

Coaxial

Power Splitter/Combiner

2 Way-180° 50Ω 1 to 500 MHz

ZFSCJ-2-1



BNC version shown
CASE STYLE: K18

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

| | |
|---------|---|
| SUMPORT | S |
| PORT 1 | 1 |
| PORT 2 | 2 |

Features

- wideband, 1 to 500 MHz
- high isolation, 30 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1 deg. typ.
- rugged shielded case

Applications

- VHF/UHF
- signal processing

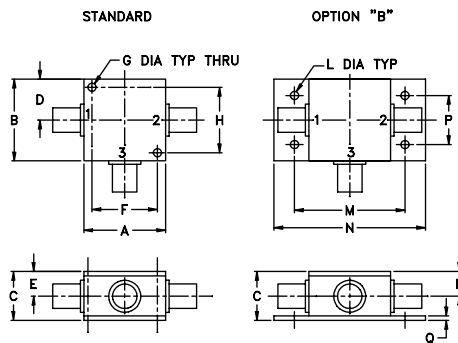
| Connectors | Model | Price | Qty. |
|----------------------|-------------|---------|-------|
| BNC | ZFSCJ-2-1 | \$59.95 | (1-9) |
| SMA | ZFSCJ-2-1-S | \$64.95 | (1-9) |
| N-TYPE | ZFSCJ-2-1-N | \$64.95 | (1-9) |
| BRACKET (OPTION "B") | | \$2.50 | (1+) |

Splitter Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) | | | | | | INSERTION LOSS (dB) ABOVE 3.0 dB | | | | | | PHASE UNBALANCE (Degrees) | | | AMPLITUDE UNBALANCE (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 _l -f _u | | | | | | | | | | | | | | | | | | |
| 1-500 | 30 | 20 | 33 | 25 | 30 | 18 | 1.0 | 1.5 | 1.0 | 1.5 | 1.0 | 1.5 | 2 | 4 | 7 | 0.5 | 0.2 | 0.5 |

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]

Outline Drawing



Outline Dimensions (inch mm)

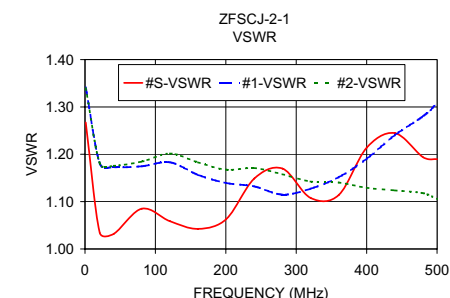
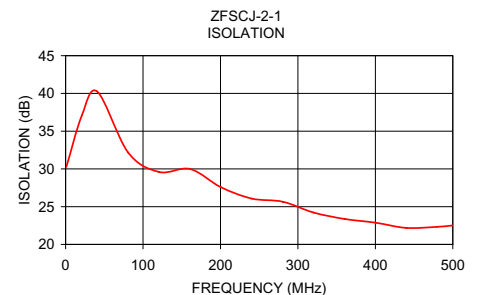
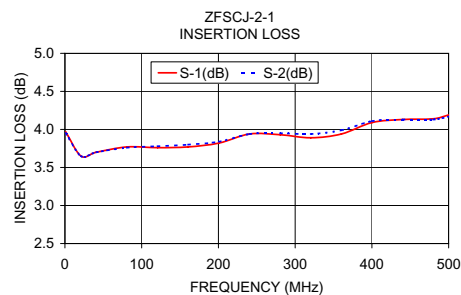
| A | B | C | D | E | F | G | H |
|-------|-------|-------|-------|------|-------|------|-------|
| 1.25 | 1.25 | .75 | .63 | .38 | 1.00 | .125 | 1.000 |
| 31.75 | 31.75 | 19.05 | 16.00 | 9.65 | 25.40 | 3.18 | 25.40 |

| 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 bracket version, Option B dimension "C" changes from 0.75 to 0.94 inch when connectors are Type N.

Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|---------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
| | S-1 | S-2 | | | | | | |
| 1.00 | 3.97 | 3.95 | 0.02 | 30.26 | 179.94 | 1.27 | 1.34 | 1.34 |
| 20.96 | 3.65 | 3.65 | 0.00 | 37.10 | 180.23 | 1.03 | 1.18 | 1.18 |
| 40.92 | 3.70 | 3.70 | 0.00 | 40.24 | 180.39 | 1.03 | 1.17 | 1.18 |
| 80.84 | 3.77 | 3.76 | 0.00 | 32.16 | 181.09 | 1.09 | 1.17 | 1.18 |
| 120.76 | 3.76 | 3.78 | 0.02 | 29.60 | 181.43 | 1.06 | 1.18 | 1.20 |
| 160.68 | 3.77 | 3.80 | 0.03 | 29.99 | 181.76 | 1.04 | 1.16 | 1.18 |
| 200.60 | 3.82 | 3.84 | 0.02 | 27.58 | 181.71 | 1.06 | 1.14 | 1.17 |
| 240.52 | 3.94 | 3.94 | 0.01 | 26.07 | 181.79 | 1.15 | 1.13 | 1.17 |
| 280.44 | 3.93 | 3.95 | 0.02 | 25.65 | 181.93 | 1.17 | 1.11 | 1.16 |
| 320.36 | 3.89 | 3.94 | 0.05 | 24.22 | 181.89 | 1.11 | 1.13 | 1.14 |
| 360.28 | 3.94 | 3.99 | 0.05 | 23.37 | 181.49 | 1.11 | 1.15 | 1.14 |
| 400.20 | 4.09 | 4.11 | 0.03 | 22.87 | 180.85 | 1.21 | 1.19 | 1.13 |
| 440.12 | 4.13 | 4.13 | 0.00 | 22.19 | 180.17 | 1.24 | 1.24 | 1.12 |
| 480.04 | 4.14 | 4.13 | 0.01 | 22.33 | 179.57 | 1.19 | 1.28 | 1.12 |
| 500.00 | 4.19 | 4.17 | 0.03 | 22.51 | 179.34 | 1.19 | 1.31 | 1.11 |



electrical schematic

