Coaxial Directional Coupler

ZFDC-10-1+

50Ω 1 to 500 MHz

Maximum Ratings
- Operating Temperature: -55°C to 100°C
- Storage Temperature: -55°C to 100°C

Coaxial Connections
- INPUT: 1
- OUTPUT: 2
- COUPLED: 3

Features
- Excellent directivity, 33 dB typ.
- Excellent mainline loss, 0.8 dB typ.
- Rugged shielded case

Applications
- VHF/UHF
- instrumentation
- Communication receivers & transmitters
- Amateur radio

Electrical Specifications

<table>
<thead>
<tr>
<th>FREQ. RANGE (MHz)</th>
<th>COUPLING (dB)</th>
<th>MAINLINE LOSS</th>
<th>DIRECTIVITY</th>
<th>VSWR</th>
<th>POWER INPUT (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>M</td>
<td>U</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>1-500</td>
<td>10.5</td>
<td>±0.25</td>
<td>±0.6</td>
<td>1.0</td>
<td>1.3</td>
</tr>
</tbody>
</table>

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]

1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

- **Features**
  - Excellent directivity, 33 dB typ.
  - Excellent mainline loss, 0.8 dB typ.
  - Rugged shielded case

- **Applications**
  - VHF/UHF
  - Instrumentation
  - Communication receivers & transmitters
  - Amateur radio

Notes

A. 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.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

C. The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

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Generic photo used for illustration purposes only

CASE STYLE: K18

Connectors Model
- BNC: ZFDC-10-1+
- SMA: ZFDC-10-1-S+
- N-TYPE: ZFDC-10-1-N+
- BRACKET (OPTION"B")

+RoHS Compliant

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

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Outline Drawing

Outline Dimensions (inch (mm))

A | B | C | D | E | F | G | H
---|---|---|---|---|---|---|---
1.25 | 1.25 | .75 | .63 | .38 | 1.00 | .125 | 1.000
31.75 | 31.75 | 19.05 | 16.00 | 9.65 | 25.40 | 3.18 | 25.40

J | K | L | M | N | P | Q | W
---|---|---|---|---|---|---|---
--- | .125 | 1.688 | 2.18 | .75 | .67 | grams
--- | 3.18 | 42.88 | 55.37 | 19.05 | 1.78 | 7.0

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Electrical Schematic

- ZFDC-10-1+S+
- MAINLINE LOSS
- RETURN LOSS
- COUPLING & DIRECTIVITY

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