

**M/A-COM Technology Solutions, Inc.**

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20<sup>th</sup> Jul 2015

Digi-Key Corporation.

701 Brooks Ave South

Thief River Falls, Minnesota 56701

**Subject: Frequency extended from 1200MHz to 1218MHz**

**PCN-00758**

Dear Valued Customer:

Please accept this PCN letter as formal notification for the change of M/A-COM Technology Solutions part number(s) shown below.

The device(s) listed on this page are the affected device(s).

According to our records, this device has been purchased by your company within the past twenty-four (24) months.

**M/A-COM Part Number(s):**

**MACP-010250-C808A0**

Technical details of this change notice follow on the next page(s).

Please contact me if you have any questions.

Sincerely,

**Alan Miller**

Product Line Manager  
M/A-COM Technology Solutions  
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***M/A-COM TECHNOLOGY SOLUTIONS CONFIDENTIAL & PROPRIETARY***



<b>PCN Number: 00758</b>		<b>PCN Date:</b> 20 <sup>th</sup> Jul 2015
<b>Title: Frequency extended from 1200MHz to 1218MHz</b>		
<b>Proposed 1st Ship Date:</b> N/A		<b>Estimated Sample Availability:</b> N/A
<b>Change Type:</b>		
Assembly Site	Design	Electrical Specification <b>X</b>
Test Site	Assembly Process	Mechanical Specification
Test Process	Assembly Materials	Packing/Shipping/Labeling
<b>PCN Details</b>		
<b>Description of Change:</b>  Frequency extended from 1200MHz to 1218MHz. Data Sheet updated to reflect new frequency range.  Draft of Updated Data Sheet shown in Appendix I		
<b>Reason for Change:</b>  Market Requirement		
<b>Products Affected:</b>  MACP-010250-C808A0		
<b>Anticipated impact on Fit, Form, Function:</b>  None – No change to form, fit or function of device.		
<b>Changes to product identification resulting from this PCN:</b>  None		
<b>Qualification: Test Results — See Appendix II</b>		

**Appendix I**

**MACP-010250-C808A0**



Coupler 8dB  
 5 – 1218 MHz

**DRAFT**

Rev. V2

**Features**

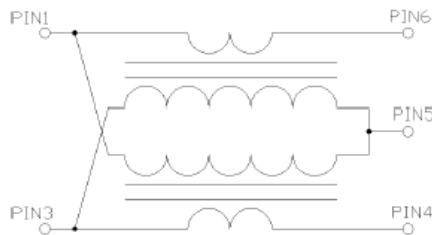
- Surface mount
- Typical Coupling 8dB
- 260° reflow compatible
- RoHS compliant and lead free
- Stable over large temperature range



**Description**

MACOM's MACP-010250-C808A0 is a 8dB broadband Coupler in a low cost surface mount package. It offers low loss, good Isolation, good input/output matching and exceptional coupling repeatability. Ideally suited for high volume CATV and Broadband applications.

**Functional Schematic**



**Ordering Information**

Part Number	Package
MACP-010250-C808A0	Tape & Reel
MACP-010250-C808TB	Customer Test Board

**Pin Configuration**

Pin No.	Function
1	Output
3	Isolation (external 75 Ohm load)
4	Coupling
5	Ground
6	Input



# MACP-010250-C808A0



Coupler 8dB  
 5 – 1218 MHz

**DRAFT**

Rev. V2

**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75 \Omega$ ,  $P_{in} = 0\text{dBm}$**

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range		MHz	5		1218
Impedance		$\Omega$		75	
Coupling				8	
Coupling (Pin6 - Pin4)	5 - 1218 MHz	dB	-	8.6	$\pm 0.8$
Main Line Loss (Pin6 - Pin1)	5 - 500 MHz 500 - 1218 MHz	dB dB	- -	1.5 1.6	1.8 2.3
Input Return Loss (Pin6)	5 - 1218 MHz	dB	14	19	-
Output Return Loss (Pin1)	5 - 1218 MHz	dB	18	37	-
Coupling Return Loss (Pin4)	5 - 1218 MHz	dB	14	18	-
Isolation Return Loss (Pin3)	5 - 1218 MHz	dB	18	32	-
Isolation (Pin6-3)	5 - 250 MHz 250 - 1218 MHz	dB dB	25 18	27 24	-

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		631mW (At least +28dBm)
DC Current	mA		At least 600mA
Operating Temperature Range	$^\circ\text{C}$	-40	+85

Full temperature plots available on request

# MACP-010250-C808A0

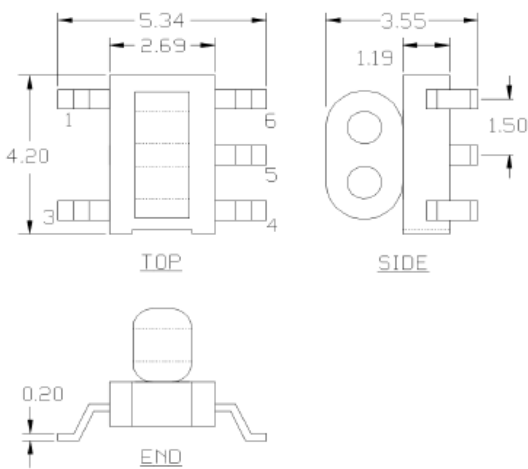


Coupler 8dB  
 5 – 1218 MHz

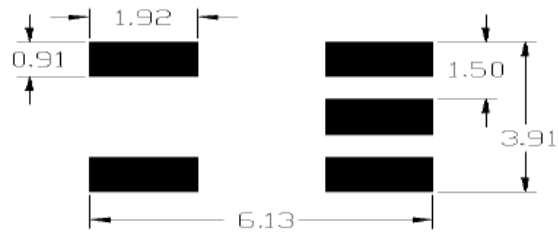
DRAFT

Rev. V2

### Outline Drawing

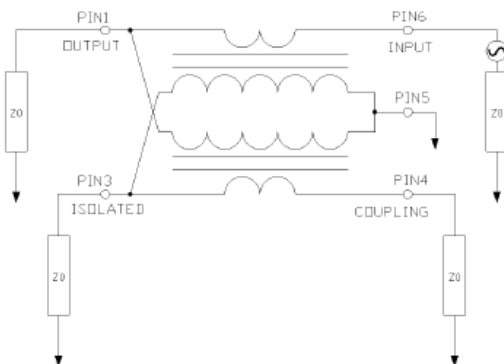


### PCB Layout



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: Lead plating (CuSn6) Lead finish SAC-305

### Application Schematic

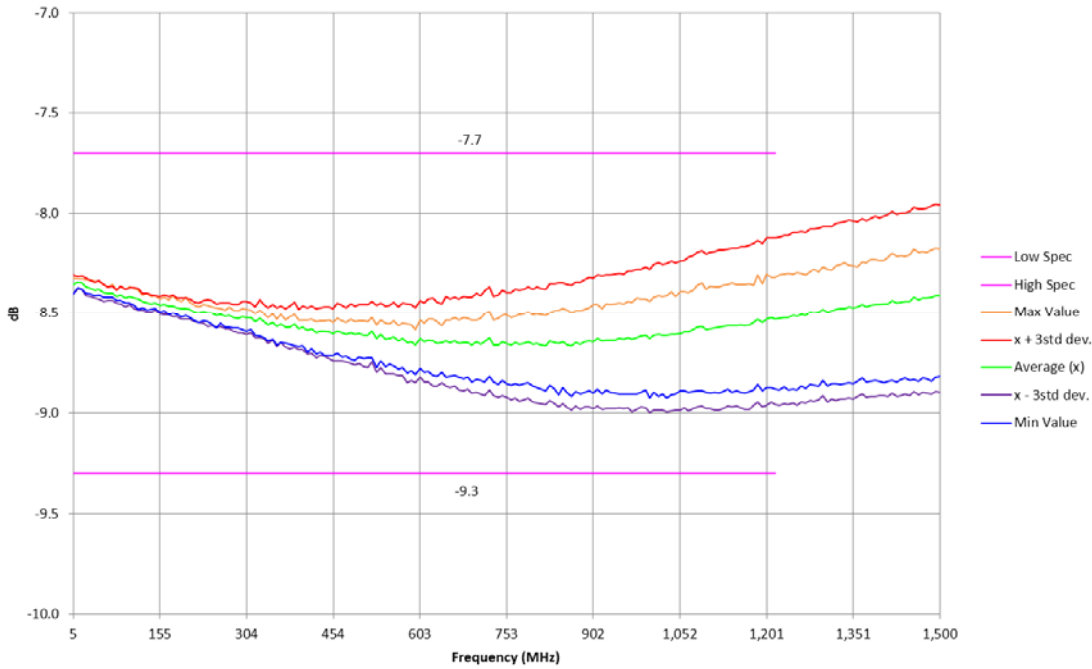


### Tape & Reel Information

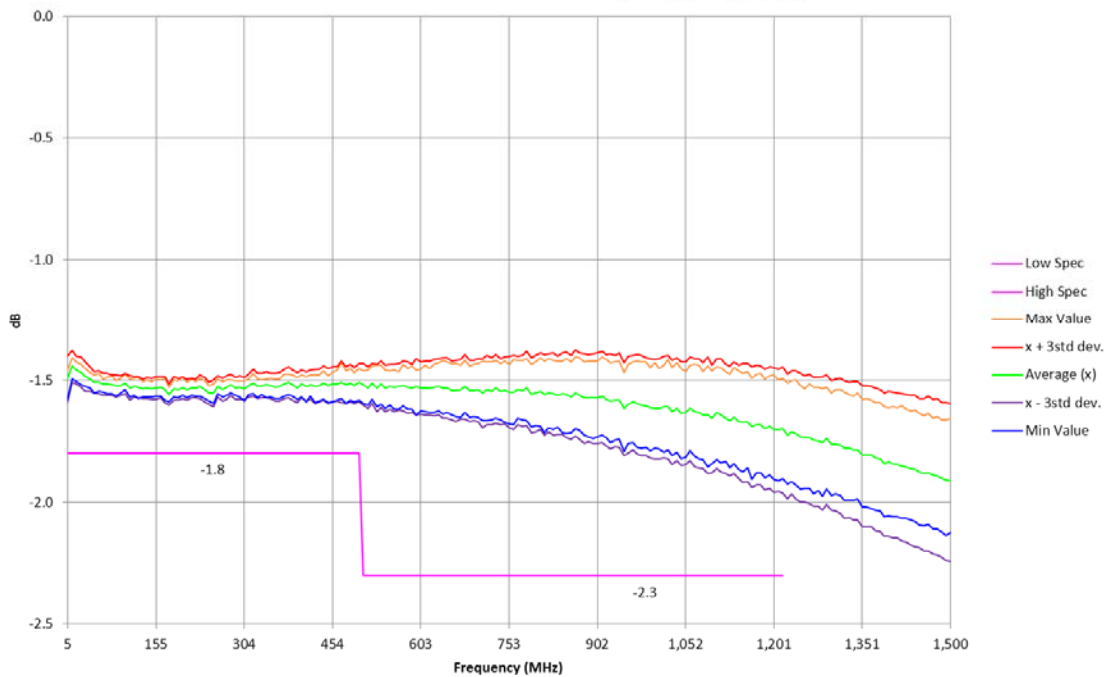
Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	6.1
Bo	mm	4.6
Ko	mm	4.0
Orientation	-	F26
Reference Application Note ANI-019 for orientation		

**Appendix II**

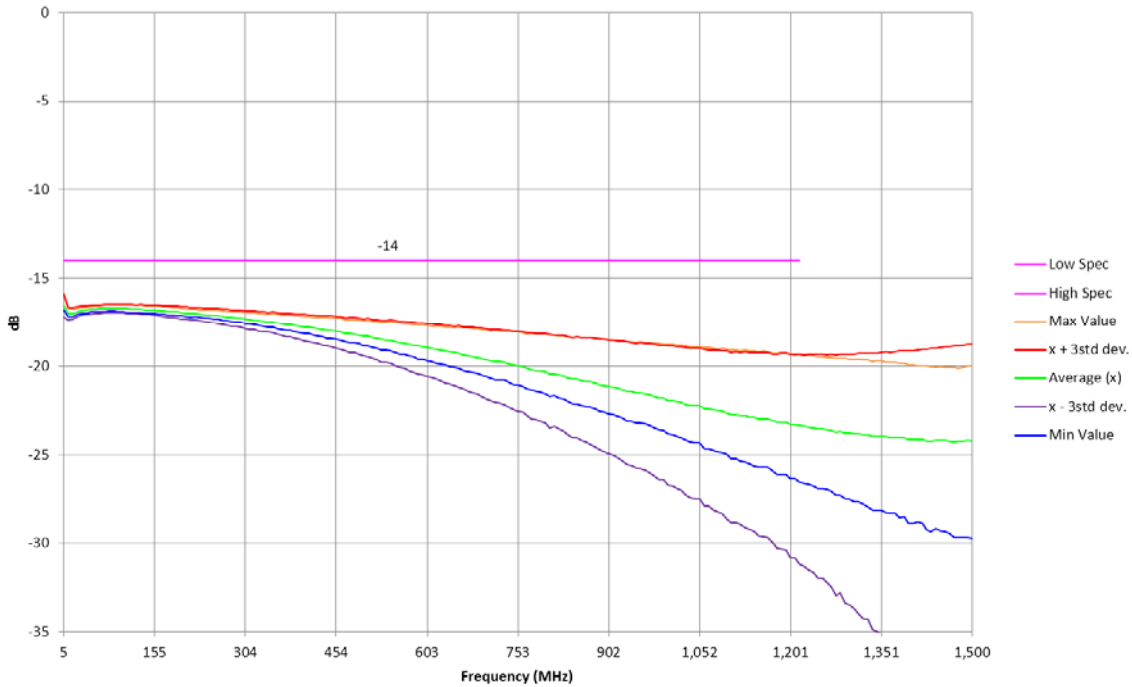
MACP-010250-C80A80 coupling\_p6\_4



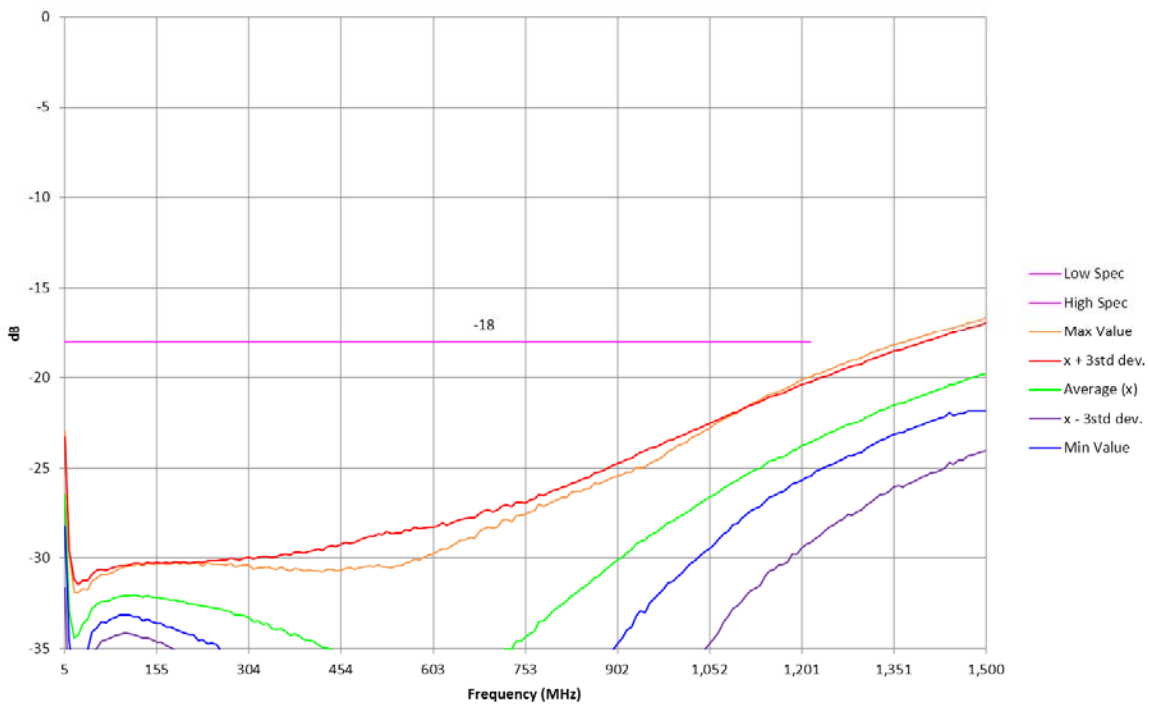
MACP-010250-C80A80 main\_line\_loss\_p6\_1



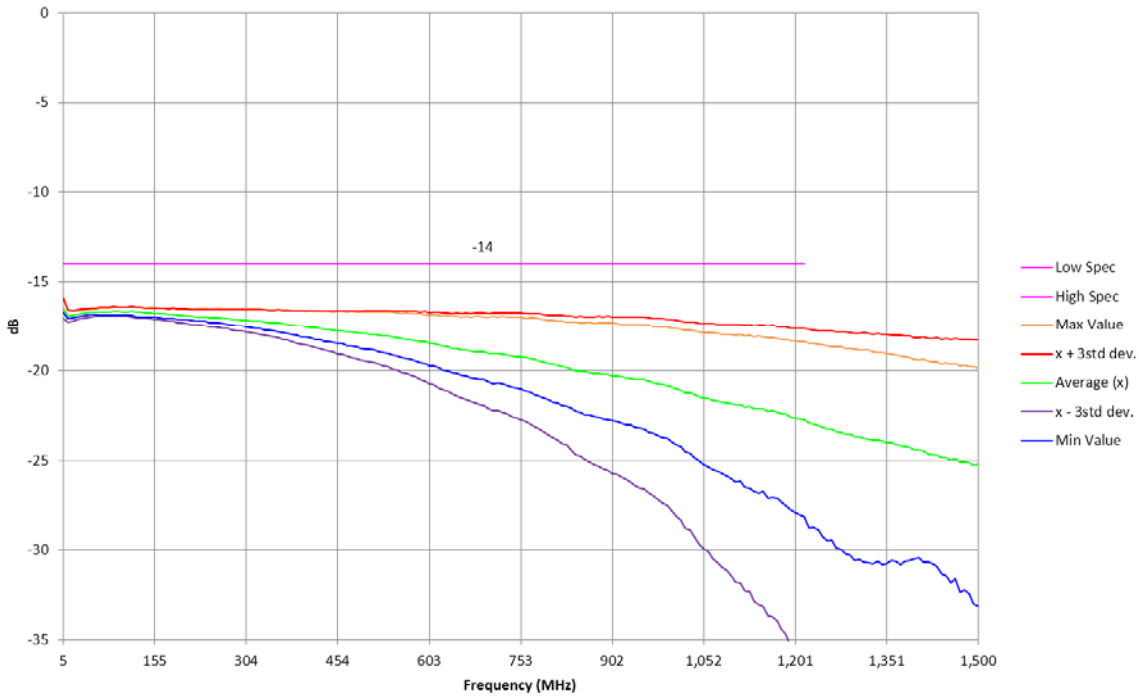
MACP-010250-C80A80 input\_return\_loss\_p6



MACP-010250-C80A80 output\_return\_loss\_p1



MACP-010250-C80A80 coupling\_return\_loss\_p4



MACP-010250-C80A80 isolation\_p6\_3

