

Coaxial

Power Splitter/Combiner

ZMSCJ-2-1

2 Way-180° 50Ω 1 to 200 MHz



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 | 0.125W max. |

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

Coaxial Connections

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

Features

- low insertion loss, 0.6 dB typ.
- high isolation, 35 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1 deg. typ.
- rugged shielded case

Applications

- VHF
- signal processing
- radio communications

Electrical Specifications

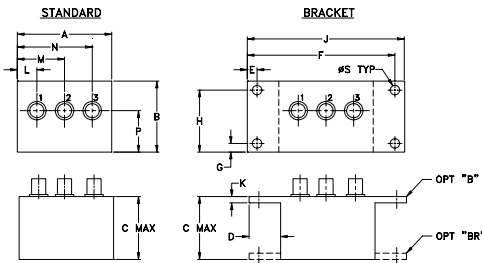
| FREQ. RANGE (MHz) | ISOLATION (dB) | | | | | | INSERTION LOSS (dB) ABOVE 3.0 dB | | | | | | PHASE UNBALANCE (Degrees) | | | AMPLITUDE UNBALANCE (dB) | | |
|-------------------|----------------|-----|------|-----|------|-----|----------------------------------|------|------|------|------|------|---------------------------|------|------|--------------------------|------|------|
| | 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. |
| 1-200 | 35 | 30 | 35 | 25 | 30 | 23 | 0.75 | 1.0 | 0.6 | 0.8 | 0.75 | 1.2 | 2 | 2.5 | 4 | 0.3 | 0.15 | 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]

CASE STYLE: M21

| Connectors | Model | Price | Qty. |
|-----------------------|-----------|---------|-------|
| SMA | ZMSCJ-2-1 | \$57.95 | (1-9) |
| BRACKET (OPTION "B") | | \$5.00 | (1+) |
| BRACKET (OPTION "BR") | | \$1.50 | (1+) |

Outline Drawing



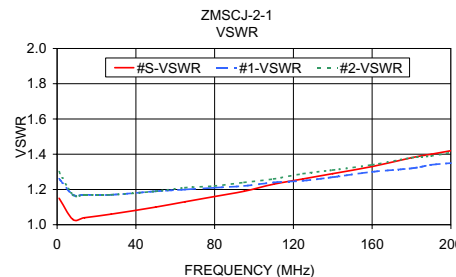
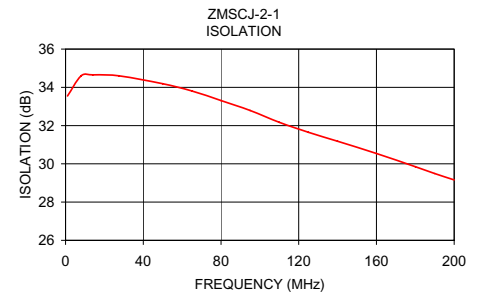
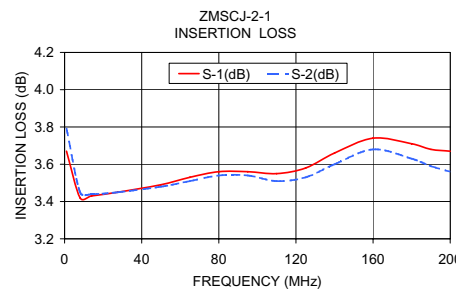
Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G | H |
|-------|-------|-------|-------|------|-------|------|-------|
| 1.50 | 1.13 | 1.00 | .50 | .155 | 2.345 | .138 | .987 |
| 38.10 | 28.70 | 25.40 | 12.70 | 3.94 | 59.56 | 3.51 | 25.07 |

| J | K | L | M | N | P | S | wt |
|-------|------|------|-------|-------|-------|------|-------|
| 2.50 | .10 | .31 | .75 | 1.19 | .66 | .150 | grams |
| 63.50 | 2.54 | 7.87 | 19.05 | 30.23 | 16.76 | 3.81 | 40.0 |

Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|---------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
| | S-1 | S-2 | | | | | | |
| 1.00 | 3.67 | 3.79 | 0.12 | 33.55 | 181.00 | 1.15 | 1.26 | 1.30 |
| 8.00 | 3.42 | 3.45 | 0.02 | 34.60 | 179.58 | 1.03 | 1.17 | 1.17 |
| 14.00 | 3.43 | 3.44 | 0.01 | 34.65 | 179.71 | 1.04 | 1.17 | 1.17 |
| 27.50 | 3.45 | 3.45 | 0.00 | 34.60 | 179.78 | 1.06 | 1.17 | 1.17 |
| 50.00 | 3.49 | 3.48 | 0.01 | 34.19 | 179.76 | 1.10 | 1.19 | 1.19 |
| 65.00 | 3.53 | 3.51 | 0.02 | 33.81 | 179.74 | 1.13 | 1.20 | 1.21 |
| 80.00 | 3.56 | 3.54 | 0.02 | 33.31 | 179.73 | 1.16 | 1.21 | 1.22 |
| 95.00 | 3.56 | 3.54 | 0.02 | 32.79 | 179.70 | 1.19 | 1.22 | 1.24 |
| 110.00 | 3.55 | 3.51 | 0.03 | 32.17 | 179.62 | 1.23 | 1.24 | 1.26 |
| 125.00 | 3.58 | 3.53 | 0.05 | 31.65 | 179.59 | 1.26 | 1.25 | 1.29 |
| 140.00 | 3.66 | 3.60 | 0.06 | 31.18 | 179.64 | 1.29 | 1.27 | 1.31 |
| 160.00 | 3.74 | 3.68 | 0.06 | 30.54 | 179.62 | 1.33 | 1.30 | 1.34 |
| 180.00 | 3.71 | 3.63 | 0.08 | 29.85 | 179.54 | 1.38 | 1.32 | 1.38 |
| 190.00 | 3.68 | 3.59 | 0.09 | 29.49 | 179.50 | 1.40 | 1.34 | 1.39 |
| 200.00 | 3.67 | 3.56 | 0.11 | 29.16 | 179.46 | 1.42 | 1.35 | 1.41 |



electrical schematic



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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IF/RF MICROWAVE COMPONENTS

REV. OR
M94845
ZMSCJ-2-1
HY/TD/CP
070220