



**Product Change Notification / MFOL-02VEYX739**

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**Date:**

05-May-2022

**Product Category:**

USB Hubs

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 5071 Initial Notice: Qualification of ANAC as an additional assembly site for selected USB3503 and USX3803 device families available in 32L QFN (5x5x0.9mm) package.

**Affected CPNs:**

[MFOL-02VEYX739\\_Affected\\_CPN\\_05052022.pdf](#)  
[MFOL-02VEYX739\\_Affected\\_CPN\\_05052022.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 ANAC as an additional assembly site for selected USB3503 and USX3803 device families available in 32L QFN (5x5x0.9mm) package.

**Pre and Post Change Summary:**

	Pre Change	Post Change	
Assembly Site	ASE Inc.	ASE Inc.	Amkor Assembly &

	(ASE)	(ASE)	Test (Shanghai) Co., LTD (ANAC)
Wire Material	CuPd	CuPd	CuPdAu
Die Attach Material	EN-4900F	EN-4900F	CRM1085A
Molding Compound Material	G631H	G631H	G631BQF
Lead-Frame Material	C194	C194	C194
Lead-Frame Paddle Size	138X138	138X138	138X138
DAP Surface Prep	Double Ring Plating	Double Ring Plating	Double Ring Plating

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve productivity by qualifying ANAC as an additional assembly site.

**Change Implementation Status:**In Progress

**Estimated Qualification Completion Date:**September 2022

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:**

	May 2022					>	September 2022				
Workweek	1 9	2 0	2 1	2 2	2 3		36	37	38	39	40
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:**May 05, 2022: 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\\_MFOL-02VEYX739\\_Pre and Post Change Summary.pdf](#)  
[PCN\\_MFOL-02VEYX739\\_Qual Plan.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.



**MICROCHIP**  
**QUALIFICATION PLAN SUMMARY**

**PCN# MFOL-02VEYX739**

**Date:**  
**April 14, 2022**

**Qualification of ANAC as an additional assembly site for  
selected USB3503 and USX3803 device families available in  
32L QFN (5x5x0.9mm) package.**

**PURPOSE:** Qualification of ANAC as an additional assembly site for selected USB3503 and USX3803 device families available in 32L QFN (5x5x0.9mm) package.

**CCB:** 5071

<u>Misc.</u>	Assembly site	ANAC
	BD Number	BD-000551-01
	MP Code (MPC)	XG0021S8XA0X
	Part Number (CPN)	USX3803/ML
	MSL information	MSL 3/260c
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	490
	Reliability Site	MTAI
<u>Lead-Frame</u>	Paddle size	138X138 mils
	Material	C194
	DAP Surface Prep	Double Ring
	Treatment	Roughened
	Process	Etched
	Lead-lock (With Locking Holes)	No
	Part Number	101422525
	Lead Plating	Matte Tin
	Strip Size	250 x 70mm
	Strip Density	462/strip
<u>Bond Wire</u>	Material	CuPdAu
<u>Die Attach</u>	Part Number	CRM1085A
	Conductive	Yes
<u>MC</u>	Part Number	G631BQF
<u>PKG</u>	PKG Type	QFN
	Pin/Ball Count	32
	PKG width/size	5x5x0.9mm

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	ATE Test Site	REL Test Site	Pkg. Type	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		MTAI	MTAI	-	Standard Pb-free solderability is the requirement.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	MTAI	MTAI		30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MTAI	MTAI		30 bonds from a min. 5 devices.
Wire Sweep								MTAI	MTAI		Required for any reduction in wire bond thickness.
Physical Dimmensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MTAI	MTAI		

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	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	MTAI		
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-020E for package type; Electrical test pre and post stress at +25°C and 85°C.  MSL3 260c	231	15	3	738	0	15	MTAI	MTAI		Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	110°C/85%RH for 264 hours.  Electrical test pre and post stress at +25°C and hot temp (85C).	77	5	3	246	0	10	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

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	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
UHAST	+110°C/85% RH for 264 hrs.  Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	55C to +125C for 1000 cycles.  Electrical test pre and post stress at hot temp (85C); 3-gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Pre-conditioning.



# CCB 5071

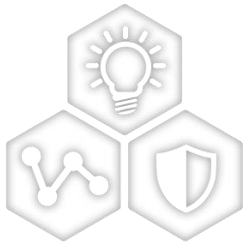
## Pre and Post Change Summary

### PCN# MFOL-02VEYX739



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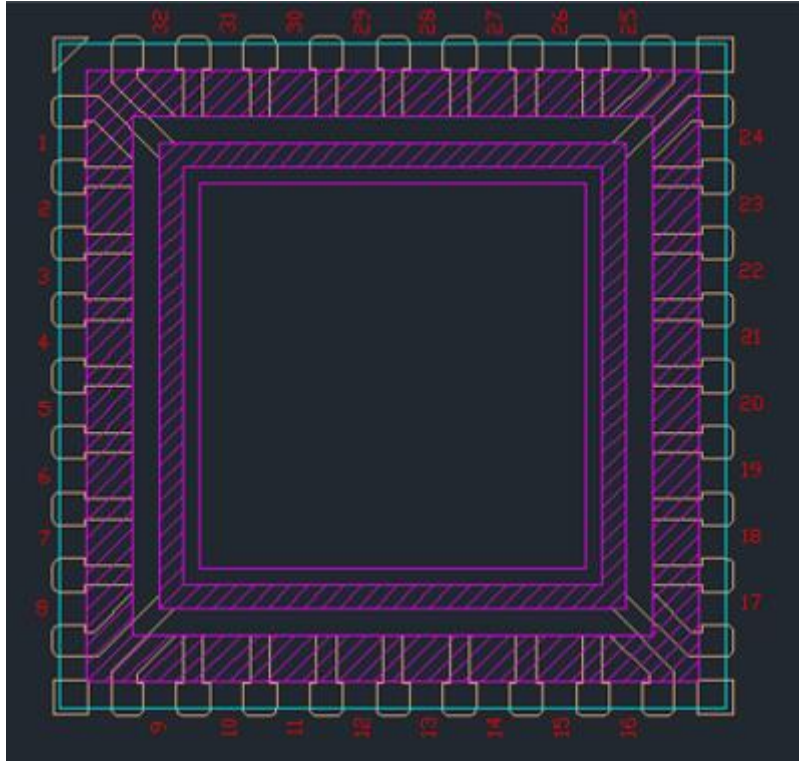
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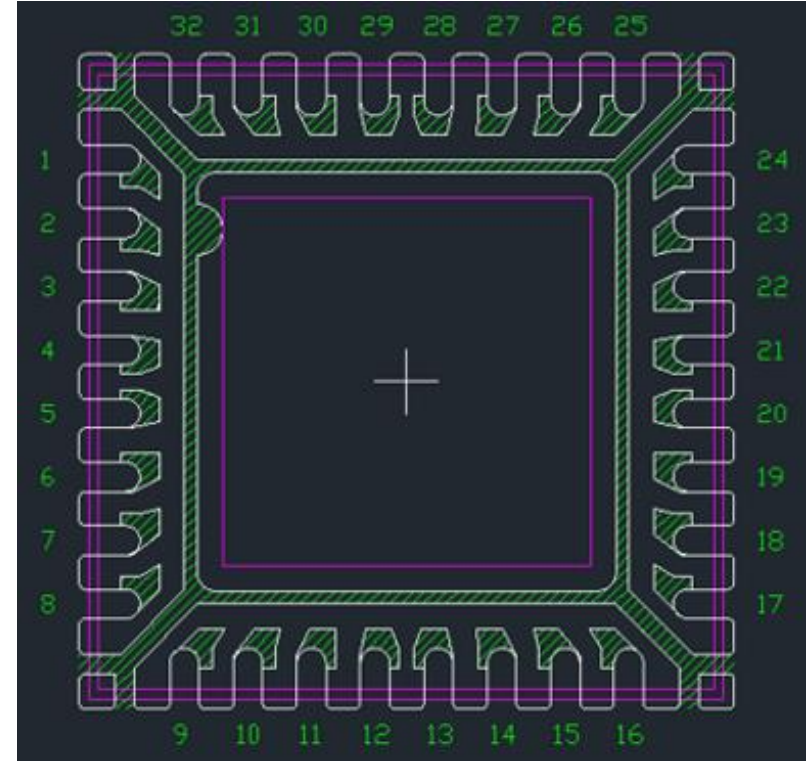
SMART | CONNECTED | SECURE

# Lead Frame Comparison

ASE



ANAC



Affected Catalog Part Numbers (CPN)

USB3503/ML  
USX3803/ML  
USB3503-I/ML  
USX3803-I/ML  
USB3503T/ML  
USX3803T/ML  
USB3503T-I/ML  
USX3803T-I/ML