

Power Splitter/Combiner

ZBSC-5-1

5 Way-0° 50Ω

120 to 520 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 | 0.625W max. |

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

Coaxial Connections

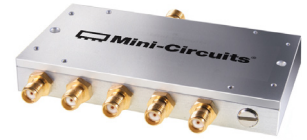
| | |
|----------|---|
| SUM PORT | S |
| PORT 1 | 1 |
| PORT 2 | 2 |
| PORT 3 | 3 |
| PORT 4 | 4 |
| PORT 5 | 5 |

Features

- wideband, 120 to 520 MHz
- good isolation, 25dB typ.
- rugged, shielded case

Applications

- VHF/UHF
- instrumentation
- signal processing



CASE STYLE: UU102
Connectors Model
SMA ZBSC-5-1-S

Electrical Specifications

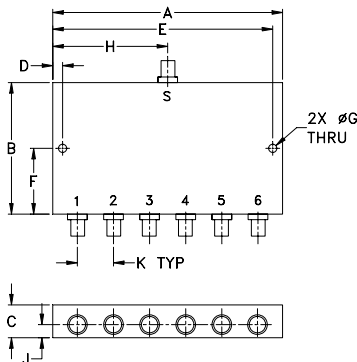
| FREQ. RANGE (MHz) | ISOLATION (dB) | INSERTION LOSS (dB) ABOVE 7.0 dB | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) |
|-------------------|----------------|----------------------------------|---------------------------|--------------------------|
| f_L - f_U | Typ. Min. | Typ. Max. | Max. | Max. |
| 120-520 | 25 18 | 1.0 2.0 | 8 | 0.9 |

Typical Performance Data

| Freq. (MHz) | Total Loss ¹ (dB) | | | | | Amp. Unbal. (dB) | Isolation (dB) | | | | Phase Unbal. (deg.) | VSWR S | VSWR OUTPUTS |
|-------------|------------------------------|------|------|------|------|------------------|----------------|-------|-------|-------|---------------------|--------|--------------|
| | S-1 | S-2 | S-3 | S-4 | S-5 | | 1-2 | 2-3 | 3-4 | 4-5 | | | |
| 120.00 | 7.82 | 7.75 | 7.78 | 7.79 | 7.83 | 0.08 | 27.14 | 24.62 | 25.48 | 24.71 | 1.56 | 1.57 | 1.23 |
| 140.00 | 7.84 | 7.79 | 7.83 | 7.83 | 7.87 | 0.08 | 27.07 | 24.96 | 25.72 | 24.85 | 1.80 | 1.50 | 1.20 |
| 160.00 | 7.76 | 7.70 | 7.74 | 7.76 | 7.80 | 0.10 | 26.87 | 25.08 | 25.79 | 24.79 | 2.11 | 1.45 | 1.19 |
| 190.00 | 7.75 | 7.67 | 7.72 | 7.73 | 7.80 | 0.13 | 26.44 | 25.06 | 25.69 | 24.58 | 2.54 | 1.44 | 1.19 |
| 220.00 | 7.91 | 7.81 | 7.86 | 7.90 | 7.97 | 0.16 | 26.15 | 25.03 | 25.59 | 24.39 | 2.74 | 1.39 | 1.15 |
| 250.00 | 7.81 | 7.73 | 7.81 | 7.83 | 7.92 | 0.19 | 25.79 | 24.96 | 25.51 | 24.15 | 3.12 | 1.35 | 1.14 |
| 280.00 | 7.86 | 7.77 | 7.86 | 7.88 | 7.99 | 0.22 | 25.39 | 24.77 | 25.30 | 23.84 | 3.40 | 1.36 | 1.15 |
| 310.00 | 7.97 | 7.82 | 7.91 | 7.96 | 8.10 | 0.28 | 25.12 | 24.66 | 25.18 | 23.63 | 3.52 | 1.34 | 1.11 |
| 340.00 | 7.92 | 7.78 | 7.91 | 7.95 | 8.09 | 0.31 | 24.88 | 24.59 | 25.13 | 23.46 | 3.84 | 1.30 | 1.11 |
| 370.00 | 8.01 | 7.86 | 8.01 | 8.05 | 8.21 | 0.34 | 24.55 | 24.41 | 24.96 | 23.20 | 4.23 | 1.32 | 1.11 |
| 410.00 | 7.99 | 7.83 | 7.99 | 8.02 | 8.24 | 0.41 | 24.18 | 24.22 | 24.80 | 22.91 | 4.38 | 1.32 | 1.08 |
| 450.00 | 8.15 | 7.97 | 8.19 | 8.22 | 8.43 | 0.46 | 23.71 | 23.98 | 24.59 | 22.60 | 4.94 | 1.34 | 1.10 |
| 480.00 | 8.14 | 7.94 | 8.16 | 8.21 | 8.47 | 0.53 | 23.31 | 23.66 | 24.34 | 22.33 | 5.20 | 1.39 | 1.08 |
| 500.00 | 8.17 | 7.96 | 8.20 | 8.26 | 8.52 | 0.56 | 22.96 | 23.47 | 24.14 | 22.10 | 5.29 | 1.42 | 1.07 |
| 520.00 | 8.30 | 8.08 | 8.37 | 8.39 | 8.67 | 0.59 | 22.58 | 23.21 | 23.91 | 21.88 | 5.41 | 1.45 | 1.09 |

1. Total Loss = Insertion Loss + 7dB splitter loss.

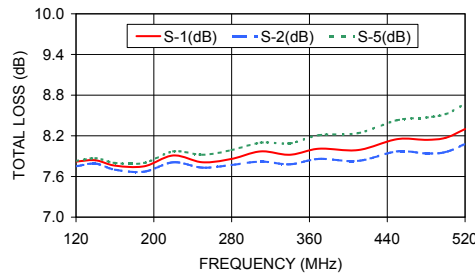
Outline Drawing



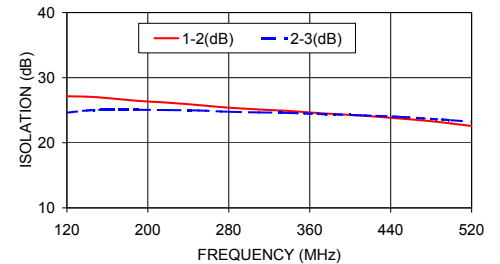
Outline Dimensions (inch/mm)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| A | B | C | D | E | F |
| 3.50 | 2.00 | .50 | .150 | 3.350 | 1.00 |
| 88.90 | 50.80 | 12.70 | 3.81 | 85.09 | 25.40 |
| G | H | J | K | wt | |
| .125 | 1.75 | .20 | .55 | grams | |
| 3.18 | 44.45 | 5.08 | 13.97 | 120 | |

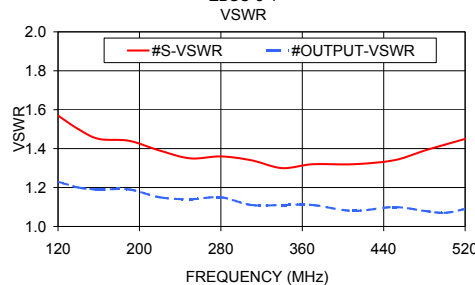
ZBSC-5-1 TOTAL LOSS



ZBSC-5-1 ISOLATION



ZBSC-5-1 VSWR



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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