QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: MAAN-05PFQZ171

Date:
May 5, 2026

Qualification of palladium coated copper with gold flash (CuPdAu) as a new wire material for MTD6508-ADJE/JQ and MTD6508T-ADJE/JQ catalog part numbers (CPN) available in 16L UQFN 4x4x0.5mm) package at MMT assembly site.

Package Qualification Report

Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) as a new wire material for MTD6508-ADJE/JQ and MTD6508T-ADJE/JQ catalog part numbers (CPN) available in 16L UQFN 4x4x0.5mm) package at MMT assembly site.

CCB No. 7927

Misc.	**Assembly site**	MMT
	BD Number	BD-003741-01
	MP Code (MPC)	UGBC14JQXA00
	Part Number (CPN)	MTD6508-ADJE/JQ
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	91
Lead-Frame	**Paddle size**	110x110
	Material	EFTEC-64T
	DAP Surface Prep	Bare Cu
	Treatment	Roughening LF
	Process	Etched
	Lead-lock	Yes
	Part Number	10101611
	Lead Plating	Matte Tin
	Strip Size	250x70mm
	Strip Density	700 unit/strip
Bond Wire	**Material**	CuPdAu
Die Attach	**Part Number**	QMI519
	Conductive	Yes
MC	**Part Number**	G700LTD
PKG	**PKG Type**	UQFN
	Pin/Ball Count	16
	PKG width/size	4x4x0.5mm

Package Qualification Report

Manufacturing Information:

Assembly Lot No.
MMT-263500781.000
MMT-263500917.000
MMT-263600050.000

Conclusion:

Qualification of UGBC1 mask / MTD6508T-ADJE/JQ product / 0.8 mil CuPdAu wire in 16L UQFN 4x4x0.5mm (JQX) package at MMT site is qualified for MSL1 at 260ºC as per JEDEC J-STD-020 standard and is passed in accordance to Specified JEDEC and Mil Standards

Moisture Soak Precondition Prior to Stresses

Test Method	JESD22-A113, JEDEC J-STD-020		
Test Condition	**MSL1**: 150ºC 24 hours Bake, 168 hours Moisture Soak at 85ºC/85%RH, 3x Reflow at 260ºC		
Required Sample Size	231 units each lot / 3 lots;		
Lot ID	**R2600043-1 MMT-263500781.000**	**R2600043-2 MMT-263500917.000**	**R2600043-3 MMT-264200095.000**
Electrical Results (Fail / Pass)	0/231	0/231	0/231
Electrical Test Tester: ETS88	25°C and 125°C		
Result	**Passed**		

High Temp Storage

Test Method	JESD22-A103		
Test Condition	175°C / 500 hours		
Required Sample Size	45 units each lot / 3 lots; WBP/WBS		
Lot ID	**R2600043-1 MMT-263500781.000**	**R2600043-2 MMT-263500917.000**	**R2600043-3 MMT-264200095.000**
Electrical Results (Fail / Pass)	0/45	0/45	0/45
WBS (Fail / Pass)	0/3	0/3	0/3
WBP (Fail / Pass)	0/3	0/3	0/3
Electrical Test Tester: ETS88	25°C and 125°C		
Result	**Passed**		

Temperature Cycling

Test Method	JESD22-A104		
Test Condition	-55ºC / +150ºC Air to Air / 1000 Cycles		
Required Sample Size	77 units each lot / 3 lots; WBP/WBS		
Lot ID	**R2600043-1 MMT-263500781.000**	**R2600043-2 MMT-263500917.000**	**R2600043-3 MMT-264200095.000**
Electrical Results (Fail / Pass)	0/77	0/77	0/77
WBP (Fail / Pass)	0/3	0/3	0/3
WBS (Fail / Pass)	0/3	0/3	0/3
Electrical Test Tester: ETS88	25°C and 125°C		
Result	**Passed**		

Biased HAST

Test Method	JESD22-A110		
Test Condition	+130ºC / 85%RH / 96 hours / Bias Voltage: 5.5V		
Required Sample Size	77 units each lot / 3 lots; WBP/WBS		
Lot ID	**R2600043-1 MMT-263500781.000**	**R2600043-2 MMT-263500917.000**	**R2600043-3 MMT-264200095.000**
Electrical Results (Fail / Pass)	0/77	0/77	0/77
WBP (Fail / Pass)	0/3	0/3	0/3
WBS (Fail / Pass)	0/3	0/3	0/3
Electrical Test Tester: ETS88	25°C and 125°C		
Result	**Passed**		

Unbiased HAST

Test Method	JESD22-A118		
Test Condition	+130ºC / 85%RH / 96 hours		
Required Sample Size	77 units each lot / 3 lots;		
Lot ID	**R2600043-1 MMT-263500781.000**	**R2600043-2 MMT-263500917.000**	**R2600043-3 MMT-264200095.000**
Electrical Results (Fail / Pass)	0/77	0/77	0/77
Electrical Test Tester: ETS88	25°C		
Result	**Passed**		

Solderability (0 Hr) Method 1: Dip and Look

Test Method	J-STD-002 / JESD22B-102
Test Condition / Criteria	Pb-free 8 hours Steam age. Dip at 245ºC, 100% leads >95% lead coverage
Required Sample Size	22 units / 1 lot
Visual Result (Fail / Pass)	0/22 - **Passed**

Physical Dimension (0Hr)

Test Method	JESD22 B100 and B108
Test Criteria	Within package diagram dimension
Required Sample Size	10 units each lot / 3 lots
Result (Fail / Pass)	0/30 - **Passed**

Wire Pull

Test Method	Mil. Std. 883-2011
Test Criteria	Bond Strength Data Assembly
Required Sample Size	5 units / 1 lot
Result (Fail / Pass)	0/5 - **Passed**

Bond Shear

Test Method	CDF-AEC-Q100-001
Test Criteria	Bond Strength Data Assembly
Required Sample Size	5 units / 1 lot
Result (Fail / Pass)	0/5 – **Passed**