

Features

- Typical 10dB Coupling
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible

Description

M/A-COM's MACP-009467-105T12 is a 10dB RF 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 cellular and wireless applications.

The MACP-009467-105T12 is available in a SM-22 surface mount package and is designed to be utilized in both RoHS and standard reflow profiles. Parts are packaged in tape & reel.

Product Image



Ordering Information

Part Number	Package
MACP-009467-105T12	Tape and Reel (2000 piece Reel)

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	5 - 1200	MHz	—	—	—
Coupling	F_L-f_U	5 - 1200	dB	—	10 \pm 0.5	—
Main Line Loss	F_L-f_U	5 - 800	dB	—	1.1	1.3
		800 - 1200	dB	—	1.2	1.5
Directivity	F_L-f_U	5 - 800	dB	18	20	—
		800 - 1200	dB	15	19	—
Input Return Loss	F_L-f_U	5 - 800	dB	17	20	—
		800 - 1200	dB	19	22	—
Output Return Loss	F_L-f_U	5 - 800	dB	23	30	—
		800 - 1200	dB	25	30	—
Coupling Return Loss	F_L-f_U	5 - 800	dB	17	20	—
		800 - 1200	dB	19	22	—

Pin Configuration

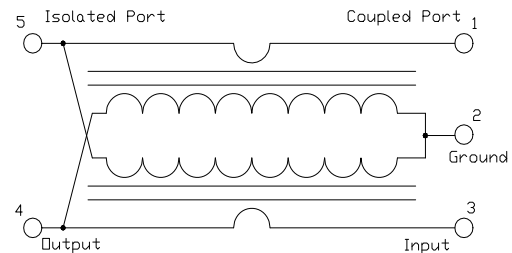
Pin No.	Function
1	Coupled
2	Ground
3	Input
4	Output
5	External 50 Ohms

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	240 mA ²
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°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.

Schematic

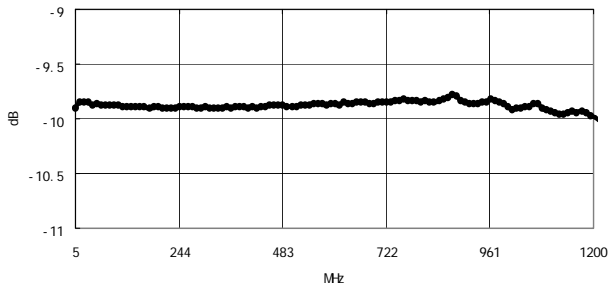


E-Series RF 10dB Coupler 5-1200 MHz

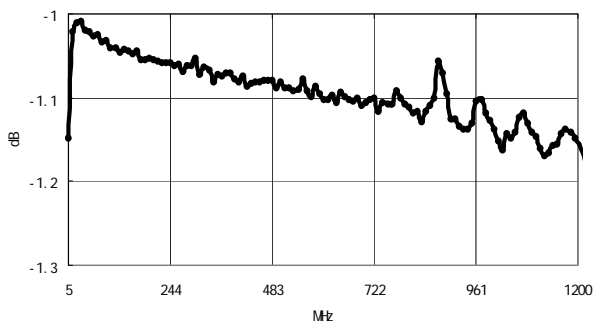
M/A-COM Products
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Typical Performance Curves at +25°C

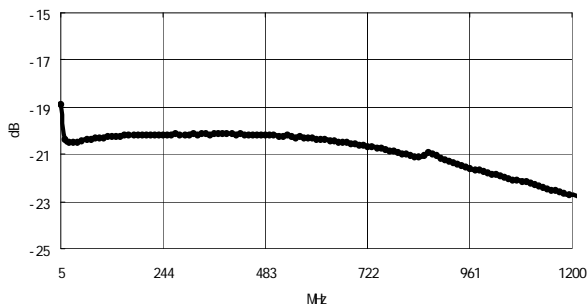
Coupling



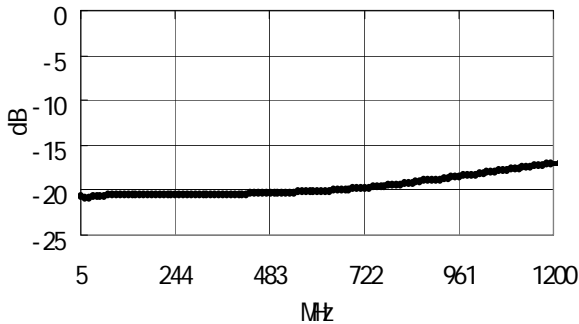
Insertion Loss



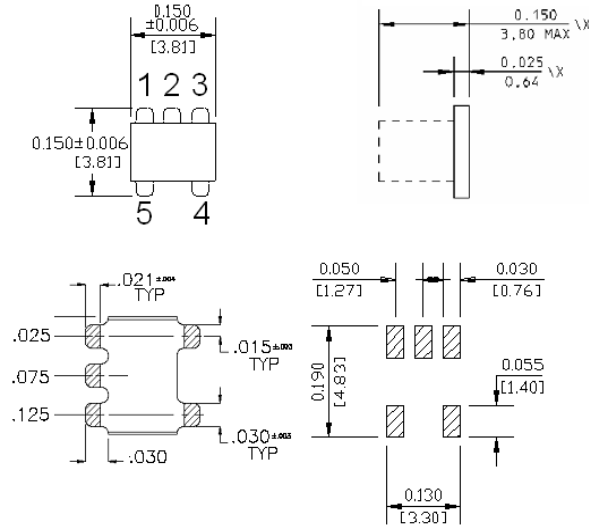
Input Return Loss



Directivity

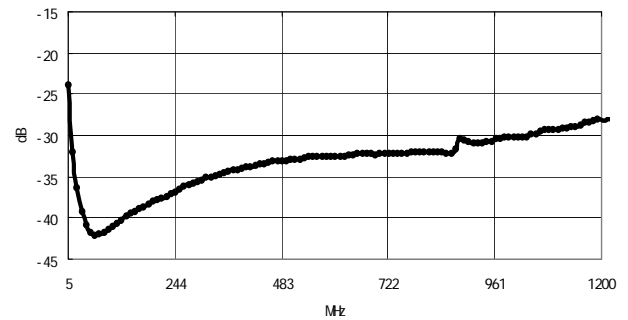


SM – 22 Package

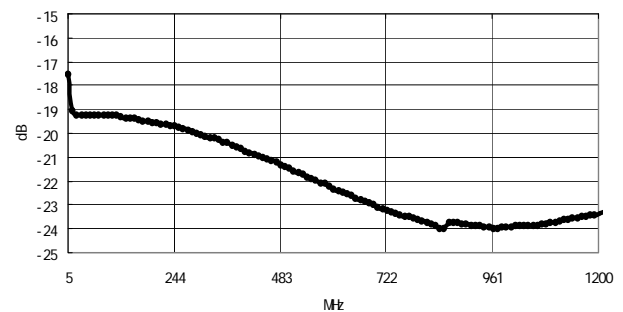


* Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.

Output Return Loss



Coupling Return Loss



ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology 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 M/A-COM Technology 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.

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