

Product Change Notification / JAON-14FRVC158 - S200000045

Date:

31-Jan-2023

Product Category:

Clock and Timing - Clock and Data Distribution

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:

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JAON-14FRVC158-S20000045\_Affected\_CPN\_01312023.pdf\\ JAON-14FRVC158-S20000045\_Affected\_CPN\_01312023.csv
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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: February 07, 2023 (date code: 2306)

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

Time Table Summary:

	September 2015			November 2016			>	January 2023				3	February 2023						
Workweek	36	37	38	39	40	44	45	46	47		01	02	03	04	05	06	07	08	09
Initial PCN Issue Date CYER-31JLEX869	x																		
Qual Report Available JAON-14FRVC15 8							x												
Final PCN Issue Date JAON-14FRVC158- S200000045															х				

Estimated First Ship Date

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.

January 31, 2023: Issued final notification as PCN number JAON-14FRVC158-S200000045 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 February 07, 2023.

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-S200000045_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 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, 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. JAON-14FRVC158 - CCB 1737.11 Final Notice: Qualification of Microchip 8 inch Fabrication site for Micrel products manufactured with the S2 Process Technology.

Affected Catalog Part Numbers (CPN)

SY89297UMG SY89297UMG-TR SY89297UMH SY100EP16UMG-TR



QUALIFICATION REPORT SUMMARY RELIABILITY LABORATORY

PCN #: JAON-14FRVC158-S20000045

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			MICROCHIP FAB-2	60
2D801-035	TQFF_52L	AWRON FILLIFFINES	TEMPE AZ.	52

DIE QUALIFICATION RESULTS

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	168 HR Rej/ss	500 H Rej/s	I R 1000 s Rej/	HR 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 ref	Ference FA#RQ160807							
	ARGE							
TEST DESCRIPTION	METHOD/CONDITION	S DAT COD	E LOT ID.	ST	RESS	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/CONDITION	S DAT COD	E LOT ID.	ST	RESS	RESULT Rej/ss	COMMENTS	
LATCH-UP	JESD-78	1609	V216389217.000	1/0 O/	D LU V LU	0/6 0/6	Same as 6 inch	
	TA = +25°C							

PACKAGE QUALIFICATION RESULTS									
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	Use samples to	1626	V216307756.110	0/310					
		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- conditioning	Ta = +121°C/100%RH	1626	V216307756.110	0/77					
Tpeak + 260°C 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 + 200 C 3A Reliow		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	All mold compounds used by Micrel meet this standard. See the UL website on-line list of material flammability certifications. Micrel requires a Certificate of Compliance from the assembly house and we verify the certifications on the web.							