

Features

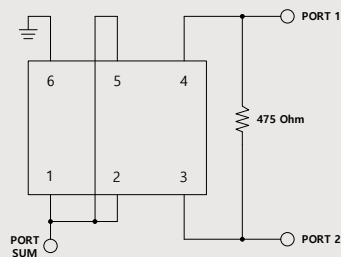
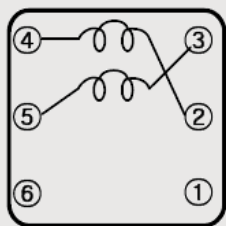
- SMD Base Type
- 50 to 3000 MHz
- Insertion Loss 0.9dB @1500MHz
- Wideband
- Low Cost
- RoHS

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

Port Sum	1	Port 1	4
Port Sum	2	Port Sum	5
Port 2	3	Gnd	6



EXT. Resistor 475ohm 3, 4

Description

The PBS30A is a high performance splitter in a high quality surface mounted package. The device features low insertion loss and high isolation. The device has a good input/output matching and exceptional amplitude/phase balance. The product is targeted for using as wireless infrastructure applications.

Specifications

Parameters	Units	Freq.	Typ.
Insertion Loss Above 3.0dB	dB	50 – 1500	0.7
		1500 - 3000	1.5
Isolation	dB	50 – 1500	29.5
		1500 - 3000	15.0
Phase Imbalance	Degrees	50 – 1500	1.2
		1500 - 3000	2.8
Amplitude Imbalance	dB	50 - 1500	0.1
		1500 - 3000	0.4
VSWR (Port S)	:1	50 – 1500	1.9
		1500 - 3000	2.0
VSWR (Port 1-2)	:1	50 - 1500	2.0
		1500 - 3000	2.7

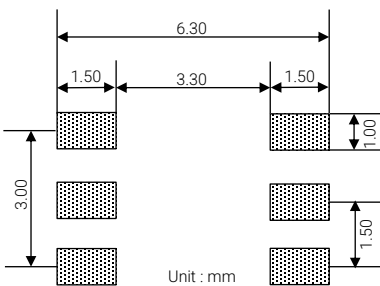
1) Test Conditions: T=25°C, 50ohm System

Absolute Maximum Ratings

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

1) Stresses above the maximum values listed have may cause permanent damage to the device.

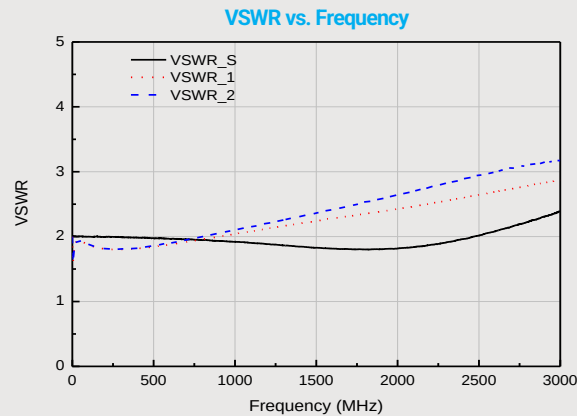
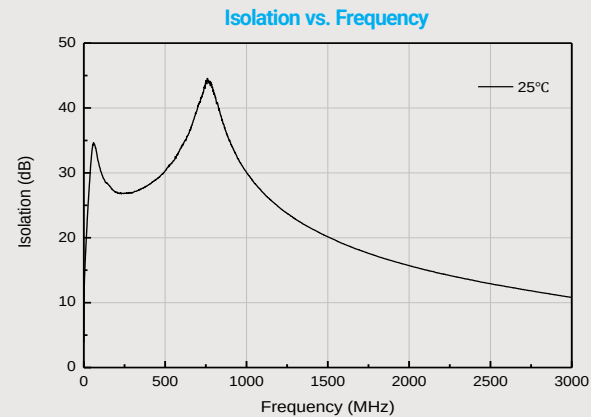
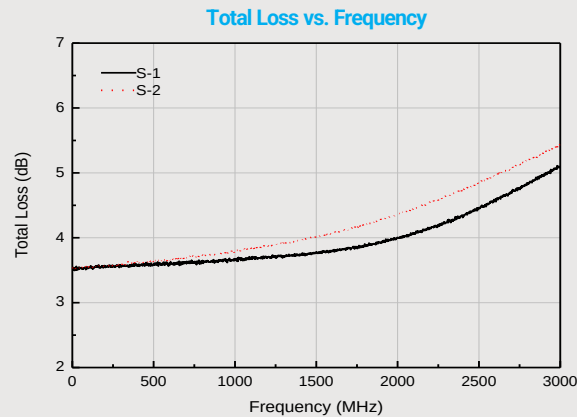
PCB Footprint (mm)



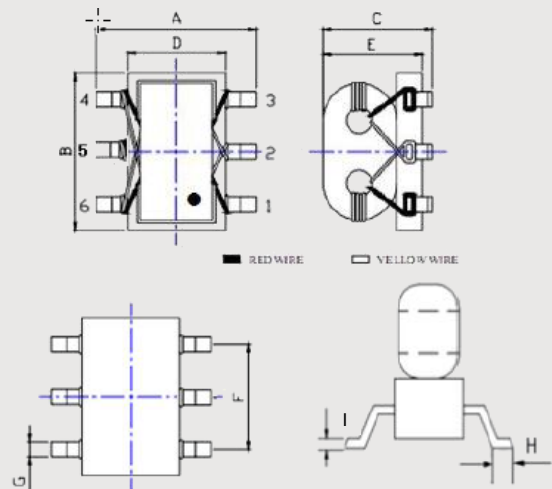
Performance Data

Frequency(M Hz)	Total Loss (dB)		Amplitude Unbalance(dB)	Isolation	Phase Unbalance(deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
50	3.53	3.55	0.01	33.13	0.03	2.01	1.93	1.93
200	3.55	3.57	0.02	26.94	0.46	1.99	1.81	1.82
400	3.57	3.64	0.07	28.22	0.61	1.98	1.82	1.82
500	3.58	3.63	0.05	30.36	0.88	1.97	1.84	1.86
800	3.65	3.74	0.09	42.30	1.57	1.95	1.96	2.00
1000	3.66	3.79	0.13	30.14	1.65	1.92	2.04	2.10
1400	3.73	3.95	0.22	21.42	2.00	1.85	2.21	2.31
1600	3.80	4.07	0.27	19.04	2.17	1.81	2.28	2.42
1800	3.88	4.19	0.32	17.19	2.44	1.80	2.35	2.53
2000	3.99	4.36	0.36	15.72	2.35	1.82	2.43	2.64
2200	4.15	4.56	0.41	14.44	2.60	1.87	2.51	2.76
2400	4.31	4.74	0.43	13.39	2.69	1.96	2.60	2.89
2600	4.58	4.95	0.37	12.44	2.98	2.08	2.69	3.00
2800	4.84	5.19	0.36	11.60	3.63	2.23	2.78	3.11
3000	5.10	5.44	0.34	10.83	4.06	2.39	2.87	3.17

Total Loss = Insertion Loss + 3dB Splitter loss.



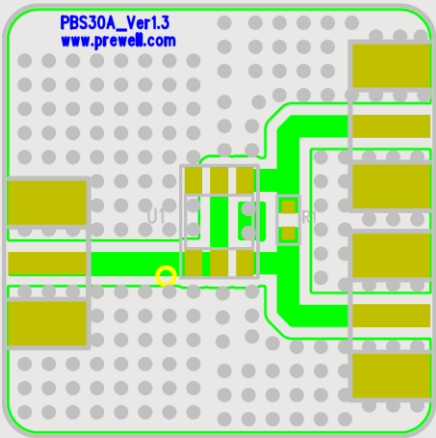
Outline Drawing (mm)



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

	Dimension (mm)		Dimension (mm)
A	5.10 ± 0.20	E	3.00 ± 0.30
B	4.30 ± 0.20	F	3.00 ± 0.10
C	3.50 Max	G	0.50 ± 0.05
D	2.60 ± 0.20	H	0.60 ± 0.10
		I	0.25 ± 0.05

Evaluation Board Layout



SJM PREWELL

PBS30A

Transformer / Splitter

Contact Information

For the latest specifications, additional product information, worldwide sales and distribution locations:

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