



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:

[JAON-14FRVC158-S200000045_Affected_CPN_01312023.pdf](#)

[JAON-14FRVC158-S200000045_Affected_CPN_01312023.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 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: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					February 2023			
	36	37	38	39	40		44	45	46	47		01	02	03	04	05	06	07	08	09
Workweek						>														
Initial PCN Issue Date CYER-31JLEX869	x																			
Qual Report Available JAON-14FRVC158								x												
Final PCN Issue Date JAON-14FRVC158-S200000045																x				

Affected Catalog Part Numbers (CPN)

SY89297UMG

SY89297UMG-TR

SY89297UMH

SY100EP16UMG-TR



MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-14FRVC158-S200000045

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.			