

High Power Combiner

ZB4CS-700-10W

4 Way-0° 50Ω 400 to 700 MHz

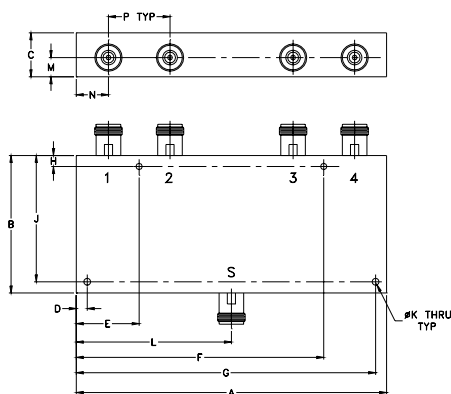
Maximum Ratings

Operating Temperature	-55°C to 90°C
Storage Temperature	-55°C to 100°C
Internal Dissipation	8W max.
DC Current	600 A (150mA 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

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
179.32	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, 0.35 dB typ.
- good isolation, 25 dB typ.
- good sum-port VSWR, 1.14 typ.
- good VSWR at ports 1-4, 1.10 typ.

Applications

- UHF-TV/DTV
- communication receivers & transmitters

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 ¹ (W)	
f _L -f _H	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	as combiner ² Max.	as splitter Max.
400-700	25	20	0.35	0.8	0.6	4.0	0.1	0.3	10	20

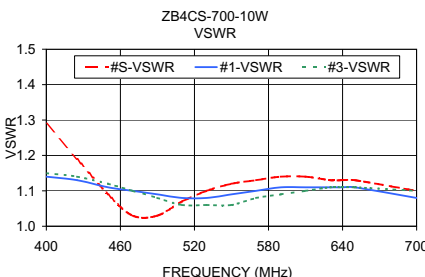
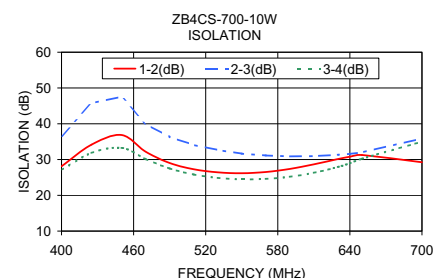
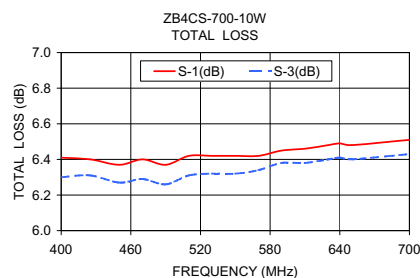
1. Over -55°C to +55°C. Derate linearly to 20% of rating at 90°C

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

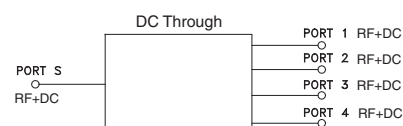
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (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						
400.00	6.41	6.26	6.30	6.34	0.15	28.12	36.59	27.11	0.21	1.29	1.14	1.15	1.15	1.16
425.00	6.40	6.27	6.31	6.35	0.14	34.17	45.74	31.85	0.10	1.19	1.13	1.14	1.14	1.15
450.00	6.37	6.25	6.27	6.30	0.12	36.86	47.56	33.26	0.11	1.09	1.11	1.13	1.12	1.13
470.00	6.40	6.26	6.29	6.31	0.14	32.20	39.98	30.16	0.23	1.03	1.10	1.11	1.10	1.11
490.00	6.37	6.24	6.26	6.29	0.14	29.04	36.31	27.51	0.30	1.03	1.09	1.10	1.08	1.09
510.00	6.42	6.29	6.31	6.33	0.13	27.29	34.09	25.82	0.31	1.07	1.08	1.09	1.06	1.07
530.00	6.42	6.31	6.32	6.34	0.11	26.42	32.68	24.87	0.40	1.10	1.08	1.10	1.06	1.07
550.00	6.42	6.29	6.32	6.33	0.13	26.18	31.64	24.46	0.52	1.12	1.09	1.11	1.06	1.07
570.00	6.42	6.30	6.34	6.34	0.12	26.52	31.14	24.60	0.43	1.13	1.10	1.12	1.08	1.08
590.00	6.45	6.33	6.38	6.38	0.13	27.38	30.88	25.19	0.36	1.14	1.11	1.13	1.09	1.09
610.00	6.46	6.36	6.38	6.40	0.10	28.66	30.96	26.30	0.50	1.14	1.11	1.14	1.10	1.10
630.00	6.48	6.36	6.40	6.41	0.11	30.13	31.33	27.92	0.50	1.13	1.11	1.14	1.11	1.11
640.00	6.49	6.38	6.41	6.40	0.11	30.79	31.58	28.98	0.43	1.13	1.11	1.13	1.11	1.11
650.00	6.48	6.37	6.40	6.40	0.11	31.26	31.99	30.22	0.36	1.13	1.11	1.13	1.11	1.11
700.00	6.51	6.40	6.43	6.42	0.11	29.24	35.91	35.01	0.41	1.10	1.08	1.10	1.10	1.10

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



electrical schematic



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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