

SMA Connectorized Power Splitter/Combiner

ZX10Q-2-5-S+ ZX10Q-2-5-S+

2 Way-90° 50Ω 330 to 580 MHz

Maximum Ratings

| | |
|-----------------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 20W* max. |

* Derate linearly to 7W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

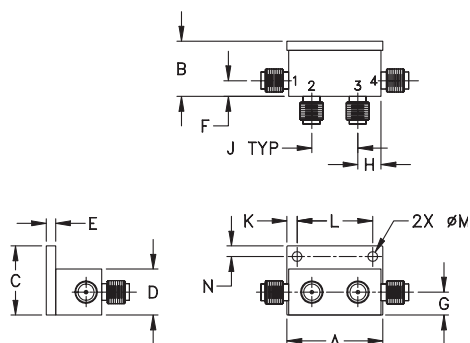
Coaxial Connections

| | |
|------------------------|---|
| INPUT PORT | 1 |
| PORT 1 (+90°) | 2 |
| PORT 2 (0°) | 3 |
| 50 OHM TERM EXTERNAL** | 4 |



** Recommended external termination
Mini-Circuits Part. No. ANNE-50L

Outline Drawing



Outline Dimensions (inch/mm)

| | A | B | C | D | E | F | G | |
|--|-------|-------|-------|-------|------|------|-------|--|
| | 1.04 | .60 | .75 | .50 | .10 | .17 | .25 | |
| | 26.42 | 15.24 | 19.05 | 12.70 | 2.54 | 4.32 | 6.35 | |
| | H | J | K | L | M | N | wt. | |
| | .25 | .50 | .11 | .820 | .106 | .12 | grams | |
| | 6.35 | 12.70 | 2.79 | 20.83 | 2.69 | 3.05 | 21.0 | |

Features

- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance
- very good phase unbalance
- small size
- low cost
- protected by U.S Patent 6,790,049

Applications

- balanced amplifiers
- modulators
- VHF
- defense communications



Generic photo used for illustration purposes only

CASE STYLE: GW1052

| Connectors | Model |
|------------|----------------|
| SMA | ZX10Q-2-5-S(+) |

+RoHS Compliant

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

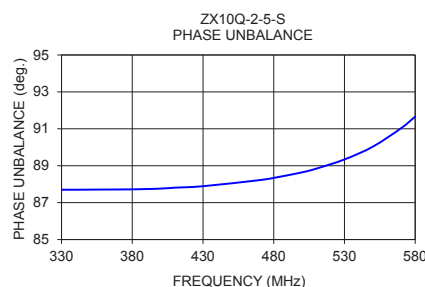
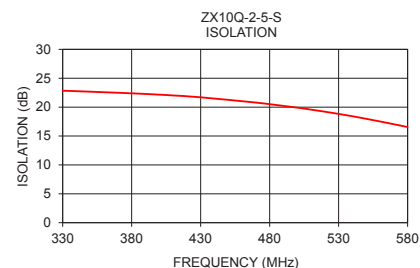
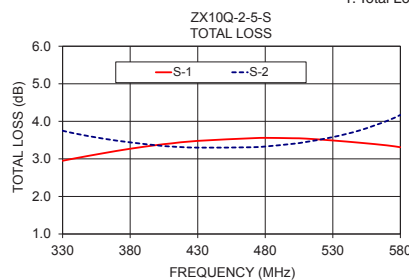
Electrical Specifications (T_{AMB}=25°C)

| FREQ. RANGE (MHz) | ISOLATION (dB) | | INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB | | PHASE UNBALANCE (Degrees) | | AMPLITUDE UNBALANCE (dB) | |
|--------------------------------|----------------|------|---|------|---------------------------|------|--------------------------|------|
| | Typ. | Min. | Typ. | Max. | Typ. | Max. | Typ. | Max. |
| f _L -f _H | | | | | | | | |
| 330-580 | | | | | | | | |
| 330-400 | 20 | 17 | 0.3 | 0.6 | 2.5 | 5.0 | 0.6 | 1.1 |
| 400-525 | 20 | 16 | 0.4 | 0.7 | 2.5 | 4.0 | 0.2 | 0.5 |
| 525-580 | 18 | 14 | 0.6 | 0.9 | 1.0 | 4.0 | 0.8 | 1.3 |

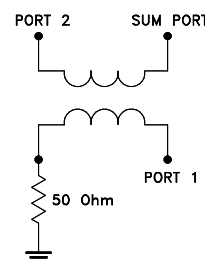
Typical Performance Data

| Frequency (MHz) | Total Loss ¹ (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR _S | VSWR ₁ | VSWR ₂ |
|-----------------|------------------------------|------|--------------------------|----------------|------------------------|-------------------|-------------------|-------------------|
| | S-1 | S-2 | | | | | | |
| 330.00 | 2.95 | 3.75 | 0.81 | 22.84 | 87.70 | 1.15 | 1.20 | 1.13 |
| 340.00 | 3.02 | 3.67 | 0.66 | 22.76 | 87.70 | 1.15 | 1.20 | 1.14 |
| 360.00 | 3.15 | 3.54 | 0.39 | 22.58 | 87.71 | 1.15 | 1.20 | 1.14 |
| 380.00 | 3.27 | 3.44 | 0.17 | 22.39 | 87.72 | 1.15 | 1.21 | 1.15 |
| 400.00 | 3.37 | 3.36 | 0.01 | 22.16 | 87.76 | 1.15 | 1.22 | 1.16 |
| 410.00 | 3.41 | 3.33 | 0.08 | 22.02 | 87.81 | 1.15 | 1.22 | 1.17 |
| 430.00 | 3.48 | 3.30 | 0.18 | 21.70 | 87.89 | 1.16 | 1.23 | 1.19 |
| 470.00 | 3.55 | 3.31 | 0.24 | 20.79 | 88.22 | 1.17 | 1.26 | 1.23 |
| 480.00 | 3.56 | 3.33 | 0.22 | 20.51 | 88.34 | 1.18 | 1.27 | 1.24 |
| 500.00 | 3.55 | 3.40 | 0.15 | 19.91 | 88.64 | 1.20 | 1.30 | 1.28 |
| 510.00 | 3.54 | 3.45 | 0.08 | 19.57 | 88.84 | 1.21 | 1.31 | 1.30 |
| 530.00 | 3.49 | 3.58 | 0.09 | 18.83 | 89.34 | 1.23 | 1.34 | 1.34 |
| 550.00 | 3.43 | 3.76 | 0.33 | 17.98 | 90.03 | 1.26 | 1.39 | 1.39 |
| 570.00 | 3.36 | 4.01 | 0.66 | 17.04 | 91.03 | 1.31 | 1.44 | 1.46 |
| 580.00 | 3.31 | 4.17 | 0.85 | 16.55 | 91.66 | 1.33 | 1.48 | 1.50 |

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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