



## **QUALIFICATION PLAN**

**PCN #: JAON-22LUWC382**

**Date:**  
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**Qualification of palladium coated copper with gold flash  
(CuPdAu) bond wire in selected products of the 120K wafer  
technology available in 14L TSSOP package at MMT  
assembly site.**

**Distribution**

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**Purpose:** \_\_\_\_\_ Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 120K wafer technology available in 14L TSSOP package at MMT assembly site.

**MP code:** \_\_\_\_\_ A5AJ17D4X370

**Part No.:** \_\_\_\_\_ HCS370-I/ST

**BD No:** \_\_\_\_\_ BDM-000808 rev.B (Engineering BD)

**CCB No.:** \_\_\_\_\_ 1657 and 1657.01

**Package:**

**Type** \_\_\_\_\_ 14L TSSOP

**Width or Size** \_\_\_\_\_ 4.4mm

**Die thickness:** \_\_\_\_\_ 11 mils

**Die size:** \_\_\_\_\_ 143 x 90.9 mils

**Lead frame:**

**Paddle size:** \_\_\_\_\_ 118x153 mils

**Material** \_\_\_\_\_ C7025

**Surface** \_\_\_\_\_ Bare Cu

**Process** \_\_\_\_\_ Stamped

**Lead Lock** \_\_\_\_\_ No

**Part Number** \_\_\_\_\_ 10101406

**Treatment** \_\_\_\_\_ BOT

**Wire:**

**Material** \_\_\_\_\_ CuPdAu

**Die Attach Epoxy:**

**Part Number** \_\_\_\_\_ 2200D

**Conductive** \_\_\_\_\_ Yes

**Mold Compound:** \_\_\_\_\_ G600V

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.
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 +25C and hot temp. (1 lot to be tested at 85C)	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 85C)	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 by following readpoint TC 500. (1 lot to be tested at 85C)	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.