

Coaxial

# Power Splitter/Combiner

2 Way-0° 50Ω 0.2 to 1000 MHz

## Maximum Ratings

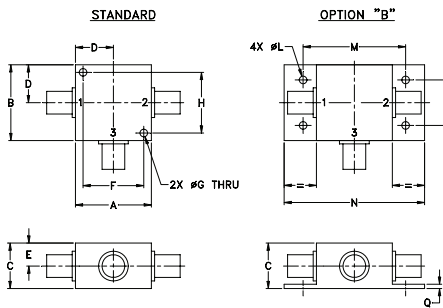
|                             |                |
|-----------------------------|----------------|
| Operating Temperature       | -55°C to 100°C |
| Storage Temperature         | -55°C to 100°C |
| Power Input (as a splitter) | 1W max.        |
| Internal Dissipation        | 0.125W max.    |

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     | J  | K  | L    | M     | N     | P     | Q    | wt    |
|-------|-------|-------|-------|------|-------|------|-------|----|----|------|-------|-------|-------|------|-------|
| 1.25  | 1.25  | .75   | .63   | .38  | 1.00  | .125 | 1.000 | -- | -- | .125 | 1.688 | 2.18  | .75   | .07  | grams |
| 31.75 | 31.75 | 19.05 | 16.00 | 9.65 | 25.40 | 3.18 | 25.40 | -- | -- | 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, 0.2 to 1000 MHz
- low insertion loss, 0.5 dB typ.
- good isolation, 25 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- rugged shielded case

## Applications

- cellular
- VHF/UHF
- instrumentation

# ZFSC-2-4+



Generic photo used for illustration purposes only  
CASE STYLE: K18

| Connectors           | Model       |
|----------------------|-------------|
| BNC                  | ZFSC-2-4+   |
| SMA                  | ZFSC-2-4-S+ |
| N-TYPE               | ZFSC-2-4-N+ |
| BRACKET (OPTION "B") |             |

## +RoHS Compliant

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

## Electrical Specifications

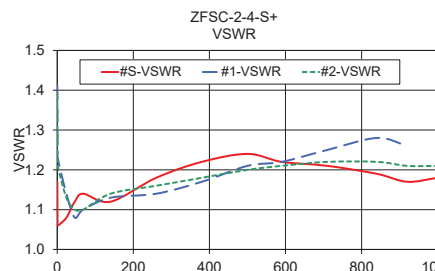
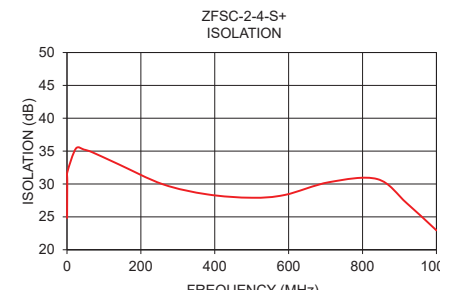
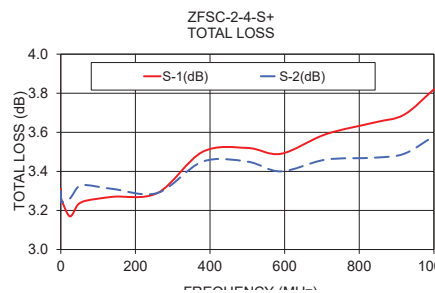
| FREQ.<br>RANGE<br>(MHz)        | ISOLATION<br>(dB) |           |           | INSERTION LOSS (dB)<br>ABOVE 3.0 dB |           |           | PHASE<br>UNBALANCE<br>(Degrees) |      |      | AMPLITUDE<br>UNBALANCE<br>(dB) |      |      |   |   |   |      |      |      |
|--------------------------------|-------------------|-----------|-----------|-------------------------------------|-----------|-----------|---------------------------------|------|------|--------------------------------|------|------|---|---|---|------|------|------|
|                                | L                 | M         | U         | L                                   | M         | U         | L                               | M    | U    | L                              | M    | U    |   |   |   |      |      |      |
|                                | Typ. Min.         | Typ. Min. | Typ. Min. | Typ. Max.                           | Typ. Max. | Typ. Max. | Max.                            | Max. | Max. | Max.                           | Max. | Max. |   |   |   |      |      |      |
| f <sub>l</sub> -f <sub>u</sub> | 20                | 15        | 25        | 20                                  | 23        | 18        | 0.2                             | 0.8  | 0.5  | 1.0                            | 0.9  | 1.2  | 2 | 4 | 4 | 0.15 | 0.15 | 0.30 |

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  |                          |                |                        |        |        |        |
| 0.20            | 3.31                         | 3.30 | 0.02                     | 24.83          | 0.10                   | 1.17   | 1.41   | 1.39   |
| 0.70            | 3.29                         | 3.24 | 0.05                     | 30.54          | 0.20                   | 1.07   | 1.25   | 1.23   |
| 1.00            | 3.26                         | 3.24 | 0.03                     | 31.83          | 0.36                   | 1.06   | 1.23   | 1.21   |
| 24.00           | 3.17                         | 3.26 | 0.09                     | 35.39          | 0.03                   | 1.08   | 1.14   | 1.13   |
| 46.00           | 3.23                         | 3.32 | 0.08                     | 35.23          | 0.09                   | 1.12   | 1.08   | 1.10   |
| 68.00           | 3.25                         | 3.33 | 0.08                     | 34.84          | 0.18                   | 1.14   | 1.10   | 1.10   |
| 140.00          | 3.27                         | 3.31 | 0.04                     | 32.99          | 0.27                   | 1.12   | 1.13   | 1.14   |
| 260.00          | 3.29                         | 3.29 | 0.01                     | 29.95          | 0.36                   | 1.18   | 1.14   | 1.16   |
| 380.00          | 3.50                         | 3.45 | 0.04                     | 28.42          | 0.25                   | 1.22   | 1.17   | 1.18   |
| 500.00          | 3.52                         | 3.45 | 0.07                     | 27.91          | 0.21                   | 1.24   | 1.21   | 1.20   |
| 590.00          | 3.49                         | 3.40 | 0.09                     | 28.34          | 0.17                   | 1.22   | 1.22   | 1.21   |
| 710.00          | 3.59                         | 3.46 | 0.13                     | 30.28          | 0.34                   | 1.21   | 1.25   | 1.22   |
| 840.00          | 3.65                         | 3.47 | 0.18                     | 30.75          | 0.49                   | 1.19   | 1.28   | 1.22   |
| 920.00          | 3.69                         | 3.49 | 0.20                     | 27.07          | 0.65                   | 1.17   | 1.26   | 1.21   |
| 1000.00         | 3.82                         | 3.58 | 0.24                     | 22.95          | 0.81                   | 1.18   | 1.27   | 1.21   |

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



## electrical schematic



## Notes

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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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