

# 50 to 3000 MHz

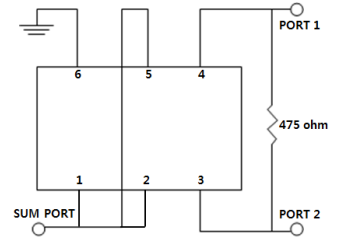
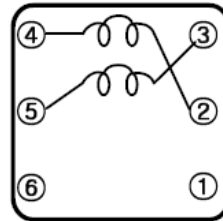
## Features

- Low Insertion
- Excellent amplitude unbalance
- Very good phase unbalance
- Extended resistor
- Low cost

## Applications

- Cellular
- VHF / UHF
- Communication System

## Functional Diagram



Pin No.	Function	Pin No.	Function
6	Ground	1	SUM PORT
3	Port 2	4	Port 1
2	SUM PORT	5	SUM PORT
EXT. Resistor 475ohm 3,4			

## Description

The PBS30A is a RoHS compliant RF Splitter and Combiner in a low cost, surface mount packaging and broadband. The Applications include Cellular, VHF/UHF and Communication system. Transformer is surface mount packaging and is designed high temperature soldering reflow.

## Electric Characteristic

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

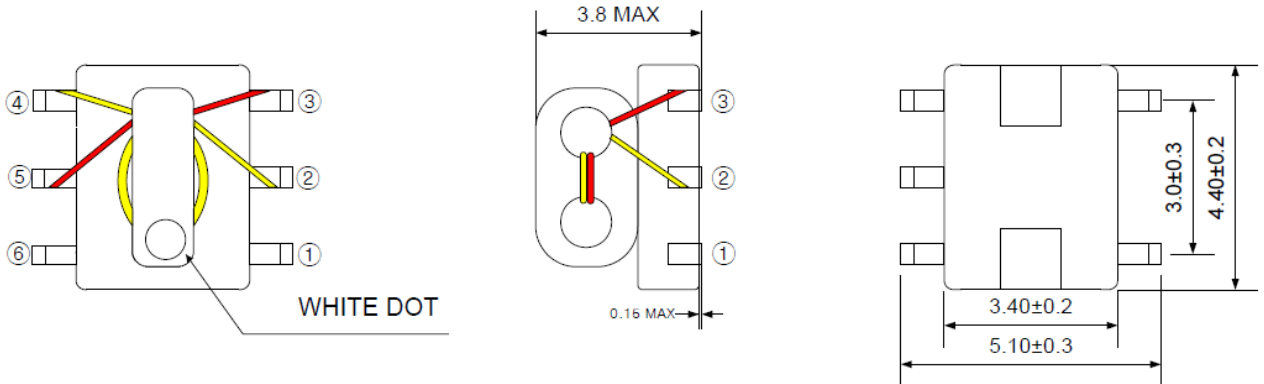
Parameter	Frequency (MHz)	Unit	Min.	Typ.	Max.
Frequency Range		MHz	50		3000
Insertion Loss Above 3.0dB	50 ~ 500	dB	-	0.6	0.9
	500 ~ 1500		-	0.9	1.3
	1500 ~ 3000		-	1.5	2.1
Isolation	50 ~ 500	dB	15	29	-
	500 ~ 1500		20	30	-
	1500 ~ 3000		12	18	-
Phase Unbalance	50 ~ 500	Degree	-	0.7	2
	500 ~ 1500		-	1.6	3
	1500 ~ 3000		-	5	8
Amplitude Unbalance	50 ~ 500	dB	-	0.06	0.2
	500 ~ 1500		-	0.1	0.5
	1500 ~ 3000		-	0.3	0.8
VSWR (Port-S)	50 ~ 500	: 1	-	2.0	2.2
	500 ~ 1500		-	1.9	2.2
	1500 ~ 3000		-	2.4	2.6
VSWR (Port 1-2)	50 ~ 500	: 1	-	1.9	2.2
	500 ~ 1500		-	2.2	2.5
	1500 ~ 3000		-	2.6	2.9

### Typical Performance Data

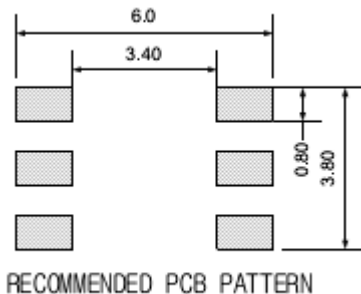
Frequency(MHz)	Total Loss(dB)		Amplitude Unbalance(dB)	Isolation(dB)	Phase Unbalance(deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
50	3.55	3.55	0.00	17.00	0.15	2.02	1.74	1.74
200	3.56	3.55	0.01	25.17	0.52	2.01	1.82	1.83
400	3.60	3.58	0.02	29.84	0.69	1.97	1.87	1.87
600	3.63	3.66	0.03	34.91	0.93	1.92	1.92	1.92
800	3.70	3.64	0.06	38.20	1.02	1.88	1.98	1.98
1000	3.79	3.70	0.09	31.67	1.06	1.84	2.05	2.05
1400	4.20	4.20	0.00	24.14	1.69	1.91	2.21	2.23
1600	3.81	3.66	0.15	21.42	1.82	2.04	2.31	2.32
1800	4.18	4.00	0.18	20.04	1.85	2.20	2.39	2.40
2000	4.48	4.31	0.17	18.96	2.04	2.33	2.41	2.43
2200	4.89	4.72	0.17	18.16	2.32	2.43	2.40	2.41
2400	4.51	4.35	0.16	16.71	1.73	2.42	2.27	2.30
2600	4.91	4.81	0.10	16.14	1.58	2.29	2.09	2.12
2800	4.24	4.18	0.06	14.28	0.46	2.09	1.86	1.91
3000	4.54	4.60	0.06	13.21	0.65	1.88	1.65	1.71

Total Loss = Insertion Loss + 3dB Splitter loss.

### Outline Drawing (mm)



### PCB Footprint (mm)



### Absolute Maximum Ratings

Parameter	Rating
RF Power	500 mW
DC Current	30mA
Operating Temperature	-40°C to 85°C
Storage Temperature	-55 to +125