Product Change Notification / JAON-17DZYV010

Date:

19-Feb-2021

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4560 Initial Notice: Qualification of SIGN as a new assembly site for selected SST39LF80xx, SST39VF160xx and SST39VF80xx device families available in 48L TSOP (12x20mm) package.

Affected CPNs:

JAON-17DZYV010_Affected_CPN_02192021.pdf
JAON-17DZYV010_Affected_CPN_02192021.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 SIGN as a new assembly site for selected SST39LF80xx, SST39VF160xx and SST39VF80xx device families available in 48L TSOP (12x20mm) package.

Pre Change:
Assembled at LPI using lead frame with paddle size 207x142mils (applicable for SST39VF160xx device family) and using lead frame with paddle size 160x130mils (applicable for SST39LF80xx and SST39VF80xx device families)

Post Change:
Assembled at SIGN using lead frame with paddle size 209x165mils (applicable for SST39VF160xx device family) and using

lead frame with paddle size 159x165mils (applicable for SST39LF80xx and SST39VF80xx device families)

Pre and Post Change Summary:

<table>
<tr><th></th><th colspan="2">Pre Change</th><th colspan="2">Post Change</th></tr>
<tr><td>Assembly Site</td><td colspan="2">Lingsen Precision Industries, LTD. (LPI)</td><td colspan="2">Signetics Corporation (SIGN)</td></tr>
<tr><td>Bond Wire material</td><td colspan="2">Au</td><td colspan="2">Au</td></tr>
<tr><td>Die Attach material</td><td colspan="2">8340</td><td colspan="2">8340</td></tr>
<tr><td>Mold compound material</td><td colspan="2">G700</td><td colspan="2">G700</td></tr>
<tr><td>Lead frame material</td><td colspan="2">C7025</td><td colspan="2">C7025</td></tr>
<tr><td>DAP Surface plating</td><td colspan="2">Ring plating</td><td colspan="2">Double ring plating</td></tr>
<tr><td rowspan="2">Lead frame paddle size</td><td>207x142mils Note 1</td><td>160x130mils Note 2</td><td>209x165mils Note 1</td><td>159x165mils Note 2</td></tr>
<tr><td colspan="4">See attached pre and post change comparison</td></tr>
</table>

Note 1: Applicable for SST39VF160xx device family.
Note 2: Applicable for SST39LF80xx and SST39VF80xx device families

Impacts to Data Sheet: None

Change Impact: None

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

Change Implementation Status: In Progress

Estimated Qualification Completion Date: August 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:

<table>
<tr><th></th><th colspan="5">February 2021</th><th rowspan="2">--></th><th colspan="5">August 2021</th></tr>
<tr><td>Workweek</td><td>06</td><td>07</td><td>08</td><td>09</td><td>10</td><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td></tr>
<tr><td>Initial PCN Issue Date</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Qual Report Availability</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td><td></td><td></td><td></td></tr>
<tr><td>Final PCN Issue Date</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td><td></td><td></td><td></td></tr>
</table>

Method to Identify Change: Traceability code

Qualification Plan: Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History:February 19, 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_JAON-17DZYV010_Qual_Plan.pdf
PCN_JAON-17DZYV010_Pre and Post Change_Summary.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)

SST39VF1601C-70-4C-EKE
SST39VF1602C-70-4C-EKE
SST39VF1601C-70-4I-EKE
SST39VF1602C-70-4I-EKE
SST39VF1602C-70-4I-EKE-MCK
SST39VF1601C-70-4C-EKE-T
SST39VF1602C-70-4C-EKE-T
SST39VF1601C-70-4I-EKE-T
SST39VF1602C-70-4I-EKE-T
SST39LF801C-55-4C-EKE
SST39LF802C-55-4C-EKE
SST39VF801C-70-4C-EKE
SST39VF802C-70-4C-EKE
SST39VF801C-70-4I-EKE
SST39VF802C-70-4I-EKE
SST39LF801C-55-4C-EKE-T
SST39LF802C-55-4C-EKE-T
SST39VF801C-70-4C-EKE-T
SST39VF802C-70-4C-EKE-T
SST39VF801C-70-4I-EKE-T
SST39VF802C-70-4I-EKE-T

CCB 4560
Pre and Post Change Summary
PCN # JAON-17DZYV010

A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

Lead frame Comparison

Pre Change LPI		Post Change SIGN	
Applicable for SST39VF160xx device family.	Applicable for SST39LF80xx and SST39VF80xx device families	Applicable for SST39VF160xx device family.	Applicable for SST39LF80xx and SST39VF80xx device families

QUALIFICATION PLAN SUMMARY

PCN #: JAON-17DZYV010

Date:
February 04, 2021

Qualification of SIGN as a new assembly site for selected SST39LF80xx, SST39VF160xx and SST39VF80xx device families available in 48L TSOP (12x20mm) package.

Purpose: Qualification of SIGN as a new assembly site for selected SST39LF80xx, SST39VF160xx and SST39VF80xx device families available in 48L TSOP (12x20mm) package.

CCB No.: 4560

Misc.	Assembly site	SIGN
	BD Number	BFLF00001
	MP Code (MPC)	X02047W9XMCK
	Part Number (CPN)	SST39VF1602C-70-4I-EKE-MCK
	MSL information	MSL 3 / 260
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	96
	Reliability Site	**MTAI**
Lead-Frame	Paddle size	209x165
	Material	C7025
	DAP Surface Prep	Double Ring Plating
	Treatment	Roughened
	Process	Stamped
	Lead-lock (With Locking Holes)	No
	Part Number	FLF-00001
	Lead Plating	Matte Sn
	Strip Size	211X60mm
	Strip Density	24 units/strip
Bond Wire	Material	Au
Die Attach	Part Number	8340
	Conductive	Yes
MC	Part Number	G700
PKG	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	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	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	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30		5	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
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 at room temp 25°C and hot temp 85°C. MSL3 / 260c	231	15	3	738	0	15	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 room temp 25°C and hot temp 85°C.	77	5	3	246	0	10	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 room temp 25°C.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at hot temp 85°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.