DC Pass

High Power Combiner

ZB4PD-282-50W+

4 Way-0° 50Ω 500 to 2750 MHz

CASE STYLE: BV278-2

Connectors	Model
N-TYPE	ZB4PD-282-50W+

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	0°C to 50°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	100W max.
Internal Dissipation	45W max.
DC Current (each port)	0.5A 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

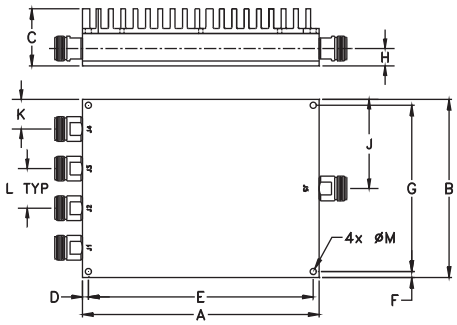
Features

- usable, 500 to 2800 MHz
- low insertion loss, 1.5 dB typ.
- low amplitude unbalance, 0.3 dB typ.
- excellent output VSWR, 1.2:1 typ.
- DC Pass from sum port to all output ports

Applications

- high band PCS
- UNII
- WIMAX
- WiFi
- bluetooth

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
6.00	4.50	1.45	.15	5.700	.15	4.200
152.40	114.30	36.83	3.81	144.78	3.81	106.68

H	J	K	L	M	N	wt
.44	2.25	.75	1	.156	0.82	grams
11.18	57.15	19.05	25.40	3.96	20.83	1100

Electrical Schematic

Electrical Specifications at 25°C

Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range			500		2750	MHz
Insertion Loss Above 6.0 dB		700-2700 500-2750	— —	1.5 1.8	2.2 2.5	dB
Isolation		700-2700 500-2750	15 15	20 21	— —	dB
Phase Unbalance		700-2700 500-2750	— —	5 6	18 19	Degree
Amplitude Unbalance		700-2700 500-2750	— —	0.3 0.4	0.6 0.7	dB
VSWR (Port S)		700-2700 500-2750	— —	1.25 1.4	1.85	:1
VSWR (Port 1-4)		700-2700 500-2750	— —	1.15 1.2	1.5 1.5	:1
Power Input[1]	**as splitter**	700-2700 500-2750	— —	— —	100 100	W
	as combiner[1]	700-2700 500-2750	— —	— —	50 40	

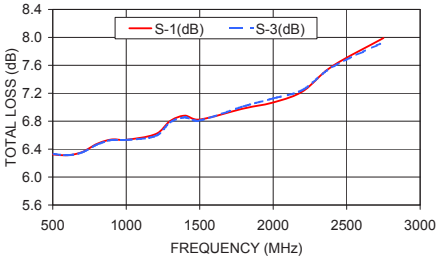
1. As a combiner of non-coherent signals, max. power per port is power rating divided by four ports.

Typical Performance Data

Freq. (MHz)	Total Loss[1] (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						
500.00	6.32	6.33	6.33	6.38	0.05	19.33	24.19	19.08	0.89	1.28	1.07	1.09	1.06	1.07
600.00	6.31	6.31	6.31	6.36	0.05	26.13	30.67	25.45	1.13	1.15	1.06	1.09	1.06	1.08
700.00	6.36	6.37	6.35	6.38	0.02	40.05	49.46	43.69	1.25	1.10	1.09	1.11	1.09	1.10
800.00	6.47	6.48	6.46	6.51	0.04	25.03	39.57	25.50	1.83	1.33	1.09	1.11	1.09	1.10
900.00	6.54	6.53	6.53	6.61	0.08	22.23	32.27	22.57	1.84	1.41	1.09	1.08	1.07	1.07
1000.00	6.53	6.53	6.53	6.56	0.04	22.50	28.35	23.00	1.95	1.28	1.10	1.06	1.07	1.06
1200.00	6.62	6.59	6.59	6.61	0.03	21.71	30.55	22.64	2.56	1.18	1.14	1.10	1.08	1.08
1300.00	6.81	6.83	6.79	6.79	0.05	21.97	31.24	23.10	2.76	1.34	1.21	1.17	1.14	1.14
1400.00	6.88	6.94	6.85	6.84	0.10	23.93	32.56	25.80	3.00	1.37	1.26	1.23	1.17	1.17
1500.00	6.82	6.86	6.81	6.78	0.08	27.32	36.64	31.25	3.68	1.27	1.23	1.23	1.14	1.14
1800.00	6.98	7.07	7.01	6.94	0.13	24.08	42.55	24.73	3.85	1.08	1.08	1.10	1.02	1.03
2000.00	7.07	7.11	7.13	7.14	0.07	24.87	43.55	24.51	4.44	1.13	1.02	1.06	1.06	1.08
2200.00	7.23	7.27	7.25	7.22	0.05	24.79	30.24	27.26	4.86	1.25	1.01	1.05	1.07	1.08
2400.00	7.58	7.56	7.57	7.61	0.05	28.77	27.06	27.68	5.26	1.34	1.06	1.10	1.13	1.15
2750.00	7.99	7.89	7.93	7.87	0.12	23.67	29.29	22.68	5.96	1.37	1.06	1.04	1.05	1.05

1. Total Loss = Insertion Loss + 6dB splitter loss.

ZB4PD-282-50W+
TOTAL LOSS



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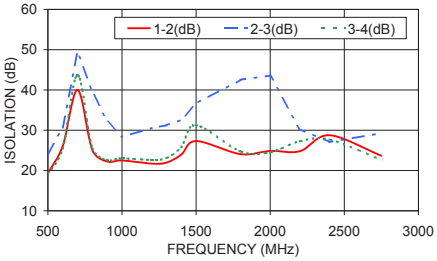
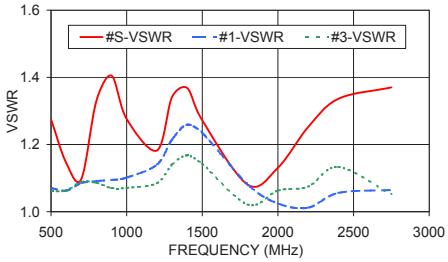
ISOLATION



ZB4PD-282-50W+
VSWR



Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

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