

# Power Splitter/Combiner

ZSC-2-2-75+

2 Way-0° 75Ω 0.002 to 60 MHz



## Maximum Ratings

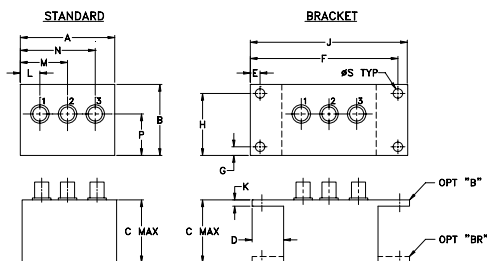
|                             |                |
|-----------------------------|----------------|
| Operating Temperature       | -55°C to 100°C |
| Storage Temperature         | -55°C to 100°C |
| Power Input (as a splitter) | 1W max.        |
| Internal Dissipation        | 0.125W max.    |

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

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

## 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  |

## Features

- low insertion loss, 0.3 dB typ.
- high isolation, 30 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.2 deg. typ.
- rugged shielded case

## Applications

- HF
- amateur radio

CASE STYLE: M22

Connectors Model

BNC ZSC-2-2-75+

BRACKET (OPTION "B")

BRACKET (OPTION "BR")

+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                               |      |      | L                              |      |      |
|                         | Typ.               | Min. | Typ. | Min. | Typ. | Min. | Typ.                                 | Max. | Typ. | Max. | Typ. | Max. | Max.                            | Max. | Max. | Max.                           | Max. | Max. |

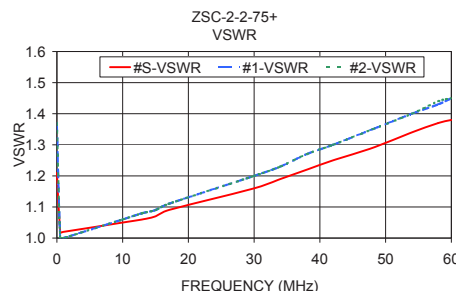
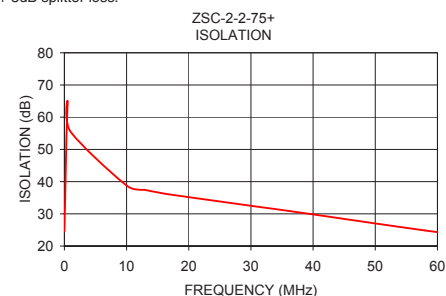
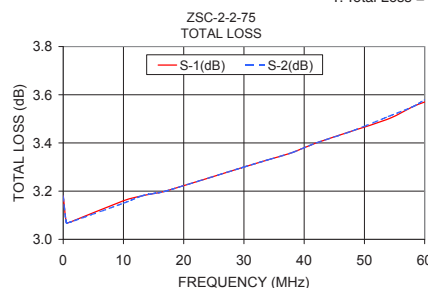
L = low range [ $f_L$  to  $10 f_L$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

\* Isolation specified to -20°C from 0.002 to 0.004 MHz. From 0.002 to 0.0006 MHz, isolation 14 dB min.

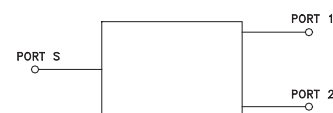
## Typical Performance Data

| Frequency<br>(MHz) | Total Loss <sup>1</sup><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  |                                |                   |                              |           |           |           |
| 0.002              | 3.18                            | 3.18 | 0.00                           | 24.51             | 0.08                         | 1.21      | 1.37      | 1.37      |
| 0.510              | 3.07                            | 3.07 | 0.00                           | 64.03             | 0.00                         | 1.02      | 1.00      | 1.00      |
| 1.000              | 3.07                            | 3.07 | 0.00                           | 55.50             | 0.00                         | 1.02      | 1.00      | 1.00      |
| 10.000             | 3.16                            | 3.15 | 0.00                           | 38.79             | 0.00                         | 1.05      | 1.06      | 1.06      |
| 13.000             | 3.18                            | 3.18 | 0.00                           | 37.41             | 0.00                         | 1.06      | 1.08      | 1.08      |
| 15.000             | 3.19                            | 3.19 | 0.00                           | 36.66             | 0.01                         | 1.07      | 1.09      | 1.09      |
| 17.000             | 3.20                            | 3.20 | 0.00                           | 36.00             | 0.01                         | 1.09      | 1.11      | 1.11      |
| 30.000             | 3.30                            | 3.30 | 0.00                           | 32.49             | 0.01                         | 1.16      | 1.20      | 1.20      |
| 34.000             | 3.33                            | 3.33 | 0.00                           | 31.45             | 0.01                         | 1.19      | 1.23      | 1.23      |
| 38.000             | 3.36                            | 3.36 | 0.00                           | 30.37             | 0.00                         | 1.22      | 1.27      | 1.27      |
| 42.000             | 3.40                            | 3.40 | 0.00                           | 29.26             | 0.00                         | 1.25      | 1.30      | 1.30      |
| 48.000             | 3.45                            | 3.45 | 0.00                           | 27.58             | 0.00                         | 1.29      | 1.35      | 1.35      |
| 54.000             | 3.50                            | 3.51 | 0.01                           | 25.91             | 0.01                         | 1.34      | 1.40      | 1.40      |
| 58.000             | 3.55                            | 3.55 | 0.01                           | 24.84             | 0.02                         | 1.37      | 1.43      | 1.44      |
| 60.000             | 3.57                            | 3.58 | 0.01                           | 24.31             | 0.02                         | 1.38      | 1.45      | 1.45      |

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



## electrical schematic



### Notes

- 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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