

High Power Combiner

ZB3CS-900-6W

3 Way-0° 50Ω 440 to 900 MHz

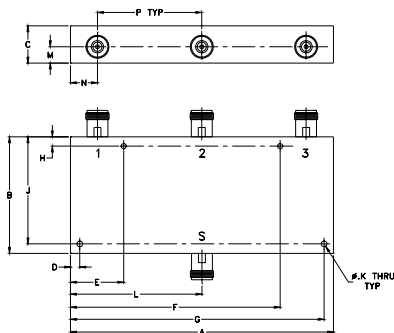
Maximum Ratings

Operating Temperature	-55°C to 90°C
Storage Temperature	-55°C to 100°C
DC Current	450 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

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	2.80		grams	
73.03	3.96	89.66	11.18	18.54	71.12		810	

Features

- up to 6 watts input power
- good isolation, 24 dB typ.
- low insertion loss, 0.2 dB typ.
- excellent VSWR, 1.2 typ.

Applications

- TV broadcast
- UHF transmitters



CASE STYLE: Z667

Connectors	Model
N-TYPE	ZB3CS-900-6W-N

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 ¹ (W)	
f_L - f_U	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	as combiner ² Max.	as splitter Max.
440-900	24	17	0.2	1.0	3.0	6.0	0.1	0.4	6	20

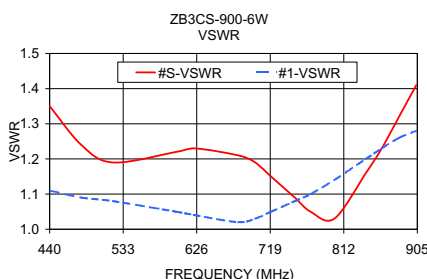
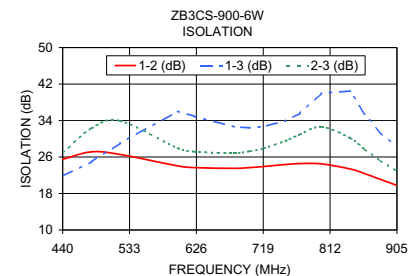
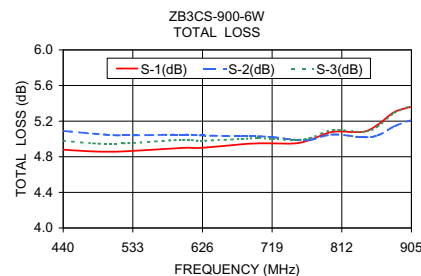
1. Over -55°C to +55°C. Derate linearly to 20% of rating at 90°C

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

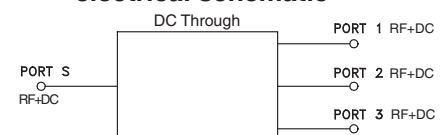
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
440.00	4.88	5.09	4.98	0.21	25.51	21.81	26.95	1.52	1.35	1.11	1.04	1.09
480.00	4.86	5.06	4.95	0.20	27.14	24.93	32.28	1.61	1.24	1.09	1.05	1.07
520.00	4.86	5.04	4.95	0.18	26.56	29.04	33.92	1.70	1.19	1.08	1.07	1.05
600.00	4.90	5.05	4.99	0.15	24.06	36.03	27.95	1.88	1.22	1.05	1.09	1.01
624.00	4.90	5.04	4.98	0.14	23.67	34.88	27.17	1.93	1.23	1.04	1.10	1.01
678.67	4.94	5.03	5.00	0.09	23.51	32.60	26.85	2.13	1.21	1.02	1.09	1.04
700.00	4.95	5.03	5.01	0.08	23.68	32.41	27.27	2.19	1.19	1.03	1.09	1.06
720.00	4.95	5.02	5.00	0.07	23.93	32.68	27.93	2.22	1.15	1.05	1.09	1.08
750.00	4.95	4.99	4.99	0.04	24.35	33.94	29.53	2.35	1.09	1.08	1.09	1.11
770.00	4.99	4.99	5.01	0.03	24.56	35.57	30.94	2.37	1.05	1.10	1.09	1.13
800.00	5.08	5.05	5.10	0.05	24.50	39.99	32.62	2.63	1.03	1.14	1.10	1.16
840.00	5.08	5.02	5.08	0.06	23.37	40.47	30.15	2.69	1.16	1.20	1.13	1.21
860.00	5.16	5.04	5.14	0.12	22.37	35.45	27.71	2.90	1.23	1.23	1.15	1.24
881.82	5.30	5.14	5.29	0.16	21.10	31.39	25.21	3.07	1.32	1.26	1.17	1.27
903.64	5.36	5.21	5.37	0.16	19.84	28.37	23.05	3.08	1.41	1.28	1.19	1.30

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



electrical schematic



Notes

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