*Coaxial*

# Power Splitter/Combiner

## 2 Way-180° 50Ω 0.01 to 20 MHz

# ZSCJ-2-2+
# ZSCJ-2-2

CASE STYLE: M22

| Connectors | Model | Price | Qty. |
|---|---|---|---|
| **BNC** | ZSCJ-2-2(+) | $59.95 | (1-9) |
| **BRACKET (OPTION"B")** | | $5.00 | (1+) |
| **BRACKET (OPTION"BR")** | | $1.50 | (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.*

## 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. |

At low range frequency band ($f_L$ to 10 $f_L$), linearly derate maximum input power by 13 dB.

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

## Coaxial Connections

| | |
|---|---|
| SUMPORT | 2 |
| PORT 1 | 1 |
| PORT 2 | 3 |

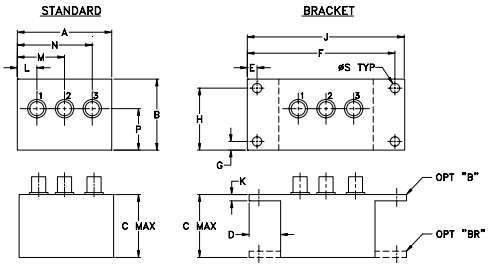
## Features

- low insertion loss, 0.2 dB typ.
- high isolation, 30 dB typ.
- rugged shielded case

## Applications

- HF
- radio communication
- instrumentation
- signal processing

## Outline Drawing




## Outline Dimensions (inch / mm)

| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| 2.25 | 1.38 | 1.24 | .50 | .150 | 3.100 | .138 | 1.238 |
| 57.15 | 35.05 | 31.50 | 12.70 | 3.81 | 78.74 | 3.51 | 31.45 |

| J | K | L | M | N | P | S | wt |
|---|---|---|---|---|---|---|---|
| 3.25 | .10 | .40 | 1.15 | 1.86 | .64 | .150 | grams |
| 82.55 | 2.54 | 10.16 | 29.21 | 47.24 | 16.26 | 3.81 | 74.0 |

## 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 |
| $f_L$-$f_U$ | Typ. | Min | Typ. | Min | Typ. | Min | Typ. | Max. | Typ. | Max. | Typ. | Max. | Max. | Max. | Max. | Max. | Max. | Max. |
| 0.01-20 | 35 | 25 | 30 | 25 | 25 | 18 | 0.3 | 0.8 | 0.2 | 0.5 | 0.3 | 0.6 | 1* | 2 | 2.5 | 0.1 | 0.1 | 0.2 |

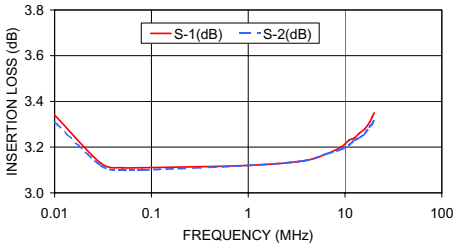
L = low range [$f_L$ to 10 $f_L$] M = mid range [10 $f_L$ to $f_U$/2] U= upper range [$f_U$/2 to $f_U$]

* Phase unbalance is 3 degrees max from $f_L$ to 3$f_L$

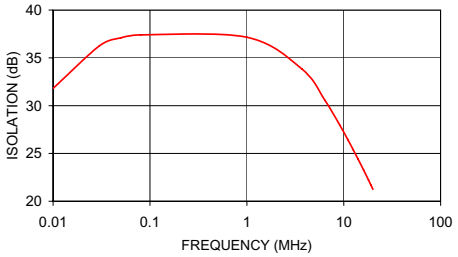
## Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) S-1 | Insertion Loss (dB) S-2 | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|---|---|---|---|---|---|---|---|---|
| 0.01 | 3.34 | 3.31 | 0.03 | 31.80 | 179.87 | 1.47 | 1.45 | 1.45 |
| 0.03 | 3.13 | 3.12 | 0.01 | 36.25 | 179.89 | 1.15 | 1.22 | 1.22 |
| 0.05 | 3.11 | 3.10 | 0.01 | 37.09 | 179.91 | 1.1 | 1.18 | 1.18 |
| 0.08 | 3.11 | 3.10 | 0.00 | 37.40 | 179.94 | 1.07 | 1.17 | 1.17 |
| 1.00 | 3.12 | 3.12 | 0.00 | 37.15 | 180.08 | 1.04 | 1.17 | 1.16 |
| 3.70 | 3.14 | 3.14 | 0.00 | 33.83 | 180.29 | 1.06 | 1.15 | 1.15 |
| 6.40 | 3.17 | 3.17 | 0.00 | 30.55 | 180.49 | 1.07 | 1.14 | 1.14 |
| 9.10 | 3.20 | 3.19 | 0.01 | 27.96 | 180.69 | 1.09 | 1.13 | 1.12 |
| 11.00 | 3.23 | 3.21 | 0.01 | 26.46 | 180.82 | 1.10 | 1.12 | 1.11 |
| 12.50 | 3.24 | 3.23 | 0.01 | 25.40 | 180.94 | 1.11 | 1.11 | 1.10 |
| 14.00 | 3.26 | 3.24 | 0.02 | 24.44 | 181.05 | 1.12 | 1.10 | 1.09 |
| 16.00 | 3.28 | 3.26 | 0.02 | 23.28 | 181.20 | 1.14 | 1.08 | 1.07 |
| 18.00 | 3.31 | 3.29 | 0.02 | 22.22 | 181.35 | 1.17 | 1.07 | 1.07 |
| 19.00 | 3.33 | 3.30 | 0.03 | 21.72 | 181.42 | 1.18 | 1.06 | 1.07 |
| 20.00 | 3.35 | 3.32 | 0.03 | 21.25 | 181.49 | 1.19 | 1.05 | 1.07 |

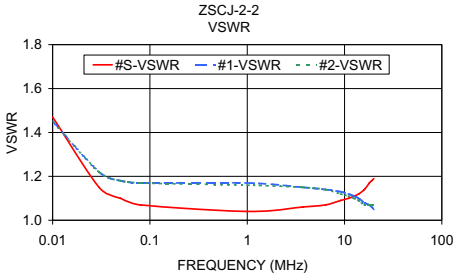
ZSCJ-2-2
INSERTION LOSS




ZSCJ-2-2
ISOLATION




ZSCJ-2-2
VSWR




## electrical schematic