

MABA-010245-CT1160



1:1 Transmission Line Transformer
46 to 1002 MHz

Rev. V3

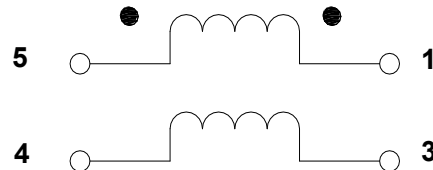
Features

- Surface mount
- Wide Frequency Range
- 260°C reflow compatible
- RoHS* compliant and lead free
- Available on Tape and Reel

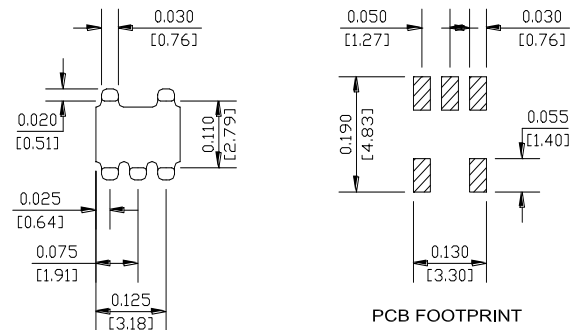
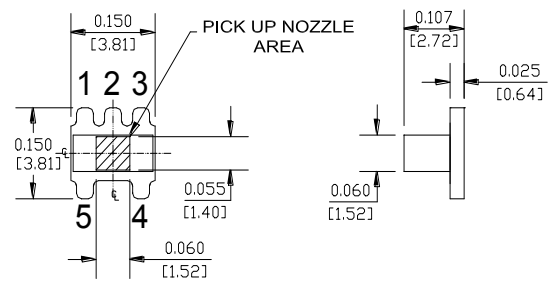
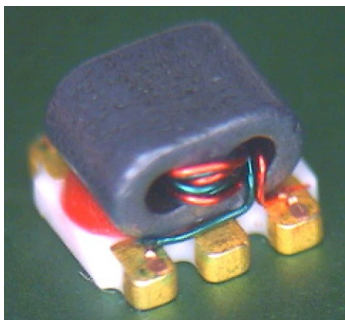
Description

M/A-Com Technology Solutions 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 AND Satellite STB/Subscriber applications.

Schematic



Component dimensions



Pin Configuration

Pin no.	Function
1	Secondary Dot
2	Not Connected
3	Secondary
4	Primary
5	Primary Dot

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

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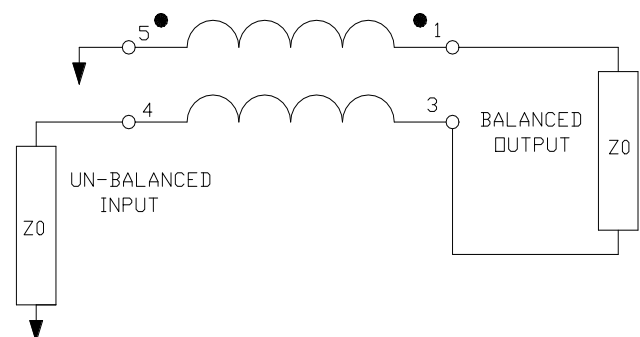
Electrical Specifications: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

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

Recommended Maximum Ratings

Parameter	Value
Input power	+24dBm (250mW)
DC current (tested at 5V)	At least 600mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +100°C

Application Circuit



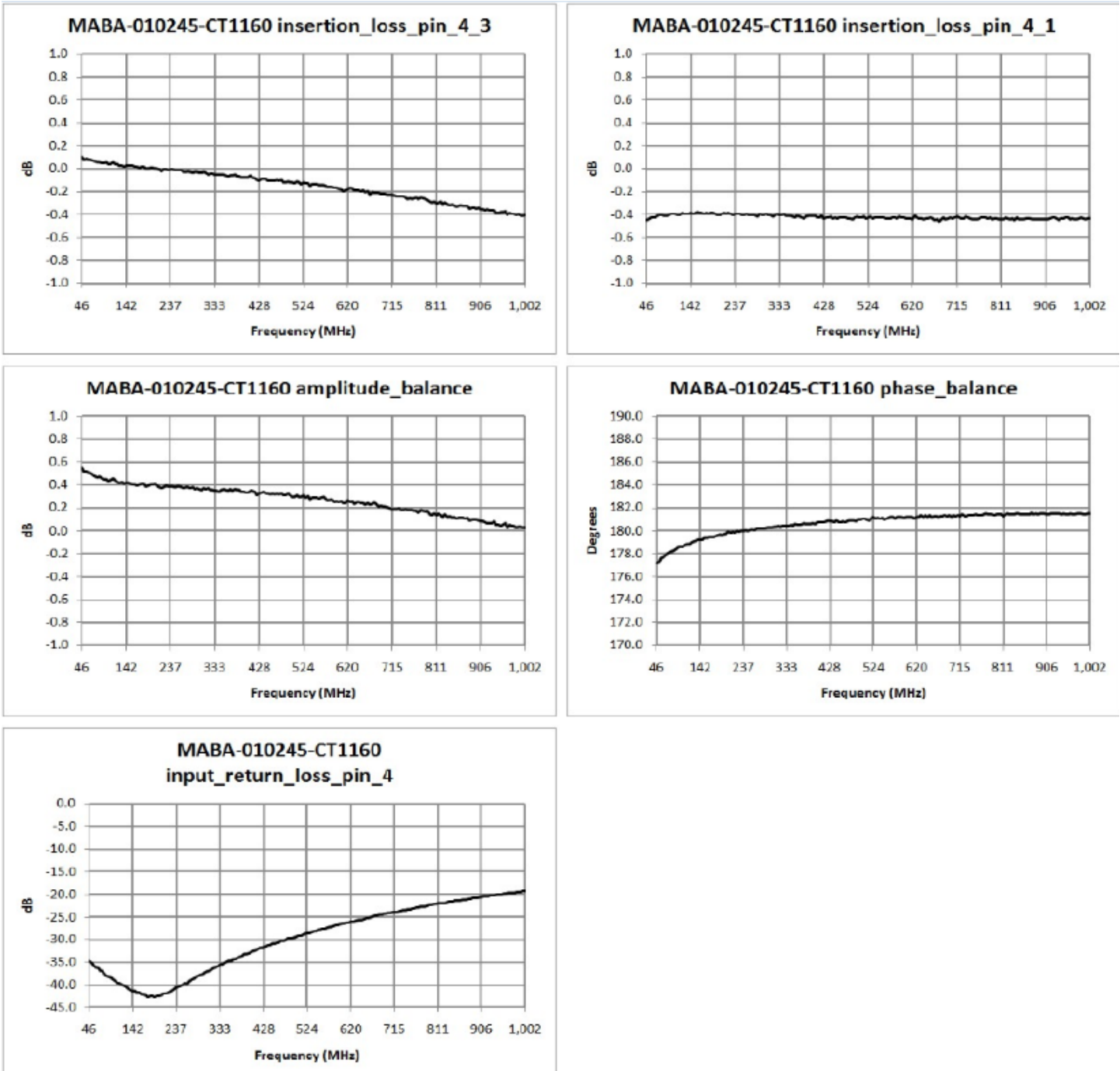
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm , $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$



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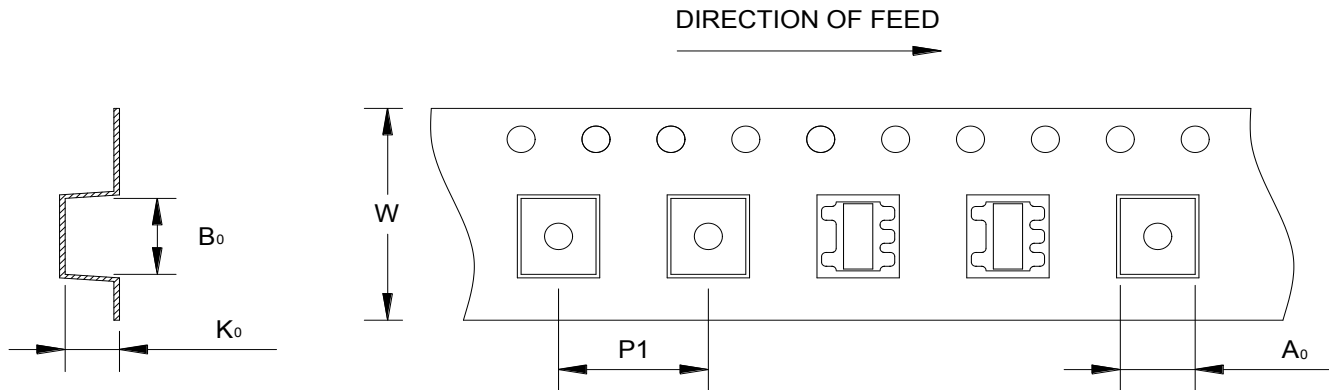
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Tape & Reel Information



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

Ordering Information

Part number	Description
MABA-010245-CT1160	2000 piece reel
MABA-010245-CT11TB	Customer Test Board