



**Product Change Notification / JAON-14FRVC158 - S200000036**

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**Date:**

10-Nov-2021

**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:**

[JAON-14FRVC158-S200000036\\_Affected\\_CPN\\_11102021.pdf](#)  
[JAON-14FRVC158-S200000036\\_Affected\\_CPN\\_11102021.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. Although we are providing you with the qualification data, products in this process technology will not ship from

Microchip's Fab's until after the final PCN has been issued. 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 Site	6 inch wafers	8 inch wafers

**Impacts to Data Sheet:**None

**Change Impact:**None

**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 24, 2021 (date code: 2148)

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				>	November 2021				
Workweek	3 6	3 7	3 8	3 9	4 0	>	44	45	4 6	4 7	>	45	46	47	48	49
Initial PCN Issue Date <b>CYER-31JLEX869</b>	x															
Qual Report Available <b>JAON-14FRVC158</b>								x								
Final PCN Issue Date													x			

JAON-14FRVC158-S200000036																				
Estimated First Ship 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:**

**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.

**November 10, 2021:** Issued final notification as PCN number JAON-14FRVC158-S200000036 for listed Micrel products manufactured with the S2 Process Technology. Added pre and post change summary. Removed the pre “Pre Change” and “Post change” text section. Attached the Qualification Report. Provided estimated first ship date to be on November 24, 2021.

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 -S200000036\\_Affected\\_CPN.pdf](#)
- [PCN\\_JAON-14FRVC158 -S200000036\\_Affected\\_CPN.xls](#)
- [PCN\\_JAON-14FRVC158-S200000036\\_Qual\\_Report.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.



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN #: JAON-14FRVC158-S200000036**

**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
<b>HTOL</b> High Temperature Operating Life Test	JESD22, Method 108	1624	V216389217.000	0/77	0/77	0/77	
	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
<b>ESD-HBM</b> Human Body Model ATE Test @ Room +25C	R= 1500 Ohms C= 100 pF 1X +/- Voltage	1609	V216389217.000	+/-1500V	0/3	Note: ESD ratings are device specific. All Products qualified on the 8" Micrel process technologies will have the same or better ESD and Latch-up performance as the 6" San Jose Products.
<b>ESD-CDM</b> Charged Device Model ATE Test @ Room +25C	JESD22-C101 1X +/- Voltage	1609	V216389217.000	+/-1500V	0/3	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
<b>LATCH-UP</b>	JESD-78 TA = +25°C	1609	V216389217.000	I/O LU O/V LU	0/6 0/6	Same as 6 inch

PACKAGE QUALIFICATION RESULTS					
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	Rej/ss	COMMENTS
<b>Level 2 Pre-conditioning Flow</b>  Use samples to perform PPOT/HAST/TCY	<b>JESD22-A113</b>  Use samples to	1624	V216389217.000	0/340	
		1626	V216307756.110	0/310	
		1626	V216429648.000	0/360	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS
<b>PRESSURE POT</b>  <b>With Level 2 Pre-conditioning</b> Tpeak + 260°C 3X Reflow	<b>JESD22-A102</b>  Ta = +121°C/100%RH  15 PSIG	1624	V216389217.000	0/77	
		1626	V216307756.110	0/77	
		1626	V216429648.000	0/77	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS
<b>HAST</b>  <b>With Level 2 Pre-conditioning</b> Tpeak + 260°C 3X Reflow	<b>JESD22-A110 (BIASED)</b>  Ta= +130°C/85%RH  Vcc = +1.2V	1624	V216389217.000	0/77	
		1626	V216307756.110	0/77	
		1626	V216429648.000	0/77	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 CY Rej/ss	COMMENTS
<b>TEMP CYCLE</b>  <b>With Level 2 Pre-conditioning</b> Tpeak + 260°C 3X Reflow	<b>JESD22-A104</b>  Ta = -65°C / +150°C	1624	V216389217.000	0/77	
		1626	V216307756.110	0/77	
		1626	V216429648.000	0/77	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	1000 HR Rej/ss	COMMENTS
<b>HTSL</b>  <b>High Temperature Storage Life</b>	<b>JESD22-A103</b>  Ta = +150°C	1624	V216389217.000	0/76	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 HR Rej/ss	COMMENTS
<b>HTSL</b>  <b>High Temperature Storage Life</b>	<b>JESD22-A103</b>  Ta = +175°C	1624	V216389217.000	0/76	
		1626	V216307756.110	0/45	
		1626	V216429648.000	0/45	
<b>FLAMMABILITY</b>	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.			

JAON-14FRVC158 - S200000036 - CCB 1737.11 Final Notice: Qualification of Microchip 8 inch Fabrication site for Micrel products manufactured with the S2 Process Technology.process technology to Microchip Fab.

Affected Catalog Part Numbers (CPN)

<b>JAON-14FRVC158 - S200000036</b>
<b>CATALOG_PART_NBR</b>
SY89545LMG
SY89545LMG-TR

Affected Catalog Part Numbers (CPN)

SY89545LMG

SY89545LMG-TR