

Coaxial

# Power Splitter/Combiner

2 Way-0° 50Ω 5 to 500 MHz

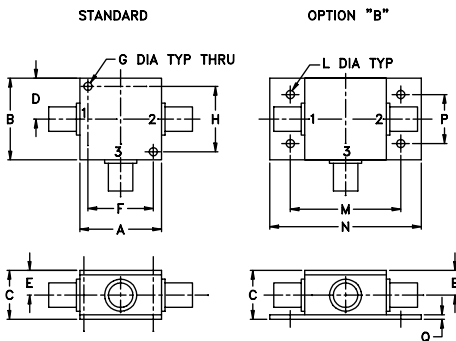
## Maximum Ratings

|                             |                |
|-----------------------------|----------------|
| 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.    |

## 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, 5 to 500 MHz
- low insertion loss, 0.3 dB typ.
- excellent isolation, 28 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- good VSWR, 1.2:1 typ.
- rugged shielded case

## Applications

- VHF/UHF
- instrumentation
- communication systems

ZFSC-2-1+  
ZFSC-2-1



BNC version shown  
CASE STYLE: K18

| Connectors           | Model         | Price   | Qty.  |
|----------------------|---------------|---------|-------|
| BNC                  | ZFSC-2-1(+)   | \$44.95 | (1-9) |
| SMA                  | ZFSC-2-1-S+   | \$49.95 | (1-9) |
| N-TYPE               | ZFSC-2-1-N(+) | \$49.95 | (1-9) |
| BRACKET (OPTION "B") |               | \$2.50  | (1+)  |

+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)

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

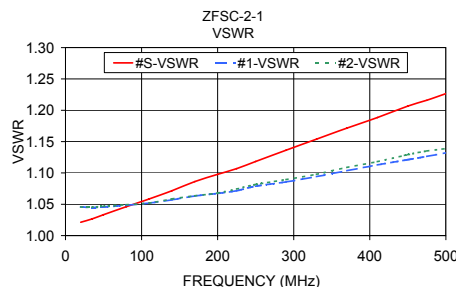
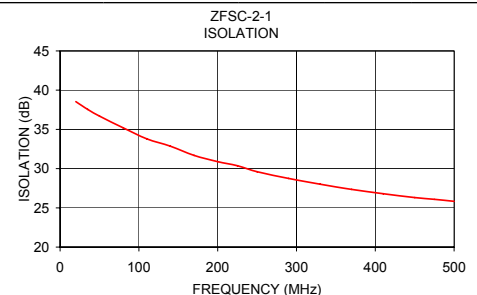
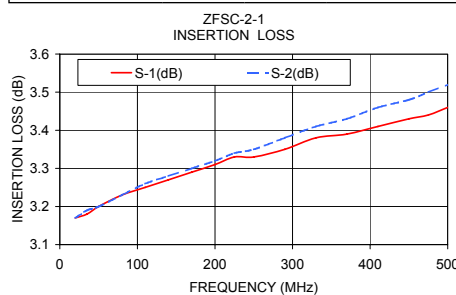
## Splitter Electrical Specifications

| 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    |      |
| $f_L$ - $f_U$           | Typ.              | Min | Typ. | Min | Typ. | Min | Typ.                                | Max. | Typ. | Max. | Typ. | Max. | Max.                            | Max. | Max. | Max.                           | Max. | Max. |
| 5-500                   | 30                | 25  | 28   | 20  | 25   | 20  | 0.2                                 | 0.5  | 0.3  | 0.6  | 0.6  | 0.8  | 2                               | 4    | 4    | 0.15                           | 0.15 | 0.30 |

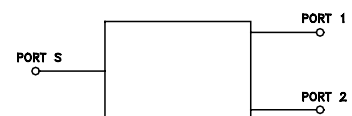
L = low range [ $f_L$  to 10  $f_L$ ] M = mid range [10  $f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

## Typical Performance Data

| Frequency<br>(MHz) | Insertion Loss<br>(dB) |      | Amplitude<br>Unbalance<br>(dB) | Isolation<br>(dB) | Phase<br>Unbalance<br>(deg.) | VSWR<br>S | VSWR<br>1 | VSWR<br>2 |
|--------------------|------------------------|------|--------------------------------|-------------------|------------------------------|-----------|-----------|-----------|
|                    | S-1                    | S-2  |                                |                   |                              |           |           |           |
| 20                 | 3.17                   | 3.17 | 0.00                           | 38.54             | 0.08                         | 1.02      | 1.05      | 1.05      |
| 35                 | 3.18                   | 3.19 | 0.00                           | 37.55             | 0.05                         | 1.03      | 1.04      | 1.05      |
| 80                 | 3.23                   | 3.23 | 0.00                           | 35.20             | 0.01                         | 1.05      | 1.05      | 1.05      |
| 140                | 3.27                   | 3.28 | 0.01                           | 32.86             | 0.01                         | 1.07      | 1.06      | 1.06      |
| 170                | 3.29                   | 3.30 | 0.01                           | 31.68             | 0.03                         | 1.09      | 1.06      | 1.06      |
| 200                | 3.31                   | 3.32 | 0.01                           | 30.89             | 0.05                         | 1.10      | 1.07      | 1.07      |
| 225                | 3.33                   | 3.34 | 0.02                           | 30.37             | 0.09                         | 1.11      | 1.07      | 1.07      |
| 250                | 3.33                   | 3.35 | 0.02                           | 29.60             | 0.08                         | 1.12      | 1.08      | 1.08      |
| 290                | 3.35                   | 3.38 | 0.03                           | 28.75             | 0.13                         | 1.14      | 1.09      | 1.09      |
| 330                | 3.38                   | 3.41 | 0.03                           | 28.01             | 0.17                         | 1.15      | 1.09      | 1.10      |
| 370                | 3.39                   | 3.43 | 0.04                           | 27.35             | 0.21                         | 1.17      | 1.10      | 1.11      |
| 410                | 3.41                   | 3.46 | 0.05                           | 26.80             | 0.25                         | 1.19      | 1.11      | 1.12      |
| 450                | 3.43                   | 3.48 | 0.05                           | 26.31             | 0.30                         | 1.21      | 1.12      | 1.13      |
| 475                | 3.44                   | 3.50 | 0.06                           | 26.09             | 0.32                         | 1.22      | 1.13      | 1.14      |
| 500                | 3.46                   | 3.52 | 0.06                           | 25.83             | 0.34                         | 1.23      | 1.13      | 1.14      |



## electrical schematic



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