

RF 1:1 Transformer with Tap 50 - 1200 MHz

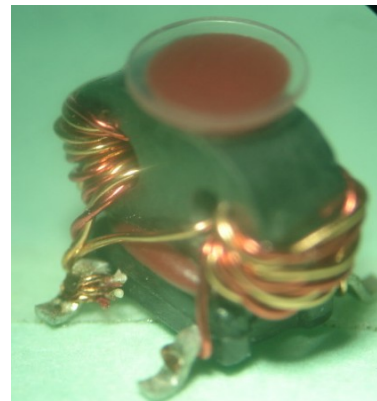
Rev. V2

Features

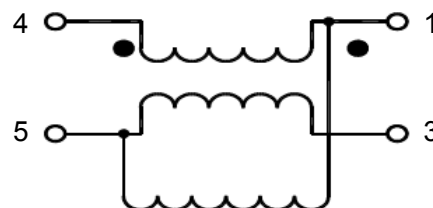
- Surface Mount.
- 1:1 impedance ratio.
- Wires welded to SOT carrier leads.
- Excellent amplitude and phase balance
- Available on Tape and Reel.

Description

MABA-008979-CF0290 is a 1:1 RF transmission line transformer with a tap, in a low cost surface mount SOT package. Ideally suited for high volume CATV applications.



Schematic



Ordering Information

Part Number	Package
MABA-008979-CF0290	1500 piece reel

Pin Configuration

Pin No.	Function
1	Output 1: Through (Secondary dot)
2	Ground, not used
3	Output 2: Coupled (Secondary)
4	Input (Primary dot)
5	Ground (Primary)

RF 1:1 Transformer with Tap
50 - 1200 MHz

Rev. V2

Electrical Specifications @ 25°C, 0 dBm, 75 Ohms

Parameter	Test Conditions	Units	Min	Typ	Max
Frequency Range	50 - 1200 MHz	MHz	—	—	—
Insertion Loss 1: Pin 4-1 (Through)	50 - 600 MHz 600 - 1200 MHz	dB	—	0.5 0.8	1.0 1.5
Insertion Loss 2: Pin 4-3 (Coupled)	50 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	—	0.5 1.2 1.5	1.0 1.5 2.0
Amplitude Imbalance	50 - 600 MHz 600 - 1200 MHz	dB	—	0.1 0.0	0.3 1.0
Phase Imbalance	50 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	Degrees	—	1 4 11	3 10 13

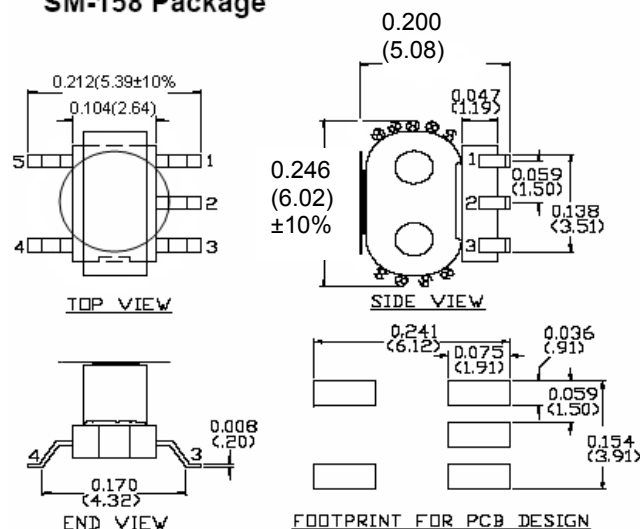
Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
RF Power	250mW
Current DC	50 mA
Current RMS	10 mA
Current P-P for 1hr	80 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- MACOM does not recommend sustained operation near these survivability limits.

Case Style

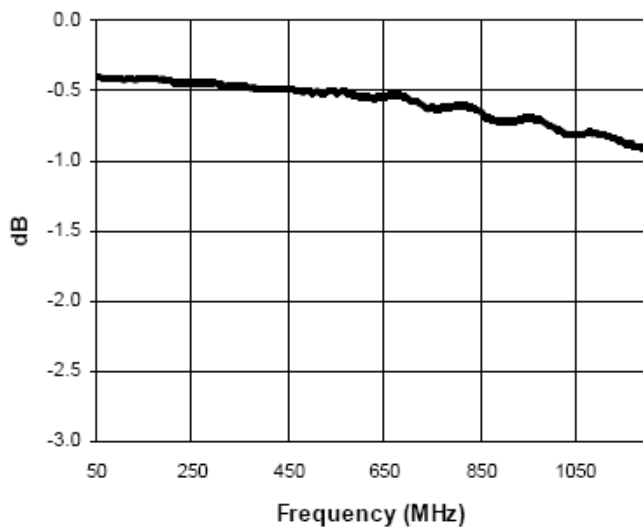
SM-158 Package



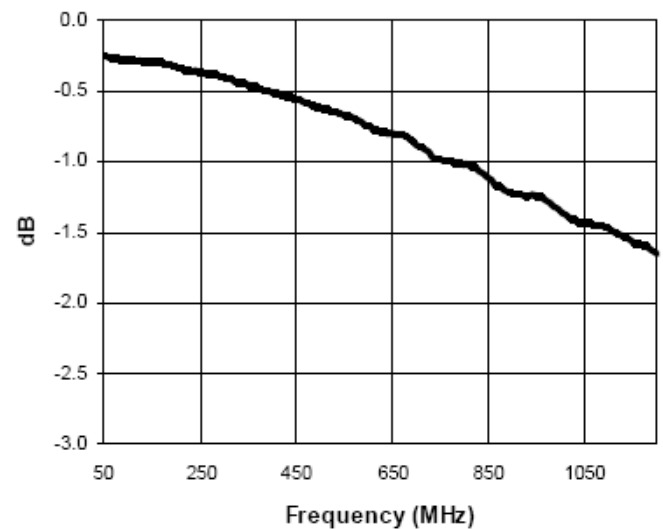
* Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.

Typical Performance @ +25°C, 75 Ohms

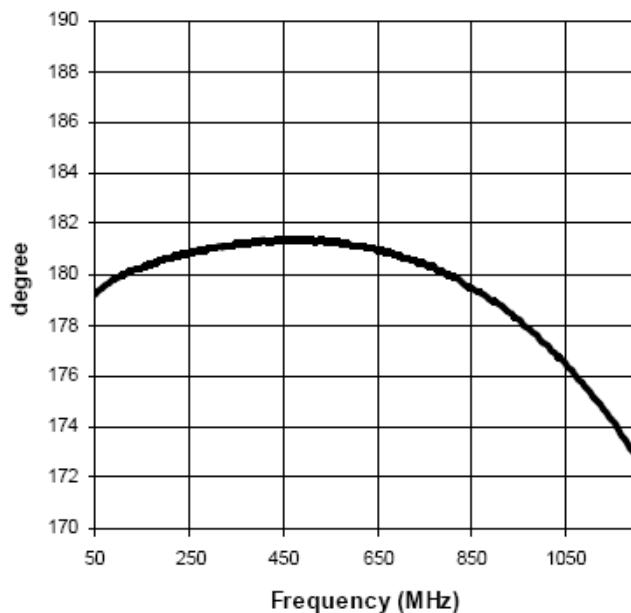
Insertion Loss Pin 4-1



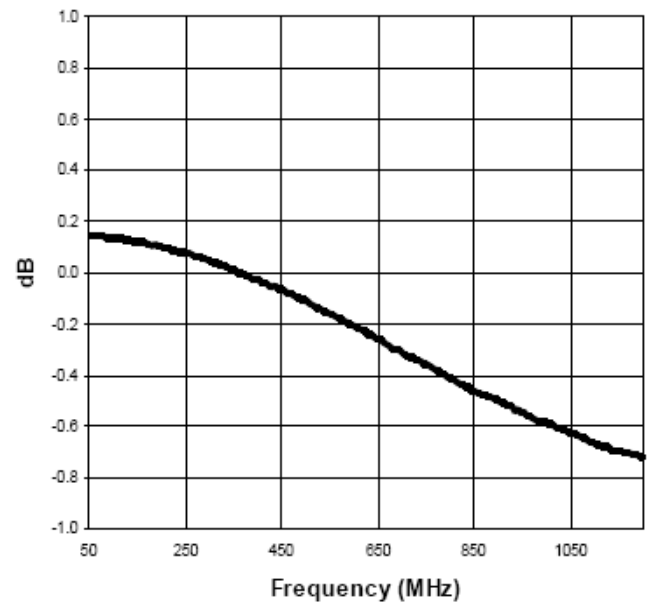
Insertion Loss Pin 4-3



Phase Imbalance



Amplitude Imbalance



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