

Features

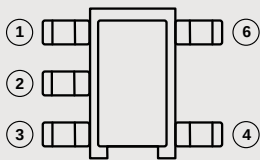
- SMD Base Type
- 5 to 1200 MHz
- Main Line Loss 1.2dB @1GHz
- Wideband
- Low Cost
- RoHS

Applications

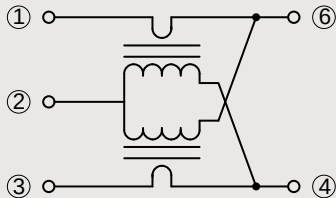
- Base station /Repeater/ Mobile /Automotive / Military
 - FDD-LTE, TD-LTE, TDS-CDMA, CDMA, WCDMA, WiMAX, PCS, GSM, GPS, GPRS, TETRA
- IoT / Broadcasting / WLAN
 - FM, DMB, DVB, ISM

Functional Diagram

Input	1	Terminated	4
Ground	2		
Coupled	3	Output	6



Schematic



Description

The PBC10A is a high performance coupler in a high quality surface mounted package. The device features ultra low insertion loss and high isolation. The device has excellent internal input/output matching networks. The product is targeted for wireless infrastructure applications.

Specifications

Parameters	Units	Frequency(MHz)	Typ.
Main Line Loss	dB	5 – 1000	1.0
		1000 – 1200	1.3
Coupling	dB	5 – 1000	10.0
		1000 – 1200	10.1
Input Return Loss	dB	5 – 1000	17.3
		1000 – 1200	13.4
Output Return Loss	dB	5 – 1000	20.9
		1000 – 1200	14.5
Coupling Return Loss	dB	5 – 1000	17.1
		1000 – 1200	13.0
Isolation	dB	5 – 1000	28.3
		1000 – 1200	22.1

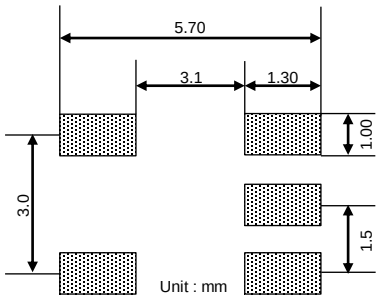
1) Test Conditions : T=25°C, 50 Ohm system

Absolute Maximum Ratings

Parameter	Rating	Units
RF Power	0.25	W
DC Current	30	mA
Operating Temperature	-40 to 85	°C
Storage Temperature	-55 to 100	°C

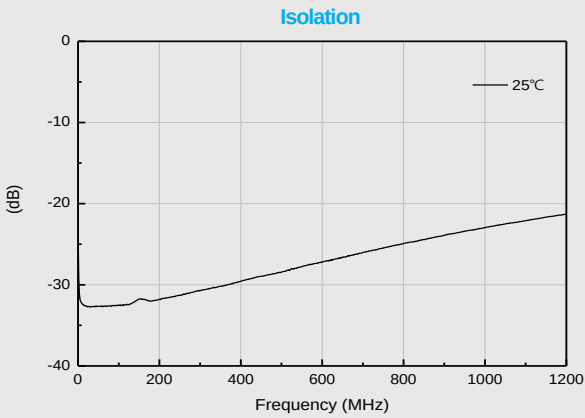
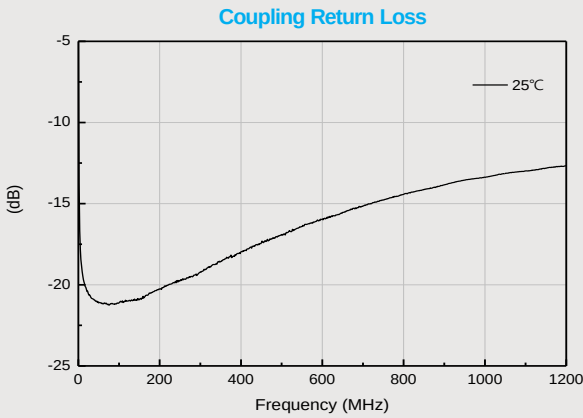
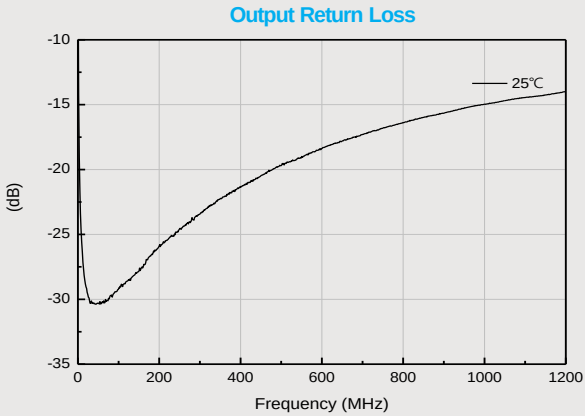
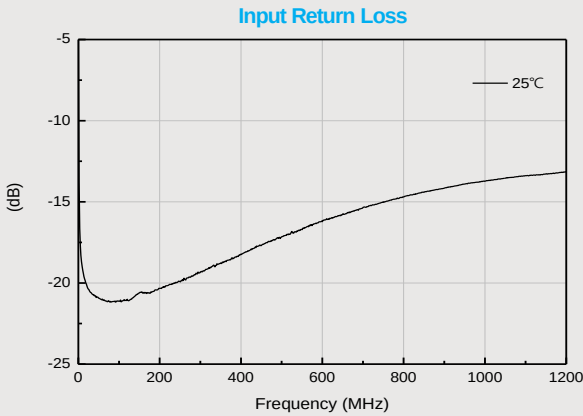
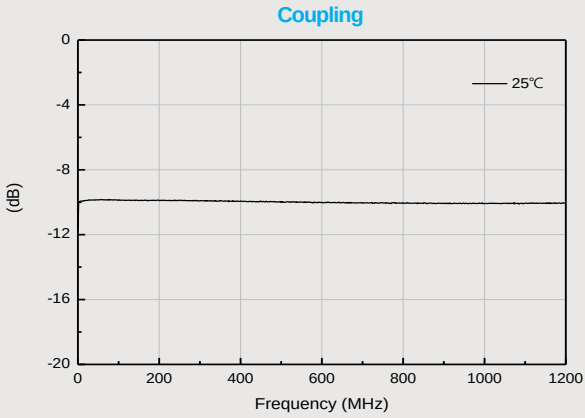
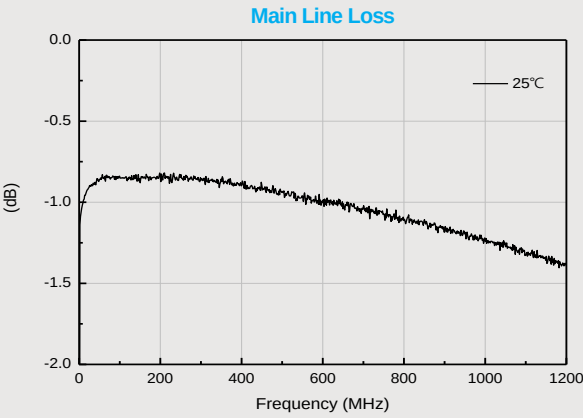
1) Operation of this device outside the maximum values given above may cause permanent damage.

PCB Footprint (mm)

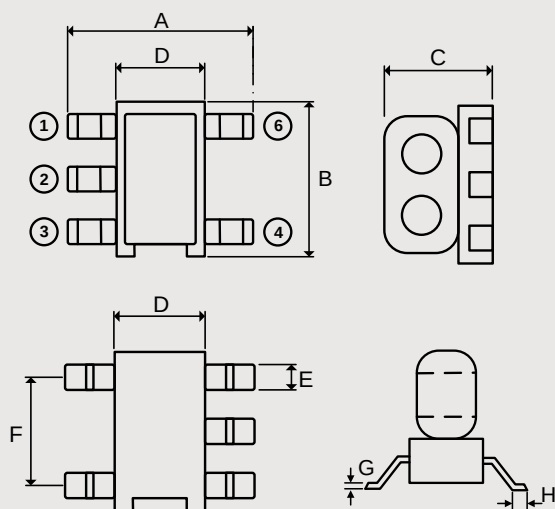


Performance Data

Frequency(MHz)	Main Line Loss	Coupling	Input Return Loss	Output Return Loss	Coupling Return Loss	Isolation
5	1.1	9.9	17.7	21.7	17.8	31.8
200	0.8	9.9	20.3	25.8	20.2	31.8
400	0.9	10.0	18.2	21.4	18.0	29.6
600	1.0	10.0	16.2	18.4	15.9	27.2
800	1.1	10.1	14.7	16.4	14.4	24.9
1000	1.2	10.1	13.7	15.0	13.4	22.9
1200	1.4	10.1	13.2	14.0	12.7	21.3



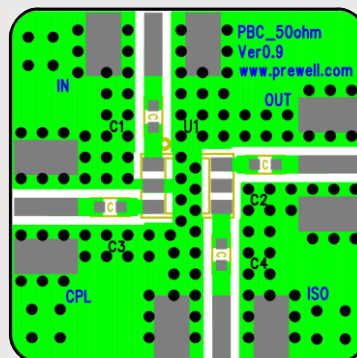
Outline Drawing (mm)



All the colors of wire are subject to change without notice.

	Dimension (mm)		Dimension (mm)
A	5.10 ± 0.20	E	0.50 ± 0.05
B	4.30 ± 0.20	F	3.00 ± 0.10
C	3.50 Max	G	0.25 ± 0.05
D	2.60 ± 0.20	H	0.60 ± 0.10

Evaluation Board Layout (25x25)



Contact Information

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