



Product Change Notification - SIGE000012 - JAON-29XUTR452

Date:

17 Jun 2020

Product Category:

Clock and Timing - Clock and Data Distribution

Affected CPNs:**Notification subject:**

CCB 2871 Final Notice: Release to production of listed Micrel Clock and Timing product type manufactured with the SiGe process technology to Fabrication site (FAB 5).

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 icons found in the Affected CPNs section above.

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 SiGe process technology to Fabrication site (FAB 5).

Pre Change:

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

Post Change:

Fabricated at Atmel Fabrication site FAB 5 (Colorado Springs, CO, USA) (COS) using 6 inch wafers

Pre and Post Change Summary:

	Pre Change	Post Change	
Fabrication Location	Micrel Fabrication Site (San Jose, CA, USA)	Primary Fab Location: Atmel Fabrication site FAB 5 (Colorado Springs, CO USA)	Secondary Fab Location: Microchip Fabrication Site (Tempe, AZ USA)
Wafer Diameter	6 inches (150 mm)	6 inches (150 mm)	8 inches (200 mm)
Quality certification	ISO9001	ISO9001/TS16949	ISO/TS16949
Data sheet / specifications	No Change	No Change	No Change
Design/layout	No Change	No Change	No Change
Die Size	No change	No change	No change
Final test program	No change	No change	No change
Package Type/MSL	No Change	No Change	No Change

Impacts to Data Sheet:

No impact anticipated.

Change Impact:

None

Reason for Change:



To improve productivity with the closure of the Micrel fab (SJ) as part of the integration of Micrel and Microchip.

Change Implementation Status:

In Progress

Estimated First Ship Date:

Estimated First Ship Date (EFSD) 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.

Summary Time Table of notable events to date:

Workweek	March 2017					>	July 2017				>	June 2020				
	09	10	11	12	13		27	28	29	30		23	24	25	26	27
Initial PCN Issue Date					X											
Qualification Report Availability and Intermediate PCN issue date JAON-29XUTR452							X									
Final PCN Issue Date JAON-29XUTR452 - SIGE000012													X			
Estimated First Ship Date															As listed in the attached parts list below	

Method to Identify Change:

Traceability code.

Qualification Report:

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

Revision History:

March 30, 2017: Issued initial notification.

July 5, 2017: Issued intermediate notification. Attached the Qualification report.

June 17, 2020: Issued final notification as PCN number [JAON-29XUTR452 - SIGE000012](#) for listed Micrel's Clock and Timing products manufactured with the SiGe process technology to Fabrication site (FAB 5). 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 Atmel's or Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachment(s):

- [PCN_JAON-29XUTR452-SIGE000012_Qual_Report.pdf](#)
- [PCN_JAON-29XUTR452-SIGE000012_Affected_CPN.pdf](#)
- [PCN_JAON-29XUTR452-SIGE000012_Affected_CPN.xls](#)



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.

Affected Catalog Part Numbers (CPN)

SY58600UMG-TR

SY58602UMG-TR

SY56020XRMG

SY56216RMG

SY56216RMG-TR

SY56020XRMG-TR

SY58025UMG

SY58030UMG

SY58025UMG-TR

SY58030UMG-TR

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Affected Catalog Part Numbers (CPN)

PCN_JAON-29XUTR452-SIGE000012	
CATALOG_PART_NBR	Estimated First Ship Date(EFSD)
SY58600UMG-TR	June 30, 2020
SY58602UMG-TR	June 30, 2020
SY56020XRMG	June 30, 2020
SY56216RMG	June 30, 2020
SY56216RMG-TR	June 30, 2020
SY56020XRMG-TR	June 30, 2020
SY58025UMG	June 30, 2020
SY58030UMG	June 30, 2020
SY58025UMG-TR	June 30, 2020
SY58030UMG-TR	June 30, 2020



MICROCHIP

QUALIFICATION REPORT SUMMARY

PCN #: JAON-29XUTR452 - SIGE000012

**Date
June 1, 2017**

**Qualification of Fabrication site (FAB 5) for Micrel products
manufactured with the SiGe process technology.**

PART NUMBER / MASK	PACKAGE TYPE	ASSEMBLY LOCATION	FAB LOCATION	PROCESS NAME
SY58023UMG / 2D602	QFN33-16L	UNISEM, IPOH MALAYSIA	MICROCHIP FAB-5 Colorado Springs	S2_SiGe 0.6u

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	FAB LOT ID.	168 HR Rej/ss	408 HR Rej/ss	COMMENTS
HTOL High Temperature Operating Life Test	JESD22, Method 108	1645E3C	FA23647B	0/80	0/80	
	Tj = +135°C Ta = +85°C Vcc = +3.10V	1651CKW	A6Y2057	0/82	0/82	
HTOL High Temperature Operating Life Test	JESD22, Method 108	1651CKW	A6Y2057	0/82	0/82	
	Tj = +150°C Ta = +105°C Vcc = +3.10V	1703PVQ	6Y2092	0/82	0/82	

ELECTROSTATIC DISCHARGE AND LATCH-UP

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	FAB LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
ESD-HBM Human Body Model ATE Test @ Room +25C	R= 1500 Ohms C= 100 pF 1X +/- Voltage	N/A	7U2874	+/-500V	0/3	Note: ESD ratings are, device specific. All products, qualified on the 6" Micrel, process technologies at, Microchip Fabs will have the, same or better ESD and, Latch-up performance as the 6" products fabricated at San Jose wafer fabrication site.
ESD-CDM Charged Device Model ATE Test @ Room +25C	JESD22-C101 1X +/- Voltage	1703PVQ	6Y2092	+/-250V +/-500V +/-750V +/-1000V +/-1500V +/-2000V	0/3 0/3 0/3 0/3 0/3 0/3	

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
LATCH-UP	JESD-78 A = +25°C	1651CKW	A6Y2057	I/O LU	0/6	
		1645E3C	FA23647B	O/V LU	0/6	

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PACKAGE QUALIFICATION RESULTS						
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	ASSEM LOT ID.	Rej/ss	COMMENTS	
Level 1 Pre-conditioning Flow Use samples to perform PPOT/HAST/TCY	JESD22-A113	1651CKW	UNIS173900097.000	0/330		
		1703PVQ	UNIS174300114.000	0/310		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	ASSEM LOT ID.	96 HR Rej/ss	COMMENTS	
uHAST With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A118 Ta= +130°C/85%RH	1651CKW	UNIS173900097.000	0/82		
		1703PVQ	UNIS174300114.000	0/82		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	ASSEM LOT ID.	96 HR Rej/ss	COMMENTS	
HAST With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A110 (BIASED) Ta= +130°C/85%RH Vcc = +1.2V	1651CKW	UNIS173900097.000	0/80		
		1703PVQ	UNIS174300114.000	0/80		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	ASSEM LOT ID.	500 CY Rej/ss	1000 CY Rej/ss	COMMENTS
TEMP CYCLE With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A104 Ta = -65°C / +150°C	1651CKW	UNIS173900097.000	0/82	0/82	
		1703PVQ	UNIS174300114.000	0/82	0/82	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	ASSEM LOT ID.	1000 HR Rej/ss	COMMENTS	
HTSL High Temperature Storage Life	JESD22-A103 Ta = +150°C	1651CKW	UNIS173900097.000	0/50		
		1703PVQ	UNIS174300114.000	0/50		
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.				