2.85VLTTR
TC1017R-2.8VLTTR
TC1017R-2.9VLTTR
TC1017R-3.0VLTTR
TC1017R-3.2VLTTR
TC1017R-3.3VLTTR
TC1017R-4.0VLTTR



QUALIFICATION PLAN

PCN #: CYER-16KWYW724

**Date:
Aug. 14, 2013**

Qualification 5L SC70 packages with conductive die attach at ANAP (ATP) assembly site. The 3L SC70 package will qualify by similarity at ANAP (ATP) assembly site.

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Purpose: _____ Qualification 5L SC70 packages with conductive die attach at ANAP (ATP) assembly site. The 3L SC70 package will qualify by similarity at ANAP (ATP) assembly site.

MP code: _____ ABBR1YB4XA00

Part No.: _____ MCP6401T-E/LT

BD No: _____ BDM-000368 rev. A (Engineering BD)

CCB No: _____ 1328.01

Package:

Type _____ 5L SC70

Die thickness: _____ 8 mils

Die size: _____ 27.3 x 28.4 mils

Lead frame:

Paddle size: _____ 34 x 35 (MHT Japan)

Material _____ C194

Surface _____ Ag Spot plated

Process _____ Stamped

Lead Lock _____ Yes

Part Number _____ 101378719

Wire:

Material _____ Au (Heesung-South Korea)

Die Attach Epoxy:

Part Number _____ 8290 (Henkel-South Korea)

Conductive _____ Yes

Mold Compound: _____ G700LS (Sumitomo-Singapore)

Lead finish _____ Matte tin

Reliability Test plan: _____ See attached, STD Package Reliability Test plan on each package.

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Standard Pb-free Solderability	JESD22B-102E; Perform 8 hour steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.	22	5	1	27	> 95% lead coverage	5	Standard Pb-free solderability is the requirement. SnPb solderability (backward solderability—SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Standard SnPb Solderability	JESD22B-102E; Perform 8 hour steam aging prior to testing. Standard SnPb: SnPb finish, SnPb solder, wetting temp 215°C for SMD & 245°C for through hole packages.	22	5	1	27	> 95% lead coverage	5	
Backward Solderability	JESD22B-102E; Perform 8 hours steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Backward: Matte tin/ NiPdAu finish, SnPb solder, wetting temp 215°C for SMD.	22	5	1	27	> 95% lead coverage	5	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	30 bonds from a minimum 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 devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25C and hot temp. Electrical test @ 25C only	45	5	1	50	0	10	Must be in progress at time of package release to production, but completion is not required for release to production. For hot temp testing, pre/post test 1 lot at 85°C and 125°C (if applicable)

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
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-020D for package type; Electrical test pre and post stress at +25°C. Perform SAM analysis using the standard sample size. MSL-1 @ 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.
HAST	+130°C/85% RH for 96 hours. Electrical test pre and post stress at +25°C and hot temp. Electrical test @ 25C only	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. For hot temp testing, pre/post test 1 lot at 85°C and 125°C (if applicable)
Unbiased HAST	+130°C/85% RH for 96 hrs	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 hot temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress. Electrical test @ 25C only	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. For hot temp testing, pre/post test 1 lot at 85°C and 125°C (if applicable).