

Product Change Notification / JAON-14FRVC158 - S200000044

Date:

28-Oct-2022

Product Category:

Clock and Timing - High Speed Communication

PCN Type:

Manufacturing Change

Notification Subject:

CCB 1737.11 Final Notice: Qualification of Microchip 8 inch Fabrication site for Micrel products manufactured with the S2 Process Technology.

Affected CPNs:

JAON-14FRVC158-S200000044_Affected_CPN_10282022.pdf JAON-14FRVC158-S200000044_Affected_CPN_10282022.csv

Notification Text:

PCN Status:Final Notification

Note: This final PCN only pertains to the products listed in this PCN. Additional final PCNs may be issued for this combination of product type and process technology.

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 Microchip 8 inch Fabrication site for Micrel products manufactured with the S2 Process Technology. This PCN is to inform you that qualification of the S2 process technology has completed and to provide the report for your review.

NOTE: Please review the FAQ linked here for additional information about this change.

Pre and Post Change Summary:

	Pre Change	Post Change
Fab Site	Micrel fabrication site (San Jose, CA, USA)	Microchip fabrication site
Wafer Size	6 inch wafers	8 inch wafers

Impacts to Data Sheet:None

Change ImpactNone

Reason for Change:To improve productivity with the closure of the Micrel fab as part of the integration of Micrel and Microchip.

Change Implementation Status:In Progress

Estimated First Ship Date: November 11, 2022 (date code: 2246)

Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	S	epte	mbe	r 201	5		1		mbe 16	r	>	C	Octo	ber	202	2	No	over	nbe	r 20	22
Workweek	3 6	3 7	3 8	3 9	4 0	>	4 4	4 5	4 6	4 7		4 0	4 1	4 2	4	4 4	4 5	4 6	4 7	4 8	4 9
Initial PCN Issue Date	х																				
CYER-31JLEX8 69	Х																				
Qual Report Available								Х													
JAON-14FRVC1 58								,													
Final PCN Issue Date																Х					

JAON-14FRVC15 8-S200000044											
Estimated First Ship Date									Х		

Method to Identify Change:

Traceability code

Qualification Report:

Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History:

September 1, 2015: Issued initial notification as PCN number CYER-31JLEX869.

November 4, 2016: Issued intermediate notification as PCN number JAON-14FRVC158. Attached the Qualification Report. Revised the estimated first ship date (EFSD) to inform that the EFSD will be revealed in the final PCN.

October 28, 2022: Issued final notification as PCN number JAON-14FRVC158-S200000044 for listed Micrel products manufactured with the S2 Process Technology. Added pre and post change summary. Removed "Pre Change" and "Post change" text section. Provided estimated first ship date to be on November 11, 2022.

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-14FRVC158-S200000044_Qual_Report.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 <u>PCN</u> home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the <u>PCN FAQ</u> section.

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QUALIFICATION REPORT SUMMARY RELIABILITY LABORATORY

PCN #: JAON-14FRVC158-S200000044

Date October 11, 2016

Qualification of Microchip 8 inch Fabrication site for Micrel products manufactured with the S2 Process Technology.

PART NUMBER	PACKAGE TYPE	ASSEMBLY LOCATION	FAB LOCATION	PROCESS NAME
SY100EP111UTG 2D801-035	TQFP_32L	AMKOR PHILIPPINES	MICROCHIP FAB-2 TEMPE AZ.	S2

DIE QUALIFICATION RESULTS

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	168 HR Rej/ss	500 HR Rej/ss	1000 HR Rej/ss	COMMENTS
HTOL	JESD22, Method 108	1624	V216389217.000	0/77	0/77	0/77	
High Temperature Operating Life Test	Ta = + 125°C	1626	V216307756.110	0/77 *	0/76	0/76	
	Vcc = +3.3V	1626	V216429648.000	0/77	0/77	0/77	

(*)Invalid 1 EOS reference FA#RQ160807

ELECTROSTATIC DISCHARGE

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
ESD-HBM	R= 1500 Ohms	1609	V216389217.000	+/-1500V	0/3	Note: ESD ratings are
Human Body Model ATE Test @ Room +25C	C= 100 pF					device specific. All Products qualified on the 8" Micrel process technologies will
	1X +/- Voltage					have the same or better ESD and Latch-up
ESD-CDM	JESD22-C101	1609	V216389217.000	+/-1500V	0/3	performance as the 6" San Jose Products.
Charged Device Model	1X +/- Voltage					
ATE Test @ Room +25C						
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
LATCH-UP	JESD-78	1609	V216389217.000	I/O LU O/V LU	0/6 0/6	Same as 6 inch
	TA = +25°C					

PACKAGE QUALIFIC	ATION RESULTS	1	1		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	Rej/ss	COMMENTS
Level 2 Pre-conditioning Flow	JESD22-A113	1624	V216389217.000	0/340	
Use samples to perform PPOT/HAST/TCY	Use samples to	1626	V216307756.110	0/310	
1101/11/01/101		1626	V216429648.000	0/360	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS
PRESSURE POT	JESD22-A102	1624	V216389217.000	0/77	
With Level 2 Pre-	Ta = +121°C/100%RH	1626	V216307756.110	0/77	
Греаk + 260°С 3X Reflow	15 PSIG	1626	V216429648.000	0/77	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS
HAST	JESD22-A110 (BIASED)	1624	V216389217.000	0/77	
With Level 2 Pre- conditioning	Ta= +130°C/85%RH	1626	V216307756.110	0/77	
Tpeak + 260°C 3X Reflow	Vcc = +1.2V	1626	V216429648.000	0/77	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 CY Rej/ss	COMMENTS
TEMP CYCLE	JESD22-A104	1624	V216389217.000	0/77	
With Level 2 Pre- conditioning	Ta = -65°C / +150°C	1626	V216307756.110	0/77	
Tpeak + 260°C 3X Reflow		1626	V216429648.000	0/77	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	1000 HR Rej/ss	COMMENTS
HTSL	JESD22-A103	1624	V216389217.000	0/76	
High Temperature Storage Life	Ta = +150°C				
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 HR Rej/ss	COMMENTS
HTSL	JESD22-A103	1624	V216389217.000	0/76	
High Temperature Storage Life	Ta = +175°C	1626	V216307756.110	0/45	
		1626	V216429648.000	0/45	
FLAMMABILITY	UL-94V-0 Certified	material f		Micrel requires a C	d. See the UL website on-line list of certificate of Compliance from the web.

 ${\sf JAON-14FRVC158-CCB\ 1737.11\ Final\ Notice:\ Qualification\ of\ Microchip\ 8\ inch\ Fabrication\ site\ for\ Micrel\ prc}$

Affected Catalog Part Numbers(CPN)

SY88932LMG SY88932LMG-TR