

Features

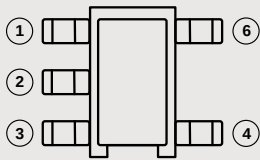
- SMD Base Type
- 5 to 1200 MHz
- Main Line Loss 1.0dB @1GHz
- Wideband
- Low Cost
- RoHS

Applications

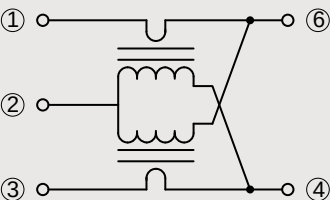
- Base station /Repeater/ Mobile /Automotive / Military
 - FDD-LTE, TD-LTE, TDS-CDMA, CDMA, WCDMA, WiMAX, PCS, GSM, GPS, GPRS, TETRA
- IoT / Broadcasting / WLAN
 - FM, DMB, DVB, ISM

Functional Diagram

Input	1	Terminated	4
Ground	2		
Coupled	3	Output	6



Schematic



Description

The PBC15A 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	0.8
		1000 – 1200	1.1
Coupling	dB	5 – 1000	14.9
		1000 – 1200	15.6
Input Return Loss	dB	5 – 1000	17.8
		1000 – 1200	13.3
Output Return Loss	dB	5 – 1000	19.9
		1000 – 1200	14.4
Coupling Return Loss	dB	5 – 1000	18.1
		1000 – 1200	13.7
Isolation	dB	5 – 1000	36.3
		1000 – 1200	27.2

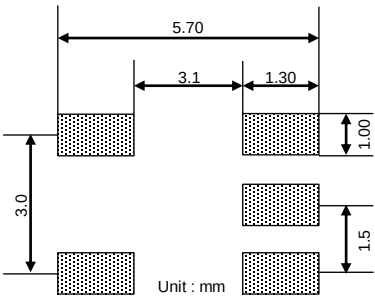
1) Test Conditions : T=25°C, 50ohm System

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

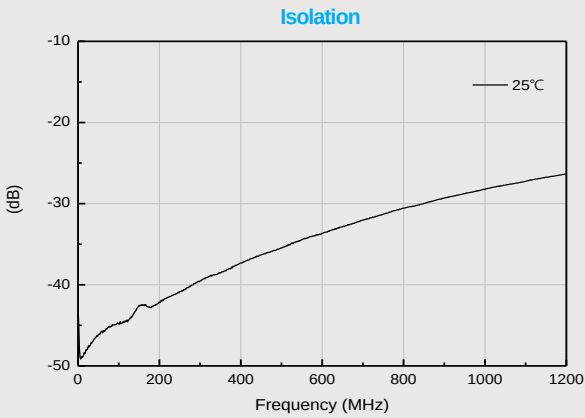
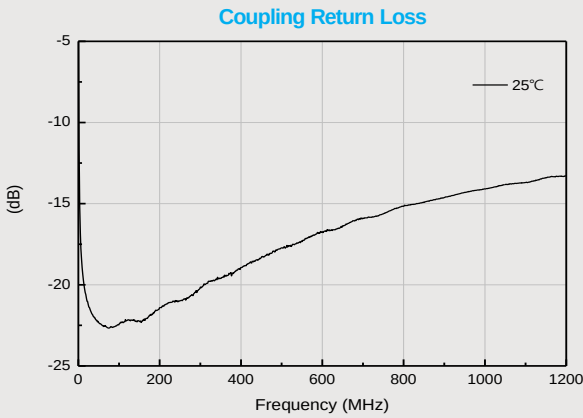
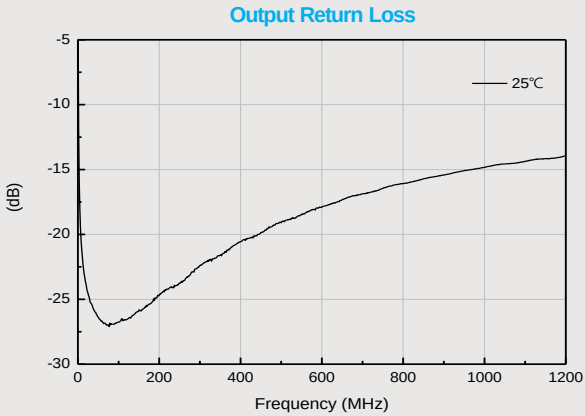
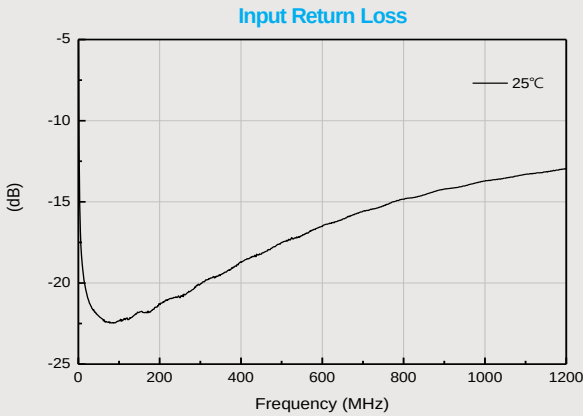
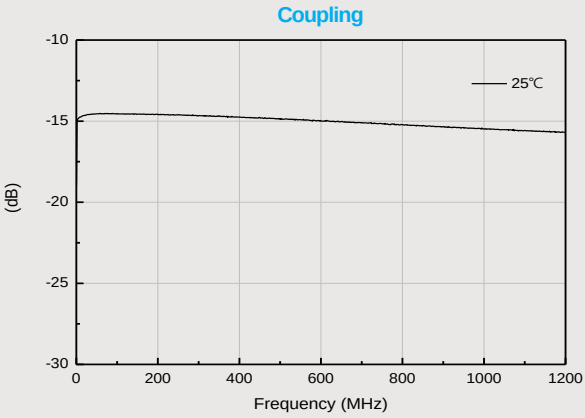
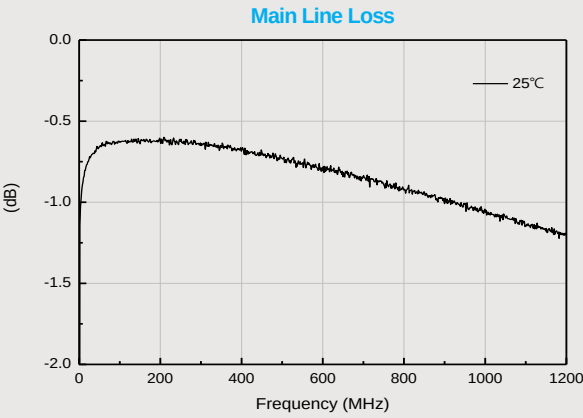
1) Operation of this device outside the maximum values given above may cause permanent damage.

PCB Footprint (mm)

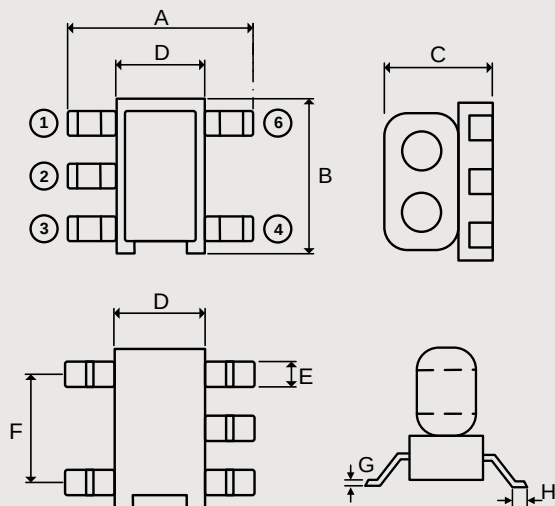


Performance Data

Frequency(MHz)	Main Line Loss	Coupling	Input Return Loss	Output Return Loss	Coupling Return Loss	Isolation
5	1.0	14.8	16.8	18.2	16.8	48.9
200	0.6	14.6	21.3	24.6	21.4	42.1
400	0.7	14.8	18.7	20.6	18.9	37.3
600	0.8	15.0	16.5	17.9	16.7	33.7
800	0.9	15.2	14.8	16.1	15.2	30.6
1000	1.0	15.5	13.7	14.8	14.1	28.2
1200	1.2	15.7	13.0	13.9	13.3	26.3



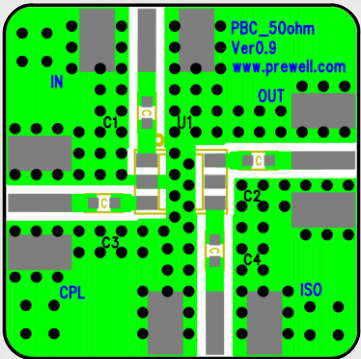
Outline Drawing (mm)



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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