

MACP-009598-C80160



E-Series Coupler
5 to 900 MHz

M/A-COM Products
Rev. V1

Features

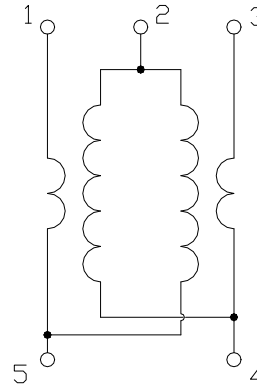
- Surface mount
- 8.5dB Coupler
- 260°C reflow compatible
- RoHS* compliant, lead-free
- Available on tape and reel

Description

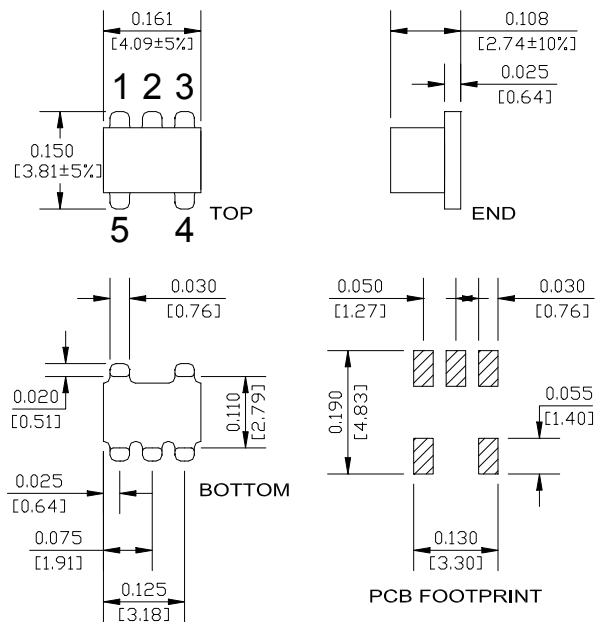
M/A Com's MACP-009598-C80160 is an 8.5dB coupler in a low cost, surface mount package. Ideally suited for broadband CATV applications.



Schematic



Case style: SM-22



Pin configuration

Pin no.	Function
1	Coupled
2	Ground
3	Input
4	Output
5	External 75 Ω

Note: Reference Application Note **M513** for reel size information.

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

Ordering information

Part number	Description
MACP-009598-C80160	2000 piece reel
MACP-009598-C801TB	Customer Test Board

ADVANCED: Data Sheets contain information regarding a product MA-COM Technical Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

PRELIMINARY: Data Sheets contain information regarding a product MA-COM Technical Solutions has under development. Performance is based on engineering tests. Specifications are typical.

Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 / Fax: 978.366.2266

• **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300

• **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit www.macom.com for additional data sheets and product information.

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

Parameter	Test Conditions	Units	Min	Typ	Max
Coupling	5 - 900 MHz	dB	-	8.5	± 0.3
Main Line Loss	5 - 50 MHz	dB	-	1.6	2.2
	50 - 450 MHz	dB	-	1.9	2.0
	450 - 900 MHz	dB	-	2.0	2.2
Isolation	5 - 900 MHz	dB	22	26	-
Directivity	5 - 50 MHz	dB	15	17.9	-
	450 - 900 MHz	dB	13	16.4	-
Return Loss Input (P3)	5 - 900 MHz	dB	13	15	-
Return Loss Coupled (P1)	5 - 900 MHz	dB	13	15	-
Return Loss Output (P4)	5 - 900 MHz	dB	16	23	-
Return Loss Isolation (P5)	5 - 900 MHz	dB	15	21	-

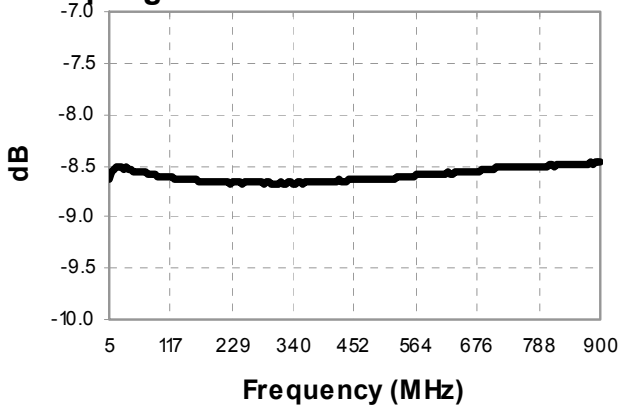
Absolute Maximum Ratings ^{1,2}

Parameter	Absolute maximum
RF power	250mW
DC current	30mA
Operating Temperature	-40°C to $+85^\circ\text{C}$
Storage Temperature	-40°C to $+85^\circ\text{C}$

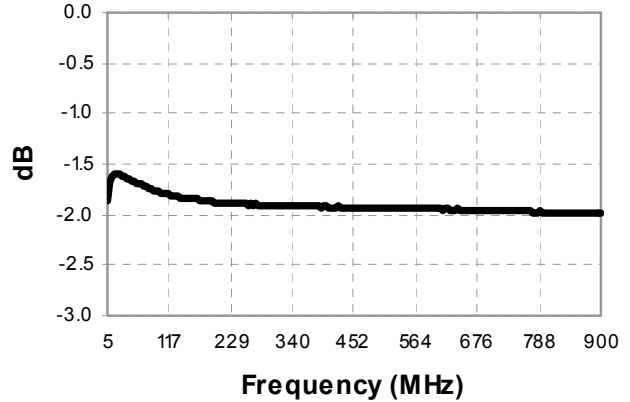
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm , $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

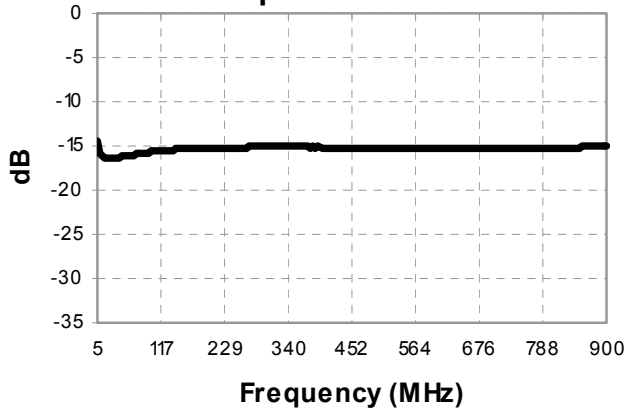
Coupling



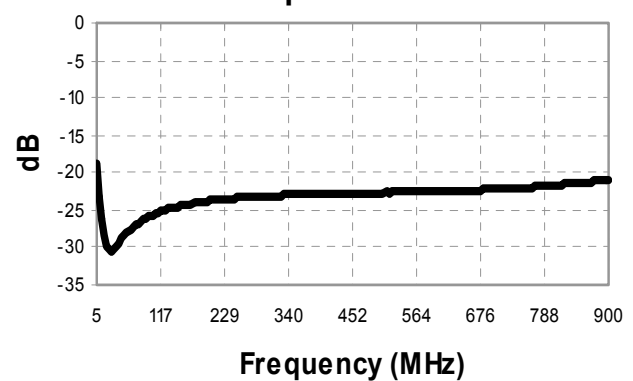
Main Line Loss



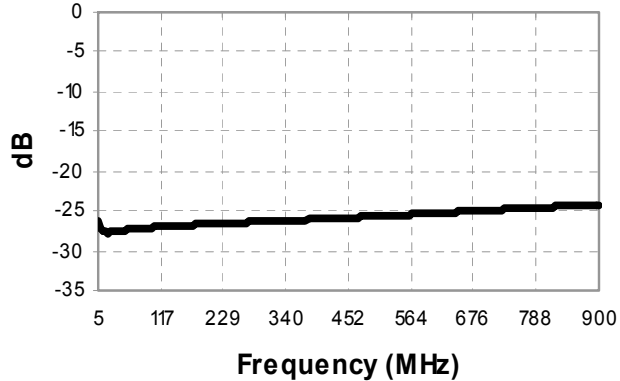
Return Loss: Input



Return Loss: Output



Isolation



Directivity

