



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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1:1 Transmission Line Transformer 46 - 1002 MHz

Rev. V4

Features

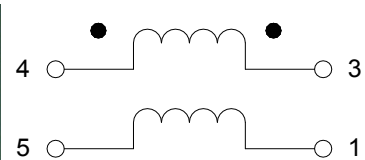
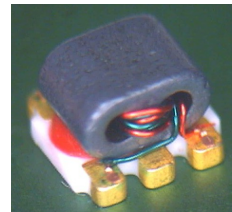
- 1:1 Impedance
- Wide Frequency Range
- Surface Mount Package
- 260°C reflow compatible
- RoHS Compliant, Lead Free
- Available on Tape & Reel

Description

The MABA-010245-CT1160 is a 1:1 transmission line transformer. The windings are welded to the package substrate for improved reliability and to eliminate lead content.

This transformer is ideally suited for CATV broadband, & Satellite STB/Subscriber applications.

Schematic



Pin Configuration

Pin #	Function
1	Secondary Dot
2	Not Connected
3	Secondary
4	Primary
5	Primary Dot

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{IN} = 0 \text{ dBm}$

Parameter	Frequency	Units	Min.	Typ.	Max.
Insertion Loss 1 (Pin 4 to Pin 3)	46 - 1002 MHz	dB	—	0.1	0.6
Insertion Loss 2 (Pin 4 to Pin 1)	46 - 1002 MHz	dB	—	0.4	0.7
Amplitude Balance (Nominal 0 dB)	46 - 1002 MHz	dB	—	0.3	± 0.8
Phase Balance (Nominal 180°)	46 - 100 MHz 100 - 100 2MHz	°	—	2.4 1.2	± 5.0 ± 2.5
Input Return Loss (Pin4)	46 - 300 MHz 300 - 1002 MHz	dB	25 17.5	42 30	—

Ordering Information

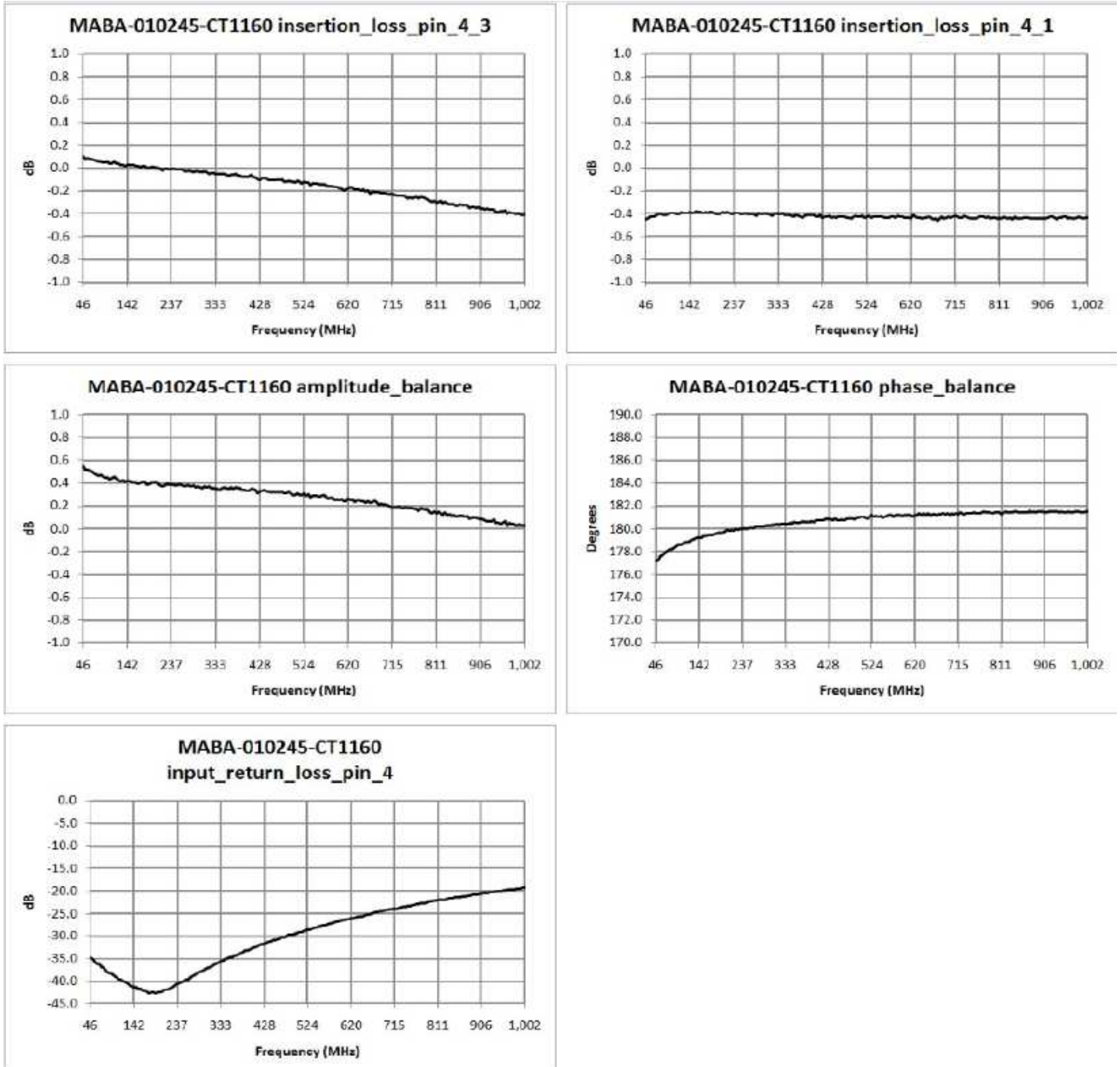
Part #	Package
MABA-010245-CT1160	2000 piece per reel
MABA-010245-CT11TB	Customer test board

Absolute Maximum Ratings^{1,2}

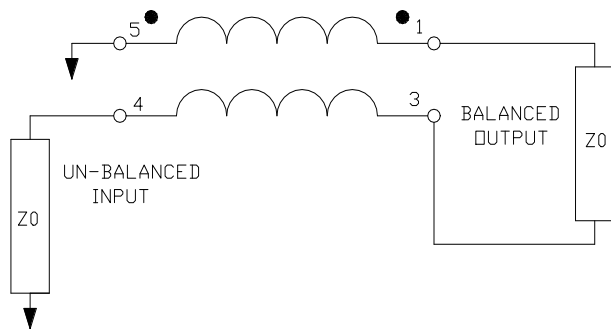
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	>600 mA @ 5 V
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +100°C

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

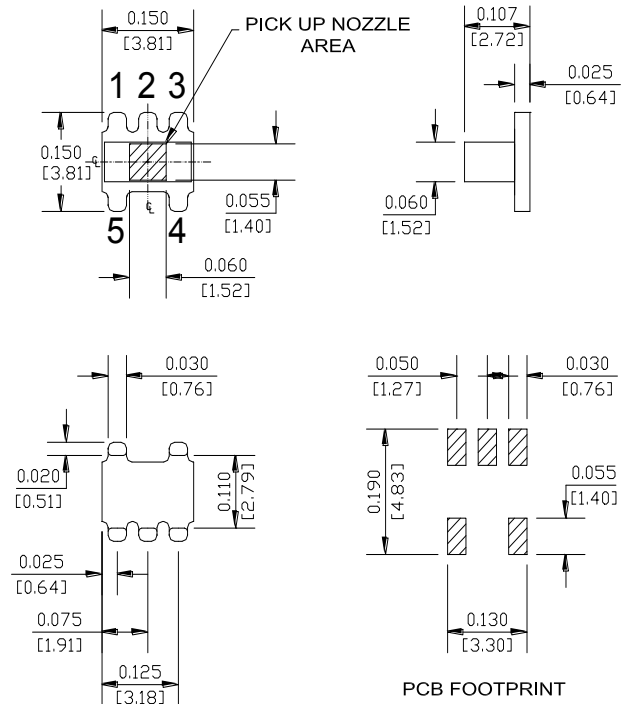
Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{IN} = 0 \text{ dBm}$



Application Circuit

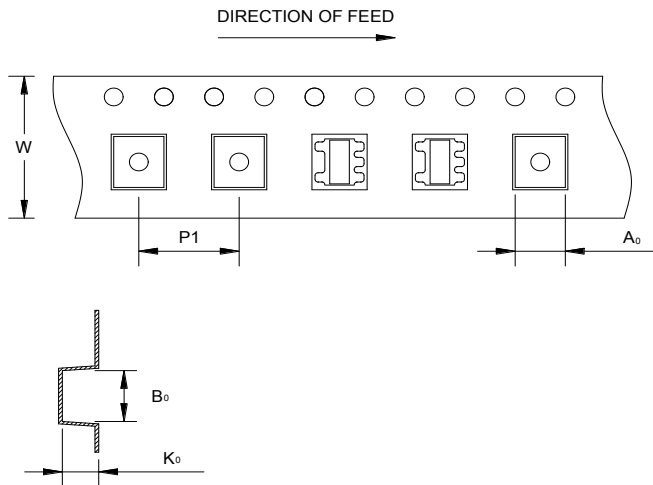


Outline Drawing



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

Reel Orientation



Tape & Reel Information

Item	Dimension
A_0	4.0 mm +/-0.1 mm
B_0	4.0 mm +/-0.1 mm
K_0	2.90 mm +/-0.1 mm
W	12.0 mm +/-0.3 mm
$P1$	8.00 mm +/-0.1 mm

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