

Coaxial High Power Combiner

ZA2CS-600-10W

2 Way-0° 50Ω 100 to 600 MHz

Maximum Ratings

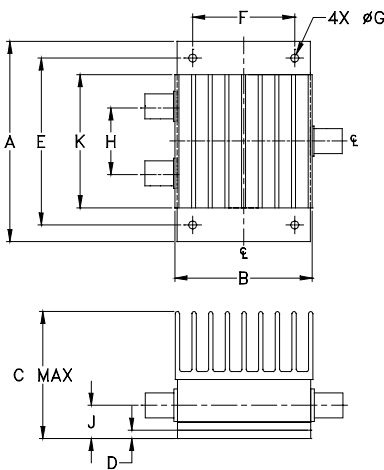
| | |
|-----------------------|----------------|
| Operating Temperature | -55°C to 90°C |
| Storage Temperature | -55°C to 100°C |

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 10W input power
- wideband, 100 to 600 MHz
- low insertion loss, 0.4 dB typ.
- high isolation, 27 dB typ.

Applications

- VHF/UHF
- communication receivers & transmitters



BNC version shown
CASE STYLE: AW254

| Connectors | Model |
|------------|-----------------|
| BNC | ZA2CS-600-10W |
| N-TYPE | ZA2CS-600-10W-N |
| SMA | ZA2CS-600-10W-S |

High Power Combiner Electrical Specifications

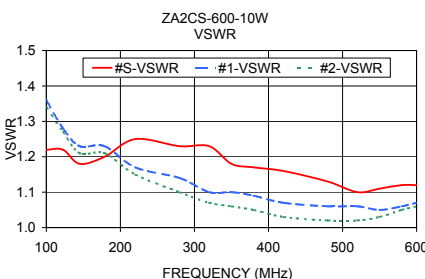
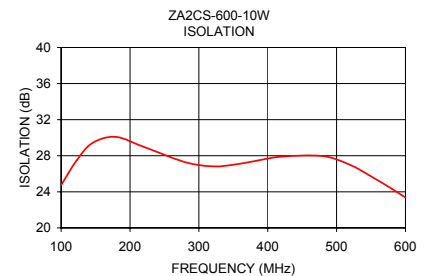
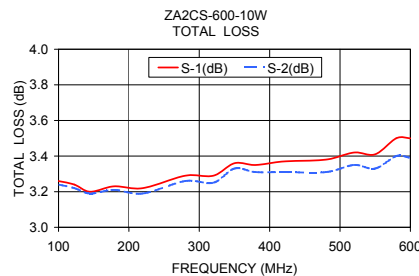
| FREQ. RANGE (MHz) | ISOLATION (dB) | | INSERTION LOSS (dB) ABOVE 3.0 dB | | PHASE UNBALANCE (Degrees) | | AMPLITUDE UNBALANCE (dB) | | POWER INPUT ¹ (W) | |
|-------------------|----------------|------|----------------------------------|------|---------------------------|------|--------------------------|------|-------------------------------|------------------|
| | Typ. | Min. | Typ. | Max. | Typ. | Max. | Typ. | Max. | as combiner ² Max. | as splitter Max. |
| f_L - f_U | 27 | 15 | 0.4 | 1.3 | 0.4 | 3.0 | 0.15 | 0.5 | 10 | 10 |

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

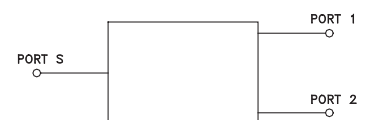
Typical Performance Data

| Frequency (MHz) | Total Loss ¹ (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
| | S-1 | S-2 | | | | | | |
| 100.00 | 3.26 | 3.24 | 0.01 | 24.75 | 0.16 | 1.22 | 1.36 | 1.34 |
| 122.50 | 3.24 | 3.22 | 0.02 | 27.48 | 0.09 | 1.22 | 1.28 | 1.27 |
| 145.00 | 3.20 | 3.19 | 0.01 | 29.39 | 0.21 | 1.18 | 1.23 | 1.21 |
| 178.75 | 3.23 | 3.21 | 0.02 | 30.09 | 0.06 | 1.20 | 1.23 | 1.21 |
| 220.00 | 3.22 | 3.19 | 0.03 | 28.98 | 0.23 | 1.25 | 1.17 | 1.15 |
| 280.00 | 3.29 | 3.26 | 0.03 | 27.29 | 0.27 | 1.23 | 1.14 | 1.10 |
| 320.00 | 3.29 | 3.25 | 0.04 | 26.82 | 0.24 | 1.23 | 1.10 | 1.07 |
| 350.00 | 3.36 | 3.33 | 0.03 | 27.00 | 0.26 | 1.18 | 1.10 | 1.06 |
| 380.00 | 3.35 | 3.31 | 0.04 | 27.39 | 0.47 | 1.17 | 1.09 | 1.05 |
| 420.00 | 3.37 | 3.31 | 0.05 | 27.90 | 0.36 | 1.16 | 1.07 | 1.03 |
| 480.00 | 3.38 | 3.31 | 0.07 | 27.96 | 0.48 | 1.13 | 1.06 | 1.02 |
| 520.00 | 3.42 | 3.35 | 0.07 | 26.97 | 0.60 | 1.10 | 1.06 | 1.02 |
| 550.00 | 3.41 | 3.33 | 0.08 | 25.72 | 0.64 | 1.11 | 1.05 | 1.03 |
| 580.00 | 3.50 | 3.40 | 0.10 | 24.34 | 0.78 | 1.12 | 1.06 | 1.05 |
| 600.00 | 3.50 | 3.39 | 0.11 | 23.37 | 0.66 | 1.12 | 1.07 | 1.06 |

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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