

### Product Change Notification / RMES-19RHZI746

## Date:

21-Jul-2020

## **Product Category:**

**USB** Hubs

## **PCN Type:**

Manufacturing Change

## **Notification Subject:**

CCB 4318 Initial Notice: Qualification of ASCL as an additional assembly site for selected products available in 100L VQFN (12X12X0.9mm) package.

## **Affected CPNs:**

RMES-19RHZI746\_Affected\_CPN\_07212020.pdf RMES-19RHZI746\_Affected\_CPN\_07212020.csv

## **Notification Text:**

PCN Status: Initial notification

PCN Type: Manufacturing Change

#### **Microchip Parts Affected:**

Please open one of the icons found in the Affected CPNs section above.

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

#### **Description of Change:**

Qualification of ASCL as an additional assembly site for selected products available in 100L VQFN (12X12X0.9mm) package. Pre Change:

Assembled at ASE using CDA194 leadframe and G631H molding compound material

#### Post Change:

Assembled at ASE using CDA194 leadframe and G631H molding compound material or

Assembled at ASCL using C7025 leadframe and G700LA molding compound material

#### Pre and Post Change Summary:

	Pre Change	Post C	hange		
Assembly Site	ASE Inc Kaoshiung (ASE)	ASE Inc Kaoshiung (ASE)	ASE Group Chung-Li (ASCL)		
Wire material	CuPdAu	CuPdAu	CuPdAu		
Die attach material	EN-4900	EN-4900	EN-4900		
Molding compound material	G631H	G631H	G700LA		
Lead frame material	CDA194	CDA194	C7025		

#### Impacts to Data Sheet:

None

#### Change Impact:

None

#### Reason for Change:

To improve productivity by qualifying ASCL as an additional assembly site. This will also remove anticipated capacity constraints of this product.

#### Change Implementation Status:

In Progress

#### **Estimated Qualification Completion Date:**

November 2020

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:

	July 2020						November 2020					
Workweek	27	28	29	30	31	>	45	46	47	48	49	
Initial PCN Issue				x								
Date				Λ								
Qual Report											Х	

Availability						
Final PCN Issue						v
Date						^

#### Method to Identify Change:

Traceability code

#### Qualification Plan:

Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Plan.

#### **Revision History:**

July 21, 2020: 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\_RMES-19RHZI746\_Qual\_Plan.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

#### **Terms and Conditions:**

If you wish to <u>receive Microchip PCNs via email</u> 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 <u>change your PCN profile</u>, <u>including opt out</u>, please go to the <u>PCN home page</u> 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)

USB5807/KD USB5806/KD USB5816/KD USB5906/KD USB5916/KD USB5926/KD USB5826/KD USB5807C/KD USB5806C/KD USB5816C/KD USB5826C/KD USB5906C/KD USB5916C/KD USB5926C/KD USB5816C/KDH01 USB5816C/KDH02 USB5807C/KDH01 USB5807-I/KD USB5806-I/KD USB5816-I/KD USB5906-I/KD USB5916-I/KD USB5926-I/KD USB5826-I/KD USB5807C-I/KD USB5806C-I/KD USB5816C-I/KD USB5826C-I/KD USB5906C-I/KD USB5916C-I/KD USB5926C-I/KD USB5816C-I/KDH02 USB5807C-I/KDH01 USB5807T/KD USB5806T/KD USB5816T/KD USB5906T/KD USB5916T/KD USB5926T/KD USB5826T/KD USB5807CT/KD USB5806CT/KD USB5816CT/KD USB5826CT/KD USB5906CT/KD USB5916CT/KD

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USB5926CT/KD USB5816CT/KDH01 USB5816CT/KDH02 USB5807CT/KDH01 USB5807T-I/KD USB5806T-I/KD USB5816T-I/KD USB5906T-I/KD USB5916T-I/KD USB5926T-I/KD USB5826T-I/KD USB5807CT-I/KD USB5806CT-I/KD USB5816CT-I/KD USB5826CT-I/KD USB5906CT-I/KD USB5916CT-I/KD USB5926CT-I/KD USB5816CT-I/KDH02 USB5807CT-I/KDH01



## **QUALIFICATION PLAN SUMMARY**

## PCN #: RMES-19RHZI746

Date: July 09, 2020

Qualification of ASCL as an additional assembly site for selected products available in 100L VQFN (12X12X0.9mm) package.

# Purpose: Qualification of ASCL as an additional assembly site for selected products available in 100L VQFN (12X12X0.9mm) package.

	Assembly site	ASECL				
	BD Number	TBD				
	MP Code (MPC)	STB07SKDXCH3				
	Part Number (CPN)	USB5807CT/KDH01				
Misc.	MSL information	3				
	Assembly Shipping Media (T/R, Tube/Tray)	Tray				
	Base Quantity Multiple (BQM)	168				
	Reliability Site	MTAI				
	CCB No.	4318				
	Paddle size	323X323 mils				
	Material	C7025				
	DAP Surface Prep	DOUBLE RING				
	Treatment	Roughened				
	Process	Etched				
Lead-Frame	Lead-lock	No				
	Part Number	A0100QN008F01				
	Lead Plating	Matte Sn				
	Strip Size	78X258mm				
	Strip Density	90ea/Strip				
Bond Wire	Material	CuPdAu				
Die Attest	Part Number	EN-4900				
Die Attach	Conductive	Yes				
<u>MC</u>	Part Number	G700LA				
	РКС Туре	VQFN				
<u>PKG</u>	Pin/Ball Count	100L				
	PKG width/size	12X12X0.9mm				

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	ΜΤΑΙ	VQFN100L	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.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	MTAI	MTAI	VQFN100L	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MTAI	MTAI	VQFN100L	30 bonds from a min. 5 devices.
Physical Dimmensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MTAI	MTAI	VQFN100L	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	MTAI	VQFN100L	
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 hot temp. MSL3 260	231	15	3	738	0	15	MTAI	MTAI	VQFN100L	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.

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
HAST	1st Read Point +130°C/85% RH for 96 hours Electrical test pre and post stress at +25°C and hot temp. 2nd Read Point +130°C/85% RH for 192 hours Electrical test pre and post stress at +25°C.	77	5	3	246	0	10	MTAI	MTAI	VQFN100L	Spares should be properly identified. Use the parts which have gone through Pre- conditioning.
UHAST	1st Read Point +130°C/85% RH for 96 hours Electrical test pre and post stress at +25°C and hot temp. 2nd Read Point +130°C/85% RH for 192 hours Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	MTAI	VQFN100L	Spares should be properly identified. Use the parts which have gone through Pre- conditioning.
Temp Cycle	1st Read point: -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.2nd Read point: -65°C to +150°C for 1000 cycles.Electrical test pre and post 25c	77	5	3	246	0	15	MTAI	MTAI	VQFN100L	Spares should be properly identified. Use the parts which have gone through Pre- conditioning.