



QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: MFOL-05BEVE803

Date:

May 02, 2026

Qualification of Microchip Technology Colorado – Fab 5 (MCSO) as a new fabrication location for multiple device families available in various packages. The MIC29751-3.3WWT, MIC29751-5.0WWT, LM2576WT-L3, MIC5801YN, MIC5801BWM, MIC5801BWM-TR, SPN030026Y-TR, MIC29712WT-L2, LM2575-5.0WT-L3, MIC58P01YN, MIC59P50BWM-TR, MIC5842YV, MIC5841YV, MIC5842YV-TR, SPN060008, and MIC5020CYP catalog part numbers (CPN) of 20K (BCDM) technology available in various packages will qualify by similarity (QBS).



MICROCHIP PROCESS QUALIFICATION REPORT

Purpose: Qualification of Microchip Technology Colorado – Fab 5 (MCSO) as a new fabrication location for multiple device families available in various packages. The MIC29751-3.3WWT, MIC29751-5.0WWT, LM2576WT-L3, MIC5801YN, MIC5801BWM, MIC5801BWM-TR, SPN030026Y-TR, MIC29712WT-L2, LM2575-5.0WT-L3, MIC58P01YN, MIC59P50BWM-TR, MIC5842YV, MIC5841YV, MIC5842YV-TR, SPN060008, and MIC5020CYP catalog part numbers (CPN) of 20K (BCDM) technology available in various packages will qualify by similarity (QBS).

CCB No: 7364.005 and 7364.058

Test	Lot Qty	# units/lot	Result
HTOL 1000HRS at +125°C. Pre / Post ATE at Room.	3	77	Passed
ESD/HBM Pre / Post ATE at Room.	1	12	Passed
ESD/CDM Pre / Post ATE at Room.	1	18	Passed
Latch Up Pre / Post ATE at Room.	1	12	Passed



MICROCHIP

PACKAGE QUALIFICATION REPORT

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I. Summary:

The purpose of this report is to qualify BCDM process Fab 2 to Fab 5 of MIC29302WU, per Process Qual **CCB#7364.005** and Package Qual **CCB#7428.002**. Following guidelines established in Microchip specification QCI-39000, “Worldwide Quality Conformance Requirements.”

Conclusion:

Based on the reliability tests results, the MIC29302WU complies with the reliability guidelines implemented in the qualification plan. Therefore, this device can be released to production.

II. Device Description:

Device	MIC29302WU
Document Control Number	MLXXXXXX
Document Revision	A
CCB No.	7428.002 and 7364.058

III. Qualification Material:

Test Lot	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5. Control Lot
WAFER LOT	MCSO525416649.12 0 A5A0085	MCSO525416649.120 A5A0085	MCSO525416650.11 0 A5A0086	MCSO525416650.210 B5A0086	TMPE221054307.100
ASSEMBLY LOT	GTBF260500005.000	GTBF260500001.000	GTBF260600036.000	GTBF260600035.000	GTBF212900002.000
PACKAGE	5L-TO-263				
QUAL TESTS	PREC, HTSL, HAST, UHAST, TC.	HTOL, HBM, CDM, LU.	HTOL	HTOL	HTOL

IV. Qualification Data:

High Temperature Operating Life (HTOL)

Test Method	JESD22-A108 & MIL-STD 883 Method 1033	
Test Condition	125°C / 1008 hours. Vcc = +26V	
Lot #	70 Hours; ATE Results (Fail/SS)	1008 Hours; ATE Results (Fail/SS)
Lot 2	0/82	0/82
Lot 3	0/82	0/82
Lot 4	0/82	0/82
Lot 5	0/20	0/20
Result:	Pass	

Pre and Post testing was conducted at +25°C.

ESD HBM, CDM, & Latch-Up

Test	Reference Method	Sample Size/Lot	Result
ESD – HBM	JS-001-2012	15/Lot 2	Pass +/- 500V
ESD – CDM	JS-002-2014	18/Lot 2	Pass +/- 2000V
Latch-up	JESD78	6/Lot 2, at +25°C	Pass +/-105mA I/O trigger, Pass 1.5X Vsupply Overvoltage test.

Package Preconditioning:

Test Method	JEDEC J-STD-020 / JESD22-A113	
Test Condition	MSL3 (+30°C/60%RH) 192 Hours @ +260°C 3X Peak Reflow. Minimum SS = 231	
Lot #	ATE Result	
Lot 1	0/255	
Result	PASS	

Pre and Post testing was conducted at +25°C.

HAST (Highly Accelerated Temperature and Humidity Stress Test).

Test Method	JESD22-A110	
Test condition	Ta = +130°C/85%RH, 96 HRS, Vcc = +26.0V. Minimum SS = 77	
Result	Pass	

Pre and Post testing was conducted at +25°C.

Unbiased HAST

Test Method/Condition	JESD22-A118, Ta = +130°C/85%RH, 96 HRS. Minimum SS = 77.	
Lot #	96HR Results (Fail/SS)	
Lot 1	0/81 – Pass	

Pre and Post testing was conducted at +25°C.

Temperature Cycling (TC)

Test Method/Condition	JESD22-A104, Ta = -65°C/+150°C, 500 Cycles, Minimum SS = 77.	
Lot #	500cyc ATE Results (Fail/SS)	WBP
Lot 1	0/82	Pass

Pre and Post testing was conducted at +25°C.

High Temperature Storage Life (HTSL)

Test Method/Condition	JESD22-A103, Ta = +150°C, 1000HRS Minimum SS = 77	
Lot #	ATE Results (Fail/SS).	
Lot 1	0/50	
Result	Pass	

Pre and Post testing was conducted at +25°C.