

Power Splitter/Combiner

ZX10-2-98-S+

2 Way-0° 50Ω 4750 to 9800 MHz

Maximum Ratings

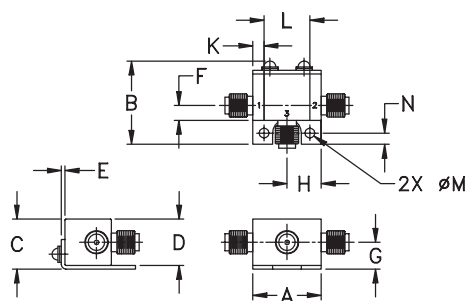
| | |
|--------------------------------------|------------------------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 1.0W max. |
| Internal Dissipation (as a combiner) | 0.125W max. |
| DC Current | 500 mA (250mA for each port) |
| DC Current | 1.0A (500mA for each port) |

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

Coaxial Connections

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

Outline Drawing



Outline Dimensions (inch/mm)

| | | | | | | |
|-------|-------|-------|-------|------|------|-------|
| A | B | C | D | E | F | G |
| .74 | .90 | .54 | .50 | .04 | .16 | .29 |
| 18.80 | 22.86 | 13.72 | 12.70 | 1.02 | 4.06 | 7.37 |
| H | J | K | L | M | N | wt |
| .37 | -- | .122 | .496 | .106 | .122 | grams |
| 9.40 | -- | 3.10 | 12.60 | 2.69 | 3.10 | 20.0 |

Features

- low insertion loss, 0.3 dB typ.
- excellent amplitude unbalance
- very good phase unbalance
- small size
- low cost
- protected under U.S. Patent 6,790,049 & 6,963,255

Applications

- SHF
- communications
- defense
- cable tv relay

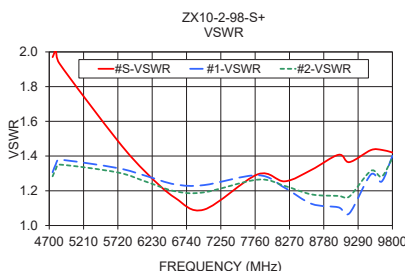
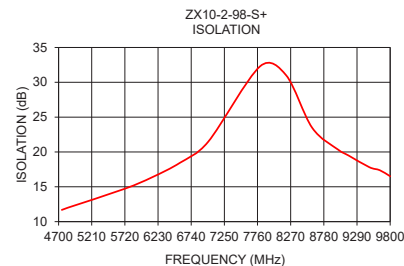
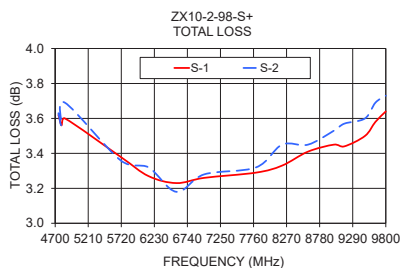
Electrical Specifications (T_{AMB}=25°C)

| FREQ. RANGE (MHz) | ISOLATION (dB) | | INSERTION LOSS (dB) ABOVE 3.0 dB | | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) |
|--------------------------------|----------------|------|----------------------------------|------|---------------------------|--------------------------|
| | Typ. | Min. | Typ. | Max. | Max. | Max. |
| f _c -f _u | | | | | | |
| 4750-9800 | 23 | 10 | 0.3 | 1.2 | 9.0 | 0.5 |
| 7000-9000 | 23 | 18 | 0.3 | 0.8 | 8.0 | 0.4 |

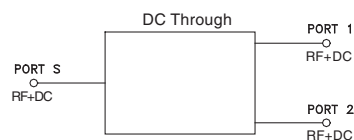
Typical Performance Data

| Frequency (MHz) | Total Loss ¹ (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
| | S-1 | S-2 | | | | | | |
| 4750.00 | 3.62 | 3.63 | 0.01 | 11.68 | 0.03 | 1.97 | 1.31 | 1.28 |
| 4800.00 | 3.56 | 3.56 | 0.01 | 11.85 | 0.16 | 2.01 | 1.35 | 1.33 |
| 4850.00 | 3.60 | 3.69 | 0.09 | 12.02 | 0.20 | 1.93 | 1.38 | 1.35 |
| 5710.00 | 3.38 | 3.36 | 0.03 | 14.69 | 0.09 | 1.49 | 1.33 | 1.31 |
| 6140.00 | 3.27 | 3.32 | 0.05 | 16.37 | 0.09 | 1.30 | 1.29 | 1.25 |
| 6570.00 | 3.23 | 3.18 | 0.05 | 18.46 | 0.22 | 1.16 | 1.24 | 1.20 |
| 7000.00 | 3.26 | 3.28 | 0.02 | 21.45 | 0.22 | 1.09 | 1.23 | 1.19 |
| 7800.00 | 3.29 | 3.32 | 0.03 | 32.30 | 0.26 | 1.29 | 1.29 | 1.26 |
| 8200.00 | 3.33 | 3.45 | 0.12 | 31.01 | 0.02 | 1.25 | 1.22 | 1.23 |
| 8600.00 | 3.41 | 3.45 | 0.05 | 23.48 | 0.52 | 1.32 | 1.12 | 1.18 |
| 9000.00 | 3.45 | 3.53 | 0.08 | 20.33 | 0.98 | 1.41 | 1.10 | 1.17 |
| 9160.00 | 3.44 | 3.57 | 0.13 | 19.49 | 0.70 | 1.37 | 1.07 | 1.17 |
| 9480.00 | 3.50 | 3.60 | 0.10 | 17.81 | 0.50 | 1.43 | 1.29 | 1.31 |
| 9640.00 | 3.58 | 3.69 | 0.11 | 17.38 | 0.85 | 1.44 | 1.25 | 1.28 |
| 9800.00 | 3.64 | 3.73 | 0.09 | 16.51 | 1.35 | 1.42 | 1.40 | 1.39 |

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

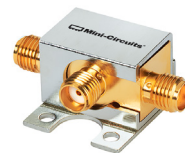


electrical schematic



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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Generic photo used for illustration purposes only

CASE STYLE: FL905

| Connectors | Model |
|------------|--------------|
| SMA | ZX10-2-98-S+ |

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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