



MICROCHIP

**QUALIFICATION REPORT
RELIABILITY LABORATORY**

PCN #: JAON-31OMTX002

**Date:
June 05, 2015**

Qualification of palladium coated copper (PdCu) bond wire in selected products of the 200K wafer technology available in 28L SPDIP package at MMT assembly site. The 14L, 18L and 20L PDIP packages will qualify by similarity at MMT assembly site

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MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose	Qualification of palladium coated copper (PdCu) bond wire in selected products of the 200K wafer technology available in 28L SPDIP package at MMT assembly site. The 14L, 18L and 20L PDIP packages will qualify by similarity at MMT assembly site
CN	BC150631
QUAL ID	Q15042
MP CODE	LEBE14M3XD XF
Part No.	PIC24FV16KA302-E/SP
Bonding No.	BDM-000727 Rev. A
CCB No.	1569
<u>Package</u>	
Type	28L SPDIP
Package size	300 mils
Die thickness	15 mils
Die size	127.4 x 158.5 mils
<u>Lead Frame</u>	
Paddle size	180 x 240 mils
Material	CDA194
Surface	Ag Spot Plated
Process	Stamped
Lead Lock	Yes
Part Number	10102822
Treatment	None
<u>Die attach material</u>	
Epoxy	CRM-1064L
Wire	PdCu wire
Mold Compound	GE800
Plating Composition	Matte Tin



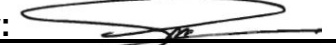
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Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-160200272.000	GRSM415393885.110	1515PEK
MMT-160200273.000	GRSM415393885.111	1515PEM
MMT-160200586.000	GRSM415393885.111	1515TK1

Result Pass Fail _____

28L SPDIP (.300") assembled by MMT pass reliability test per QCI-39000.

Prepared By:  **Date:** June 05, 2015 (Sr. Reliability Engineer)

(Mr. Udom Suksansakul)

Approved By:  **Date:** June 05, 2015 (Reliability Manager)

(Mr. Somnuek Thongprasert)

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Electrical Test	Electrical Test: +25°C and 125°C System: J750	JESD22- A113	693(0)	693		Good Devices
Temp Cycle	Stress Condition: (Standard) 65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H	JESD22- A104		231		
	Electrical Test: + 125°C System: J750		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (> 2.5 grams) Bond Shear (>20.00 grams)		15 (0)	0/15	Pass	
		15 (0)	0/15	Pass		
UNBIASED-HAST	Stress Condition: (Standard) +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22- A118		231		
	Electrical Test: +25°C System: J750		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	Stress Condition: (Standard) +130°C/85%RH, 96 hrs. Bias Volt: 5.5 Volts System: HAST 6000X Electrical Test: +25°C and 125°C System: J750	JESD22- A110	231(0)	231 0/231	Pass	77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: SHEL LAB Electrical Test: + 25°C and 125°C System: J750	JESD22 -A103	45(0)	45 0/45	Pass	45 units
Bond Strength	Wire Pull (> 2.5 grams)	JESD22 -B116	30 (0) Wires	0/30	Pass	
Data Assembly	Bond Shear (>20.00 grams)		30 (0) bonds	0/30	Pass	