



Product Change Notification / JAON-14FRVC158 - S200000034

Date:

21-Sep-2021

Product Category:

Clock and Timing - Clock and Data Distribution

PCN Type:

Manufacturing Change

Notification Subject:

CCB 1737.11 Final Notice: Release to production of listed Micrel Clock and Timing product type manufactured with the S2 process technology to Microchip Fab.

Affected CPNs:

[JAON-14FRVC158-S200000034_Affected_CPN_09212021.pdf](#)
[JAON-14FRVC158-S200000034_Affected_CPN_09212021.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:

Release to production of listed Micrel Clock and Timing product type manufactured with the S2 process technology to Microchip Fab.

NOTE: Please review the FAQ linked [here](#) for additional information about this change.

Pre Change:

Fabricated at Micrel fabrication site (San Jose, CA, USA) using 6 inch wafers.

Post Change:

Fabricated at Microchip fabrication site using 8 inch wafers.

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

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:

Estimated First Ship Date (EFS) are identified for each catalog part numbers (CPN) listed in the attached parts list. This can be found in the attachments field below labeled as PCN_#_Affected_CPN_Estimated First ship date.

Summary Time Table of notable events to date:

	September 2015					->	November 2016					->	September 2021					October 2021				
Workweek	36	37	38	39	40		44	45	46	47		36	37	38	39	40	41	42	43	44	45	
Initial PCN Issue Date CYER-31JLEX869	X																					
Qual Report Available JAON-14FRVC158							X															
Final PCN Issue Date JAON-14FRVC158-S200000034															X							

Estimated First Ship Date																					As listed in the attached parts list.				
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Markings to Distinguish Revised from Unrevised Devices:

Traceability code and shipping label see [FAQ](#).

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.
- September 21, 2021:** Issued final notification as PCN number [JAON-14FRVC158-S200000034](#) for listed Micrel Clock and Timing products manufactured with the S2 process technology. Provided estimated first ship date (EFSD) for each CPN listed in the attached parts list.

The change described in this PCN does not alter Micrel’s or Microchip’s current regulatory compliance regarding the material content of the applicable products.

Attachments:

- [PCN_JAON-14FRVC158-S200000034_Qual_Report.pdf](#)
- [PCN_JAON-14FRVC158 -S200000034_Affected_CPN_Estimated First ship date.xls](#)
- [PCN_JAON-14FRVC158 -S200000034_Affected_CPN_Estimated First ship date.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.

JAON-14FRVC158 - S200000034 - CCB 1737.11 Final Notice: Release to production of listed Micrel Clock and Timing product type manufactured with the S2 process technology to Microchip Fab.

Affected Catalog Part Numbers (CPN)

JAON-14FRVC158 - S200000034	
CATALOG_PART_NBR	Estimated First Ship Date (EFS)
SY89543LMG	October 04, 2021
SY89543LMG-TR	October 04, 2021
SY89544UMG	October 04, 2021
SY89544UMG-TR	October 04, 2021



MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-14FRVC158-S200000034

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 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
ESD-HBM 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.
ESD-CDM 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
LATCH-UP	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
Level 2 Pre-conditioning Flow Use samples to perform PPOT/HAST/TCY	JESD22-A113 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
PRESSURE POT With Level 2 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A102 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
HAST With Level 2 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A110 (BIASED) 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
TEMP CYCLE With Level 2 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A104 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
HTSL High Temperature Storage Life	JESD22-A103 Ta = +150°C	1624	V216389217.000	0/76	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 HR Rej/ss	COMMENTS
HTSL High Temperature Storage Life	JESD22-A103 Ta = +175°C	1624	V216389217.000	0/76	
		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.			

Affected Catalog Part Numbers (CPN)

SY89543LMG

SY89543LMG-TR

SY89544UMG

SY89544UMG-TR