

Coaxial

# Power Splitter/Combiner

## ZBSC-8-82+

8 Way-0° 50Ω 10 to 800 MHz



### Maximum Ratings

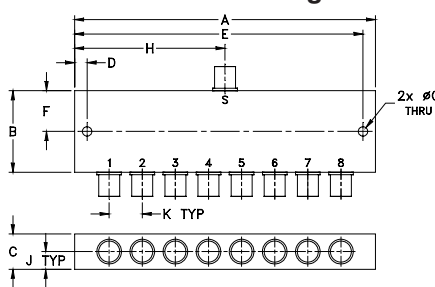
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	1W max.

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

### Coaxial Connections

SUM PORT	S(COM)
PORT 1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F
6.00	1.62	.70	.250	5.75	.810
152.40	41.15	17.78	6.35	146.05	20.57
G	H	J	K	wt	
.187	3.00	.35	.660	grams	
4.75	76.20	8.89	16.76	300	

### Features

- wideband, 10 to 800 MHz
- good isolation, 27 dB typ.
- good S-port matching VSWR, 1.20 typ.
- good output matching VSWR, 1.05 typ.
- rugged shielded case

### Applications

- VHF/UHF
- federal and defense communication
- communication system

### Electrical Specifications

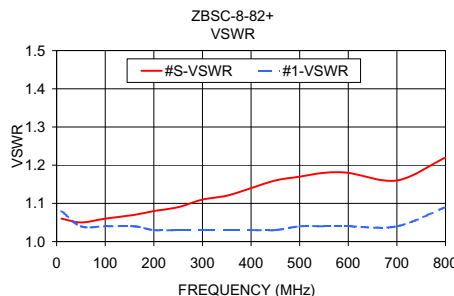
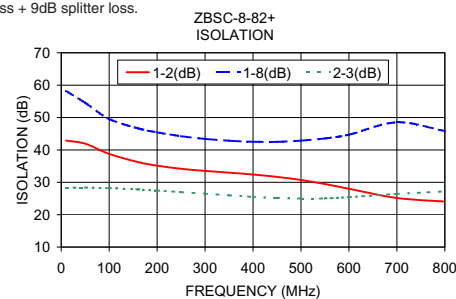
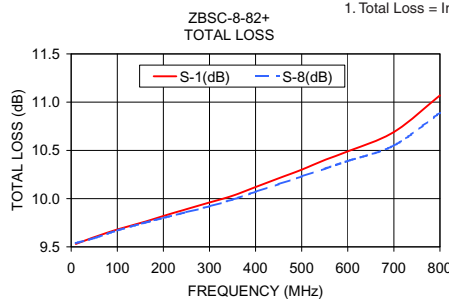
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 9.0 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
f <sub>L</sub> -f <sub>U</sub>	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.						
10-800	28	25	26	22	25	20	0.6	1.0	0.9	1.5	1.8	2.8	2.0	4.0	9.0	0.2	0.3	0.5

L = low range [f<sub>L</sub> to 10 f<sub>L</sub>] M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2] U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]

### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)						Amp. Unbal. (dB)	Isolation (dB)				Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-8	2-3	3-4				
10.00	9.53	9.53	9.53	9.53	9.54	9.54	0.02	42.90	58.21	28.34	46.39	0.08	1.06	1.08	1.07
50.00	9.60	9.59	9.59	9.59	9.60	9.59	0.01	41.92	54.54	28.37	42.07	0.22	1.05	1.04	1.04
100.00	9.68	9.67	9.68	9.68	9.68	9.67	0.01	38.77	49.55	28.17	38.54	0.41	1.06	1.04	1.04
160.00	9.76	9.76	9.76	9.76	9.76	9.75	0.01	36.25	46.67	27.80	35.94	0.63	1.07	1.04	1.04
200.00	9.82	9.81	9.81	9.81	9.81	9.80	0.02	35.13	45.42	27.45	34.82	0.80	1.08	1.03	1.03
250.00	9.89	9.88	9.88	9.88	9.88	9.86	0.03	34.17	44.25	26.98	33.92	1.01	1.09	1.03	1.03
300.00	9.96	9.95	9.96	9.95	9.95	9.92	0.04	33.52	43.40	26.48	33.33	1.22	1.11	1.03	1.03
350.00	10.03	10.03	10.03	10.02	10.02	9.99	0.04	32.98	42.83	25.98	32.93	1.46	1.12	1.03	1.03
400.00	10.12	10.12	10.12	10.11	10.10	10.07	0.06	32.42	42.52	25.51	32.62	1.68	1.14	1.03	1.03
450.00	10.21	10.21	10.21	10.20	10.18	10.15	0.07	31.68	42.50	25.16	32.23	1.93	1.16	1.03	1.04
500.00	10.30	10.31	10.31	10.29	10.27	10.23	0.08	30.72	42.86	24.97	31.69	2.20	1.17	1.04	1.04
550.00	10.40	10.41	10.41	10.39	10.35	10.31	0.10	29.46	43.55	25.02	30.77	2.49	1.18	1.04	1.05
600.00	10.49	10.51	10.51	10.48	10.43	10.39	0.13	28.00	44.70	25.43	29.41	2.81	1.18	1.04	1.04
700.00	10.69	10.72	10.72	10.68	10.59	10.55	0.21	25.16	48.52	26.41	26.22	3.48	1.16	1.04	1.03
800.00	11.07	11.11	11.13	11.07	10.91	10.89	0.31	24.05	45.86	27.19	24.50	4.07	1.22	1.09	1.08

1. Total Loss = Insertion Loss + 9dB splitter loss.



### electrical schematic



**Mini-Circuits**  
 ISO 9001 ISO 14001 AS 9100 CERTIFIED  
 IFIR MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

REV. A  
 M127604  
 ZBSC-8-82+  
 ED-13009/2  
 HY/TD/AM  
 100615