

Coaxial Power Splitter/Combiner

ZCSC-3-R3+

3 Way-0° 50Ω 2 to 300 MHz

Maximum Ratings

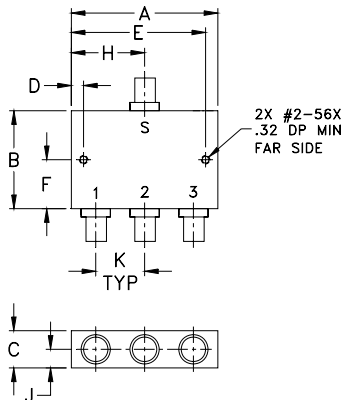
| | |
|-----------------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 1W max. |
| Internal Dissipation | 0.375W max. |

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 | |
| 1.50 | 1.00 | .38 | .125 | 1.375 | 5.70 | |
| 38.10 | 25.40 | 9.65 | 3.18 | 34.93 | 12.70 | |
| G | H | J | K | | | wt |
| -- | .75 | .19 | .50 | | | grams |
| -- | 19.05 | 4.83 | 12.70 | | | 28 |

Features

- low insertion loss, 0.4 dB typ.
- high isolation, 31 dB typ.
- excellent VSWR, 1.1:1 typ.
- excellent phase unbalance 1 deg. typ.
- rugged shielded case

Applications

- VHF/UHF
- instrumentation
- communication system

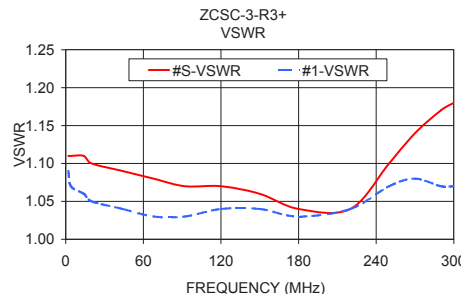
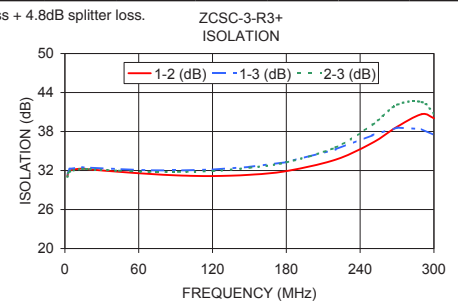
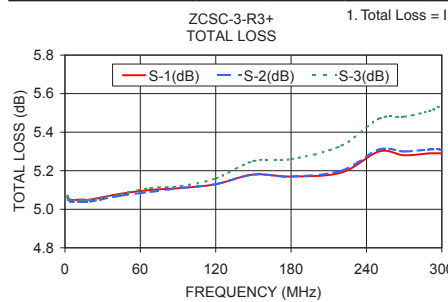
Electrical Specifications at 25°C

| FREQ. RANGE (MHz) | ISOLATION (dB) | | | | | | INSERTION LOSS (dB) ABOVE 4.8 dB | | | | | | PHASE UNBALANCE (Degrees) | | | AMPLITUDE UNBALANCE (dB) | | |
|-------------------|----------------|------|------|------|------|------|----------------------------------|------|------|------|------|------|---------------------------|------|------|--------------------------|------|-----|
| | L | | M | | U | | L | | M | | U | | L | M | U | L | M | U |
| f_L - f_U | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Max. | Typ. | Max. | Typ. | Max. | Max. | Max. | Max. | Max. | Max. | |
| 2-300 | 32 | 26 | 31 | 28 | 32 | 22 | 0.3 | 0.8 | 0.4 | 1.0 | 0.8 | 1.2 | 1.0 | 2.0 | 3.0 | 0.1 | 0.3 | 0.3 |

L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

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 | | | | | |
| 2.00 | 5.07 | 5.06 | 5.07 | 0.00 | 31.14 | 31.55 | 31.03 | 0.03 | 1.11 | 1.09 | 1.09 | 1.09 |
| 4.00 | 5.05 | 5.04 | 5.05 | 0.01 | 31.99 | 32.25 | 31.85 | 0.02 | 1.11 | 1.07 | 1.07 | 1.07 |
| 14.00 | 5.05 | 5.04 | 5.05 | 0.01 | 32.30 | 32.50 | 32.24 | 0.05 | 1.11 | 1.06 | 1.06 | 1.06 |
| 20.00 | 5.05 | 5.04 | 5.05 | 0.01 | 32.17 | 32.44 | 32.21 | 0.04 | 1.10 | 1.05 | 1.05 | 1.05 |
| 44.00 | 5.08 | 5.07 | 5.08 | 0.01 | 31.81 | 32.22 | 31.97 | 0.09 | 1.09 | 1.04 | 1.04 | 1.04 |
| 68.00 | 5.10 | 5.09 | 5.11 | 0.01 | 31.49 | 32.04 | 31.82 | 0.23 | 1.08 | 1.03 | 1.04 | 1.03 |
| 92.00 | 5.11 | 5.11 | 5.12 | 0.01 | 31.25 | 32.01 | 31.79 | 0.32 | 1.07 | 1.03 | 1.04 | 1.02 |
| 120.00 | 5.13 | 5.13 | 5.16 | 0.03 | 31.15 | 32.15 | 31.93 | 0.33 | 1.07 | 1.04 | 1.05 | 1.04 |
| 150.00 | 5.18 | 5.18 | 5.25 | 0.06 | 31.34 | 32.56 | 32.42 | 0.42 | 1.06 | 1.04 | 1.05 | 1.05 |
| 180.00 | 5.17 | 5.17 | 5.26 | 0.09 | 31.91 | 33.29 | 33.26 | 0.45 | 1.04 | 1.03 | 1.03 | 1.04 |
| 220.00 | 5.19 | 5.20 | 5.33 | 0.14 | 33.67 | 35.24 | 35.57 | 0.56 | 1.04 | 1.04 | 1.04 | 1.04 |
| 250.00 | 5.30 | 5.31 | 5.47 | 0.18 | 36.27 | 37.44 | 39.06 | 0.68 | 1.10 | 1.07 | 1.07 | 1.09 |
| 270.00 | 5.28 | 5.30 | 5.48 | 0.21 | 38.73 | 38.61 | 42.11 | 0.76 | 1.14 | 1.08 | 1.08 | 1.10 |
| 290.00 | 5.29 | 5.31 | 5.51 | 0.23 | 40.66 | 38.38 | 42.54 | 0.72 | 1.17 | 1.07 | 1.08 | 1.11 |
| 300.00 | 5.29 | 5.31 | 5.54 | 0.25 | 40.04 | 37.45 | 40.72 | 0.81 | 1.18 | 1.07 | 1.07 | 1.10 |



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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