



**MICROCHIP**

**QUALIFICATION REPORT  
RELIABILITY LABORATORY**

**PCN #: JAON-04PRHD989**

**Date:  
June 18, 2015**

**Qualification of MMT assembly site for selected products in  
40L PDIP package using gold (Au) bond wire.**

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## MICROCHIP PACKAGE QUALIFICATION REPORT

<b>Purpose</b>	Qualification of MMT assembly site for selected products in 40L PDIP package using gold (Au) bond wire.
<b>CN</b>	BC151157
<b>QUAL ID</b>	Q15063
<b>MP CODE</b>	A7AU24S2XAXC
<b>Part No.</b>	PIC18C452-E/P
<b>Bonding No.</b>	BDM-000758 Rev. A (Engineering BD)
<b>CCB No.</b>	1619

### Package

<b>Type</b>	40L PDIP
<b>Package size</b>	600 mils
<b>Die thickness</b>	15 mils
<b>Die size</b>	168.0 x 273.7 mils

### Lead Frame

<b>Paddle size</b>	300 x 300 mils
<b>Material</b>	CDA194
<b>Surface</b>	Ag spot
<b>Process</b>	Etched
<b>Lead Lock</b>	Yes
<b>Part Number</b>	10104009
<b>Treatment</b>	None

### Die attach material

<b>Epoxy</b>	CRM-1064L
<b>Wire</b>	Au wire
<b>Mold Compound</b>	GE800
<b>Plating Composition</b>	Matte Tin



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## Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-160700895.000	TMPE215487293.120	15204MM
MMT-160700896.000	TMPE215487293.130	15204MQ
MMT-160700897.000	TMPE215487293.110	15204MR

### Result

Pass  Fail  \_\_\_\_\_

40L PDIP (.600") assembled by MMT (ALPH) pass reliability test per QCI-39000.

Prepared By: Thinnapol Date: June 18, 2015 (Sr.Reliability Engineer)

(Mr.Thinnapol Nakkasun )

Approved By: Som Date: June 18, 2015 (Reliability Manager)

(Mr. Somnuek Thongprasert)

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>Electrical Test</b>	<b>Electrical Test:</b> +125°C System :J750	JESD22-A113	693(0)	693		Good Devices
<b>Temp Cycle</b>	<b>Stress Condition:</b> -65°C to +150°C, 250 Cycles System : TABAI ESPEC TSA-70H	JESD22-A104		231		
	<b>Electrical Test:</b> + 125°C System : J750		231(0)	0/231	Pass	77 units / lot
	<b>Stress Condition:</b> -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H			231		
	<b>Electrical Test:</b> + 125°C System : J750		231(0)	0/231	Pass	
	<b>Bond Strength:</b> Wire Pull (>3.0 grams) Bond Shear (>30.00 grams)		15 (0)	0/15	Pass	
			15 (0)	0/15	Pass	
<b>UNBIASED-HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		
	<b>Electrical Test:</b> +25°C System: J750		231(0)	0/231	Pass	77 units / lot
<b>HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. <b>Bias Volt:</b> 5.5 Volts System: HAST 6000X	JESD22-A110		231		
	<b>Electrical Test:</b> +25°C and 125°C System: J750		231(0)	0/231	Pass	77 units / lot
<b>High Temperature Storage Life</b>	<b>Stress Condition:</b> Bake 175°C, 504 hrs System: SHEL LAB	JESD22-A103		45		45 units
	<b>Electrical Test :</b> +25°C and 125°C System: J750		45(0)	0/45	Pass	

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Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>Bond Strength</b> <b>Data Assembly</b>	Wire Pull (> 3.0 grams)	M2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>30.00 grams)	JESD22- B116	30 (0) bonds	0/30	Pass	