

Coaxial

# Power Splitter/Combiner

ZFSC-2-5+

2 Way-0° 50Ω 10 to 1500 MHz

## Maximum Ratings

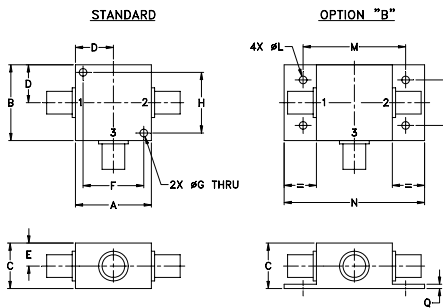
|                             |                |
|-----------------------------|----------------|
| Operating Temperature       | -55°C to 100°C |
| Storage Temperature         | -55°C to 100°C |
| Power Input (as a splitter) | 1W max.        |
| Internal Dissipation        | 0.125W max.    |

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

## Coaxial Connections

|          |   |
|----------|---|
| SUM PORT | 3 |
| PORT 1   | 1 |
| PORT 2   | 2 |

## Outline Drawing



## Outline Dimensions (inch/mm)

| A     | B     | C     | D     | E    | F     | G    | H     |
|-------|-------|-------|-------|------|-------|------|-------|
| 1.25  | 1.25  | .75   | .63   | .38  | 1.00  | .125 | 1.000 |
| 31.75 | 31.75 | 19.05 | 16.00 | 9.65 | 25.40 | 3.18 | 25.40 |

| J  | K  | L    | M     | N     | P     | Q    | wt    |
|----|----|------|-------|-------|-------|------|-------|
| -- | -- | .125 | 1.688 | 2.18  | .75   | .07  | grams |
| -- | -- | 3.18 | 42.88 | 55.37 | 19.05 | 1.78 | 70.0  |

For option B with N-type connectors, dimension "C" increases to 0.94 inches.

## Features

- wideband, 10 to 1500 MHz
- low insertion loss, 0.5 dB typ.
- high isolation, 30 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- rugged shielded case

## Applications

- cellular
- satellite distribution
- VHF/UHF



BNC version shown  
CASE STYLE: K18

| Connectors           | Model       |
|----------------------|-------------|
| BNC                  | ZFSC-2-5+   |
| SMA                  | ZFSC-2-5-S+ |
| N-TYPE               | ZFSC-2-5-N+ |
| BRACKET (OPTION "B") |             |

+RoHS Compliant

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

## Electrical Specifications

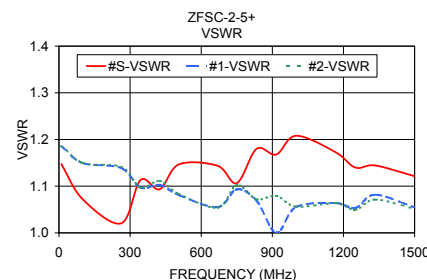
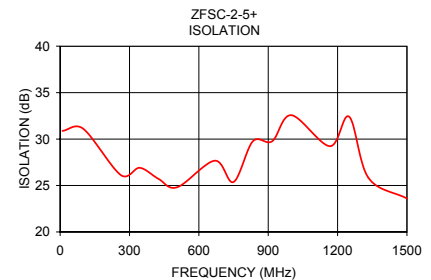
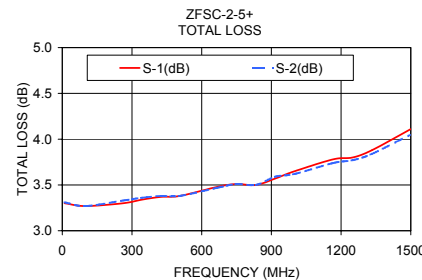
| FREQ.<br>RANGE<br>(MHz) | ISOLATION<br>(dB) |      |      | INSERTION LOSS (dB)<br>ABOVE 3.0 dB |      |      | PHASE<br>UNBALANCE<br>(Degrees) |      |      | AMPLITUDE<br>UNBALANCE<br>(dB) |      |      |   |   |   |      |      |      |
|-------------------------|-------------------|------|------|-------------------------------------|------|------|---------------------------------|------|------|--------------------------------|------|------|---|---|---|------|------|------|
|                         | L                 | M    | U    | L                                   | M    | U    | L                               | M    | U    | L                              | M    | U    |   |   |   |      |      |      |
|                         | Typ.              | Min. | Typ. | Min.                                | Typ. | Min. | Typ.                            | Max. | Typ. | Max.                           | Typ. | Max. |   |   |   |      |      |      |
| $f_c$ - $f_u$           | Typ.              | Min. | Typ. | Min.                                | Typ. | Max. | Typ.                            | Max. | Typ. | Max.                           | Typ. | Max. |   |   |   |      |      |      |
| 10-1500                 | 25                | 15   | 30   | 20                                  | 25   | 18   | 0.25                            | 0.6  | 0.5  | 1.0                            | 0.8  | 1.5  | 2 | 3 | 4 | 0.15 | 0.20 | 0.50 |

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

| Frequency (MHz) | Total Loss <sup>1</sup> (dB) |      | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
|                 | S-1                          | S-2  |                          |                |                        |        |        |        |
| 10.00           | 3.30                         | 3.31 | 0.01                     | 30.88          | 0.08                   | 1.15   | 1.19   | 1.19   |
| 100.00          | 3.27                         | 3.27 | 0.00                     | 31.11          | 0.07                   | 1.07   | 1.15   | 1.15   |
| 262.50          | 3.30                         | 3.33 | 0.03                     | 26.12          | 0.05                   | 1.02   | 1.14   | 1.14   |
| 343.75          | 3.34                         | 3.36 | 0.02                     | 26.91          | 0.18                   | 1.11   | 1.10   | 1.10   |
| 425.00          | 3.37                         | 3.38 | 0.02                     | 25.72          | 0.06                   | 1.09   | 1.10   | 1.11   |
| 506.25          | 3.38                         | 3.38 | 0.00                     | 24.81          | 0.01                   | 1.15   | 1.08   | 1.08   |
| 668.75          | 3.48                         | 3.47 | 0.01                     | 27.67          | 0.14                   | 1.14   | 1.06   | 1.05   |
| 750.00          | 3.51                         | 3.51 | 0.00                     | 25.38          | 0.08                   | 1.11   | 1.09   | 1.10   |
| 833.33          | 3.50                         | 3.50 | 0.00                     | 29.75          | 0.03                   | 1.18   | 1.07   | 1.07   |
| 916.66          | 3.57                         | 3.59 | 0.02                     | 29.76          | 0.38                   | 1.17   | 1.00   | 1.08   |
| 1000.00         | 3.65                         | 3.62 | 0.03                     | 32.57          | 0.30                   | 1.21   | 1.06   | 1.06   |
| 1166.66         | 3.78                         | 3.74 | 0.04                     | 29.23          | 0.16                   | 1.17   | 1.06   | 1.06   |
| 1250.00         | 3.80                         | 3.77 | 0.04                     | 32.41          | 0.32                   | 1.14   | 1.05   | 1.05   |
| 1333.33         | 3.88                         | 3.84 | 0.03                     | 25.84          | 0.42                   | 1.14   | 1.08   | 1.07   |
| 1500.00         | 4.11                         | 4.05 | 0.06                     | 23.60          | 0.32                   | 1.12   | 1.05   | 1.05   |

1. Total Loss = Insertion Loss + 3dB splitter loss.



## 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.  
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