

1:1 RF Transformer 5-1200MHz

Rev. V3

Features

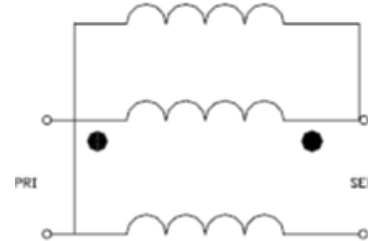
- Key Surface Mount
- 1:1 RF Transformer
- 260°C Reflow Compatible
- RoHS Compliant and Pb Free
- RoHS version of ETC1-1T-75
- Available on Tape and Reel

Description

M/A-COM's MABA-007748-CT1160 is a 1:1 RF Transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



Functional Schematic



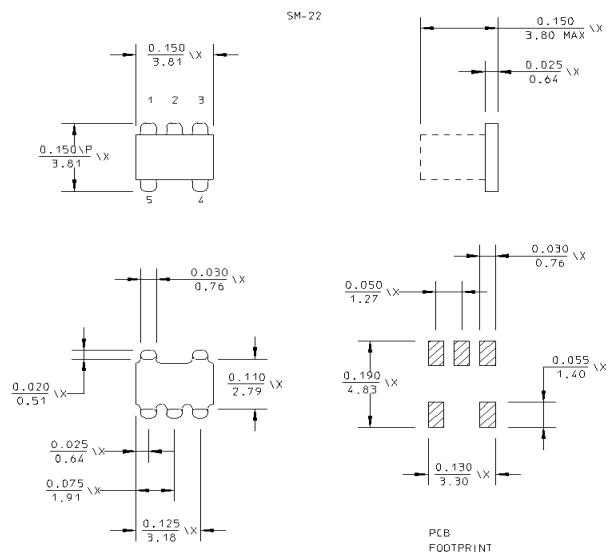
Pin Configuration

Pin No.	Function
1	Secondary (Dot)
2	Not connected
3	Secondary
4	Primary
5	Primary (Dot)

Ordering Information

Part Number	Package
MABA-007748-CT1160	2000 piece reel
MABA-007748-CT11TB	Sample Board

Case Style: SM-22



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

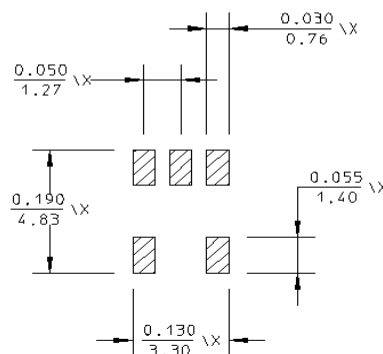
Electrical Specifications: Freq. = 5-1200MHz, T_A = +25°C, Z₀ = 75Ω

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss	5 - 40 MHz	dB	-	0.27	0.5
	40 - 600 MHz	dB	-	0.32	1.0
	600 - 1000 MHz	dB	-	0.57	2.0
	1000 - 1200 MHz	dB	-	1.62	3.0
Amplitude Balance	5 - 1200 MHz	dB	-	0.36	1.0
Phase Balance	5 - 1000 MHz	°	-	0.58	10
	1000 - 1200 MHz	°	-	9.15	20
Input Return Loss	5 - 40 MHz	dB	17	27	-
	40 - 200 MHz	dB	22	29	-
	200 - 400 MHz	dB	15	22	-
	400 - 600 MHz	dB	10	17	-
	600 - 1200 MHz	dB	6	11	-

Absolute Maximum Ratings

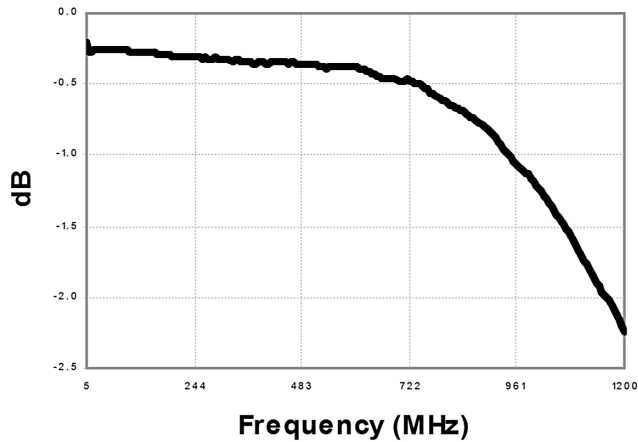
Parameter	Absolute Maximum
RF Power	250 mW
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

Recommended PCB Configuration

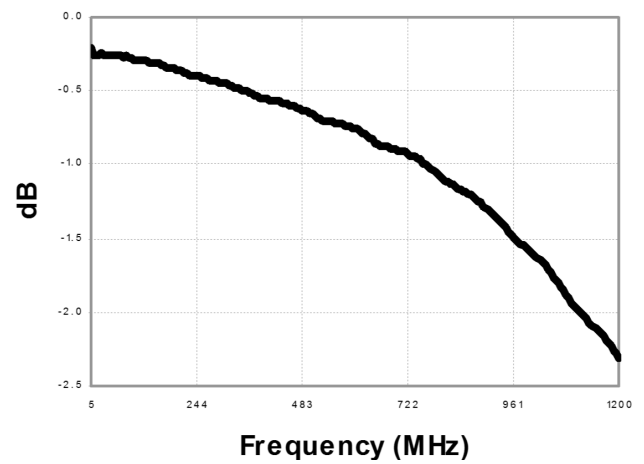


Typical Performance Curves: TA = 25°C, Z0 = 75Ω

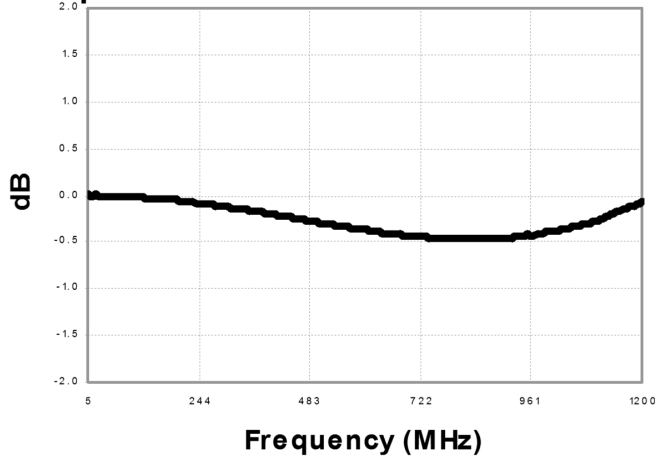
Insertion Loss 1: Pin5 - Pin3



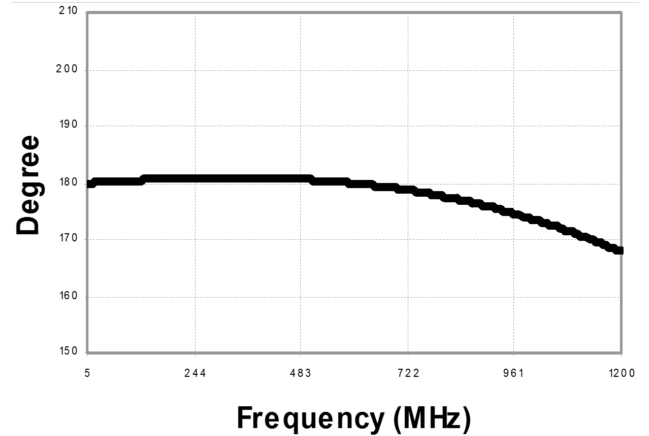
Insertion Loss 2: Pin5 - Pin1



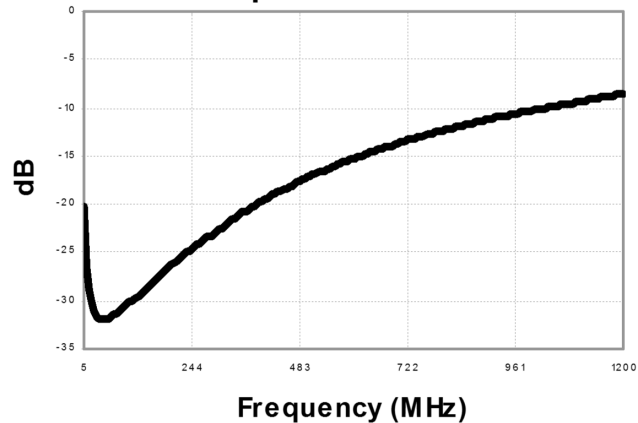
Amplitude Balance



Phase Balance



Return Loss: Input



MACOM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with MACOM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppels or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.