

DC Pass

High Power Combiner

ZB5PD-894-50W

5 Way-0° 50Ω 800 to 894 MHz

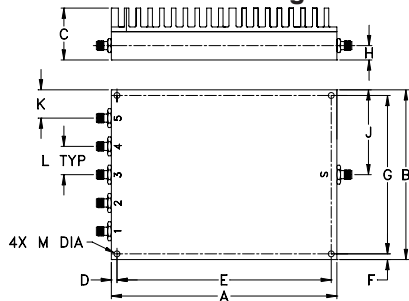
Maximum Ratings

Operating Temperature	-55°C to 90°C
Storage Temperature	-55°C to 100°C
DC Current	500 A (100mA for each port)
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
PORT 5	5

Outline Drawing



Outline Dimensions (inch/mm)

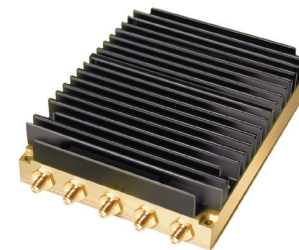
A	B	C	D	E	F	G	
6.00	4.50	1.38	.15	5.700	.15	4.200	
152.40	114.30	35.05	3.81	144.78	3.81	106.68	
H	J	K	L	M			wt
.38	2.25	.75	.75	.156			grams
9.65	57.15	19.05	19.05	3.96			960

Features

- 50 watts total as a combiner
- low insertion loss, 0.4 dB typ.
- high isolation, 32 dB typ.
- excellent amplitude unbalance, 0.15 dB typ.

Applications

- cellular
- UHF



CASE STYLE: BV278

Connectors	Model	Price	Qty.
SMA	ZB5PD-894-50W-S	Contact Sales Dept.	

High Power Combiner Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 7.0 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	POWER INPUT ¹ (W)
f_L - f_U	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	as combiner ² Max. as splitter Max.
800-894	32 20	0.4 0.8	— —	0.15 0.45	50 50

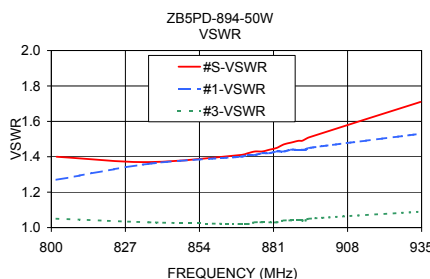
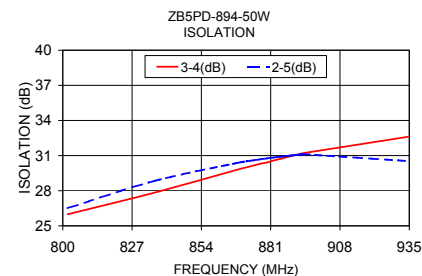
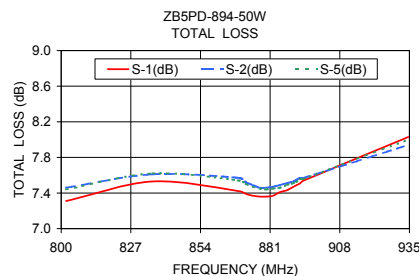
1. Over -55°C to +55°C. Derate linearly to 20% of rating at 90°C

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

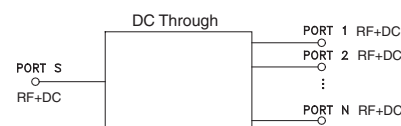
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)					Amp. Unbal. (dB)	Isolation (dB)				VSWR S	VSWR 1	VSWR 5
	S-1	S-2	S-3	S-4	S-5		1-2	2-3	3-4	2-5			
801.90	7.31	7.46	7.52	7.58	7.44	0.27	26.37	35.78	25.99	26.51	1.40	1.27	1.05
835.45	7.53	7.61	7.50	7.58	7.62	0.11	28.19	43.24	27.82	28.82	1.37	1.36	1.03
869.00	7.42	7.57	7.43	7.51	7.54	0.15	29.50	39.34	29.86	30.42	1.41	1.40	1.02
871.63	7.39	7.52	7.39	7.48	7.50	0.14	29.57	38.72	30.00	30.51	1.42	1.41	1.02
874.26	7.37	7.49	7.36	7.44	7.47	0.13	29.66	38.19	30.15	30.59	1.43	1.41	1.03
876.89	7.36	7.46	7.33	7.43	7.45	0.13	29.71	37.62	30.30	30.68	1.43	1.42	1.03
879.52	7.36	7.46	7.33	7.42	7.44	0.13	29.77	37.14	30.41	30.76	1.44	1.42	1.03
882.15	7.37	7.47	7.33	7.43	7.45	0.14	29.79	36.66	30.58	30.84	1.45	1.43	1.03
884.78	7.41	7.49	7.35	7.45	7.46	0.14	29.82	36.25	30.72	30.90	1.47	1.43	1.04
887.42	7.43	7.51	7.37	7.47	7.49	0.14	29.84	35.82	30.87	30.97	1.48	1.44	1.04
890.05	7.47	7.53	7.40	7.50	7.51	0.13	29.85	35.43	31.01	31.03	1.49	1.44	1.04
891.36	7.49	7.55	7.41	7.51	7.53	0.14	29.83	35.27	31.08	31.06	1.49	1.44	1.04
892.68	7.51	7.57	7.43	7.53	7.56	0.14	29.82	35.08	31.16	31.09	1.50	1.44	1.04
894.00	7.54	7.57	7.44	7.54	7.56	0.13	29.82	34.90	31.22	31.11	1.51	1.45	1.05
934.60	8.03	7.94	7.61	7.74	8.00	0.42	28.55	30.75	32.61	30.53	1.71	1.53	1.09

1. Total Loss = Insertion Loss + 7dB splitter loss.



electrical schematic



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& shopping online see web site

REV. C
M149087
ZB5PD-894-50W
HY/TD/CP/AM
150304

5 Way-0° Power Splitter/Combiner

ZB5PD-894-50W

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)					AMP. UNBAL. (dB)	ISOLATION (dB)				FREQ. (MHz)	VSWR (:1)				
	S-1	S-2	S-3	S-4	S-5		1-2	2-3	3-4	2-5		S	1	2	3	4
801.9	7.31	7.46	7.52	7.58	7.44	0.27	26.37	35.78	25.99	26.51	801.9	1.40	1.27	1.28	1.05	1.15
835.5	7.53	7.61	7.50	7.58	7.62	0.11	28.19	43.24	27.82	28.82	835.5	1.37	1.36	1.34	1.03	1.13
869.0	7.42	7.57	7.43	7.51	7.54	0.15	29.50	39.34	29.86	30.42	869.0	1.41	1.40	1.41	1.02	1.11
871.6	7.39	7.52	7.39	7.48	7.50	0.14	29.57	38.72	30.00	30.51	871.6	1.42	1.41	1.41	1.02	1.11
874.3	7.37	7.49	7.36	7.44	7.47	0.13	29.66	38.19	30.15	30.59	874.3	1.43	1.41	1.42	1.03	1.11
876.9	7.36	7.46	7.33	7.43	7.45	0.13	29.71	37.62	30.30	30.68	876.9	1.43	1.42	1.42	1.03	1.10
879.5	7.36	7.46	7.33	7.42	7.44	0.13	29.77	37.14	30.41	30.76	879.5	1.44	1.42	1.43	1.03	1.10
882.2	7.37	7.47	7.33	7.43	7.45	0.14	29.79	36.66	30.58	30.84	882.2	1.45	1.43	1.44	1.03	1.10
884.8	7.41	7.49	7.35	7.45	7.46	0.14	29.82	36.25	30.72	30.90	884.8	1.47	1.43	1.44	1.04	1.10
887.4	7.43	7.51	7.37	7.47	7.49	0.14	29.84	35.82	30.87	30.97	887.4	1.48	1.44	1.45	1.04	1.09
890.1	7.47	7.53	7.40	7.50	7.51	0.13	29.85	35.43	31.01	31.03	890.1	1.49	1.44	1.46	1.04	1.09
891.4	7.49	7.55	7.41	7.51	7.53	0.14	29.83	35.27	31.08	31.06	891.4	1.49	1.44	1.46	1.04	1.09
892.7	7.51	7.57	7.43	7.53	7.56	0.14	29.82	35.08	31.16	31.09	892.7	1.50	1.44	1.46	1.04	1.09
894.0	7.54	7.57	7.44	7.54	7.56	0.13	29.82	34.90	31.22	31.11	894.0	1.51	1.45	1.47	1.05	1.09
934.6	8.03	7.94	7.61	7.74	8.00	0.42	28.55	30.75	32.61	30.53	934.6	1.71	1.53	1.57	1.09	1.07

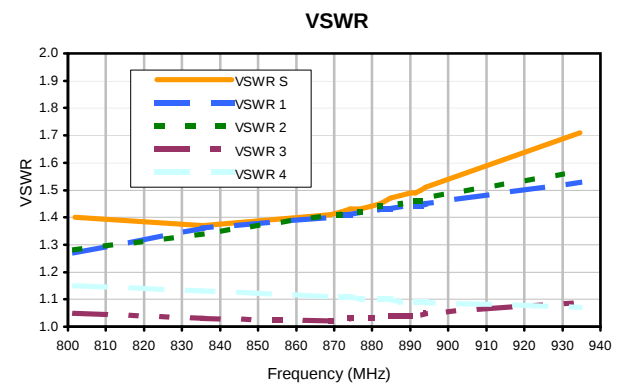
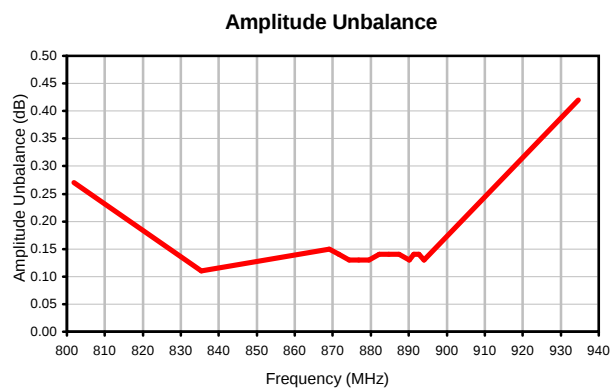
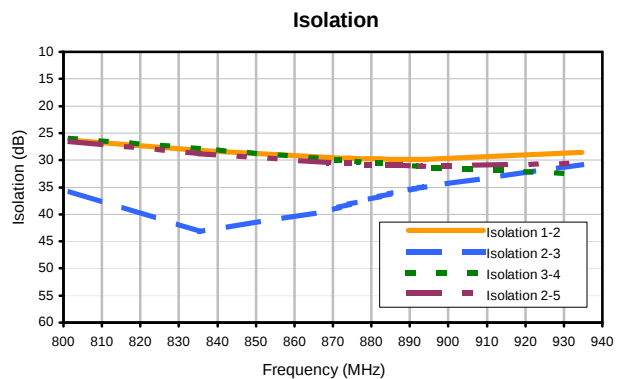
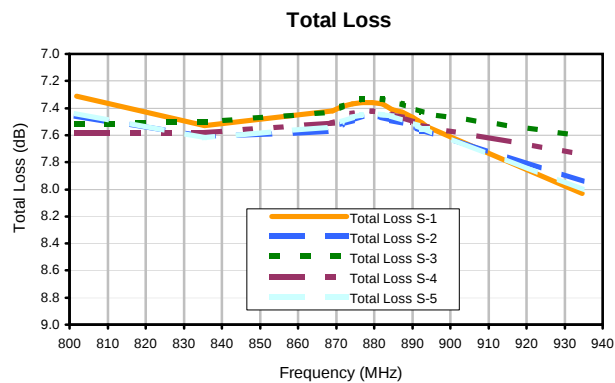
¹ Total Loss = Insertion Loss+ 7dB Splitter Loss

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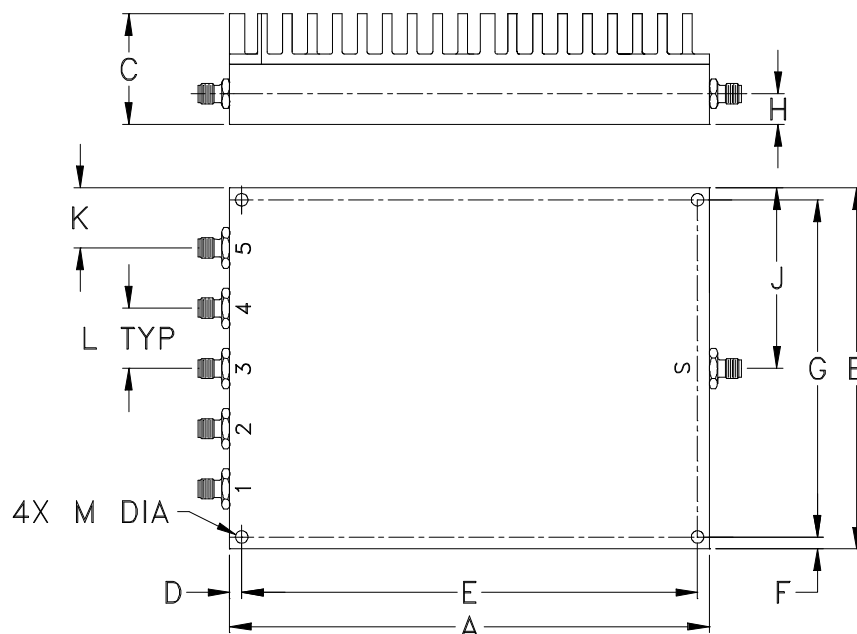
5 Way-0° Power Splitter/Combiner

ZB5PD-894-50W

Typical Performance Curves



Outline Dimensions



CASE #	A	B	C	D	E	F	G	H	J	K
BV278	6.00 (152.40)	4.50 (114.30)	1.38 (35.05)	.15 (3.81)	5.700 (144.78)	.15 (3.81)	4.200 (106.68)	.38 (9.65)	2.25 (57.15)	.75 (19.05)

CASE #	L	M	WT. GRAMS
BV278	.75 (19.05)	.156 (3.96)	960

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3Pl. $\pm .015$

Notes:

- Case material: Aluminum alloy.
- Case finish:
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Heat sink finish: Black Anodize.



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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 90° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I