



QUALIFICATION PLAN

PCN #: JAON-20DZPV439

**Date:
March 9, 2016**

Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 150K and 160K wafer technologies available in 8L SOIJ 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 150K and 160K wafer technologies available in 8L SOIJ package at MTAI assembly site.

CCB No.: 2598

Misc.	Assembly site	MTAI
	BD Number	BDM-001037 rev.A
	MP Code (MPC)	DEBD2TC3X038
	Part Number (CPN)	PIC12F509T-I/SM038
Lead-Frame	Paddle size	140x160 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	SOIJ
	Pin/Ball Count	8
	PKG width/size	0.208 inch
Die	Die Thickness	15 mils
	Die Size	41.5 x 48.0 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-20DZPV439
CATALOG_PART_NBR
24AA128-I/SM
24AA128T-I/SM
24AA256/SM
24AA256-E/SM
24AA256-I/SM
24AA256T/SM
24AA256T-E/SM
24AA256T-I/SM
24AA32A/SM
24AA32A-I/SM
24AA32AT/SM
24AA32AT-I/SM
24AA512-I/SM
24AA512-I/SMRVE
24AA512T-I/SM
24AA512T-I/SMRVE
24AA64-E/SM
24AA64-I/SM
24AA64T-E/SM
24AA64T-I/SM
24FC128-I/SM
24FC128T-I/SM
24FC256-I/SM
24FC256T-I/SM
24FC512-I/SM
24FC512T-I/SM
24FC512T-I/SMRVE
24FC64-I/SM
24FC64T-I/SM
24LC128-E/SM
24LC128-I/SM
24LC128-I/SMRVF
24LC128T-E/SM
24LC128T-I/SM
24LC128T-I/SMG
24LC256-E/SM
24LC256-I/SM
24LC256-I/SMRVE
24LC256-I/SMRVF
24LC256T-E/SM
24LC256T-E/SMRVF
24LC256T-I/SM
24LC256T-I/SMG

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CATALOG_PART_NBR
24LC256T-I/SMRVE
24LC256T-I/SMRVF
24LC32A/SM
24LC32A-E/SM
24LC32A-I/SM
24LC32AT/SM
24LC32AT-E/SM
24LC32AT-I/SM
24LC512-E/SM
24LC512-I/SM
24LC512-I/SMA21
24LC512-I/SMG
24LC512-I/SMRVE
24LC512T-E/SM
24LC512T-I/SM
24LC512T-I/SMRVE
24LC64-E/SM
24LC64-I/SM
24LC64-I/SMRVE
24LC64T-E/SM
24LC64T-I/SM
24LC64T-I/SMRVE
25AA1024-I/SM
25AA1024-I/SMB21
25AA1024T-I/SM
25AA1024T-I/SMB21
25AA128-I/SM
25AA128T-I/SM
25AA256-E/SM
25AA256-I/SM
25AA256T-E/SM
25AA256T-I/SM
25AA512-I/SM
25AA512T-I/SM
25LC1024-E/SM
25LC1024-I/SM
25LC1024-I/SMA23
25LC1024T-E/SM
25LC1024T-I/SM
25LC1024T-I/SMA23
25LC128-E/SM
25LC128-I/SM
25LC128T-E/SM

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CATALOG_PART_NBR
25LC128T-I/SM
25LC256-E/SM
25LC256-I/SM
25LC256T-E/SM
25LC256T-I/SM
25LC512-E/SM
25LC512-I/SM
25LC512T-E/SM
25LC512T-I/SM
PIC12F509-E/SM
PIC12F509-I/SM
PIC12F509T-E/SM
PIC12F509T-I/SM
PIC12F509T-I/SM034
PIC12F509T-I/SM035
PIC12F509T-I/SM036
PIC12F509T-I/SM037
PIC12F509T-I/SM038