



Product Change Notification / ASER-27FWWD026

Date:

01-Jun-2021

Product Category:

Special Purpose Analog to Digital Converters

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4713 Initial Notice: Qualification of MMT as a new assembly site for TC500CPE, TC500ACPE and TC500CPE519 catalog part numbers (CPN) available in 16L PDIP (.300in) package.

Affected CPNs:

[ASER-27FWWD026_Affected_CPN_06012021.pdf](#)
[ASER-27FWWD026_Affected_CPN_06012021.csv](#)

Notification Text:

PCN Status:Initial notification.

PCN Type:Manufacturing Change

Microchip Parts Affected:Please open one of the files found in the Affected CPNs section.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change:Qualification of MMT as a new assembly site for TC500CPE, TC500ACPE and TC500CPE519 catalog part numbers (CPN) available in 16L PDIP (.300in) package.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Amkor Technology Philippine, INC. (ANAP)	Microchip Technology Thailand (MMT)
Wire material	Au	Au

Die attach material	8361J	CRM-1064L
Molding compound material	G600C	GE800
Lead frame material	C194	C194
Lead-frame paddle size	140x170(Mils)	150x230(Mils)
	See Pre and Post Change Summary for comparison.	

Impacts to Data Sheet:None

Change Impact:None

Reason for Change:To improve manufacturability by qualifying MMT as new assembly site

Change Implementation Status:In Progress

Estimated Qualification Completion Date:July 2021

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

Time Table Summary:

	June 2021					July 2021				
Workweek	2 3	2 4	2 5	26	2 7	2 8	2 9	3 0	3 1	
Initial PCN Issue Date	X									
Qual Report Availability						X				
Final PCN Issue Date						X				

Method to Identify Change:Traceability code

Qualification Plan:Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History:

June 1, 2021: 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.

Attachments:

[PCN_ASER-27FWWD026_Qual_Plan.pdf](#)

[PCN_ASER-27FWWD026_Pre and Post Change Summary.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our [PCN home page](#) select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the [PCN FAQ](#) section.

If you wish to change your PCN profile, including opt out, please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

TC500CPE

TC500CPE519

TC500ACPE

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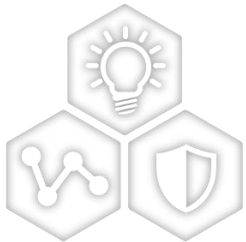
Affected Catalog Part Numbers(CPN)

TC500CPE
TC500CPE519
TC500ACPE

CCB 4713
Pre and Post Change Summary
PCN #: ASER-27FWWD026



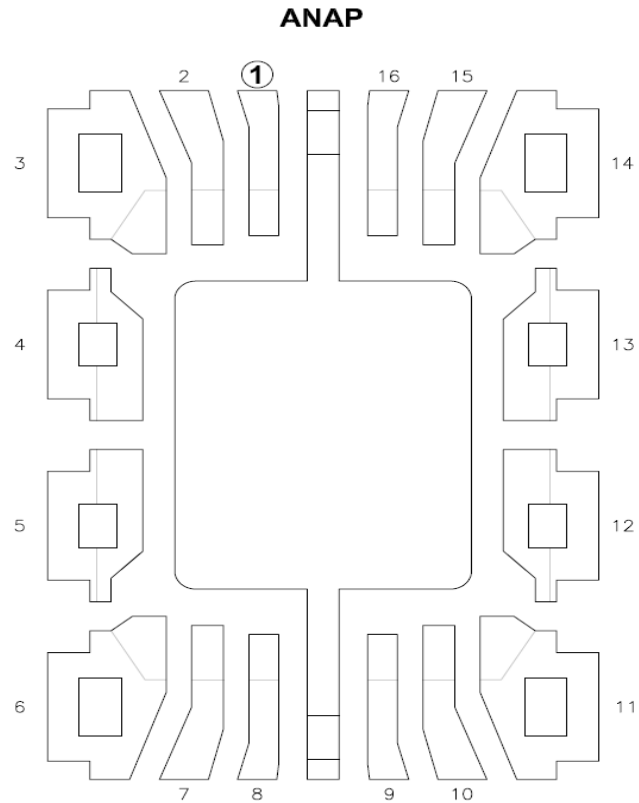
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



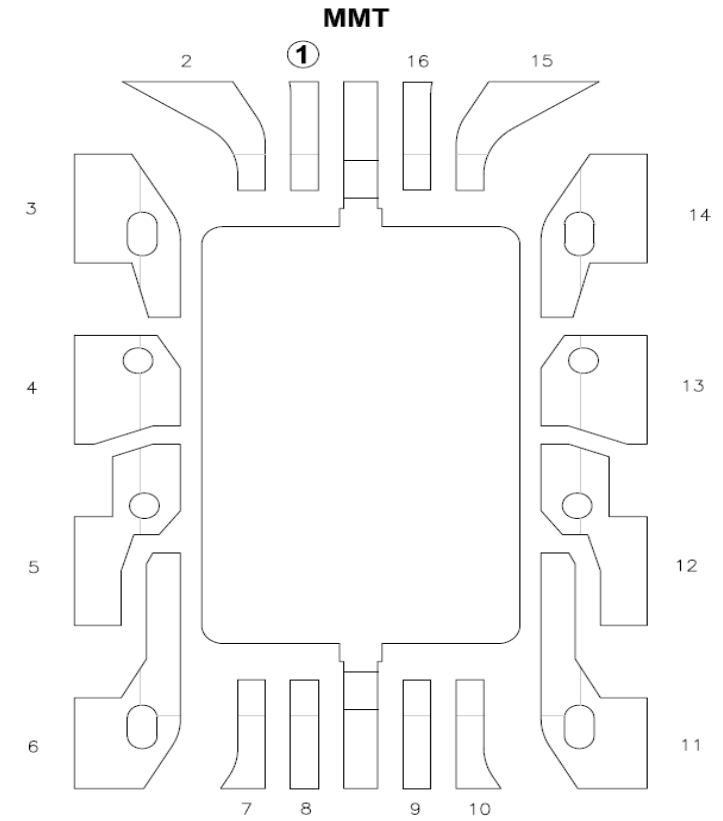
SMART | CONNECTED | SECURE

Lead Frame Comparison

Pre Change



Post Change





MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN #: ASER-27FWWD026

**Date:
May 27, 2021**

**Qualification of MMT as a new assembly site for TC500CPE,
TC500ACPE and TC500CPE519 catalog part numbers (CPN)
available in 16L PDIP (.300in) package.**

Purpose: Qualification of MMT as a new assembly site for TC500CPE, TC500ACPE and TC500CPE519 catalog part numbers (CPN) available in 16L PDIP (.300in) package. 16L PDIP (.300in) package.

CCB#: 4713

Misc.	Assembly site	MMT
	BD Number	BDM-002953
	MP Code (MPC)	Y20071D6XA00
	Part Number (CPN)	TC500CPE
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	30
	Reliability Site	MTAI
Lead-Frame	Paddle size	150x230
	Material	C194
	DAP Surface Prep	Ag
	Treatment	None
	Process	Stamped
	Lead-lock	Yes
	Part Number	10101610
	Lead Plating	Matt Tin
	Strip Size	1.89x8.814 Inchs
	Strip Density	32 units/Strip
Bond Wire	Material	Au
Die Attach	Part Number	CRM-1064L
	Conductive	Yes
MC	Part Number	GE800
PKG	PKG Type	PDIP
	Pin/Ball Count	16
	PKG width/size	300 mils

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	J-STD-002D ; 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.
Backward Solderability	J-STD-002D ;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	SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	30 bonds from a min. 5 devices.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
HAST	+130°C/85% RH for 96 hours or 110°C/85%RH for 264 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.
UHAST	+130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs. 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 hot temp; 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.