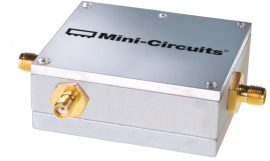


Coaxial Directional Coupler

50Ω 13dB 800 to 2000 MHz

ZNDC-13-2G+



CASE STYLE: FM587
Connectors Model
SMA ZNDC-13-2G-S+

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

Maximum Ratings

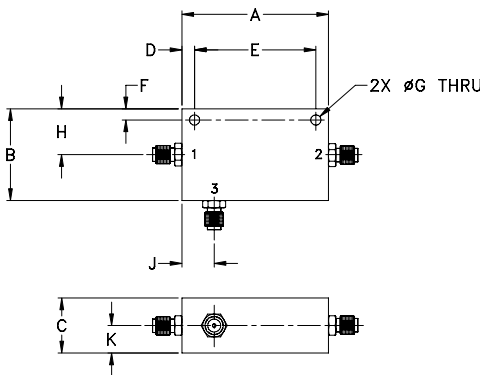
| | |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Power input | 3W Max. |

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

Coaxial Connections

| | |
|---------|---|
| INPUT | 1 |
| OUTPUT | 2 |
| COUPLED | 3 |

Outline Drawing



Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G | H | J | K | wt grams |
|-------|-------|-------|------|-------|------|------|-------|-------|------|----------|
| 2.00 | 1.25 | 0.75 | 0.17 | 1.656 | 0.15 | 0.14 | 0.63 | 0.44 | 0.38 | 57.0 |
| 50.80 | 31.75 | 19.05 | 4.32 | 42.06 | 3.81 | 3.56 | 16.00 | 11.18 | 9.65 | |

Features

- excellent mainline loss, 0.8 dB typ.
- very flat coupling ± 0.2 dB typ.

Applications

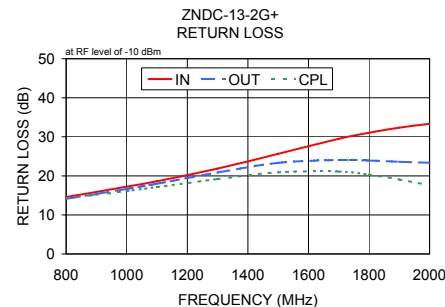
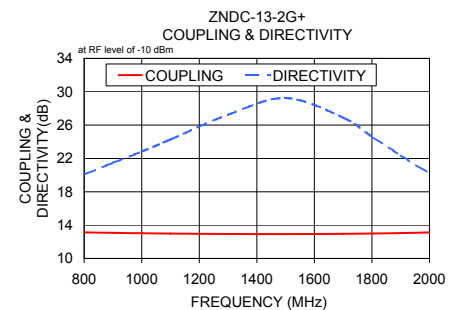
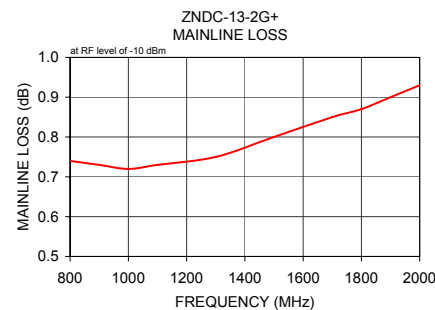
- cellular
- PCS
- ISM

Directional Coupler Electrical Specifications

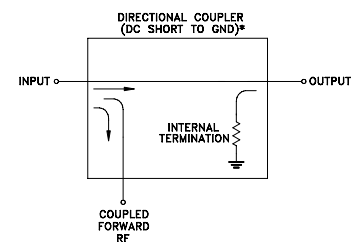
| FREQ. RANGE (MHz) | COUPLING (dB) | | MAINLINE LOSS (dB) | | DIRECTIVITY (dB) | | VSWR (:1) | POWER INPUT (W) |
|-------------------|---------------|---------------|--------------------|------|------------------|------|-----------|-----------------|
| | Nom. | Max. Flatness | Typ. | Max. | Typ. | Min. | | |
| 800-2000 | | | | | | | | |
| 800-1000 | 13 \pm 0.5 | \pm 0.3 | 0.8 | 1.1 | 20 | 17 | 1.4 | 3 |
| 1000-1700 | 13 \pm 0.5 | \pm 0.3 | 0.8 | 1.3 | 20 | 18 | 1.15 | 3 |
| 1700-2000 | 13 \pm 0.5 | \pm 0.35 | 0.8 | 1.3 | 25 | 14 | 1.2 | 3 |

Typical Performance Data

| Frequency (MHz) | Mainline Loss (dB) In-Out | Coupling (dB) In-Cpl | Directivity (dB) | Return Loss (dB) | | |
|-----------------|---------------------------|----------------------|------------------|------------------|-------|-------|
| | | | | In | Out | Cpl |
| 800.00 | 0.74 | 13.12 | 20.06 | 14.58 | 14.10 | 14.22 |
| 900.00 | 0.73 | 13.07 | 21.47 | 15.88 | 15.36 | 15.17 |
| 1000.00 | 0.72 | 13.03 | 22.82 | 17.25 | 16.66 | 16.13 |
| 1100.00 | 0.73 | 12.99 | 24.27 | 18.63 | 18.00 | 17.12 |
| 1300.00 | 0.75 | 12.94 | 27.24 | 21.86 | 20.85 | 19.17 |
| 1500.00 | 0.80 | 12.93 | 29.25 | 25.65 | 23.33 | 20.92 |
| 1700.00 | 0.85 | 12.96 | 26.89 | 29.51 | 24.07 | 21.11 |
| 1800.00 | 0.87 | 13.00 | 24.62 | 31.04 | 23.92 | 20.31 |
| 1900.00 | 0.90 | 13.05 | 22.37 | 32.35 | 23.61 | 19.06 |
| 2000.00 | 0.93 | 13.12 | 20.21 | 33.35 | 23.36 | 17.61 |



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMERS THAT ROUTES DC FROM RF PORTS TO GROUND.

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/MCLStore/terms.jsp

