

# Coaxial Power Splitter/Combiner

## ZSC-2-4+

2 Way-0° 50Ω 10 to 1000 MHz



Generic photo used for illustration purposes only

### Maximum Ratings

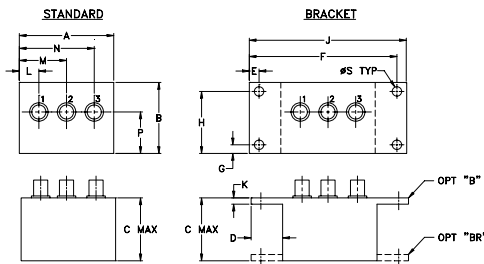
|                             |                |
|-----------------------------|----------------|
| Operating Temperature       | -55°C to 100°C |
| Storage Temperature         | -55°C to 100°C |
| Power Input (as a splitter) | 1W max.        |
| Internal Dissipation        | 0.125W max.    |

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

### Coaxial Connections

|          |   |
|----------|---|
| SUM PORT | 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

- wideband, 10 to 1000 MHz
- low insertion loss, 0.5 dB typ.
- high isolation, 35 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1 deg. typ.
- excellent VSWR, 1.15:1 typ.
- rugged shielded case

### Applications

- VHF/UHF
- cellular
- communication systems

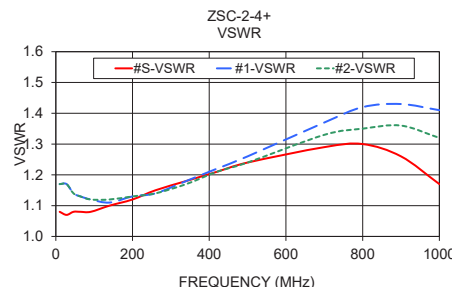
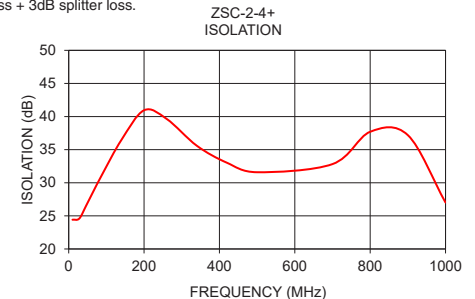
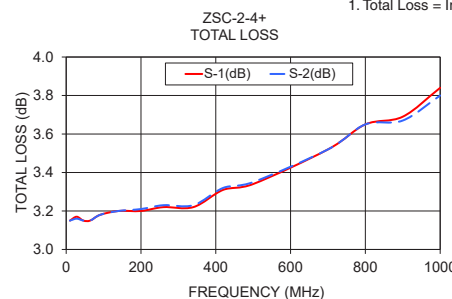
### Electrical Specifications

| 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 <sub>c</sub> -f <sub>u</sub> |                |      |      |      |      |      |                                  |      |      |      |      |      |                           |      |      |                          |      |      |
| 10-1000                        | 25             | 20   | 35   | 20   | 25   | 20   | 0.2                              | 0.5  | 0.5  | 0.8  | 0.7  | 1.3  | 2                         | 4    | 6    | 0.15                     | 0.20 | 0.30 |

### 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  |                          |                |                        |        |        |        |
| 10.00           | 3.15                         | 3.15 | 0.00                     | 24.42          | 0.02                   | 1.08   | 1.17   | 1.17   |
| 28.00           | 3.17                         | 3.16 | 0.00                     | 24.59          | 0.17                   | 1.07   | 1.17   | 1.17   |
| 46.00           | 3.15                         | 3.15 | 0.01                     | 26.51          | 0.10                   | 1.08   | 1.14   | 1.14   |
| 64.00           | 3.15                         | 3.15 | 0.01                     | 28.54          | 0.16                   | 1.08   | 1.13   | 1.13   |
| 91.00           | 3.18                         | 3.18 | 0.00                     | 31.49          | 0.26                   | 1.08   | 1.12   | 1.12   |
| 140.00          | 3.20                         | 3.20 | 0.00                     | 36.48          | 0.45                   | 1.10   | 1.11   | 1.12   |
| 200.00          | 3.20                         | 3.21 | 0.01                     | 40.95          | 0.50                   | 1.12   | 1.13   | 1.13   |
| 260.00          | 3.22                         | 3.23 | 0.01                     | 39.64          | 0.56                   | 1.15   | 1.14   | 1.14   |
| 340.00          | 3.22                         | 3.23 | 0.02                     | 35.59          | 0.90                   | 1.18   | 1.18   | 1.17   |
| 420.00          | 3.31                         | 3.32 | 0.01                     | 33.02          | 1.13                   | 1.21   | 1.22   | 1.21   |
| 500.00          | 3.34                         | 3.35 | 0.00                     | 31.59          | 1.27                   | 1.24   | 1.26   | 1.24   |
| 700.00          | 3.52                         | 3.52 | 0.00                     | 32.82          | 1.89                   | 1.29   | 1.37   | 1.33   |
| 800.00          | 3.65                         | 3.65 | 0.00                     | 37.70          | 1.91                   | 1.30   | 1.42   | 1.35   |
| 900.00          | 3.69                         | 3.67 | 0.03                     | 37.19          | 2.09                   | 1.26   | 1.43   | 1.36   |
| 1000.00         | 3.84                         | 3.80 | 0.04                     | 27.01          | 2.06                   | 1.17   | 1.41   | 1.32   |

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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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