

Coaxial

# Power Splitter/Combiner

ZFSC-16-1-75+

16 Way-0° 75Ω 1 to 150 MHz

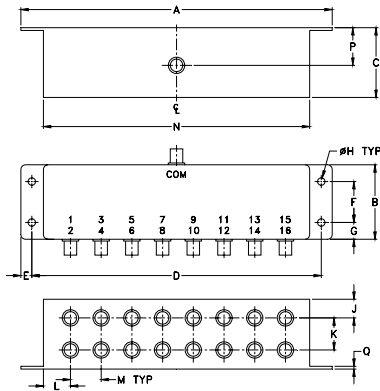
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| 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,.....,16 | 1,2,3,.....,16 |

## 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   | .55   | .66    | 5.72   | .81   | .06  | grams |
| 10.16  | 17.53 | 13.97 | 16.76  | 145.29 | 20.57 | 1.52 | 320   |

## Features

- low insertion loss, 0.7 dB typ.
- high isolation, 30 dB typ.
- excellent amplitude unbalance, 0.2 dB typ.
- rugged shielded case

## Applications

- HF/VHF
- communication systems
- instrumentation



CASE STYLE: R30

Connectors Model  
BNC ZFSC-16-1-75+

+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 12 dB |      |      |      |      |      | PHASE UNBALANCE (Degrees) |      |      | AMPLITUDE UNBALANCE (dB) |      |      |
|-------------------|----------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|---------------------------|------|------|--------------------------|------|------|
|                   | 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. | Max. |
| 1-150             | 30             | 25   | 30   | 25   | 25   | 20   | 0.8                             | 1.1  | 0.7  | 1.1  | 1.0  | 1.3  | 3                         | 6    | 10   | 0.4                      | 0.2  | 0.4  |

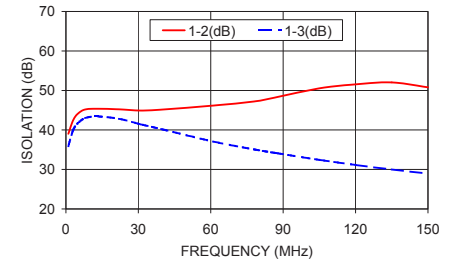
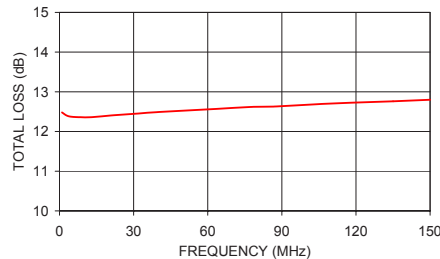
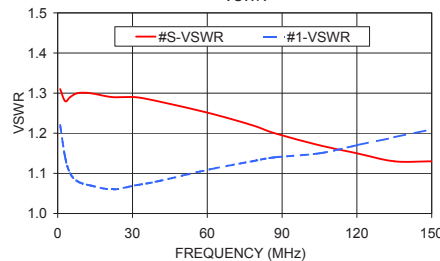
L = low range [ $f_L$  to 10  $f_L$ ] M = mid range [10  $f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

## Typical Performance Data

| Freq.<br>(MHz) | Total Loss¹<br>(dB) | Amplitude<br>Unbalance<br>(dB) | Isolation<br>(dB) |          | Phase<br>Unbalance<br>(deg.) | VSWR<br>S | VSWR<br>1 |
|----------------|---------------------|--------------------------------|-------------------|----------|------------------------------|-----------|-----------|
|                |                     |                                | Adjacent          | Opposite |                              |           |           |
| S-1            |                     |                                |                   |          |                              |           |           |
| 1.00           | 12.48               | 0.26                           | 39.02             | 35.90    | 1.42                         | 1.31      | 1.22      |
| 3.00           | 12.40               | 0.18                           | 42.46             | 39.97    | 0.90                         | 1.28      | 1.14      |
| 5.00           | 12.37               | 0.15                           | 44.14             | 41.72    | 0.75                         | 1.29      | 1.10      |
| 8.00           | 12.36               | 0.14                           | 45.18             | 43.00    | 0.65                         | 1.30      | 1.08      |
| 13.00          | 12.36               | 0.13                           | 45.36             | 43.42    | 0.66                         | 1.30      | 1.07      |
| 22.00          | 12.41               | 0.11                           | 45.22             | 42.83    | 0.75                         | 1.29      | 1.06      |
| 31.00          | 12.45               | 0.07                           | 44.91             | 41.43    | 0.84                         | 1.29      | 1.07      |
| 40.00          | 12.49               | 0.07                           | 45.16             | 40.14    | 0.85                         | 1.28      | 1.08      |
| 61.00          | 12.56               | 0.08                           | 46.17             | 37.07    | 0.95                         | 1.25      | 1.11      |
| 78.00          | 12.62               | 0.07                           | 47.21             | 35.06    | 0.98                         | 1.22      | 1.13      |
| 87.00          | 12.63               | 0.10                           | 48.26             | 34.15    | 0.94                         | 1.20      | 1.14      |
| 105.00         | 12.69               | 0.10                           | 50.55             | 32.42    | 0.99                         | 1.17      | 1.15      |
| 120.00         | 12.73               | 0.11                           | 51.55             | 31.15    | 0.96                         | 1.15      | 1.17      |
| 135.00         | 12.76               | 0.13                           | 52.04             | 30.00    | 1.07                         | 1.13      | 1.19      |
| 150.00         | 12.80               | 0.14                           | 50.80             | 28.97    | 1.18                         | 1.13      | 1.21      |

ZFSC-16-1-75+  
TOTAL LOSS

1. Total Loss = Insertion Loss + 12dB splitter loss.

ZFSC-16-1-75+  
ISOLATIONZFSC-16-1-75+  
VSWR

## 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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