

Coaxial

# High Power Combiner

ZB4CS-870-10W

4 Way-0° 50Ω

570 to 870 MHz

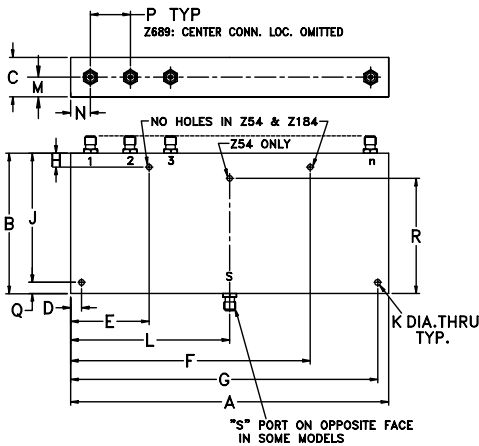
## Maximum Ratings

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

## 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	G	H
7.06	3.13	1.00	.250	1.430	5.630	6.810	.250
7.11	79.50	25.40	6.35	36.32	143.00	172.97	6.35
J	K	L	M	N	P	wt	
2.875	.156	3.53	.44	.73	1.40	grams	
73.03	3.96	89.66	11.18	18.54	35.56	810	

## Features

- high power, up to 10W input power
- low insertion loss, 0.3 dB typ.
- high isolation, 28 dB typ.
- good sum-port VSWR, 1.1 typ.
- good VSWR at ports 1-4, 1.15 typ.

## Applications

- tv broadcast
- UHF



CASE STYLE: Z689

Connectors	Model	Price	Qty.
N-TYPE	ZB4CS-870-10W-N	\$134.95	(1-9)
SMA	ZB4CS-870-10W-S	\$134.95	(1-9)

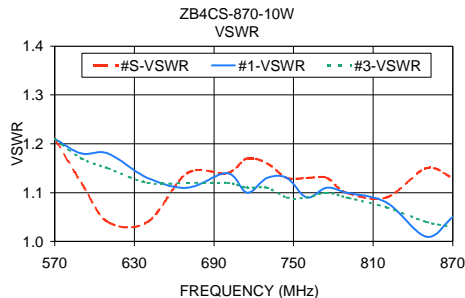
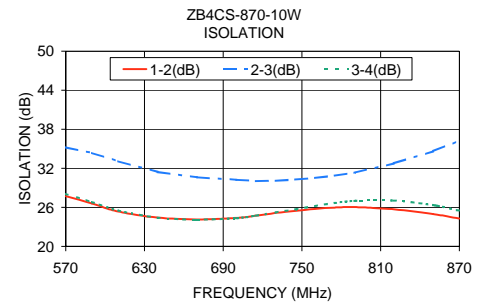
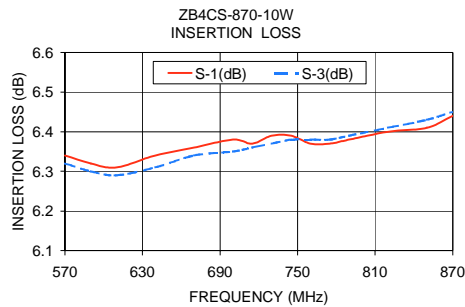
## High Power Combiner Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 6.0 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	POWER INPUT <sup>1</sup> (W)
$f_L$ - $f_U$	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	as combiner <sup>2</sup> Max. as splitter Max.
570-870	28 20	0.35 0.8	0.6 3.0	0.1 0.3	10 20

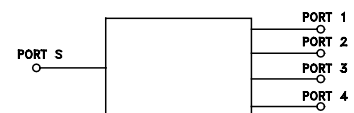
1. Over -55°C to +55°C. Derate linearly to 20% of rating at 90°C
2. As a combiner of non-coherent signals, max. power per port is power rating divided by number of ports.

## Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (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						
570.00	6.34	6.36	6.32	6.31	0.05	27.74	35.22	28.08	0.61	1.21	1.21	1.19	1.21	1.22
590.00	6.32	6.34	6.30	6.29	0.05	26.60	34.35	26.81	0.65	1.12	1.18	1.16	1.17	1.16
610.00	6.31	6.34	6.29	6.29	0.05	25.37	33.07	25.51	0.64	1.04	1.18	1.16	1.15	1.15
640.00	6.34	6.37	6.31	6.30	0.07	24.43	31.43	24.43	0.63	1.04	1.13	1.11	1.12	1.15
670.00	6.36	6.39	6.34	6.32	0.06	24.17	30.62	24.13	0.65	1.14	1.11	1.09	1.12	1.14
700.00	6.38	6.41	6.35	6.34	0.07	24.38	30.25	24.34	0.64	1.14	1.14	1.11	1.12	1.12
715.00	6.37	6.41	6.36	6.34	0.06	24.73	30.04	24.75	0.67	1.17	1.10	1.10	1.11	1.09
730.00	6.39	6.42	6.37	6.36	0.07	25.15	30.09	25.23	0.71	1.16	1.13	1.13	1.11	1.09
745.00	6.39	6.42	6.38	6.36	0.06	25.47	30.27	25.69	0.67	1.13	1.13	1.09	1.09	1.10
760.00	6.37	6.42	6.38	6.35	0.07	25.78	30.53	26.21	0.71	1.13	1.09	1.11	1.09	1.10
775.00	6.37	6.42	6.38	6.36	0.07	25.98	30.89	26.68	0.71	1.13	1.11	1.10	1.10	1.11
790.00	6.38	6.43	6.39	6.36	0.07	26.06	31.32	27.01	0.76	1.10	1.10	1.06	1.09	1.11
820.00	6.40	6.45	6.41	6.39	0.07	25.70	32.76	27.06	0.80	1.09	1.08	1.05	1.07	1.07
850.00	6.41	6.47	6.43	6.39	0.07	24.97	34.63	26.35	0.91	1.15	1.01	1.07	1.04	1.04
870.00	6.44	6.51	6.45	6.42	0.09	24.28	36.25	25.50	0.91	1.13	1.05	1.01	1.03	1.01



## electrical schematic



INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 &amp; ISO 14001 Certified

REV. A  
M94385  
ED-7665/1  
ZB4CS-870-10W  
HY/IDCP  
060209