



MICROCHIP

QUALIFICATION PLAN

PCN #: JAON-17JDSD193

**Date:
March 9, 2016**

**Qualification of palladium coated copper with gold flash
(CuPdAu) bond wire in selected products of the 40K wafer
technology available in 8L MSOP package at MTAI assembly
site.**

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Purpose: _____ Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 40K wafer technology available in 8L MSOP package at MTAI assembly site.

CCB No.: _____ 2596

Misc.	Assembly site	MTAI
	BD Number	BDM-001030 rev.A
	MP Code (MPC)	Y2AF2DA3XA00
	Part Number (CPN)	TC4427AEUA713
Lead-Frame	Paddle size	82x94 mils
	Material	CDA194
	Surface	Bare Cu DAP
	Treatment	Brown Oxide Treated
	Process	Stamped
	Lead-lock	No
	Part Number	TBD
	Lead Plating	Matte Tin
Bond Wire	Material	CuPdAu
Die Attach	Part Number	8390A
	Conductive	Yes
MC	Part Number	G600V
PKG	PKG Type	MSOP
	Pin/Ball Count	8
	PKG width/size	3x3 mm
Die	Die Thickness	8 mils
	Die Size	76.5 x 58.5 mils

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	3	24	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	24	0	5	30 bonds from a minimum of 5 devices.
Wire Sweep		5	0	3	15	0		Required for any reduction in wire bond thickness.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25°C and hot temp. (1 lot to be tested at 125C)	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. MSL1 @ 260°C	231	15	3	738	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 to be tested at 125C)	77	5	3	246	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. Electrical test pre and post stress at +25°C.	77	5	3	246	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 to be tested at 125C)	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

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Affected Catalog Part Numbers (CPN)

PCN_JAON-17JDSD193
CATALOG_PART_NBR
TC1410EUA
TC1410EUA713
TC1410NEUA
TC1410NEUA713
TC1410NVUA
TC1410NVUA713
TC1411EUA
TC1411EUA713
TC1411NEUA
TC1411NEUA713
TC1411NVUA
TC1411NVUA713
TC1411VUA
TC1411VUA713
TC1412EUA
TC1412EUA713
TC1412NEUA
TC1412NEUA713
TC1413EUA
TC1413EUA713
TC1413NEUA
TC1413NEUA713
TC1426CUA
TC1426CUA713
TC1427CUA
TC1427CUA713
TC1428CUA
TC1428CUA713
TC426CUA
TC426CUA713
TC426EUA
TC426EUA713
TC427CUA
TC427CUA713
TC427EUA
TC427EUA713
TC428CUA
TC428CUA713
TC428EUA
TC428EUA713
TC4426ACUA
TC4426ACUA713
TC4426AEUA

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PCN_JAON-17JDSD193
CATALOG_PART_NBR
TC4426AEUA713
TC4426AVUA
TC4426AVUA713
TC4426CUA
TC4426CUA713
TC4426EUA
TC4426EUA713
TC4426VUA
TC4426VUA713
TC4427AEUA
TC4427AEUA713
TC4427AVUA
TC4427AVUA713
TC4427CUA
TC4427CUA713
TC4427EUA
TC4427EUA713
TC4427VUA
TC4427VUA713
TC4428AEUA
TC4428AEUA713
TC4428AVUA
TC4428AVUA713
TC4428CUA
TC4428CUA713
TC4428EUA
TC4428EUA713
TC4428VUA
TC4428VUA713