

# Coaxial Power Splitter/Combiner

## ZB4PD-462W+

4 Way-0° 50Ω 380 to 4600 MHz

### Maximum Ratings

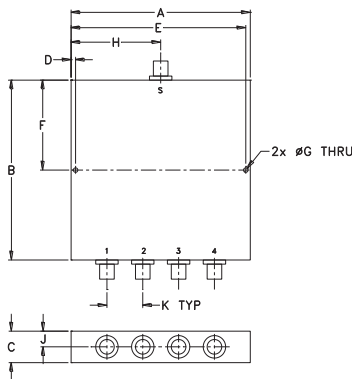
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.75W max.

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3
PORT 4	4

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F
5.00	5.00	0.88	0.13	4.875	2.50
127.00	127.00	22.35	3.30	123.83	63.50
G	H	J	K	wt	
0.125	2.500	0.44	1.00	grams	
3.18	63.50	11.18	25.40	560	

### Electrical Schematic



### Features

- wideband, 380 to 4600 MHz
- high isolation, 23 dB typ.
- good input matching VSWR, 1.3:1 typ.
- up to 10W power input as a splitter

### Applications

- UHF TV
- cellular/ISM/GSM
- satellite distribution
- GPS/L-BAND (MARSAT)
- PCS/DCS/UMTS
- ISM
- MMDS
- SATCOM

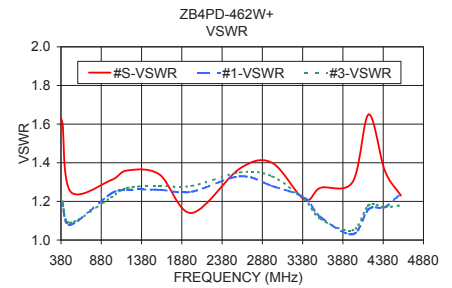
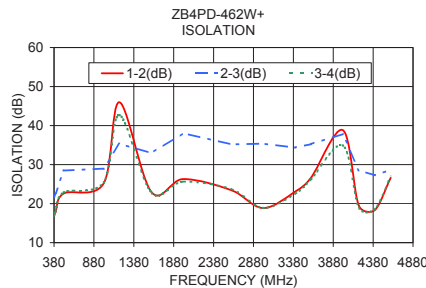
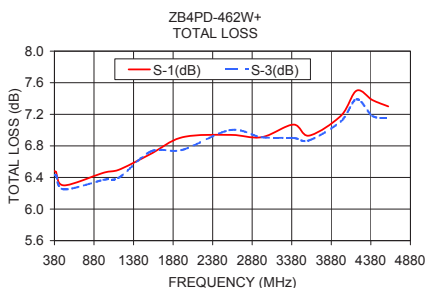
### Electrical Specifications

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		380		4600	MHz
<b>Insertion Loss</b> (above theoretical loss 6.0 dB)	380-1600	—	0.5	1.2	
	1600-3600	—	0.9	1.7	dB
	3600-4600	—	1.3	2.2	
<b>Isolation</b>	380-1600	14	22	—	
	1600-3600	16	22	—	dB
	3600-4600	16	22	—	
<b>Phase Unbalance</b>	380-1600	—	0.6	4	
	1600-3600	—	1	7	Degree
	3600-4600	—	2	9	
<b>Amplitude Unbalance</b>	380-1600	—	0.1	0.5	
	1600-3600	—	0.1	0.6	dB
	3600-4600	—	0.2	0.8	
<b>VSWR (Port S)</b>	380-1600	—	1.3	1.9	
	1600-3600	—	1.3	1.9	:1
	3600-4600	—	1.3	1.9	
<b>VSWR (Port 1-4)</b>	380-1600	—	1.1	1.4	
	1600-3600	—	1.2	1.7	:1
	3600-4600	—	1.2	1.7	

### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)				Amp. Unb. (dB)	Isolation (dB)			Phase Unb. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
380.00	6.48	6.46	6.43	6.46	0.05	16.82	21.68	16.90	0.22	1.63	1.20	1.20	1.21	1.21
400.00	6.47	6.46	6.43	6.46	0.04	17.89	22.61	18.00	0.24	1.60	1.19	1.19	1.20	1.20
500.00	6.30	6.29	6.25	6.30	0.05	22.58	28.48	22.85	0.20	1.25	1.08	1.08	1.09	1.09
1000.00	6.46	6.40	6.37	6.46	0.09	25.12	28.98	25.40	0.39	1.31	1.24	1.22	1.22	1.24
1200.00	6.50	6.46	6.40	6.50	0.10	45.98	35.36	42.69	0.64	1.36	1.26	1.25	1.27	1.26
1600.00	6.70	6.77	6.73	6.69	0.09	23.00	32.93	22.85	0.63	1.34	1.26	1.27	1.28	1.28
2000.00	6.91	6.85	6.75	6.86	0.16	26.30	38.07	25.64	0.64	1.14	1.25	1.24	1.28	1.26
2600.00	6.94	6.86	7.00	6.96	0.14	23.46	35.20	23.73	1.42	1.37	1.33	1.34	1.35	1.40
3000.00	6.91	6.94	6.91	6.84	0.10	18.86	35.37	18.91	1.02	1.40	1.28	1.32	1.33	1.32
3400.00	7.07	7.06	6.90	6.97	0.17	23.05	34.37	22.53	1.12	1.21	1.22	1.22	1.21	1.25
3600.00	6.93	6.96	6.87	6.84	0.12	26.63	35.25	26.21	0.89	1.27	1.12	1.14	1.11	1.14
4000.00	7.18	7.10	7.11	7.11	0.09	38.84	37.83	34.94	1.13	1.30	1.03	1.07	1.05	1.03
4200.00	7.50	7.39	7.39	7.46	0.11	19.53	28.53	18.99	1.41	1.65	1.16	1.16	1.18	1.21
4400.00	7.38	7.33	7.18	7.32	0.20	18.32	27.25	18.53	1.78	1.36	1.17	1.19	1.17	1.18
4600.00	7.30	7.30	7.15	7.27	0.16	26.63	28.69	26.91	1.31	1.23	1.24	1.18	1.18	1.19

1. Total Loss = Insertion Loss + 6.0 dB splitter theoretical loss.



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Page 2 of 2