

Surface Mount Power Splitter/Combiner

SCPQ-10.5+ SCPQ-10.5

2 Way-90° 50Ω 9 to 11 MHz



Maximum Ratings

| | |
|---|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 1W max. |
| Permanent damage may occur if any of these limits are exceeded. | |

Pin Connections

| | |
|----------------------|---------|
| SUM PORT | 1 |
| PORT 1 (+90°) | 2 |
| PORT 2 (0°) | 5 |
| GROUND | 3,4,7,8 |
| 50 OHM TERM EXTERNAL | 6 |

Features

- low insertion loss, 0.15 dB typ.
- high isolation, 31 dB typ.

Applications

- HF
- signal processing
- balanced amplifier
- modulators

CASE STYLE: YY101

PRICE: \$13.95 ea. QTY (1-9)

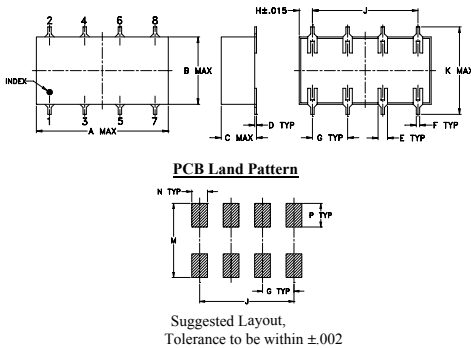
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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) Avg. of Coupled Outputs ABOVE 3 dB | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) |
|-------------------|----------------|---|---------------------------|--------------------------|
| f_L - f_U | Typ. Min. | Typ. Max. | Max. | Max. |
| 9-11 | 31 20 | 0.15 0.7 | 3 | 1.2 |

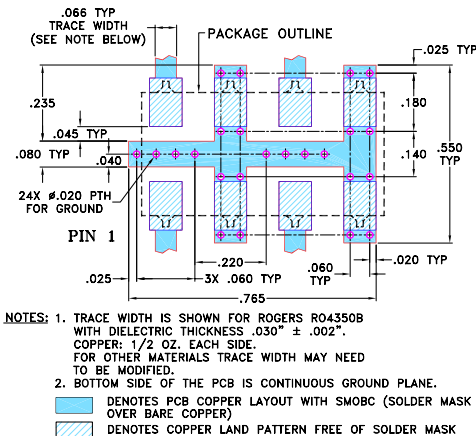
Outline Drawing



Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G |
|-------|-------|-------|-------|------|------|-------|
| .75 | .38 | .20 | .010 | .050 | .020 | .200 |
| 19.05 | 9.65 | 5.08 | 0.25 | 1.27 | 0.51 | 5.08 |
| H | J | K | M | N | P | wt |
| .075 | .600 | .450 | .470 | .100 | .150 | grams |
| 1.91 | 15.24 | 11.43 | 11.94 | 2.54 | 3.81 | 1.6 |

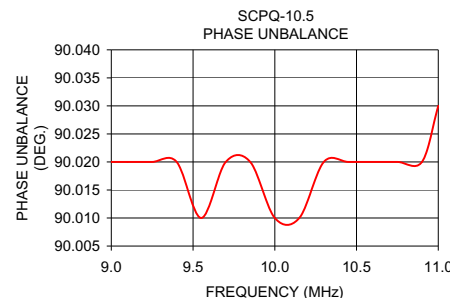
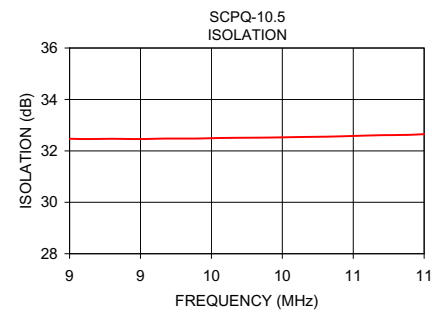
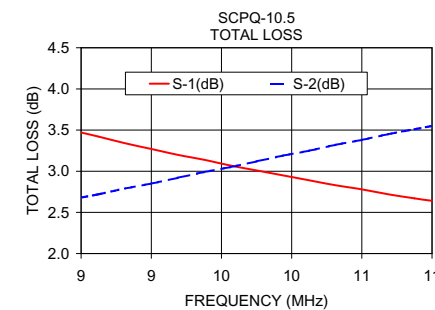
Demo Board MCL P/N: TB-51 Suggested PCB Layout (PL-062)



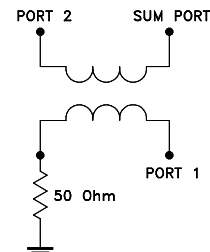
Typical Performance Data

| Frequency (MHz) | Total Loss ¹ (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
| | S-1 | S-2 | | | | | | |
| 9.00 | 3.47 | 2.68 | 0.79 | 32.47 | 90.02 | 1.03 | 1.03 | 1.03 |
| 9.10 | 3.42 | 2.72 | 0.70 | 32.46 | 90.02 | 1.03 | 1.03 | 1.03 |
| 9.25 | 3.34 | 2.79 | 0.56 | 32.47 | 90.02 | 1.03 | 1.03 | 1.03 |
| 9.40 | 3.27 | 2.85 | 0.42 | 32.46 | 90.02 | 1.03 | 1.03 | 1.03 |
| 9.55 | 3.20 | 2.92 | 0.28 | 32.48 | 90.01 | 1.03 | 1.03 | 1.03 |
| 9.70 | 3.14 | 2.99 | 0.15 | 32.48 | 90.02 | 1.03 | 1.03 | 1.03 |
| 9.85 | 3.07 | 3.05 | 0.02 | 32.50 | 90.02 | 1.03 | 1.03 | 1.04 |
| 10.00 | 3.01 | 3.12 | 0.11 | 32.51 | 90.01 | 1.03 | 1.03 | 1.04 |
| 10.15 | 2.95 | 3.19 | 0.23 | 32.52 | 90.01 | 1.03 | 1.03 | 1.04 |
| 10.30 | 2.89 | 3.25 | 0.36 | 32.54 | 90.02 | 1.03 | 1.03 | 1.04 |
| 10.45 | 2.83 | 3.32 | 0.48 | 32.55 | 90.02 | 1.03 | 1.03 | 1.04 |
| 10.60 | 2.78 | 3.38 | 0.60 | 32.58 | 90.02 | 1.03 | 1.03 | 1.04 |
| 10.75 | 2.72 | 3.45 | 0.72 | 32.61 | 90.02 | 1.03 | 1.03 | 1.04 |
| 10.90 | 2.67 | 3.51 | 0.84 | 32.62 | 90.02 | 1.03 | 1.03 | 1.04 |
| 11.00 | 2.64 | 3.55 | 0.92 | 32.65 | 90.03 | 1.03 | 1.03 | 1.04 |

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



electrical schematic



For detailed performance specs & shopping online see web site

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