



QUALIFICATION REPORT SUMMARY

PCN#: CAAN-14GCEK666

**Date:
September 11, 2025**

Qualification of MMT as an additional assembly site for selected 25AA1024, 25AA512, 25AA640A, 25LC1024, 25LC256, 25LC512, PIC12F635 and PIC12F683 device families available in 8L DFN-S (6x5x0.9mm) package. This is a Q006 Grade 1 qualification.



MICROCHIP

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of MMT as an additional assembly site for selected 25AA1024, 25AA512, 25AA640A, 25LC1024, 25LC256, 25LC512, PIC12F635 and PIC12F683 device families available in 8L DFN-S (6x5x0.9mm) package. This is a Q006 Grade 1 qualification.
CN	E000286109
QUAL ID	R2501401 Rev. B
Bonding No.	BD-003678 Rev.01
MP CODE	DECR24A6XA00
Part No.	25LC1024-E/MF
CCB No.	7829
<u>Lead Frame</u>	
Paddle size	173x173
Material	C194
Surface	Bare Cu
Process	Etched LF
Lead lock	Dimple
Part number	10100879
Plating composition	Matte Tin
<u>Bond Wire</u>	
Wire	CuPdAu wire
<u>Die Attach Material</u>	
Epoxy	QMI519 (PFAS free)
<u>Mold Compound</u>	
Mold compound	G700LTD
<u>Package</u>	
Type	8L DFN-S
Package size	6 x 5 x 0.9mm



MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-262601261.000	GRSM423482872.110	2539AA7
MMT-263100036.000	GRSM424391420.120	2544U2M
MMT-263100037.000	GRSM424391420.121	2544U2P

Result

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Pass

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Fail

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8L DFN-S (6x5x0.9mm) assembled by MMT pass reliability test per QCI-39000.
This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C
reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020E)	IPC/JEDEC C J-STD- 020E	135(0)	135(0) 0/135	Pass	
<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 1)	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT Bake 150°C, 24 hrs System: CHINEE 85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22- A113	693(0) 693(0)	0/693 0/693 0/693 0/693 0/693	Pass Pass	Good Devices

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -55°C to +150°C, 1000 Cycles System : TABAI ESPEC TSA-70H Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A104		231		Parts had been pre-conditioned at 260°C
			231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	
	Stress Condition: -55°C to +150°C, 2000 Cycles System: TABAI ESPEC TSA-70H Electrical Test: +25°C, 85°C and 125°C C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	Stress Condition: +130°C/85%RH, 96 hrs. Bias Volt: 5.5 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	
	Stress Condition: +130°C/85%RH, 192 hrs. Bias Volt: 5.5 Volts System: HAST 6000X			231		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>3.00 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 500 hrs System: TPS Bake Oven	JESD22-A103		135		45 units / lot
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		135(0)	0/135	Pass	
	Stress Condition: Bake 175°C, 1000 hrs System: TPS Bake Oven			135		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		135(0)	0/135	Pass	
Solderability Temp 245°C	Steam Aging: Temp 93°C, 8Hrs System: SAS-3000 Solder Dipping: Solder Temp. 245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERS A RA 2200D Visual Inspection: External Visual Inspection	J-STD-002		22		
				22		
			22(0)	0/22	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Physical Dimensions	Physical Dimension, 10 units from 1 lot	JESD22- B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (> 3.00 grams)	Mil. Std. 883-2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	CDF-AEC- Q100-001	30 (0) Bonds	0/30	Pass	