

Coaxial

High Power Combiner

4 Way-0° 50Ω

100 to 440 MHz

ZB4CS-440-12W

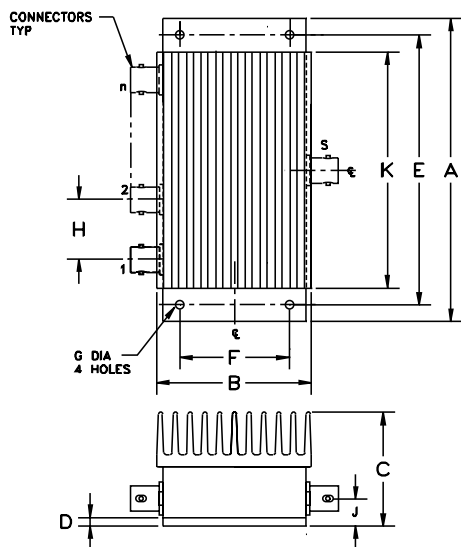
Maximum Ratings

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
4.50	2.25	1.69	.125	4.000	1.625
114.30	57.15	42.93	3.18	101.60	41.28

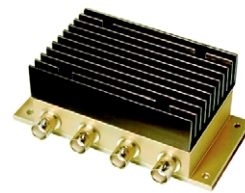
G	H	J	K	wt
.144	.890	.44	3.50	grams
3.66	22.61	11.18	88.90	500

Features

- high power, up to 12W input power
- wideband, 100 to 440 MHz
- low insertion loss, 0.6 dB typ.
- high isolation, 27 dB typ.

Applications

- VHF/UHF
- communication receivers & transmitters



BNC version shown

CASE STYLE: AW256

Connectors	Model	Price	Qty.
BNC	ZB4CS-440-12W	\$134.95	(1-9)
N-TYPE	ZB4CS-440-12W-N	\$149.95	(1-9)
SMA	ZB4CS-440-12W-S	\$149.95	(1-9)

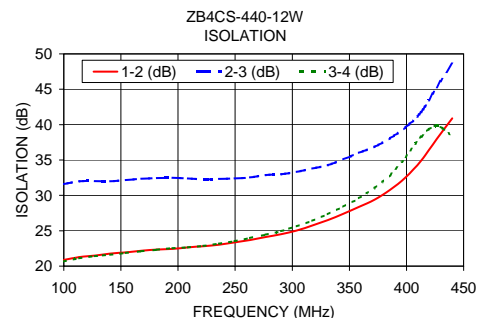
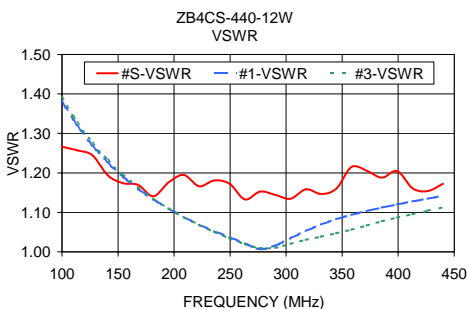
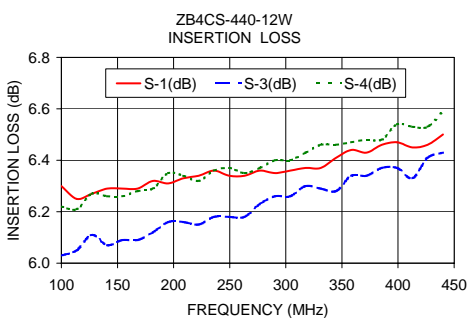
High Power Combiner Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 6.0 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	POWER INPUT ¹ (W)
f_L - f_U	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	as combiner ² Max. as splitter Max.
100-440	27 17	0.6 1.2	0.8 4.0	0.15 0.5	12 10

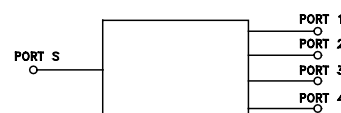
1. Over -55°C to +55°C. Derate linearly to 20% of rating at 90°C
2. As a combiner of non-coherent signals, max. power per port is power rating divided by number of ports.

Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR				
	S-1	S-2	S-3	S-4		1-2	2-3	3-4		S	1	2	3	4
100.00	6.30	6.20	6.03	6.22	0.26	20.88	31.60	20.67	0.56	1.27	1.38	1.38	1.39	1.38
113.60	6.25	6.26	6.05	6.21	0.21	21.27	32.00	21.12	0.47	1.26	1.32	1.32	1.33	1.31
127.20	6.27	6.28	6.11	6.27	0.16	21.50	32.01	21.42	0.52	1.24	1.27	1.27	1.28	1.26
154.40	6.29	6.26	6.09	6.26	0.19	21.94	32.17	21.88	0.55	1.17	1.19	1.19	1.20	1.18
181.60	6.32	6.30	6.12	6.29	0.20	22.35	32.45	22.31	0.55	1.14	1.13	1.13	1.14	1.12
208.80	6.33	6.31	6.16	6.34	0.18	22.65	32.39	22.65	0.76	1.19	1.09	1.08	1.09	1.08
236.00	6.36	6.31	6.18	6.36	0.18	23.03	32.32	23.16	0.91	1.18	1.05	1.04	1.05	1.05
263.20	6.34	6.32	6.18	6.35	0.17	23.69	32.55	23.97	0.92	1.13	1.02	1.01	1.02	1.03
290.40	6.35	6.35	6.26	6.40	0.14	24.53	32.99	24.94	0.91	1.14	1.02	1.03	1.01	1.00
317.60	6.37	6.39	6.30	6.43	0.14	25.74	33.79	26.40	0.85	1.16	1.05	1.06	1.03	1.04
344.80	6.41	6.39	6.28	6.46	0.18	27.40	35.10	28.40	1.01	1.16	1.08	1.08	1.05	1.06
372.00	6.43	6.43	6.34	6.48	0.14	29.39	36.86	31.06	1.23	1.21	1.10	1.11	1.07	1.08
399.20	6.47	6.44	6.37	6.54	0.18	32.55	39.61	35.43	1.18	1.20	1.12	1.14	1.09	1.10
426.40	6.46	6.49	6.41	6.53	0.12	37.95	45.29	39.84	1.79	1.15	1.13	1.15	1.10	1.12
440.00	6.50	6.50	6.43	6.59	0.16	40.88	48.60	38.28	1.63	1.17	1.14	1.16	1.11	1.13



electrical schematic



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 REV. OR
 M94385
 ZB4CS-440-12W
 HY/IDCP
 060202