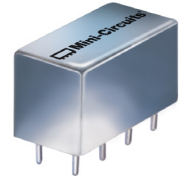


Plug-In

Power Splitter/Combiner

PSC-4-1-75+

4 Way-0° 75Ω 1 to 200 MHz



CASE STYLE: A01

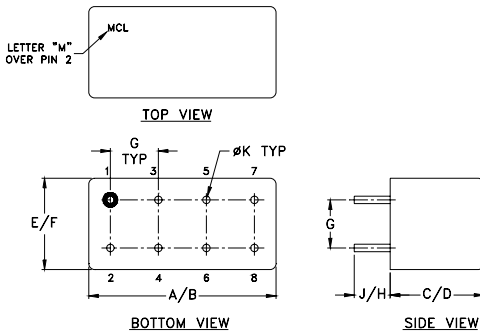
Maximum Ratings

| | |
|---|----------------|
| 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. | |

Pin Connections

| | |
|-------------|-------|
| SUM PORT | 4 |
| PORT 1 | 7 |
| PORT 2 | 8 |
| PORT 3 | 1 |
| PORT 4 | 2 |
| GROUND | 3,5,6 |
| CASE GROUND | 3,5,6 |

Outline Drawing



Outline Dimensions (inch/mm)

| | | | | | |
|-------|-------|------|-------|------|-------|
| A | B | C | D | E | F |
| .770 | .800 | .385 | .400 | .370 | .400 |
| 19.56 | 20.32 | 9.78 | 10.16 | 9.40 | 10.16 |
| G | H | J | K | | wt |
| .200 | .20 | .14 | .031 | | grams |
| 5.08 | 5.08 | 3.56 | 0.79 | | 5.2 |

Features

- low insertion loss, 0.5 dB typ.
- good isolation, 30 dB typ.
- rugged welded construction

Applications

- HF/VHF
- amateur FM radio
- instrumentation

+RoHS Compliant

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

Electrical Specifications

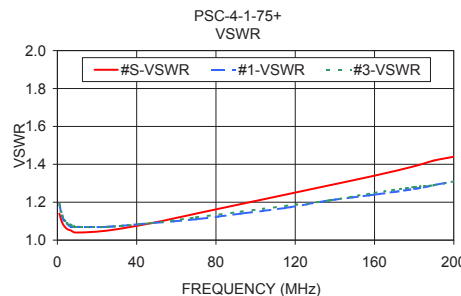
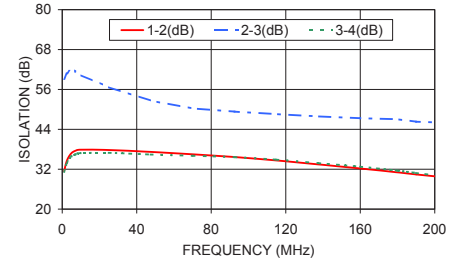
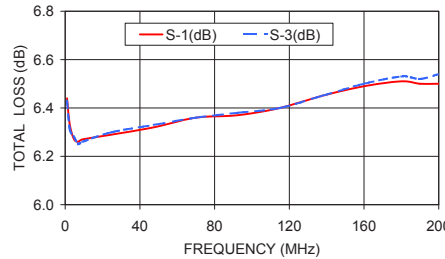
| FREQ. RANGE (MHz) | ISOLATION (dB) | | | | | | INSERTION LOSS (dB) ABOVE 6.0 dB | | | | | | PHASE UNBALANCE (Degrees) | | | AMPLITUDE UNBALANCE (dB) | | | |
|-------------------|----------------|------|------|------|------|------|----------------------------------|------|------|------|------|------|---------------------------|------|------|--------------------------|------|------|--|
| | L | | M | | U | | L | | M | | U | | L | M | U | L | M | U | |
| | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Max. | Typ. | Max. | Typ. | Max. | Max. | Max. | Max. | Max. | Max. | Max. | |
| f_L - f_U | | | | | | | | | | | | | | | | | | | |
| 1-200 | 30 | 20 | 25 | 20 | 25 | 20 | 0.4 | 0.7 | 0.5 | 0.9 | 0.7 | 1.2 | 2 | 3 | 4 | 0.15 | 0.2 | 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

| Freq. (MHz) | Total Loss ¹ (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 | 1-3 | 3-4 | | | | | | |
| 1.00 | 6.44 | 6.41 | 6.43 | 6.44 | 0.03 | 31.36 | 59.15 | 31.20 | 0.08 | 1.14 | 1.19 | 1.19 | 1.19 | 1.19 |
| 2.50 | 6.33 | 6.33 | 6.31 | 6.32 | 0.02 | 34.59 | 60.84 | 33.86 | 0.26 | 1.09 | 1.12 | 1.13 | 1.13 | 1.13 |
| 4.75 | 6.27 | 6.27 | 6.28 | 6.25 | 0.02 | 36.73 | 62.33 | 35.76 | 0.20 | 1.06 | 1.09 | 1.09 | 1.09 | 1.09 |
| 7.00 | 6.26 | 6.27 | 6.25 | 6.25 | 0.03 | 37.54 | 61.43 | 36.42 | 0.21 | 1.05 | 1.07 | 1.07 | 1.08 | 1.08 |
| 9.25 | 6.27 | 6.26 | 6.26 | 6.26 | 0.01 | 37.87 | 60.47 | 36.81 | 0.10 | 1.04 | 1.07 | 1.07 | 1.07 | 1.07 |
| 25.00 | 6.29 | 6.29 | 6.30 | 6.30 | 0.02 | 37.78 | 56.68 | 36.93 | 0.11 | 1.05 | 1.07 | 1.07 | 1.07 | 1.07 |
| 47.50 | 6.32 | 6.34 | 6.33 | 6.32 | 0.02 | 37.21 | 52.63 | 36.42 | 0.05 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| 70.00 | 6.36 | 6.38 | 6.36 | 6.36 | 0.02 | 36.50 | 50.29 | 36.05 | 0.27 | 1.14 | 1.11 | 1.12 | 1.12 | 1.12 |
| 92.50 | 6.37 | 6.39 | 6.38 | 6.39 | 0.02 | 35.67 | 49.33 | 35.63 | 0.16 | 1.19 | 1.14 | 1.15 | 1.15 | 1.15 |
| 115.00 | 6.40 | 6.38 | 6.40 | 6.44 | 0.06 | 34.64 | 48.59 | 34.88 | 0.21 | 1.24 | 1.17 | 1.18 | 1.18 | 1.17 |
| 137.50 | 6.45 | 6.45 | 6.45 | 6.46 | 0.02 | 33.45 | 47.89 | 33.82 | 0.34 | 1.29 | 1.21 | 1.21 | 1.21 | 1.21 |
| 160.00 | 6.49 | 6.48 | 6.50 | 6.54 | 0.05 | 32.24 | 47.34 | 32.75 | 0.46 | 1.34 | 1.24 | 1.24 | 1.25 | 1.24 |
| 180.00 | 6.51 | 6.50 | 6.53 | 6.55 | 0.05 | 31.07 | 47.03 | 31.57 | 0.34 | 1.39 | 1.27 | 1.27 | 1.28 | 1.27 |
| 190.00 | 6.50 | 6.49 | 6.52 | 6.56 | 0.06 | 30.44 | 46.30 | 30.88 | 0.27 | 1.42 | 1.29 | 1.29 | 1.29 | 1.29 |
| 200.00 | 6.50 | 6.50 | 6.54 | 6.57 | 0.07 | 29.86 | 46.11 | 30.22 | 0.41 | 1.44 | 1.31 | 1.31 | 1.31 | 1.31 |

1. Total Loss = Insertion Loss + 6dB 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.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/WCLStore/terms.jsp

