



MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-08AHID607-CSI0500066

Date
September 20, 2016

**Qualification of Microchip 8 inch Fabrication site for Micrel products
manufactured with the CSI05 Process Technology.**

PART NUMBER	PACKAGE TYPE	ASSEMBLY LOCATION	FAB LOCATION	PROCESS NAME
MIC23250-S4YMT-TR	DFN22-10L	UNISEM, IPOH, MALAYSIA	MICROCHIP FAB-2 TEMPE AZ.	CSI 0.5

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	1609	V216328088.100MQB	0/77	0/77	0/77	
	Ta = + 125°C	1606	V216328088.000MQJ	0/77	0/77	0/77	
	Vcc = +5.5V	1606	V216328088.000MQK	0/77	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	1609	V216328088.100MQB	+/-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	1609	V216328088.100MQB	+/-1500V	0/3	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
LATCH-UP	JESD-78 TA = +25°C	1609	V216328088.100MQB	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	1609	V216328088.100MQB	0/323	
		1606	V216328088.000MQJ	0/143	
		1606	V216328088.000MQK	0/143	
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	1609	V216328088.100MQB	0/45	
		1606	V216328088.000MQJ	0/45	
		1606	V216328088.000MQK	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 Vcc = +5.5V	1609	V216328088.100MQB	0/45	
		1606	V216328088.000MQJ	0/45	
		1606	V216328088.000MQK	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	1609	V216328088.100MQB	0/45	
		1606	V216328088.000MQJ	0/45	
		1606	V216328088.000MQK	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	1609	V216328088.100MQB	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.			