QUALIFICATION PLAN

PCN #: JAON-01XOEE717

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Qualification of palladium coated copper with gold flash (PdCuAu) bond wire in selected products of the 160K wafer technology available in 8L SOIC package at MTAI assembly site

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Purpose: _____ Qualification of palladium coated copper with gold flash (PdCuAu) bond wire in selected products of the 160K wafer technology available in 8L SOIC package at MTAI assembly site

MP code:_____ DFAW1

Part No.: _____ 24AA01/24LC01B

BD No:_____ BDM-000645 rev.A

CCB No.:_____ 1563

Package:

Type _____8L SOIC

Width or Size _____150 mils

Die thickness: _____15 mils

Die size: _____28.3 x 29.3 mils

Lead frame:

Paddle size: _____90 x 90 mils

Material_____CDA194

Surface_____Bare copper on paddle

Process _____Stamp

Lead Lock _____No

Part Number_____10100812

Treatment_____Brown Oxide Treatment

Wire:

Material_____PdCu-Au flash

Die Attach Epoxy:

Part Number_____8390A

Conductive_____Yes

Mold Compound: _____G600V

Lead finish _____Matte tin

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	30 bonds from a minimum of 5 devices.
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25C and hot temp.	45	5	1	50	0	10	Must be in progress at time of package release to production, but completion is not required for release to production.
Preconditioning - Required for surface mount devices	+150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020D for package type; Electrical test pre and post stress at +25°C. MSL-1 @ 260°C	231	15	4	984	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours. Electrical test pre and post stress at +25°C and hot temp. 1 lot tested at 125C	77	5	4	328	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Unbiased HAST	+130°C/85% RH for 96 hrs	77	5	4	328	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at hot temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress. 1 lot tested at 125C	77	5	4	328	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.