



Product Change Notification / GBNG-16RJZN641

Date:

21-Dec-2020

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4279.001 Initial Notice: Qualification of GTK as a new assembly site for selected SST38VF640xx, SST39LF40xx and SST39VF40xx device families available in 48L TSOP (12x20mm) package.

Affected CPNs:

[GBNG-16RJZN641_Affected_CPN_12212020.pdf](#)
[GBNG-16RJZN641_Affected_CPN_12212020.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 GTK as a new assembly site for selected SST38VF640xx, SST39LF40xx and SST39VF40xx device families available in 48L TSOP (12x20mm) package.

Pre Change:

Assembled at LPI assembly site using 8340 die attach and G700 molding compound material in 162 x 260 or 160x130 mils paddle size

Post Change:

Assembled at GTK assembly site using EN-4900GC die attach and G600F molding compound material in 330 x 260 or 280 x

210 mils paddle size.

Pre and Post Change Summary:

	Pre Change		Post Change	
Assembly Site	Lingsen Precision Industries, LTD. (LPI)		GREATEK ELETRONIC INC. (GTK)	
Wire material	Au		Au	
Die attach material	8340		EN-4900GC	
Molding compound material	G700		G600F	
Lead frame material	C7025		C7025	
Lead frame paddle size	162 x 260	160x130	330 x 260	280 x 210

Impacts to Data Sheet: None

Change Impact:None

Reason for Change: To improve on-time delivery performance by qualifying GTK as a new assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: January 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:

	December				>	January 2021				
	49	50	51	52		01	02	03	04	05
Workweek										
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: **July 17, 2020:** Issued initial notification. **December 21, 2020:** Re-issued initial notification to update the reference CCB number from CCB 4315 to CCB 4279.001. Updated the affected CPN list by adding SST39LF40xx and SST39VF40xx device families. Updated the qualification plan.

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

Attachments:

[PCN_GBNG-16RJZN641_Qual_Plan.pdf](#)
[PCN_GBNG-16RJZN641_Pre and Post Change Summary.pdf](#)

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

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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.

CCB 4279.001
Pre and Post Change Summary
PCN #: GBNG-16RJZN641



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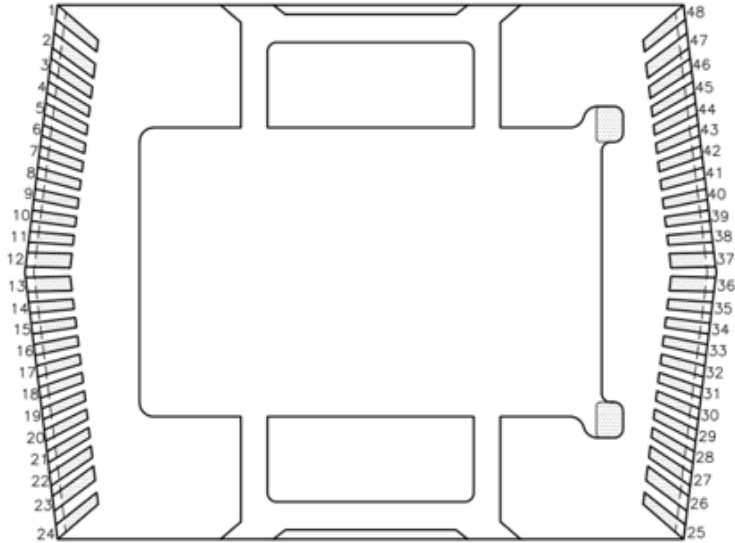


SMART | CONNECTED | SECURE

**Qualification of GTK as a new assembly site for selected SST38VF640xx,
SST39LF40xx and SST39VF40xx device families available in 48L TSOP
(12x20mm) package.**

Lead frame Comparison

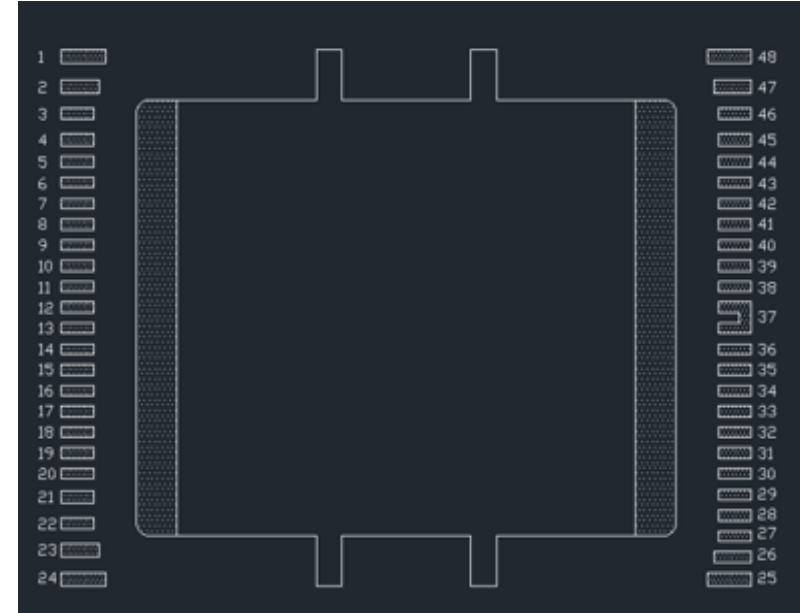
LPI



Paddle size

162 x 260 mils

GTK

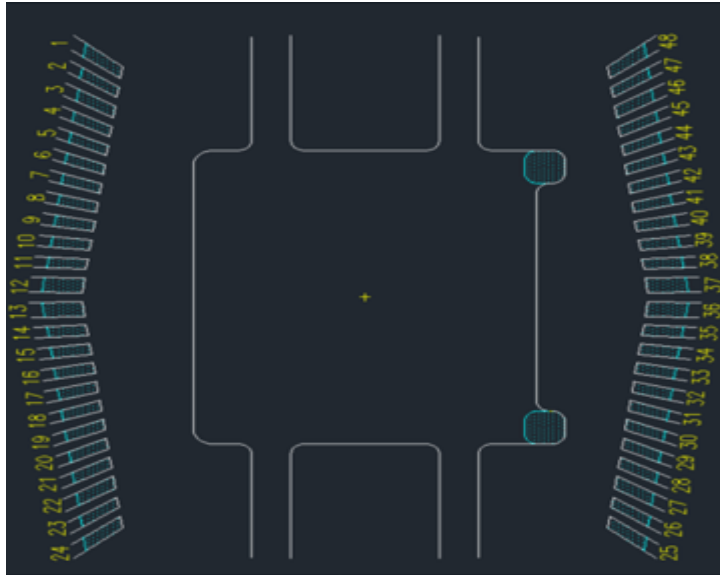


Paddle size

330 x 260 mils

Lead frame Comparison

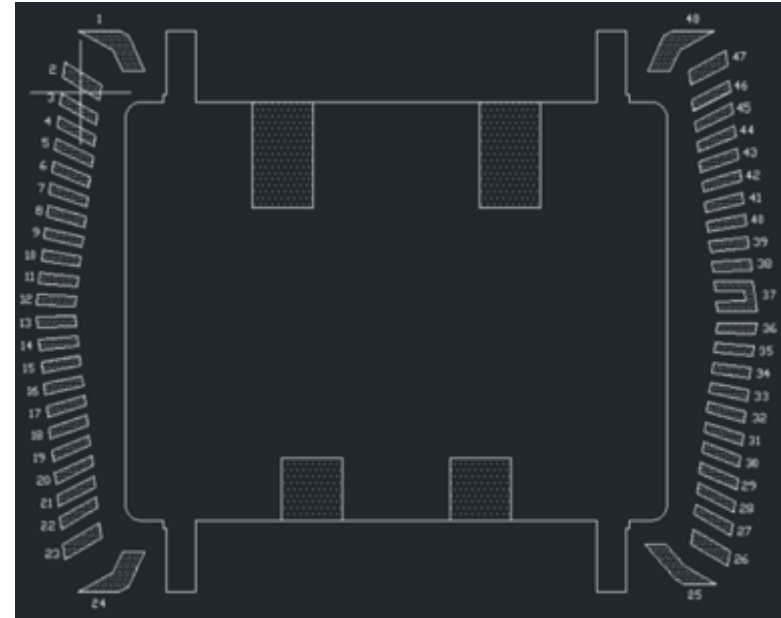
LPI



Paddle size

160x130 mils

GTK



Paddle size

280 x 210 mils



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QUALIFICATION PLAN SUMMARY

PCN #: GBNG-16RJZN641

**Date:
November 23, 2020**

Qualification of GTK as a new assembly site for selected SST38VF640xx, SST39LF40xx and SST39VF40xx device families available in 48L TSOP (12x20mm) package.

Purpose: Qualification of GTK as a new assembly site for selected SST38VF640xx, SST39LF40xx and SST39VF40xx device families available in 48L TSOP (12x20mm) package.

<u>Misc.</u>	Assembly site	GTK
	BD Number	TBD
	MP Code (MPC)	X02031W9XN90
	Part Number (CPN)	SST38VF6401-90-5C-EKE
	MSL information	MSL 3 / 260
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	96
	Reliability Site	MTAI
	CCB No	4279 and 4279.001
<u>Lead-Frame</u>	Paddle size	330 x 260
	Material	C7025
	DAP Surface Prep	Ring Plating
	Treatment	none
	Process	stamped
	Lead-lock	No
	Part Number	11-07048-003
	Lead Plating	Matte Sn
	Strip Size	40x210mm
	Strip Density	16u/strip
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	EN-4900GC
	Conductive	Yes
<u>MC</u>	Part Number	G600F
<u>PKG</u>	PKG Type	TSOP
	Pin/Ball Count	48L
	PKG width/size	12x20mm

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	TSOP48L	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 hour steam aging for Matte tin finish and 1 hr 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				
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	MTAI	MTAI	TSOP48L	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	MTAI	MTAI	TSOP48L	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30		5	MTAI	MTAI	TSOP48L	
Lead Integrity	TM2004 B2 JESD22-B105	3									45 leads
External Visual	Mil. Std. 883-2009	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	MTAI	TSOP48L	

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
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 room temp (25°C) MSL3 / 260c	231	15	3	738	0	15	MTAI	MTAI	TSOP48L	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours or 110°C/85%RH for 264 hours. Electrical test pre and post stress at -55°C, +25°C, +125°C	77	5	3	246	0	10	MTAI	MTAI	TSOP48L	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 -55°C, +25°C, +125°C	77	5	3	246	0	10	MTAI	MTAI	TSOP48L	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	-55°C to +125°C for 500 cycles and 1000 cycles Electrical test pre and post stress at -55°C, +25°C, +125°C .; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	MTAI	TSOP48L	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

Affected Catalog Part Numbers (CPN)

SST38VF6401-90-5C-EKE
SST38VF6402-90-5C-EKE
SST38VF6403-90-5C-EKE
SST38VF6404-90-5C-EKE
SST38VF6401-90-5I-EKE
SST38VF6402-90-5I-EKE
SST38VF6403-90-5I-EKE
SST38VF6404-90-5I-EKE
SST38VF6401-90-4I-EKE
SST38VF6404-90-5I-EKE-NCM
SST38VF6401-90-5C-EKE-T
SST39LF401C-55-4C-EKE
SST39LF402C-55-4C-EKE
SST39VF401C-70-4C-EKE
SST39VF402C-70-4C-EKE
SST39VF401C-70-4I-EKE
SST39VF402C-70-4I-EKE
SST39LF401C-55-4C-EKE-T
SST39LF402C-55-4C-EKE-T
SST39VF401C-70-4C-EKE-T
SST39VF402C-70-4C-EKE-T
SST39VF401C-70-4I-EKE-T
SST39VF402C-70-4I-EKE-T