

Transformer, 1:1 Transmission Line Transformer
5 to 1200 MHz

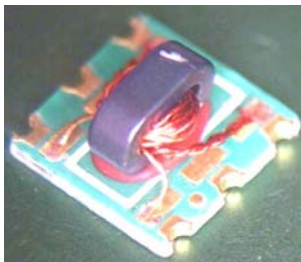
M/A-COM Products
Rev. V1

Features

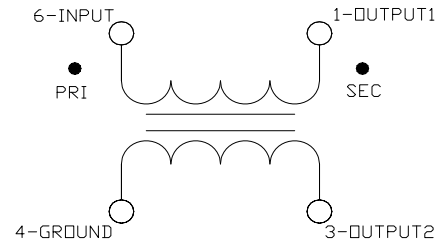
- Surface mount
- 1:1 Impedance ratio
- 260°C reflow compatible
- RoHS* compliant, Pb-Free
- Available on tape and reel.

Description

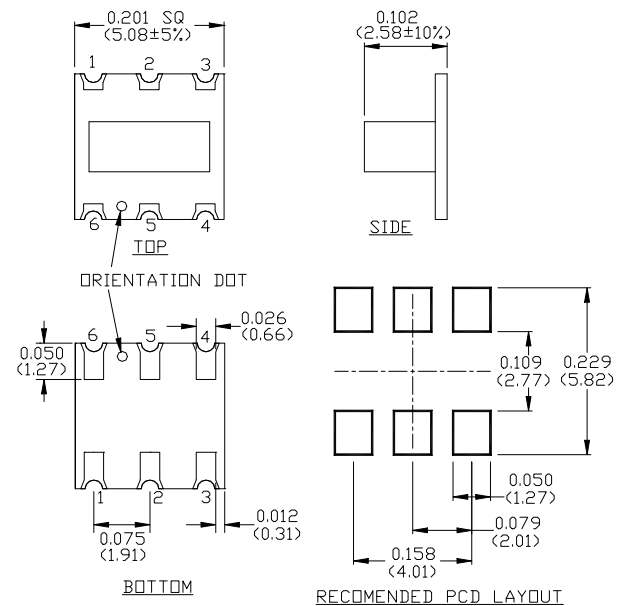
M/A Com's MABA-009691-CT1881 is a 1:1 RF Transmission line transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



Schematic



Case Style: SM-136



Pin Configuration

Pin no.	Function
1	Secondary Dot
2	Not connected (ground)
3	Secondary
4	Primary (ground)
5	Not connected (ground)
6	Primary dot

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

Ordering Information

Part number	Description
MABA-009691-CT1881	2000 piece reel
MABA-009691-CT18TB	Customer Test Board

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

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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.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
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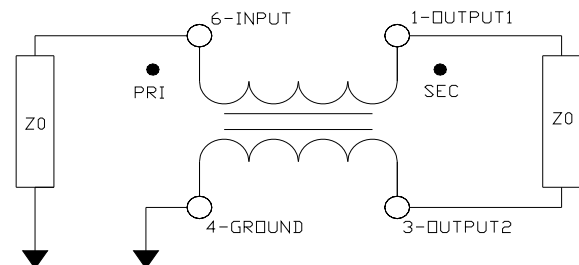
Electrical Specifications: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 1200 MHz	dB	-	0.2	0.8
Amplitude Unbalance (Nominal 0dB)	5 - 1200 MHz	dB	-	0.7	± 0.9
Phase Unbalance (Nominal 180°)	5 - 200MHz	°	-	3.0	± 4
	200 - 1200 MHz	°	-	7.0	± 9
Input Return Loss	5 - 200 MHz	dB	20	21	-
	200 - 400 MHz	dB	18	23	-
	400 - 1000 MHz	dB	16	20	-
	1000 - 1200 MHz	dB	14	20	-

Recommended Maximum Ratings

Parameter	Value
Input power	+24dBm (250mW)
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

Application Circuit

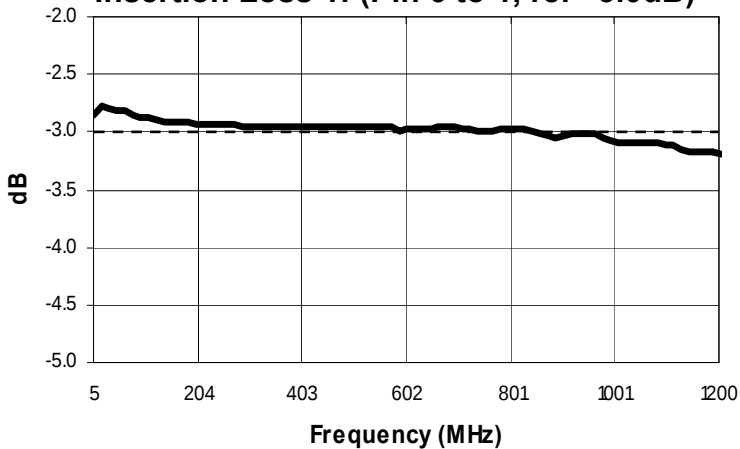


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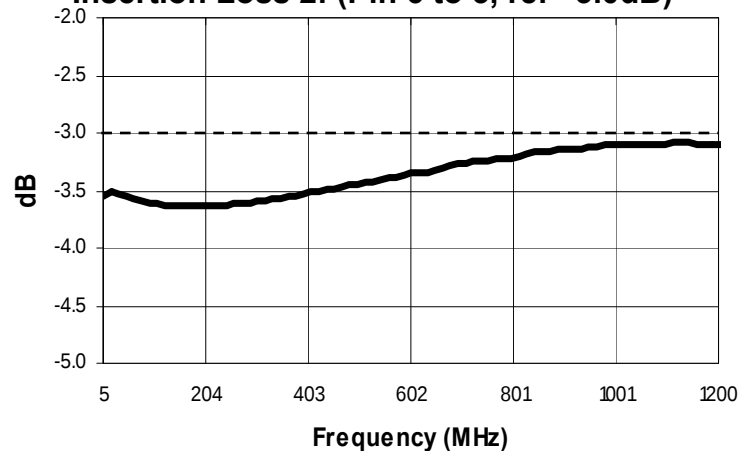
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm , $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

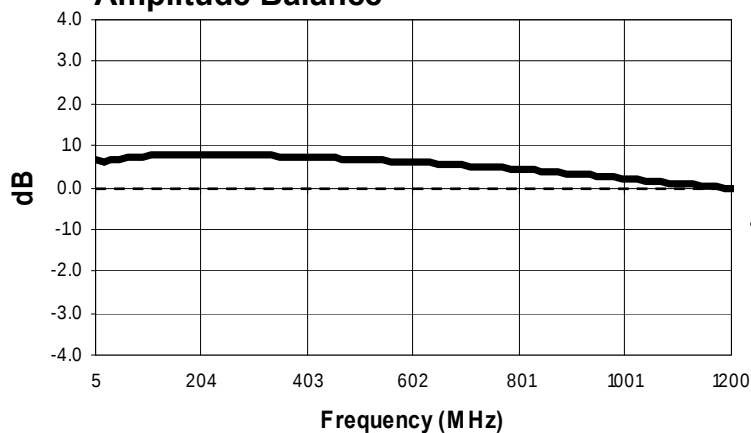
Insertion Loss 1: (Pin 6 to 1, ref -3.0dB)



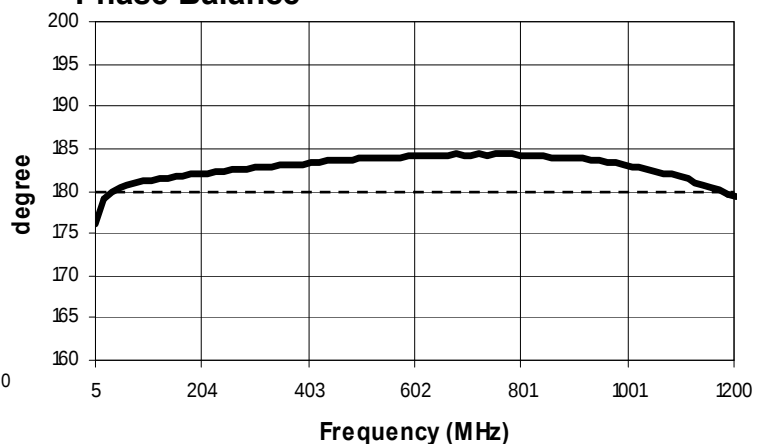
Insertion Loss 2: (Pin 6 to 3, ref -3.0dB)



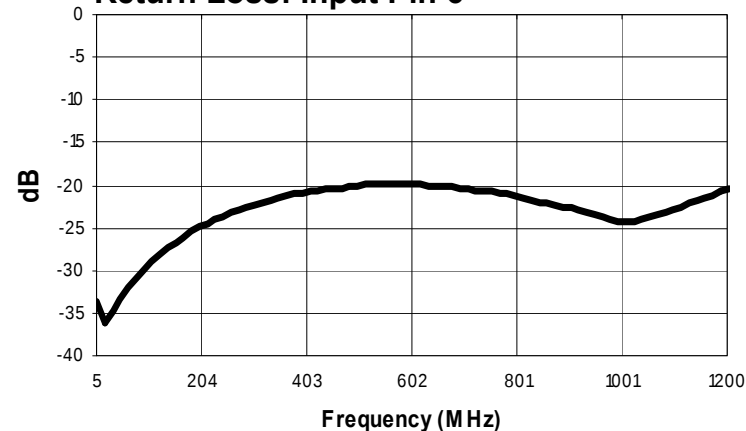
Amplitude Balance



Phase Balance



Return Loss: Input Pin 6



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