

Coaxial

# Power Splitter/Combiner

12 Way-0° 75Ω 10 to 200 MHz

ZFSC-12-1-75+

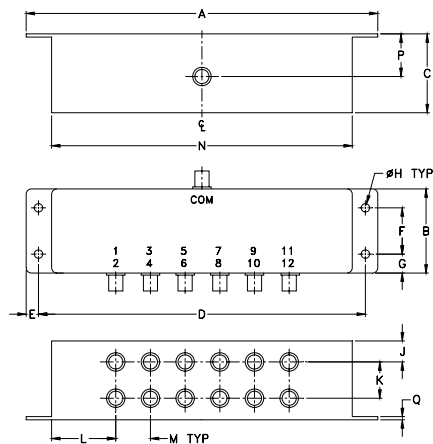
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| 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, 30 dB typ.
- rugged shielded case

## Applications

- VHF
- communication systems
- instrumentation



CASE STYLE: R67

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

+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              |      | U    |      | L                                 |      | U    |      | L                         | U    | L                        | U    |
|                   | Typ.           | Min. | Typ. | Min. | Typ.                              | Max. | Typ. | Max. | Max.                      | Max. | Max.                     | Max. |
| 10-200            | 35             | 27   | 27   | 20   | 0.5                               | 0.8  | 0.8  | 1.3  | —                         | —    | 0.25                     | 0.4  |

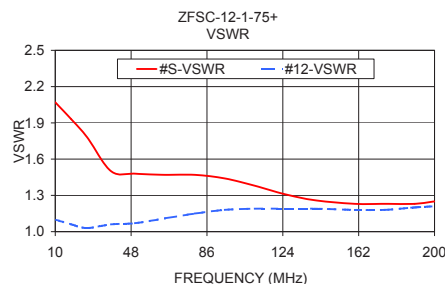
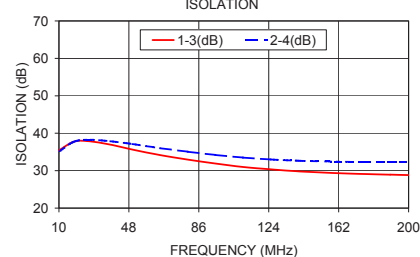
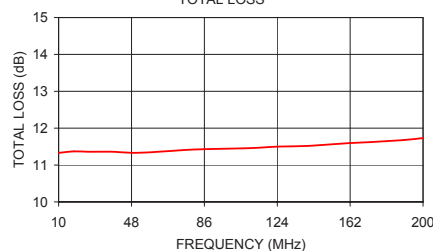
L = low range [ $f_L$  to  $10 f_L$ ]U = upper range [ $f_U/2$  to  $f_U$ ]

## Typical Performance Data

| Freq. (MHz) | Total Loss <sup>1</sup> (dB) | Amplitude Unbalance (dB) | Isolation (dB) |       | Phase Unbalance (deg.) | VSWR S | VSWR 12 |
|-------------|------------------------------|--------------------------|----------------|-------|------------------------|--------|---------|
|             |                              |                          | 1-3            | 2-4   |                        |        |         |
| 10.00       | 11.33                        | 0.11                     | 35.42          | 35.06 | 0.57                   | 2.07   | 1.10    |
| 18.00       | 11.37                        | 0.12                     | 37.74          | 37.70 | 0.76                   | 1.93   | 1.06    |
| 26.00       | 11.36                        | 0.11                     | 37.87          | 38.27 | 1.24                   | 1.78   | 1.03    |
| 38.00       | 11.36                        | 0.04                     | 36.96          | 37.86 | 1.61                   | 1.50   | 1.06    |
| 50.00       | 11.33                        | 0.07                     | 35.63          | 37.12 | 1.67                   | 1.48   | 1.07    |
| 65.00       | 11.37                        | 0.09                     | 34.16          | 36.01 | 1.53                   | 1.47   | 1.11    |
| 80.00       | 11.42                        | 0.09                     | 32.95          | 35.06 | 1.70                   | 1.47   | 1.15    |
| 95.00       | 11.44                        | 0.12                     | 31.92          | 34.21 | 1.89                   | 1.44   | 1.18    |
| 110.00      | 11.46                        | 0.14                     | 30.98          | 33.49 | 1.89                   | 1.38   | 1.19    |
| 125.00      | 11.50                        | 0.15                     | 30.37          | 33.00 | 2.01                   | 1.31   | 1.19    |
| 140.00      | 11.52                        | 0.16                     | 29.83          | 32.65 | 2.10                   | 1.26   | 1.19    |
| 160.00      | 11.59                        | 0.17                     | 29.37          | 32.42 | 2.24                   | 1.23   | 1.18    |
| 175.00      | 11.63                        | 0.18                     | 29.13          | 32.34 | 2.34                   | 1.23   | 1.18    |
| 190.00      | 11.68                        | 0.18                     | 28.94          | 32.34 | 2.52                   | 1.23   | 1.20    |
| 200.00      | 11.73                        | 0.19                     | 28.82          | 32.34 | 2.65                   | 1.25   | 1.21    |

ZFSC-12-1-75+  
TOTAL LOSS

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

ZFSC-12-1-75+  
ISOLATION

## electrical schematic



## Notes

- A. 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.  
 B. 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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[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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ZFSC-12-1-75+  
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