



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN #: JAON-11SIPZ900-BCDM000044**

**Date**

**March 24, 2016**

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

PART NUMBER / MASK	PACKAGE TYPE	ASSEMBLY LOCATION	WAFER SIZE	PROCESS NAME
MIC29302WU / 20801	TO263-5L	GTBF,CHINA	8"	BCDM

### DIE QUALIFICATION RESULTS

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	168 HR Rej/ss	1000 HR Rej/ss	COMMENTS
<b>HTOL</b> High Temperature Operating Life Test	JESD22, Method 108	1543P	V21618566.000MQB	0/77	0/77	
	TA= + 125°C	1543P	V21618566.100MQA	0/77	0/77	
	VCC = +26V	1543P	V21618566.111MQA	0/77	0/77	

### ELECTROSTATIC DISCHARGE

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
<b>ESD-HBM</b> Human Body Model ATE Test @ Room +25C	R= 1500 Ohms C= 100 pF 1X +/- Voltage	1543P	V21618566.000MQB	+/-500V	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.
<b>ESD-CDM</b> Charged Device Model ATE Test @ Room +25C	JESD22-C101 1X +/- Voltage	1543P	V21618566.000MQB	+/-1500V	0/3	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
<b>LATCH-UP</b>	JESD-78 TA = +25°C	1543P	V21618566.000MQB	I/O LU O/V LU	0/6 0/6	LU Same as 6" process

PACKAGE QUALIFICATION RESULTS						
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	Rej/ss	COMMENTS	
Level 3 Pre-conditioning Flow	JESD22-A113	1543P	V21618566.000MQB	0/321		
		1543P	V21618566.100MQA	0/143		
		1543P	V21618566.111MQA	0/143		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS	
PRESSURE POT With Level 3 Pre- conditioning Tpeak + 260°C 3X Reflow	JESD22-A102  Ta = +121°C/100%RH  15 PSIG	1543P	V21618566.000MQB	0/45		
		1543P	V21618566.100MQA	0/45		
		1543P	V21618566.111MQA	0/45		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS	
HAST With Level 3 Pre- conditioning Tpeak + 260°C 3X Reflow	JESD22-A110 (BIASED)  Ta= +130°C/85%RH  VCC = +26V	1543P	V21618566.000MQB	0/45		
		1543P	V21618566.100MQA	0/45		
		1543P	V21618566.111MQA	0/45		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 CY Rej/ss	COMMENTS	
TEMP CYCLE With Level 3 Pre- conditioning Tpeak + 260°C 3X Reflow	JESD22-A104  Ta = -65°C / +150°C	1543P	V21618566.000MQB	0/45		
		1543P	V21618566.100MQA	0/45		
		1543P	V21618566.111MQA	0/45		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	1000 HR Rej/ss	COMMENTS	
HTSL High Temperature Storage Life Tpeak + 260°C 3X Reflow	JESD22-A103  Ta = +150°C	1543P	V21618566.000MQB	0/76		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 HR Rej/ss	1000 HR Rej/ss	COMMENTS
HTSL High Temperature Storage Life Tpeak + 260°C 3X Reflow	JESD22-A103  Ta = +175°C	1543P	V21618566.000MQB	0/76	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.				