Product Change Notification - RMES-16SQWG226

Date:

16 Apr 2020

Product Category:

Memory

Affected CPNs:

Notification subject:

CCB 2507 Final Notice: Qualification of Semiconductor Manufacturing International Corporation (SMIC) as an additional fabrication site for selected SST25PF020B, SST25VF020B, SST25VF040B and SST25VF080B device families.

Notification text:

PCN Status:

Final 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 Semiconductor Manufacturing International Corporation (SMIC) as an additional fabrication site for selected SST25PF020B, SST25VF020B, SST25VF040B and SST25VF080B device families.

Pre Change:

Device families SST25PF020B and SST25VF020B fabricated at Maxchip Electronics Corporation - Fab 8A (M08A) using 8-inch wafers

Device families SST25VF040B and SST25VF080B fabricated at Grace Semiconductor Manufacturing Company-Fab1 (GC01) using 8-inch wafers

Post Change:

Device families SST25PF020B and SST25VF020B fabricated at Maxchip Electronics Corporation - Fab 8A (M08A) using 8-inch wafers **or**
Fabricated at Semiconductor Manufacturing International Corporation SMIC - (SCB1) using 12-inch wafers

Device families SST25VF040B and SST25VF080B fabricated at Grace Semiconductor Manufacturing Company-Fab1 (GC01) using 8-inch wafers **or** Fabricated at Semiconductor Manufacturing International Corporation SMIC - (SCB1) using 12-inch wafers

Pre and Post Change Summary:

	Pre Change		Post Change	
Affected device families	SST25PF020B SST25VF020B	SST25VF040B SST25VF080B	SST25PF020B SST25VF020B	SST25VF040B SST25VF080B
Fabrication Site and Location	Maxchip Electronics Corporation - (M08A) Hsin-chu, Taiwan	Grace Semiconductor Manufacturing Company-Fab1 (GC01) Shanghai, China	Maxchip Electronics Corporation - (M08A) Hsin-chu, Taiwan **or** Semiconductor	Grace Semiconductor Manufacturing Company-Fab1 (GC01) Shanghai, China **or**

			Manufacturing International Corporation SMIC - (SCB1) Shanghai, China	Semiconductor Manufacturing International Corporation - (SCB1) Shanghai, China
Wafer Diameter	8 inches (200 mm)	8 inches (200 mm)	8 inches (200 mm) **or** 12 inches (304.8 mm)	8 inches (200 mm) **or** 12 inches (304.8 mm)
Quality certification	IATF 16949 ISO-14001	IATF 16949 ISO-14001	IATF 16949 ISO-14001 **or** ISO-9001 IATF 16949 ISO-14001	IATF 16949 ISO-14001 **or** ISO-9001 IATF 16949 ISO-14001

Impacts to Data Sheet:
None
Change Impact:
None
Reason for Change:
To improve manufacturability by qualifying Semiconductor Manufacturing International Corporation as an additional fabrication site.
Change Implementation Status:
In Progress
Estimated First Ship Date:
June 08, 2020 (date code: 2024)
NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.
Time Table Summary:

	April 2020					**>**	**June 2020**				
Workweek	14	15	16	17	18		23	24	25	26	27
Final PCN Issue Date			X								
Qual Report Availability			X								
Estimated Implementation Date								X			

Method to Identify Change:
Traceability code
Qualification Report:
Please open the attachments included with this PCN labeled as PCN_#_Qual Report.
Revision History:
April 16, 2020: Issued final notification. Attached the qualification report. Provided estimated first ship date to be on June 08, 2020.
The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachment(s):
PCN_RMES-16SQWG226_Qual_Report.pdf

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

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Affected Catalog Part Numbers (CPN)

SST25PF020B-80-4C-QAE
SST25PF020B-80-4C-QAE-T
SST25PF020B-80-4C-SAE
SST25PF020B-80-4C-SAE-T
SST25VF020B-80-4C-QAE
SST25VF020B-80-4C-QAE-T
SST25VF020B-80-4C-SAE
SST25VF020B-80-4C-SAE-T
SST25VF020B-80-4I-QAE
SST25VF020B-80-4I-QAE-T
SST25VF020B-80-4I-SAE
SST25VF020B-80-4I-SAE-T
SST25VF040B-50-4C-QAF
SST25VF040B-50-4C-QAF-T
SST25VF040B-50-4C-S2AF
SST25VF040B-50-4C-S2AF-T
SST25VF040B-50-4C-SAF
SST25VF040B-50-4C-SAF-T
SST25VF040B-50-4I-QAE
SST25VF040B-50-4I-QAE-T
SST25VF040B-50-4I-QAF
SST25VF040B-50-4I-QAF-T
SST25VF040B-50-4I-S2AE
SST25VF040B-50-4I-S2AE-T
SST25VF040B-50-4I-S2AF
SST25VF040B-50-4I-S2AF-T
SST25VF040B-50-4I-SAE
SST25VF040B-50-4I-SAE-T
SST25VF040B-50-4I-SAF
SST25VF040B-50-4I-SAF-T
SST25VF080B-50-4C-PAE
SST25VF080B-50-4C-QAF
SST25VF080B-50-4C-QAF-T
SST25VF080B-50-4C-S2AF
SST25VF080B-50-4C-S2AF-T
SST25VF080B-50-4I-QAE
SST25VF080B-50-4I-QAE-T
SST25VF080B-50-4I-QAF
SST25VF080B-50-4I-QAF-T
SST25VF080B-50-4I-S2AE
SST25VF080B-50-4I-S2AE-T
SST25VF080B-50-4I-S2AF
SST25VF080B-50-4I-S2AF-T

QUALIFICATION REPORT SUMMARY

PCN#: RMES-16SQWG226

April 08, 2020

Qualification of Semiconductor Manufacturing International Corporation (SMIC) as an additional fabrication site for selected SST25PF020B, SST25VF020B, SST25VF040B and SST25VF080B device families.

Purpose: **Qualification of Semiconductor Manufacturing International Corporation (SMIC) as an additional fabrication site for selected SST25PF020B, SST25VF020B, SST25VF040B and SST25VF080B device families.**

CCB No.: 2507

Qualification Summary:

The SST25VF080B qualification data below cover derivative designs SST25PF020B, SST25VF020B and SST25VF040B.

Test Items	Stress conditions	Stress Duration	Sample Size	# of fab Lots	# of Failure	Pass/Fail
ELFR	Ta=150'C, Vdd=4.0V Dynamic	24hours	1600	2 (800/lot)	0	Pass
DLT	Ta=150'C, Vdd=4.0V Dynamic	408hours	1200	2 (600/lot)	0	Pass
HTOL	10Kcycling Ta=125'C, Vdd=4.0V Dynamic	168hours 500hours 1000hours	160	2 (80/lot)	0	Pass
HTDR	10Kcycling Ta=150'C, No Bias	168hours 500hours 1000hours	462	2 (231/lot)	0	Pass
HBM	1.5Kohm, 100pF	+/-2.5KV	6	2 (3/lot)	0	Pass
MM	0ohm, 200pF	+/-250V	6	2 (3/lot)	0	Pass
CDM	Charged Device	+/-800V	6	2 (3/lot)	0	Pass
Latch-Up	Current L-Up at 85'C	+/-105mA	12	2 (6/lot)	0	Pass
	Over Voltage L-Up at 85'C	5.4V	12	2 (6/lot)	0	Pass
	Current L-Up at 25'C	+/-105mA	12	2 (6/lot)	0	Pass
	Over Voltage L-Up at 25'C	5.4V	12	2 (6/lot)	0	Pass

Notes:
. ELFR: Early Life Failure Rate
. DLT: Dynamic Life Test
. HTOL: High Temperature Operating Life
. HTDR: High Temperature Data Retention
. HBM: Human Body Model
. MM: Machine Model
. CDM: Charged Device Model