



Product Change Notification / NTDO-26UFW944

Date:

05-May-2021

Product Category:

Winpath Network Processors

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4644 and 4644.001 Initial Notice: Qualification of an additional substrate material for selected Microsemi WP3232Mxxx, WP32C2xxx, WP32C0xxx, WP3362xxx, WP3392xxx, WP33C2xxx, WP34C2xxx device families available in 896L B1BGA (31x31x2.70mm) and 896L B2BGA (31x31x3.25mm) packages at ASE assembly site

Affected CPNs:

[NTDO-26UFW944_Affected_CPN_05052021.pdf](#)
[NTDO-26UFW944_Affected_CPN_05052021.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 an additional substrate material for selected Microsemi WP3232Mxxx, WP32C2xxx, WP32C0xxx, WP3362xxx, WP3392xxx, WP33C2xxx, WP34C2xxx device families available in 896L B1BGA (31x31x2.70mm) and 896L B2BGA (31x31x3.25mm) packages at ASE assembly site

Pre and Post Change Summary:

	Pre Change	Post Change
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Assembly Site	ASE Inc. (ASE)	ASE Inc. (ASE)	ASE Inc. (ASE)
Substrate core material	E679FGR	E679FGR	E705G
SM Material	AUS-703	AUS-703	SR7300GR-B
Bump Material	Sn1.8Ag	Sn1.8Ag	Sn1.8Ag
Die Attach Epoxy	WS446	WS446	WS446
Underfill Material	UH12	UH12	UH12
Solder Ball Material	SAC305	SAC305	SAC305
Solder Ball Flux	WF6400	WF6400	WF6400

Impacts to Data Sheet: None

Change Impact:None

Reason for Change:To improve productivity by qualifying an additional substrate material for selected Microsemi WP3232Mxxx, WP32C2xxx, WP32C0xxx, WP3362xxx, WP3392xxx, WP33C2xxx, WP34C2xxx device families

Change Implementation Status:In Progress

Estimated Qualification Completion Date:November 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:

Workweek	May 2021					-->	November 2021				
	19	20	21	22	23		45	46	47	48	49
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, 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_NTDO-26UFW944_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.

Affected Catalog Part Numbers (CPN)

WP34C2R6EFEI450B2R
WP34C2R6NFEI450B2R
WP3232M5NELI-320B2
WP32C2A4EFEI-400B2
WP32C2M6NELI-400B2
WP32C2M6NELI-450B2
WP32C2W3EFEI-320B2
WP32C2W6NFEI-400B2
WP3362D4NFEI-320B2
WP3392D4NFEI-320B2
WP33C2A1EFEI-450B2
WP33C2D4NFEI-450B2
WP34C2R4EFEI-400B2
WP34C2R4NFEI-400B2
WP3232M6NFEI-320B2
WP32C2M6NHEI-400B2
WP32C0W5NHEI-450B2
WP3232M5NHEI-320B2

Affected Catalog Part Numbers(CPN)

WP34C2R6FEI450B2R
WP34C2R6NFEI450B2R
WP3232M5NHEI-320B2
WP32C24EFEI-400B2
WP32C2M6NELI-400B2
WP32C2M6NELI-450B2
WP32C2W3FEI-320B2
WP32C2W6NFEI-400B2
WP3392D4NFEI-320B2
WP3392D4NFEI-320B2
WP33C2A1FEI-450B2
WP33C2D4NFEI-450B2
WP34C2R4FEI-400B2
WP34C2R4NFEI-400B2
WP3232M6NFEI-320B2
WP32C2M6NHEI-400B2
WP32C2W5NHEI-450B2
WP3232M5NHEI-320B2



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QUALIFICATION PLAN SUMMARY

PCN # NTDO-26UFW944

**Date:
April 27, 2021**

**Qualification of an additional substrate material for selected
Microsemi WP3232Mxxx, WP32C2xxx, WP32C0xxx,
WP3362xxx, WP3392xxx, WP33C2xxx, WP34C2xxx device
families available in 896L B1BGA (31x31x2.70mm) package
at ASE assembly site. The qualification of selected
Microsemi products available in 896L B2BGA
(31x31x3.25mm) package at ASE assembly site will qualify
by similarity (QBS).**

Purpose: _____ Qualification of an additional substrate material for selected Microsemi WP3232Mxxx, WP32C2xxx, WP32C0xxx, WP3362xxx, WP3392xxx, WP33C2xxx, WP34C2xxx device families available in 896L B1BGA (31x31x2.70mm) package at ASE assembly site. The qualification of selected Microsemi products available in 896L B2BGA (31x31x3.25mm) package at ASE assembly site will qualify by similarity (QBS).

Misc.	Assembly site	ASE
	MP Code (MPC)	STAE27NGCT02
	Part Number (CPN)	T2C2NFEI-320B2
	CCB	4644 and 4644.001
	Assembly site	ASE
	MSL information	MSL 4, 245°C
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	27
	Reliability Site	ASE
Substrate	Core Material	E705G
	SM Material	SR7300GR-B
	Process	Build Up
Bump	Material	Sn1.8Ag
	Bump Site (if diff from Assy site)	ASE
DA Epoxy	Part Number	WS446
	Conductive	No
Underfill	Part Number	UH12
PKG	PKG Type	FC BGA (B1BGA)
	Pin/Ball Count	896
	PKG width/size	31x31x2.70mm
	Ball Pitch/Size	1.0mm
	Solder Ball Diameter	0.6mm
	Solder Ball Material	SAC305
	Solder Ball Flux	WF6400

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	Special Instructions
Solder Ball Shear	JESD22B117A	5	0	1	5		5	ASE	ASE	10 balls/5 units. Parts should gone Preconditioning
Coplanarity	JESD22B108A/POD	5	0	1	5			ASE	ASE	All units
High Temperature Storage Life (HTSL)	JESD22A-103. 150°C for 1008 hours Readpoints at 0, 504, and 1008 hours. Electrical test pre and post stress at +85°C	25	5	3	80	0	45	ASE	ASE	Spare should be properly identified.
Preconditioning - Required for surface mount devices	+150°C Bake for 24 hours, moisture loading requirements per MSL 4 250C + 3X reflow at peak reflow temperature per Jedec STD-020E for package type; Electrical test pre and post stress at +85°C. JESD22A113.	50	30	3	180	0	15	ASE	ASE	Spares should be properly identified.
Unbiased HAST	JESD22A110. +110°C/85% RH for 264 hours. Electrical test pre and post stress at +85°C.	25	5	3	80	0	10	ASE	ASE	Spare should be properly identified.
Temp Cycle	JESD22A104. -55°C to +125°C for 1000 cycles. Electrical test pre and post stress at hot temp +85°C Readpoints at 500 cycles and 1000 cycles.	25	5	3	80	0	30	ASE	ASE	Spare should be properly identified.