

1:1 RF Transformer 5-1200MHz

MABA-007748-CT1160
V1

Features

- Surface Mount
- 1:1 RF Transformer
- 260°C Reflow Compatible
- RoHS* Compliant
- RoHS version of ETC1-1T-75
- Available on Tape and Reel. Reel quantity 2000

Description

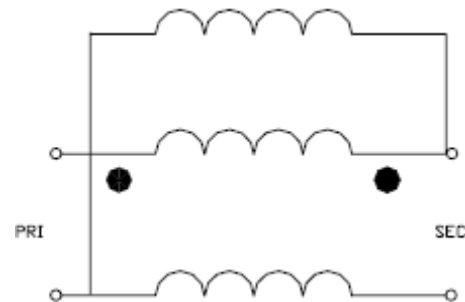
M/A-COM's MABA-007748-CT1160 is a 1:1 RF Transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.



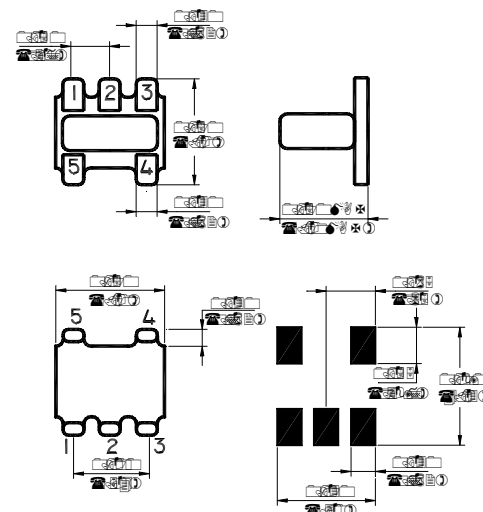
Pin Configuration

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

Schematic



Case Style: SM-22



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

Ordering Information

Part Number	Package
MABA-007748-CT1160	2000
MABA-007748-CT11TB	Customer Test Board

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

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

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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

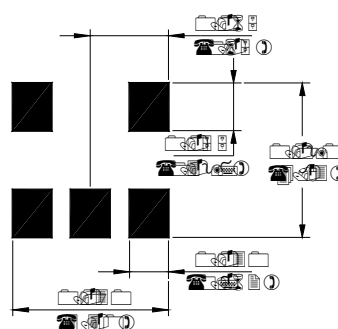
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss	5 - 40 MHz	dB	-	0.27	0.5
	40 - 600 MHz	dB	-	0.32	1.0
	600 - 1000 MHz	dB	-	0.57	2.0
	1000 - 1200 MHz	dB	-	1.62	3.0
Amplitude Balance	5 - 1200 MHz	dB	-	0.36	1.0
Phase Balance	5 - 1000 MHz	°	-	0.58	10
	1000 - 1200 MHz	°	-	9.15	20
Input Return Loss	5 - 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 ^{1,2}

Parameter	Absolute Maximum
RF Power	250 mW
DC current	30mA
Operating Temperature	-20°C to +85°C
Storage Temperature	-20°C to +85°C

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

Recommended PCB Configuration

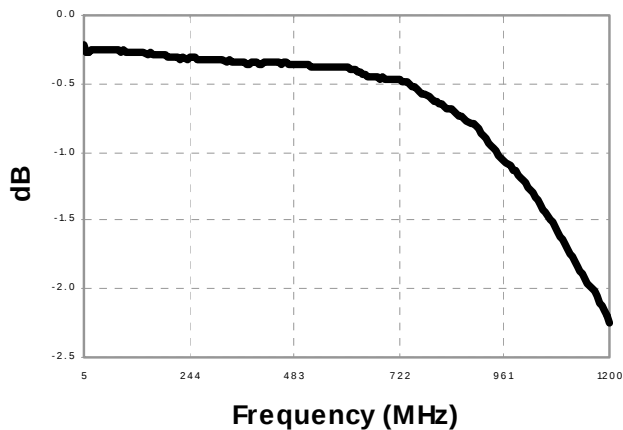


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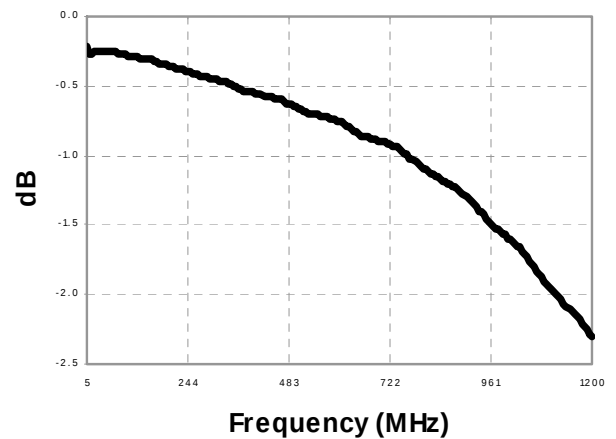
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

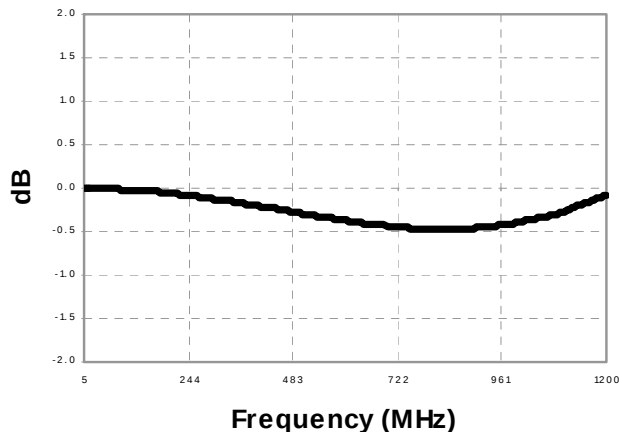
Insertion Loss 1: Pin5 - Pin3



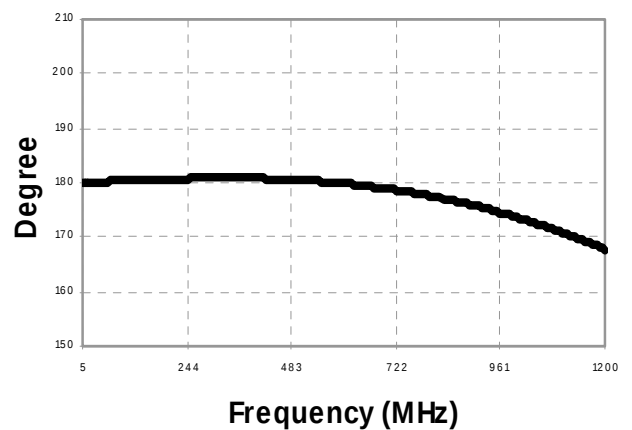
Insertion Loss 2: Pin5 - Pin1



Amplitude Balance



Phase Balance



Return Loss: Input

