



Product Change Notification / JAON-01RSNA976 - S100000007

Date:

17-May-2022

Product Category:

Clock and Timing - Clock and Data Distribution

PCN Type:

Manufacturing Change

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).

Affected CPNs:

[JAON-01RSNA976-S100000007_Affected_CPN_05172022.pdf](#)
[JAON-01RSNA976-S100000007_Affected_CPN_05172022.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 S1 process technology to Fabrication site (FAB 5). This PCN is to inform you that qualification of the S1 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.

Affected Catalog Part Numbers (CPN)

SY55852UKG

SY55852UKG-TR

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Affected Catalog Part Numbers (CPN)

PCN_JAON-01RSNA976-S100000007
CATALOG_PART_NBR
SY55852UKG
SY55852UKG-TR



QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-01RSNA976-S100000007

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.			