



MICROCHIP

QUALIFICATION REPORT
RELIABILITY LABORATORY

PCN #: JAON-24FRFP480

Date
January 22, 2016

**Qualification of Microchip 8 inch Fabrication site for Micrel products
manufactured with the BCDSi Process Technology.**

PART NUMBER	PACKAGE TYPE	ASSEMBLY LOCATION	Wafer Size	PROCESS NAME
MIC2199YML	DFN44-12L	UNISEM IPOH MALAYSIA	8"	BCDSI

DIE QUALIFICATION RESULTS

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	168 HR Rej/ss	1000 HR Rej/ss	COMMENTS
HTOL High Temperature Operating Life Test	JESD22, Method 108	1540	V416.201815.210MQA	0/77	0/77	
	TA= + 125°C	1541	V416.201815.200MQA	0/77	0/77	
	VCC = +16V	1542	V416.201815.3000MQA	0/77	0/77	

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	1540	V416.201815.210MQA	+/-2000V	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	1540	V416.201815.210MQA	+/-1500V	0/3	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
LATCH-UP	JESD-78 TA = +25°C	1540	V416.201815.210MQA	I/O LU O/V LU	0/6 0/6	

PACKAGE QUALIFICATION RESULTS					
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	Rej/ss	COMMENTS
Level 1 Pre-conditioning Flow	JESD22-A113	1540	V416.201815.210MQA	0/323	
		1541	V416.201815.200MQA	0/143	
		1542	V416.201815.3000MQA	0/145	
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	1540	V416.201815.210MQA	0/45	
		1541	V416.201815.200MQA	0/45	
		1542	V416.201815.3000MQA	0/45	
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	1540	V416.201815.210MQA	0/45	
		1541	V416.201815.200MQA	0/45	
		1542	V416.201815.3000MQA	0/45	
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	1540	V416.201815.210MQA	0/45	
		1541	V416.201815.200MQA	0/45	
		1542	V416.201815.3000MQA	0/45	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	1000 HR Rej/ss	COMMENTS
HTSL High Temperature Storage Life With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A103 Ta = +150°C	1540	V416.201815.210MQA	0/76	
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.			

JAON-24FRFP480-BCDSI00003 - CCB 1737.01 Final Notice: Release to production of listed Micrel Timer product type manufactured with the BCDSI process technology to Microchip Fab.

Affected Catalog Part Numbers (CPN)

PCN_JAON-24FRFP480-BCDSI00003	
CATALOG_PART_NBR	Estimated First Ship Date (EFSD)
MIC1557YM5-TR	July 19, 2016
MIC1557YD5-TR	July 19, 2016