

Product Change Notification - S100000002 - JAON-01RSNA976

Date: 29 Dec 2017
Product Category: Clock and Timing - Clock and Data Distribution
Notification subject: CCB 2736 Final Notice: Release to production of listed Micrel Clock and Timing product type manufactured with the S1 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 the attachments found in the attachments field below labeled as PCN Affected CPN.

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 S1 process technology to Fabrication site (FAB 5).

NOTE: Please review the FA attached in this notification for additional information regarding this change.

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)	Atmel Fabrication site FAB 5 (Colorado Springs, CO USA)
Wafer Diameter	6 inches (150 mm)	6 inches (150 mm)
Quality certification	ISO9001	ISO9001/TS16949
Data sheet / specifications	No Change	No Change
Design/layout	No Change	No Change
Die Size	No change	No change
Final test program	No change	No change
Package Type/MSL	No Change	No Change

[PCN JAON-01RSNA976-S100000002 Affected CPN.pdf](#)
[PCN JAON-01RSNA976-S100000002 Qual Report.pdf](#)
[PCN JAON-01RSNA976-S100000002 Affected CPN. Is](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-01RSNA976-S100000002

Date
March 6, 2017

**Qualification of Fabrication site (FAB 5) for Micrel products manufactured
with the S1 process technology.**

PART NUMBER	PACKAGE TYPE	ASSEMBLY LOCATION	FAB LOCATION	PROCESS NAME
SY100EL16VZG	SOIC-8L	STARS THAILAND	MICROCHIP FAB-5 Colorado Springs	S1

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	16340BC	FA23647B	0/80	0/80	0/80	
	Ta = +125°C	1636K98	6W4369	0/82	0/82	0/82	
	Vcc = +5.3V	1640T4U	FA20475	0/82	0/82	0/82	

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	16340BC	FA23647B	+/-2000V	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	16340BC	FA23647B	+/-1500V	0/3	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
LATCH-UP	JESD-78 A = +25°C	16340BC	FA23647B	I/O LU O/V LU	0/6 0/6	Same as SJ 6 inch

PACKAGE QUALIFICATION RESULTS					
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	Rej/ss	COMMENTS
Level 1 Pre-conditioning Flow Use samples to perform PPOT/HAST/TCY	JESD22-A113	1636K98	6W4369	0/330	
		1640T4U	FA20475	0/350	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS
PRESSURE POT With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A102 Ta = +121°C/100%RH 15 PSIG	1636K98	6W4369	0/82	
		1640T4U	FA20475	0/82	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	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 = +1.5V	1636K98	6W4369	0/82	
		1640T4U	FA20475	0/82	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 CY Rej/ss	COMMENTS
TEMP CYCLE With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A104 Ta = -65°C / +150°C	1636K98	6W4369	0/82	
		1640T4U	FA20475	0/82	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	1000 HR Rej/ss	COMMENTS
HTSL High Temperature Storage Life	JESD22-A103 Ta = +150°C	1636K98	6W4369	0/50	
		1640T4U	FA20475	0/50	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 HR Rej/ss	COMMENTS
HTSL High Temperature Storage Life	JESD22-A103 Ta = +175°C	1640T4U	FA20475	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.			

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Affected Catalog Part Numbers (CPN)

PCN_JAON-01RSNA976-S100000002	
CATALOG_PART_NBR	Estimated First Ship Date (EFSD)
SY100EPT22VZG	January 05, 2018
SY100ELT23ZG	January 05, 2018
SY100ELT23ZG-TR	January 05, 2018
SY89250VMG-TR	January 05, 2018
SY100EL15LZG	January 05, 2018
SY100EL15LZG-TR	January 05, 2018
SY100EPT21LKG	January 05, 2018
SY100EPT21LKG-TR	January 05, 2018
SY89825UHY	January 05, 2018
SY89825UHY-TR	January 05, 2018