

Coaxial

Power Splitter/Combiner

ZFSC-12-1W-75

12 Way-0° 75Ω 5 to 860 MHz



Maximum Ratings

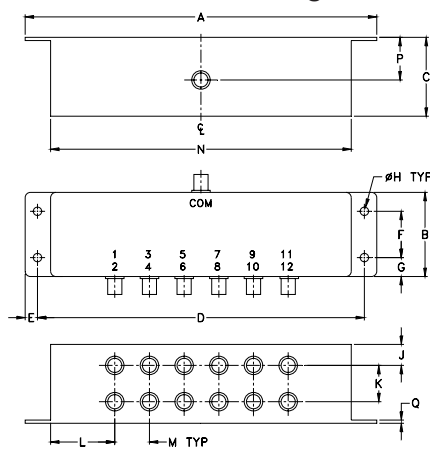
| | |
|-----------------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 1W max. |
| Internal Dissipation | 0.87W max. |

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

Coaxial Connections

| | |
|---------------------|----------------|
| SUM PORT | S(COM) |
| PORT 1,2,3,.....,12 | 1,2,3,.....,12 |

Outline Drawing



Outline Dimensions (inch/mm)

| | | | | | | | |
|--------|-------|-------|--------|--------|-------|------|-------|
| A | B | C | D | E | F | G | H |
| 6.69 | 1.60 | 1.50 | 6.22 | .24 | .88 | .36 | .160 |
| 169.93 | 40.64 | 38.10 | 157.99 | 6.10 | 22.35 | 9.14 | 4.06 |
| J | K | L | M | N | P | Q | wt. |
| .40 | .69 | 1.22 | .66 | 5.72 | .81 | .06 | grams |
| 10.16 | 17.53 | 30.99 | 16.76 | 145.29 | 20.57 | 1.52 | 310.0 |

Features

- high isolation, 35 dB typ.
- excellent amplitude unbalance, 0.2 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- federal and defense communications
- instrumentation

CASE STYLE: R67

| | |
|------------|---------------|
| Connectors | Model |
| BNC | ZFSC-12-1W-75 |

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

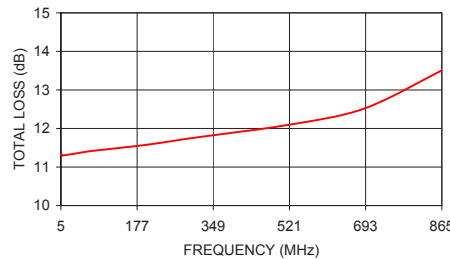
| FREQ. RANGE (MHz) | ISOLATION (dB) | | | | | | INSERTION LOSS (dB) ABOVE 10.8 dB | | | | | | PHASE UNBALANCE (Degrees) | | | AMPLITUDE UNBALANCE (dB) | | |
|--------------------------------|----------------|------|------|------|------|------|-----------------------------------|------|------|------|------|------|---------------------------|------|------|--------------------------|------|------|
| | L | | M | | U | | L | | M | | U | | L | M | U | L | M | U |
| | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Max. | Typ. | Max. | Typ. | Max. | Max. | Max. | Max. | Max. | Max. | Max. |
| f _L -f _U | 33 | 22 | 30 | 20 | 26 | 18 | 0.5 | 1.2 | 0.8 | 2.5 | 1.6 | 4.2 | 2 | 8 | 20 | 0.7 | 0.8 | 1.5 |

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]

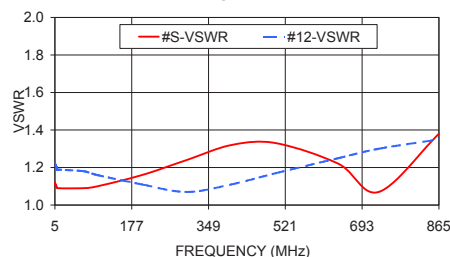
Typical Performance Data

| Freq. (MHz) | Total Loss ¹ (dB) | Amplitude Unbalance (dB) | Isolation (dB) | | Phase Unbalance (deg.) | VSWR S | VSWR 12 |
|-------------|------------------------------|--------------------------|----------------|----------|------------------------|--------|---------|
| | | | Adjacent | Opposite | | | |
| | | | 5.00 | 11.34 | | | |
| 6.00 | 11.32 | 0.11 | 32.87 | 37.57 | 0.47 | 1.11 | 1.21 |
| 7.00 | 11.31 | 0.10 | 33.13 | 37.71 | 0.44 | 1.11 | 1.21 |
| 8.00 | 11.30 | 0.10 | 33.33 | 37.80 | 0.45 | 1.10 | 1.20 |
| 9.00 | 11.31 | 0.09 | 33.47 | 37.86 | 0.41 | 1.10 | 1.20 |
| 10.00 | 11.30 | 0.10 | 33.58 | 37.90 | 0.45 | 1.09 | 1.19 |
| 70.00 | 11.41 | 0.04 | 32.40 | 33.98 | 0.74 | 1.09 | 1.18 |
| 100.00 | 11.45 | 0.06 | 31.34 | 32.22 | 0.69 | 1.10 | 1.16 |
| 200.00 | 11.58 | 0.08 | 28.50 | 28.31 | 0.84 | 1.16 | 1.11 |
| 300.00 | 11.75 | 0.12 | 27.11 | 26.53 | 0.96 | 1.24 | 1.07 |
| 400.00 | 11.90 | 0.19 | 26.65 | 25.92 | 0.96 | 1.32 | 1.11 |
| 500.00 | 12.06 | 0.25 | 26.39 | 25.96 | 1.32 | 1.33 | 1.17 |
| 640.00 | 12.35 | 0.40 | 25.20 | 26.20 | 2.75 | 1.22 | 1.25 |
| 730.00 | 12.71 | 0.49 | 24.34 | 25.95 | 3.88 | 1.07 | 1.30 |
| 865.00 | 13.51 | 0.66 | 23.49 | 26.29 | 5.58 | 1.38 | 1.35 |

ZFSC-12-1W-75 TOTAL LOSS

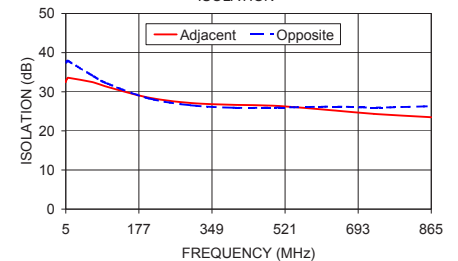


ZFSC-12-1W-75 VSWR



1. Total Loss = Insertion Loss + 10.8dB splitter loss.

ZFSC-12-1W-75 ISOLATION



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.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/WCLStore/terms.jsp

