

# Coaxial High Power Combiner

## ZA2CS-500-15W

2 Way-0° 50Ω 200 to 500 MHz

### Maximum Ratings

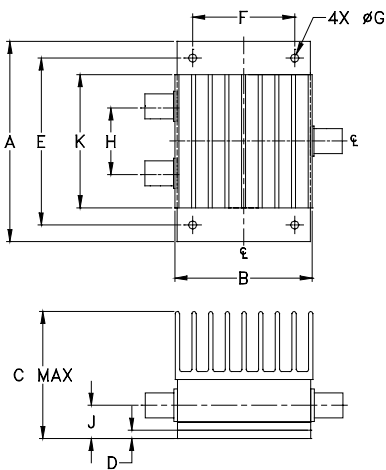
Operating Temperature	-55°C to 90°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F
3.00	2.06	1.92	.100	2.500	1.525
76.20	52.32	48.77	2.54	63.50	38.74
G	H	J	K	wt	
.125	1.000	.50	2.00	grams	
3.18	25.40	12.70	50.80	330	

### Features

- high power, up to 15W input power
- wideband, 200 to 500 MHz
- high isolation, 31 dB typ.

### Applications

- communication systems
- VHF transmitters



Generic photo used for illustration purposes only

BNC version shown

CASE STYLE: AW254

Connectors	Model
BNC	ZA2CS-500-15W
N-TYPE	ZA2CS-500-15W-N
SMA	ZA2CS-500-15W-S

### High Power Combiner Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		POWER INPUT <sup>1</sup> (W)	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	as combiner <sup>2</sup> Max.	as splitter Max.
200-500	31	20	0.3	1.0	0.3	3.0	0.10	0.4	15	15

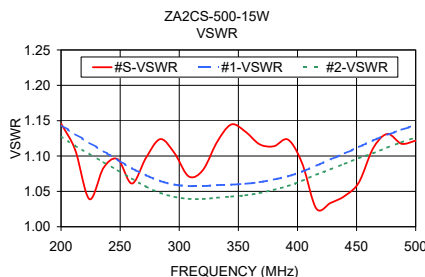
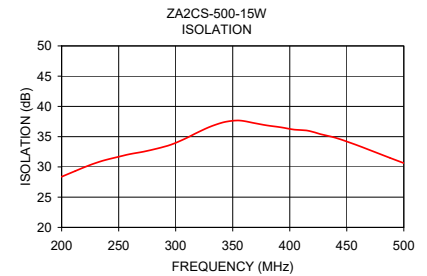
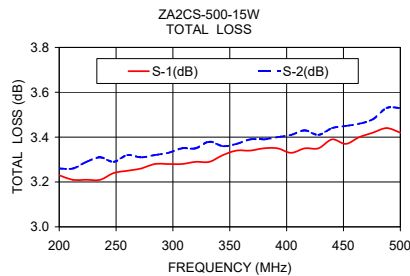
1. Over -55°C to +55°C. Derate linearly to 20% of rating at 90°C

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

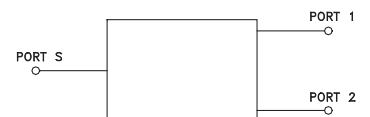
### Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
200.00	3.23	3.26	0.03	28.38	0.31	1.15	1.14	1.13
212.00	3.21	3.26	0.06	29.33	0.50	1.11	1.13	1.11
224.00	3.21	3.29	0.09	30.25	0.19	1.04	1.12	1.10
248.00	3.24	3.29	0.05	31.59	0.27	1.10	1.09	1.08
272.00	3.26	3.31	0.05	32.52	0.20	1.10	1.07	1.06
296.00	3.28	3.33	0.05	33.68	0.29	1.10	1.06	1.04
320.00	3.29	3.35	0.06	35.77	0.36	1.08	1.06	1.04
344.00	3.32	3.36	0.04	37.47	0.44	1.14	1.06	1.04
368.00	3.34	3.39	0.06	37.28	0.29	1.12	1.06	1.05
392.00	3.35	3.40	0.05	36.55	0.41	1.12	1.07	1.06
416.00	3.35	3.43	0.08	35.98	0.09	1.03	1.09	1.07
440.00	3.39	3.44	0.05	34.82	0.24	1.04	1.10	1.09
464.00	3.40	3.46	0.05	33.24	0.33	1.11	1.12	1.10
488.00	3.44	3.53	0.09	31.48	0.35	1.12	1.14	1.12
500.00	3.42	3.53	0.10	30.63	0.30	1.12	1.14	1.13

1. Total Loss = Insertion Loss + 3dB 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.
- 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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