

High Power Combiner

ZB5CS-920-10W

5 Way-0° 50Ω 450 to 920 MHz

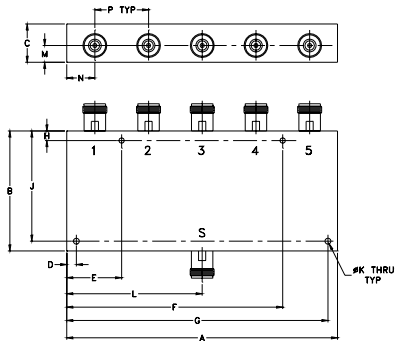
Maximum Ratings

Operating Temperature	-55°C to 90°C
Storage Temperature	-55°C to 100°C
DC Current	500mA (100mA 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
PORT 5	5

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

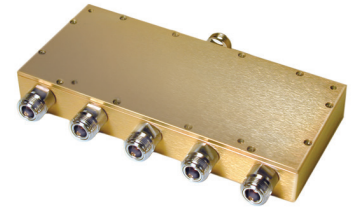
J	K	L	M	N	P	wt
2.875	.156	3.53	.44	.73	1.40	grams
73.03	3.96	89.66	11.18	18.54	35.56	854

Features

- high power, up to 10W input power
- low insertion loss, 0.4 dB typ.
- good isolation, 26 dB typ.
- excellent amplitude unbalance, 0.10 dB typ.

Applications

- UHF transmitters



CASE STYLE: Z668

Connectors	Model
N-TYPE	ZB5CS-920-10W-N

High Power Combiner Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 7.0 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.
450-920	26	18	0.4	1.0	2.0	7.0	0.10	0.6	10	20

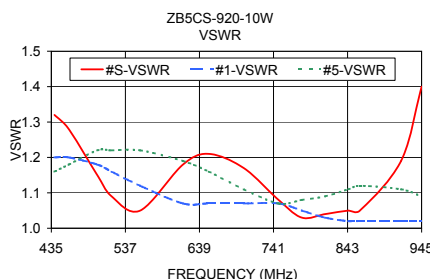
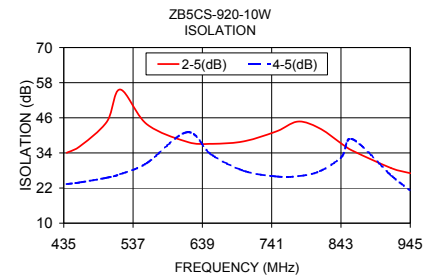
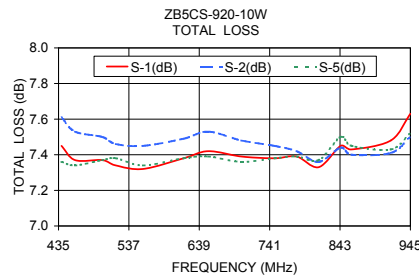
1. Over -55°C to +55°C. Derate linearly to 20% of rating at 90°C

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

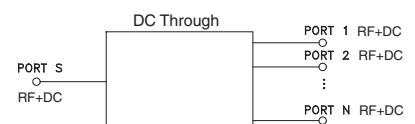
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)					Amp. Unbal. (dB)	Isolation (dB)				Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 5
	S-1	S-2	S-3	S-4	S-5		1-2	2-3	2-5	4-5				
439.33	7.45	7.61	7.23	7.33	7.36	0.38	29.85	32.97	34.05	23.36	5.06	1.32	1.20	1.16
459.00	7.37	7.53	7.16	7.32	7.34	0.37	31.52	34.93	36.31	23.92	4.66	1.28	1.20	1.18
498.33	7.37	7.50	7.19	7.35	7.37	0.30	29.76	29.48	44.62	25.53	4.19	1.15	1.18	1.22
518.00	7.34	7.46	7.19	7.37	7.38	0.27	27.66	26.83	55.67	26.74	3.84	1.09	1.16	1.22
557.33	7.32	7.45	7.21	7.34	7.34	0.24	24.77	23.59	43.79	30.54	3.18	1.05	1.12	1.22
616.33	7.38	7.49	7.31	7.39	7.38	0.18	23.71	22.17	37.80	41.07	2.57	1.18	1.07	1.19
652.00	7.42	7.53	7.39	7.40	7.39	0.14	24.41	22.54	37.11	33.51	2.46	1.21	1.07	1.16
700.00	7.39	7.48	7.41	7.38	7.36	0.12	26.49	24.03	37.97	27.88	2.21	1.17	1.07	1.11
748.00	7.38	7.45	7.44	7.42	7.38	0.07	28.55	26.09	41.36	25.95	1.98	1.08	1.07	1.07
780.00	7.39	7.42	7.48	7.43	7.39	0.10	28.16	26.88	44.71	26.07	1.42	1.03	1.05	1.08
812.00	7.33	7.36	7.47	7.41	7.37	0.14	26.76	26.96	42.35	27.75	1.23	1.04	1.03	1.09
844.00	7.45	7.44	7.62	7.55	7.50	0.18	25.33	26.69	37.12	32.70	1.76	1.05	1.02	1.11
860.00	7.43	7.40	7.63	7.51	7.45	0.23	24.48	26.32	34.76	38.68	2.16	1.05	1.02	1.12
916.67	7.48	7.41	7.77	7.51	7.43	0.36	21.01	23.61	28.84	26.36	3.08	1.19	1.02	1.11
945.00	7.63	7.50	7.98	7.59	7.52	0.48	18.59	20.84	27.05	21.17	3.45	1.40	1.02	1.09

1. Total Loss = Insertion Loss + 7dB splitter loss.



electrical schematic



Notes

- 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.
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