

Coaxial

# Power Splitter/Combiner

ZSC-4-3-75+

4 Way-0° 75Ω 0.25 to 250 MHz

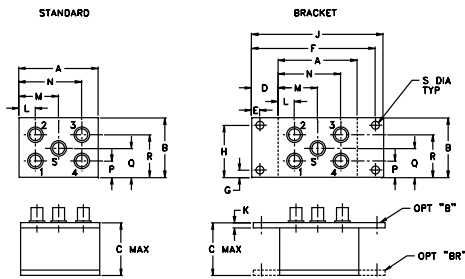
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -55°C to 100°C |
| Storage Temperature                                             | -55°C to 100°C |
| Power Input (as a splitter)                                     | 1W max.        |
| Internal Dissipation                                            | 0.250W max.    |
| Permanent damage may occur if any of these limits are exceeded. |                |

## Coaxial Connections

|          |   |
|----------|---|
| SUM PORT | S |
| PORT 1   | 1 |
| PORT 2   | 2 |
| PORT 3   | 3 |
| PORT 4   | 4 |

## Outline Drawing



## Outline Dimensions (inch mm)

|       |       |       |       |      |       |      |       |       |
|-------|-------|-------|-------|------|-------|------|-------|-------|
| A     | B     | C     | D     | E    | F     | G    | H     | J     |
| 2.25  | 1.38  | 1.24  | .50   | .150 | 3.100 | .138 | 1.238 | 3.25  |
| 57.15 | 35.05 | 31.50 | 12.70 | 3.81 | 78.74 | 3.51 | 31.45 | 82.55 |

|      |       |       |       |      |       |       |      |       |
|------|-------|-------|-------|------|-------|-------|------|-------|
| K    | L     | M     | N     | P    | Q     | R     | S    | wt    |
| .10  | .48   | 1.13  | 1.78  | .36  | .69   | 1.01  | .150 | grams |
| 2.54 | 12.19 | 28.70 | 45.21 | 9.14 | 17.53 | 25.65 | 3.81 | 92.0  |

## Features

- wideband, 0.25 to 250 MHz
- high isolation, 30 dB typ.
- good VSWR, 1.20:1 typ.
- rugged shielded case

## Applications

- HF/VHF
- radio communication



CASE STYLE: N27

Connectors Model  
 BNC ZSC-4-3-75+  
 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

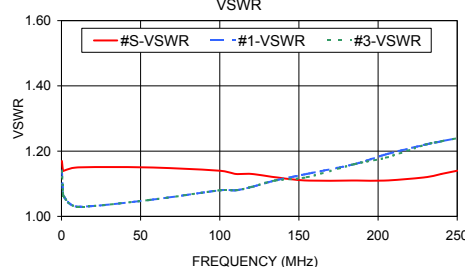
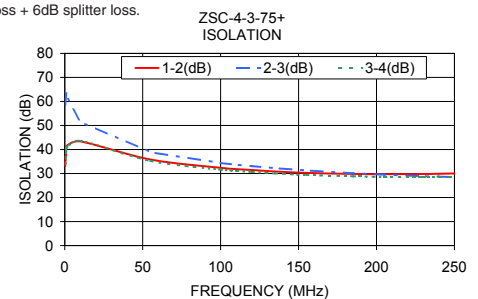
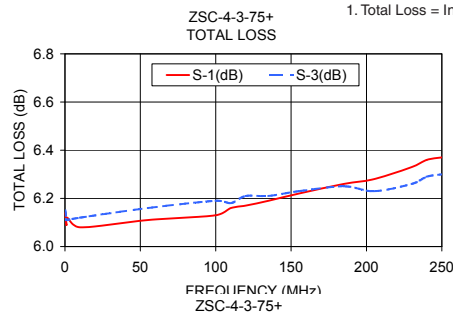
| FREQ. RANGE (MHz)              | ISOLATION (dB) |      |      |      |      |      | INSERTION LOSS (dB) ABOVE 6.0 dB |      |      |      |      |      | PHASE UNBALANCE (Degrees) |      |      | AMPLITUDE UNBALANCE (dB) |      |      |
|--------------------------------|----------------|------|------|------|------|------|----------------------------------|------|------|------|------|------|---------------------------|------|------|--------------------------|------|------|
|                                | 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>L</sub> -f <sub>U</sub> |                |      |      |      |      |      |                                  |      |      |      |      |      |                           |      |      |                          |      |      |
| 0.25-250                       | 28             | 20   | 30   | 20   | 27   | 20   | 0.4                              | 0.8  | 0.3  | 0.7  | 0.5  | 1.0  | 1                         | 2    | 3    | 0.15                     | 0.20 | 0.25 |

L = low range [f<sub>L</sub> to 10 f<sub>L</sub>] M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2] U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]

## Typical Performance Data

| Freq. (MHz) | Total Loss <sup>1</sup> (dB) |      |      |      | Amp. Unbal. (dB) | Isolation (dB) |       |       | Phase Unbal. (deg.) | VSWR S | VSWR 1 | VSWR 2 | VSWR 3 | VSWR 4 |
|-------------|------------------------------|------|------|------|------------------|----------------|-------|-------|---------------------|--------|--------|--------|--------|--------|
|             | S-1                          | S-2  | S-3  | S-4  |                  | 1-2            | 2-3   | 3-4   |                     |        |        |        |        |        |
| 0.25        | 6.14                         | 6.19 | 6.15 | 6.18 | 0.05             | 33.11          | 58.52 | 33.87 | 0.34                | 1.17   | 1.14   | 1.15   | 1.14   | 1.14   |
| 1.00        | 6.09                         | 6.14 | 6.11 | 6.15 | 0.05             | 39.99          | 63.40 | 39.46 | 0.20                | 1.14   | 1.07   | 1.07   | 1.07   | 1.07   |
| 1.50        | 6.12                         | 6.15 | 6.11 | 6.14 | 0.05             | 41.72          | 61.43 | 41.10 | 0.13                | 1.14   | 1.06   | 1.06   | 1.06   | 1.06   |
| 10.00       | 6.08                         | 6.14 | 6.12 | 6.13 | 0.06             | 43.38          | 51.55 | 43.62 | 0.05                | 1.15   | 1.03   | 1.03   | 1.03   | 1.03   |
| 55.00       | 6.11                         | 6.18 | 6.16 | 6.19 | 0.09             | 35.81          | 38.88 | 35.25 | 0.05                | 1.15   | 1.05   | 1.05   | 1.05   | 1.05   |
| 100.00      | 6.13                         | 6.22 | 6.19 | 6.19 | 0.09             | 32.37          | 34.38 | 31.67 | 0.30                | 1.14   | 1.08   | 1.08   | 1.08   | 1.08   |
| 110.00      | 6.16                         | 6.21 | 6.18 | 6.22 | 0.06             | 31.82          | 33.64 | 31.15 | 0.25                | 1.13   | 1.08   | 1.09   | 1.08   | 1.09   |
| 120.00      | 6.17                         | 6.23 | 6.21 | 6.21 | 0.06             | 31.44          | 33.07 | 30.68 | 0.08                | 1.13   | 1.09   | 1.10   | 1.09   | 1.09   |
| 135.00      | 6.19                         | 6.23 | 6.21 | 6.22 | 0.03             | 30.83          | 32.22 | 30.07 | 0.29                | 1.12   | 1.11   | 1.11   | 1.11   | 1.11   |
| 155.00      | 6.22                         | 6.24 | 6.23 | 6.24 | 0.03             | 30.27          | 31.27 | 29.40 | 0.31                | 1.11   | 1.13   | 1.13   | 1.12   | 1.13   |
| 185.00      | 6.26                         | 6.27 | 6.25 | 6.26 | 0.02             | 29.83          | 30.10 | 28.83 | 0.46                | 1.11   | 1.16   | 1.16   | 1.16   | 1.16   |
| 205.00      | 6.28                         | 6.26 | 6.23 | 6.24 | 0.04             | 29.72          | 29.51 | 28.60 | 0.39                | 1.11   | 1.19   | 1.19   | 1.18   | 1.19   |
| 230.00      | 6.33                         | 6.28 | 6.26 | 6.29 | 0.07             | 29.78          | 28.88 | 28.50 | 0.51                | 1.12   | 1.22   | 1.22   | 1.22   | 1.22   |
| 240.00      | 6.36                         | 6.30 | 6.29 | 6.30 | 0.07             | 29.88          | 28.72 | 28.56 | 0.58                | 1.13   | 1.23   | 1.23   | 1.23   | 1.23   |
| 250.00      | 6.37                         | 6.32 | 6.30 | 6.30 | 0.07             | 30.03          | 28.48 | 28.58 | 0.67                | 1.14   | 1.24   | 1.25   | 1.24   | 1.25   |

1. Total Loss = Insertion Loss + 6dB splitter loss.



## electrical schematic



## Notes

- A. 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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