Product Change Notification: BLAS-24KMOI079

Date:

25-Nov-2024

Product Category:

USB Power Delivery

Notification Subject:

CCB 7286 Initial Notice: Qualification of ATP7 as an additional assembly site for MCP22350-1I/Q8X, MCP22350-2I/Q8X, MCP22350T-1I/Q8X, MCP22350T-2I/Q8X, UPD350A/Q8X, UPD350A-I/Q8X, UPD350B/Q8X, UPD350B-I/Q8X, UPD350BT/Q8X, UPD350C/Q8X, UPD350C-I/Q8X, UPD350D/Q8X, UPD350D-I/Q8X, UPD350DT/Q8X and UPD350DT-I/Q8X catalog part numbers (CPN) available in 28L VQFN (4x4x0.9mm) package.

Affected CPNs:

BLAS-24KMOI079_Affected_CPN_11252024.pdf
BLAS-24KMOI079_Affected_CPN_11252024.csv

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 ATP7 as an additional assembly site for MCP22350-1I/Q8X, MCP22350-2I/Q8X, MCP22350T-1I/Q8X, MCP22350T-2I/Q8X, UPD350A/Q8X, UPD350A-I/Q8X, UPD350B/Q8X, UPD350B-I/Q8X, UPD350BT/Q8X, UPD350C/Q8X, UPD350C-I/Q8X, UPD350D/Q8X, UPD350D-I/Q8X, UPD350DT/Q8X and UPD350DT-I/Q8X catalog part numbers (CPN) available in 28L VQFN (4x4x0.9mm) package.

Pre and Post Summary Changes:

	Pre Change	Post Change

Assembly Site	Amkor Assembly & Test (Shanghai) Co., LTD (ANAC)	Amkor Assembly & Test (Shanghai) Co., LTD (ANAC)	Amkor Technology Philippines (P3/P4), INC. (ATP7)
Wire Material	CuPdAu	CuPdAu	CuPdAu
Die Attach Material	CRM-1085A	CRM-1085A	CRM-1085A
Molding Compound Material	G631BQF	G631BQF	G631BQF
Lead-Frame Material	C194	C194	C194

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve on-time delivery performance by qualifying ATP7 as an additional assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: March 2025

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.

Timetable Summary:

	November 2024					**>**	**March 2025**				
Work Week	44	45	46	47	48		09	10	11	12	14
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: November 27, 2024: Issued initial notification.

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

Attachments:

PCN_BLAS-24KMOI079 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.

BLAS-24KMOI079 - CCB 7286 Initial Notice: Qualification of ATP7 as an additional assembly site for MCP22350-1I/Q8X, MCP22350-2I/Q8X, MCP22350T-1I/Q8X, MCP22350T-2I/Q8X, UPD350A/Q8X, UPD350A-I/Q8X, UPD350B/Q8X, UPD350B-I/Q8X, UPD350BT/Q8X, UPD350C/Q8X, UPD350C-I/Q8X, UPD350D/Q8X, UPD350D-I/Q8X, UPD350DT/Q8X and UPD350DT-I/Q8X catalog part numbers (CPN) available in 28L VQFN (4x4x0.9mm) package.

Affected Catalog Part Numbers (CPN)

MCP22350-1I/Q8X
MCP22350-2I/Q8X
MCP22350T-1I/Q8X
MCP22350T-2I/Q8X
UPD350A/Q8X
UPD350A-I/Q8X
UPD350B/Q8X
UPD350B-I/Q8X
UPD350BT/Q8X
UPD350C/Q8X
UPD350C-I/Q8X
UPD350D/Q8X
UPD350D-I/Q8X
UPD350DT/Q8X
UPD350DT-I/Q8X

QUALIFICATION PLAN SUMMARY

PCN #: BLAS-24KMOI079

Date:
November 21, 2024

Qualification of ATP7 as an additional assembly site for MCP22350-1I/Q8X, MCP22350-2I/Q8X, MCP22350T-1I/Q8X, MCP22350T-2I/Q8X, UPD350A/Q8X, UPD350A-I/Q8X, UPD350B/Q8X, UPD350B-I/Q8X, UPD350BT/Q8X, UPD350C/Q8X, UPD350C-I/Q8X, UPD350D/Q8X, UPD350D-I/Q8X, UPD350DT/Q8X and UPD350DT-I/Q8X catalog part numbers (CPN) available in 28L VQFN (4x4x0.9mm) package.

Purpose: Qualification of ATP7 as an additional assembly site for MCP22350-1I/Q8X, MCP22350-2I/Q8X, MCP22350T-1I/Q8X, MCP22350T-2I/Q8X, UPD350A/Q8X, UPD350A-I/Q8X, UPD350B/Q8X, UPD350B-I/Q8X, UPD350BT/Q8X, UPD350C/Q8X, UPD350C-I/Q8X, UPD350D/Q8X, UPD350D-I/Q8X, UPD350DT/Q8X and UPD350DT-I/Q8X catalog part numbers (CPN) available in 28L VQFN (4x4x0.9mm) package.

CCB #: 7286

Misc.	Assembly site	ATP7
	BD Number	BD-002810-01
	MP Code (MPC)	TAT027Q8XA0A
	Part Number (CPN)	UPD350A-I/Q8X
	MSL information	MSL3, 260'C
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	490
	Reliability Site	MTAI
Lead-Frame	Paddle size	114x114mils
	Material	C194
	DAP Surface Prep	DR-Ag
	Treatment	Roughened
	Process	Etched
	Lead-lock	Yes
	Part Number	101369406
	Lead Plating	Matte Sn
	Strip Size	250x70mm
	Strip Density	676
Bond Wire	Material	CuPdAu
Die Attach	Part Number	CRM-1085A
	Conductive	Yes
MC	Part Number	G631BQF
PKG	Package Type	VQFN
	Pin/Ball Count	28
	PKG width/size	4x4x0.9mm

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	5	MTAI	MTAI	VQFN	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.
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	MTAI	MTAI	VQFN	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	ATP7	ATP7	VQFN	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	ATP7	ATP7	VQFN	30 bonds from a min. 5 devices.
Wire Sweep								ATP7	ATP7	VQFN	Required for any reduction in wire bond thickness.
Physical Dimmensions	Measure per JESD22 B100 and B108	10	0	3	30		5	ATP7	ATP7	VQFN	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	MTAI	VQFN	
HTSL (High Temp Storage Life)	JESD22-A103. +175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25°C and +85°C hot temp.	45	5	1	50	0	10	MTAI	MTAI	VQFN	
Preconditioning - Required for surface mount devices	JESD22-A113. +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. MSL3, 260°C	231	15	3	738	0	15	MTAI	MTAI	VQFN	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	JESD22-A110. +130°C/85% RH for 96 hours or 110°C/85%RH for 264 hours. Electrical test pre and post stress at +25°C and +85°C hot temp.	77	5	3	246	0	10	MTAI	MTAI	VQFN	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	JESD22-A118. +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	MTAI	MTAI	VQFN	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104. -65°C to +150°C for 500 cycles. Electrical test pre and post stress at +85°C hot temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	MTAI	VQFN	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.