

Coaxial

# Power Splitter/Combiner

ZSCJ-2-1+

2 Way-180° 50Ω 1 to 200 MHz

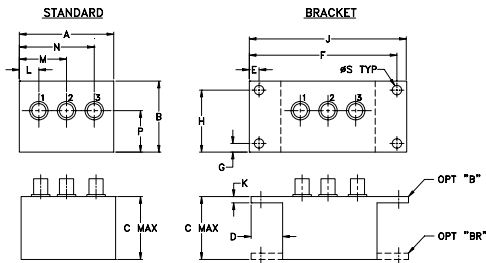
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| 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.    |
| 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, 0.6 dB typ.
- high isolation, 35 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- rugged shielded case

## Applications

- VHF
- signal processing
- radio communication

## Electrical Specifications

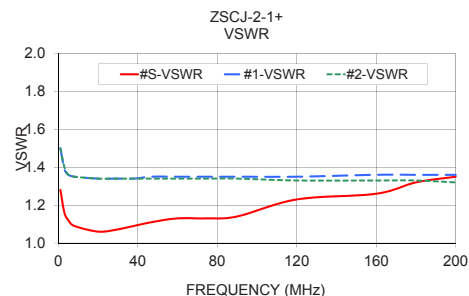
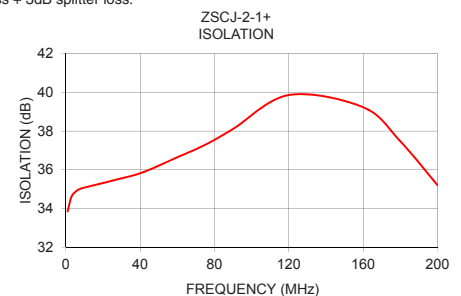
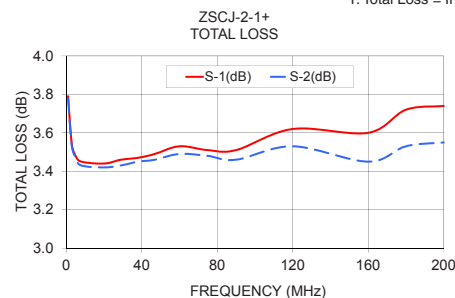
| FREQ. RANGE (MHz) | ISOLATION (dB) |     |      |     |      |     | INSERTION LOSS (dB) ABOVE 3.0 dB |      |      |      |      |      | PHASE UNBALANCE (Degrees) |      |      | AMPLITUDE UNBALANCE (dB) |      |      |
|-------------------|----------------|-----|------|-----|------|-----|----------------------------------|------|------|------|------|------|---------------------------|------|------|--------------------------|------|------|
|                   | L              |     | M    |     | U    |     | L                                |      | M    |      | U    |      | L                         |      |      | L                        |      |      |
|                   | Typ.           | Min | Typ. | Min | Typ. | Min | Typ.                             | Max. | Typ. | Max. | Typ. | Max. | Max.                      | Max. | Max. | Max.                     | Max. | Max. |
| 1-200             | 35             | 30  | 35   | 25  | 30   | 23  | 0.75                             | 1.0  | 0.6  | 0.8  | 0.75 | 1.2  | 2                         | 2.5  | 4    | 0.3                      | 0.15 | 0.3  |

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  $f_U$ ]

## 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  |                          |                |                        |        |        |        |
| 1.00            | 3.79                         | 3.78 | 0.01                     | 33.86          | 179.88                 | 1.28   | 1.50   | 1.50   |
| 3.00            | 3.54                         | 3.53 | 0.01                     | 34.60          | 180.07                 | 1.16   | 1.39   | 1.40   |
| 5.00            | 3.48                         | 3.47 | 0.01                     | 34.85          | 180.13                 | 1.12   | 1.36   | 1.36   |
| 8.00            | 3.45                         | 3.43 | 0.02                     | 35.03          | 179.80                 | 1.09   | 1.35   | 1.35   |
| 20.00           | 3.44                         | 3.42 | 0.02                     | 35.32          | 179.63                 | 1.06   | 1.34   | 1.34   |
| 29.00           | 3.46                         | 3.43 | 0.02                     | 35.54          | 179.55                 | 1.07   | 1.34   | 1.34   |
| 38.00           | 3.47                         | 3.45 | 0.02                     | 35.76          | 179.33                 | 1.09   | 1.34   | 1.34   |
| 47.00           | 3.49                         | 3.46 | 0.03                     | 36.09          | 179.15                 | 1.11   | 1.35   | 1.34   |
| 60.00           | 3.53                         | 3.49 | 0.04                     | 36.65          | 179.00                 | 1.13   | 1.35   | 1.34   |
| 75.00           | 3.51                         | 3.48 | 0.03                     | 37.29          | 178.67                 | 1.13   | 1.35   | 1.34   |
| 90.00           | 3.51                         | 3.46 | 0.06                     | 38.11          | 178.40                 | 1.14   | 1.35   | 1.34   |
| 120.00          | 3.62                         | 3.53 | 0.09                     | 39.86          | 178.03                 | 1.23   | 1.35   | 1.33   |
| 160.00          | 3.60                         | 3.45 | 0.15                     | 39.23          | 177.31                 | 1.26   | 1.36   | 1.33   |
| 180.00          | 3.72                         | 3.53 | 0.19                     | 37.47          | 177.20                 | 1.32   | 1.36   | 1.33   |
| 200.00          | 3.74                         | 3.55 | 0.19                     | 35.21          | 176.99                 | 1.35   | 1.36   | 1.32   |

1. Total Loss = Insertion Loss + 3dB 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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REV. D  
M151107  
ZSCJ-2-1+  
HY/TD/CP/AM  
151019



CASE STYLE: M22

Connectors Model

BNC ZSCJ-2-1+

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