

# Coaxial High Power Combiner

## ZB3CS-920-15W

3 Way-0° 50Ω 825 to 920 MHz

### Maximum Ratings

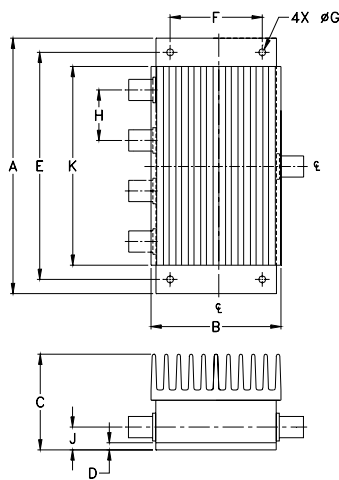
Operating Temperature	-55°C to 90°C
Storage Temperature	-55°C to 100°C

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

### Outline Drawing



### Outline Dimensions (inch/mm)

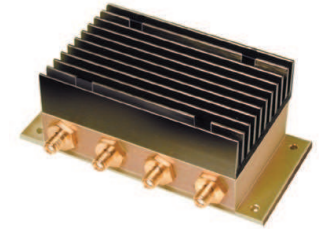
A	B	C	D	E	F	
4.50	2.25	1.69	.125	4.000	1.625	
114.30	57.15	42.93	3.18	101.60	41.28	
G	H	J	K		wt	
.144	.890	.44	3.50		grams	
3.66	22.61	11.18	88.90		500	

### Features

- high power, up to 15W input power
- low insertion loss, 0.2 dB typ.
- high isolation, 27 dB typ.

### Applications

- cellular
- UHF



CASE STYLE: AW256

Connectors	Model	Price	Qty.
SMA	ZB3CS-920-15W-S	\$114.95	(1-9)

### High Power Combiner Electrical Specifications

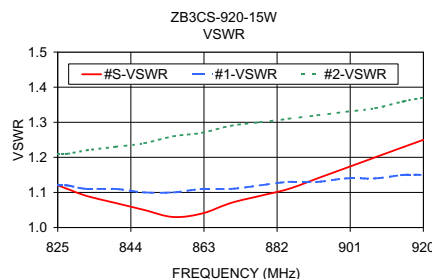
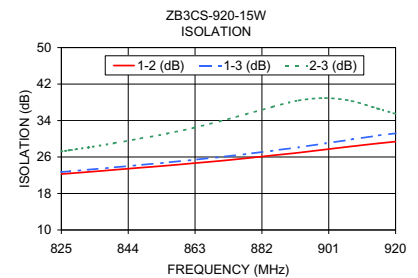
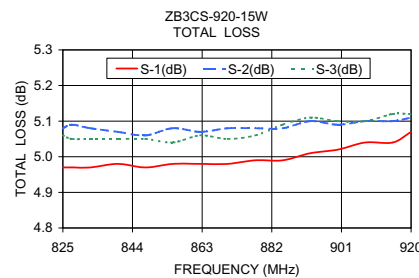
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 4.8 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		POWER INPUT <sup>1</sup> (W)	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	as combiner <sup>2</sup> Max.	as splitter Max.
f <sub>L</sub> -f <sub>U</sub>										
825-920	27	17	0.2	0.8	1.7	6.0	0.11	0.5	15	15

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 <sup>1</sup> (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
	825.00	4.97	5.08		5.06	0.11	22.28					
827.50	4.97	5.09	5.05	0.12	22.42	22.87	27.51	1.80	1.11	1.12	1.21	1.15
832.50	4.97	5.08	5.05	0.11	22.72	23.20	28.09	1.73	1.09	1.11	1.22	1.15
840.00	4.98	5.07	5.05	0.10	23.19	23.72	29.03	1.93	1.07	1.11	1.23	1.16
847.50	4.97	5.06	5.05	0.09	23.66	24.25	30.07	1.91	1.05	1.10	1.24	1.16
855.00	4.98	5.08	5.04	0.10	24.12	24.79	31.13	1.92	1.03	1.10	1.26	1.17
862.50	4.98	5.07	5.06	0.09	24.64	25.37	32.39	1.96	1.04	1.11	1.27	1.18
870.00	4.98	5.08	5.05	0.10	25.14	25.97	33.82	2.07	1.07	1.11	1.29	1.18
877.50	4.99	5.08	5.06	0.10	25.73	26.66	35.38	2.09	1.09	1.12	1.30	1.19
885.00	4.99	5.08	5.09	0.10	26.36	27.39	37.01	2.25	1.11	1.13	1.31	1.20
892.50	5.01	5.10	5.11	0.09	26.95	28.14	38.41	2.34	1.14	1.13	1.32	1.20
900.00	5.02	5.09	5.10	0.07	27.64	28.98	39.93	2.42	1.17	1.14	1.33	1.21
907.50	5.04	5.10	5.10	0.06	28.34	29.85	38.29	2.38	1.20	1.14	1.34	1.21
915.00	5.04	5.10	5.12	0.08	28.99	30.71	36.60	2.45	1.23	1.15	1.36	1.22
920.00	5.07	5.11	5.12	0.06	29.38	31.21	35.47	2.53	1.25	1.15	1.37	1.22

1. Total Loss = Insertion Loss + 4.8dB splitter loss.



### electrical schematic



**Mini-Circuits®**  
 ISO 9001 ISO 14001 AS 9100 CERTIFIED  
 IFIRF 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  
 ZB3CS-920-15W  
 ED-4679  
 HY/TD/CP  
 100617