

Ultra-Small Ceramic Power Splitter/Combiner

SCN-2-19+ SCN-2-19

2 Way-0° 50Ω

1425 to 1900 MHz

Maximum Ratings

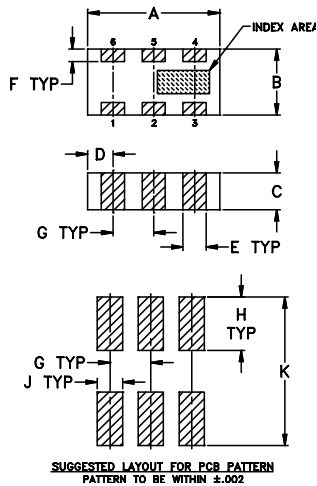
| | |
|-----------------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 20W* max. |

*derate linearly to 6W at 100°C ambient.

Pin Connections

| | |
|----------|----------------------------|
| SUM PORT | 2 |
| PORT 1 | 6 |
| PORT 2 | 4 |
| GROUND | 1,3,5 |
| PORT 1-2 | resistor external 100 OHMS |

Outline Drawing

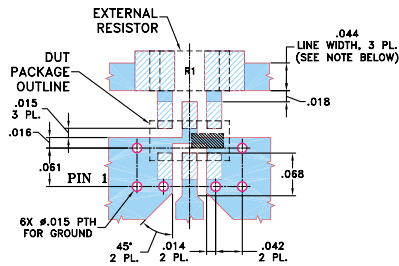


Outline Dimensions (inch/mm)

| A | B | C | D | E | F |
|------|------|------|------|------|------|
| .126 | .063 | .037 | .024 | .022 | .012 |
| 3.20 | 1.60 | 0.94 | 0.61 | 0.56 | 0.30 |

| G | H | J | K | wt |
|------|------|------|------|-------|
| .039 | .042 | .024 | .123 | grams |
| 0.99 | 1.07 | 0.61 | 3.12 | .020 |

Demo Board MCL P/N: TB-252 Suggested PCB Layout (PL-129)



Features

- isolation resistor, external 100 ohms
- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance, 0.2 dB typ.
- good phase unbalance, 2.0 deg. typ.
- high isolation, 25 dB typ.
- excellent power handling, 20W as splitter
- small size, 0.12"x0.06"x0.035"
- ESD non-sensitive
- temperature stable LTCC technology
- wrap around terminations for excellent solderability
- low cost
- patent pending

Applications

- GPS
- PCN



CASE STYLE: FV1206-1
PRICE: \$ 2.50 ea. QTY (10-49)
\$ 0.99 ea. QTY (100)

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

See our web site for RoHS Compliance methodologies and qualifications.

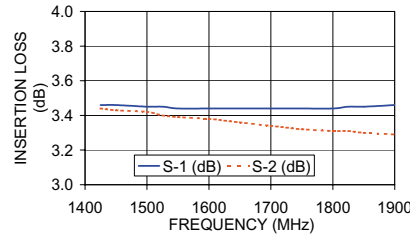
Splitter Electrical Specifications

| MODEL NO. | FREQUENCY (MHz) | INSERTION LOSS (dB) ABOVE 3.0 dB | | ISOLATION (dB) | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) | RETURN LOSS (dB) | | |
|-------------|-----------------|----------------------------------|------|----------------|---------------------------|--------------------------|------------------|-------------|----|
| | | Typ. | Max. | Typ. Min. | Typ. Max. | Typ. Max. | INPUT Typ. | OUTPUT Typ. | |
| SCN-2-19(+) | 1425-1900 | 0.5 | 0.9 | 23 | 17 | 2.5 | 4.0 | 15 | 18 |
| | 1550-1800 | 0.5 | 0.9 | 25 | 20 | 2.0 | 4.0 | 19 | 18 |

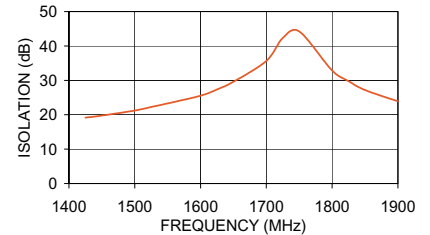
Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | Return Loss (dB) | | |
|-----------------|---------------------|------|--------------------------|----------------|------------------------|------------------|-------|-------|
| | S-1 | S-2 | | | | S | 1 | 2 |
| 1425.00 | 3.46 | 3.44 | 0.02 | 19.16 | 0.79 | 14.18 | 22.49 | 21.29 |
| 1450.00 | 3.46 | 3.43 | 0.02 | 19.76 | 0.80 | 14.44 | 22.04 | 20.91 |
| 1500.00 | 3.45 | 3.42 | 0.04 | 21.22 | 0.83 | 14.77 | 21.40 | 20.21 |
| 1525.00 | 3.45 | 3.40 | 0.03 | 22.26 | 0.82 | 15.10 | 21.32 | 20.15 |
| 1550.00 | 3.44 | 3.39 | 0.05 | 23.29 | 0.81 | 15.47 | 21.07 | 19.97 |
| 1600.00 | 3.44 | 3.38 | 0.05 | 25.56 | 0.85 | 15.99 | 20.37 | 19.24 |
| 1625.00 | 3.44 | 3.37 | 0.06 | 27.34 | 0.86 | 16.31 | 20.30 | 19.16 |
| 1650.00 | 3.44 | 3.36 | 0.07 | 29.60 | 0.87 | 16.75 | 20.25 | 19.15 |
| 1700.00 | 3.44 | 3.34 | 0.09 | 35.62 | 0.93 | 17.48 | 19.76 | 18.62 |
| 1725.00 | 3.44 | 3.33 | 0.10 | 42.32 | 0.95 | 17.87 | 19.67 | 18.44 |
| 1750.00 | 3.44 | 3.32 | 0.11 | 44.21 | 0.93 | 18.35 | 19.69 | 18.45 |
| 1800.00 | 3.44 | 3.31 | 0.12 | 32.86 | 0.96 | 19.18 | 19.36 | 18.17 |
| 1825.00 | 3.45 | 3.31 | 0.13 | 29.78 | 0.99 | 19.60 | 19.24 | 17.98 |
| 1850.00 | 3.45 | 3.30 | 0.14 | 27.19 | 1.00 | 20.10 | 19.32 | 18.01 |
| 1900.00 | 3.46 | 3.29 | 0.17 | 23.89 | 1.02 | 20.74 | 19.24 | 17.94 |

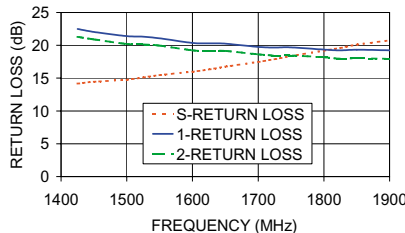
SCN-2-19
INSERTION LOSS



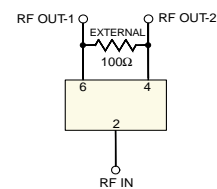
SCN-2-19
ISOLATION



SCN-2-19
RETURN LOSS



electrical schematic



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