*Coaxial*

# Directional Coupler

## ZEDC-15-2B

50Ω 1 to 1000 MHz

CASE STYLE: V37

| Connectors | Model | Price | Qty. |
|---|---|---|---|
| **SMA** | ZEDC-15-2B | $64.95 ea. | (1-9) |

### Maximum Ratings

| | |
|---|---|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |

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

### Coaxial Connections

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

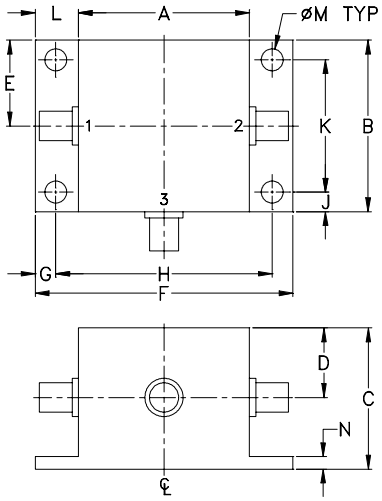
### Features

- wideband, 1 to 1000 MHz
- excellent mainline loss, 0.8 dB typ.
- excellent directivity, 30 dB typ.
- rugged shielded case

### Applications

- VHF/UHF
- instrumentation
- communication receivers & transmitters
- cellular

### Outline Drawing




### Outline Dimensions (inch / mm)

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| .83 | .83 | .75 | .37 | .42 | 1.25 | .10 |
| 21.08 | 21.08 | 19.05 | 9.40 | 10.67 | 31.75 | 2.54 |

| H | J | K | L | M | N | wt |
|---|---|---|---|---|---|---|
| 1.050 | .10 | .640 | .21 | .106 | .06 | grams |
| 26.67 | 2.54 | 16.26 | 5.33 | 2.69 | 1.52 | 22.0 |

### Directional Coupler Electrical Specifications

| FREQ. RANGE (MHz) | COUPLING (dB) | | MAINLINE LOSS[1] (dB) | | | | | | DIRECTIVITY (dB) | | | | | | VSWR (:1) | POWER INPUT (W) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | L | | M | | U | | L | | M | | U | | | L | MU |
| $f_L$-$f_U$ | Nom. | Flatness | Typ. | Max. | Typ. | Max. | Typ. | Max. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Max. | Max. |
| 1-1000 | 15±0.5 | ±0.5 | 0.5 | 1.4 | 0.8 | 1.2 | 1.0 | 1.4 | 35 | 30 | 30 | 20 | 25 | 15 | 1.15 | 1.5 | 3.0 |

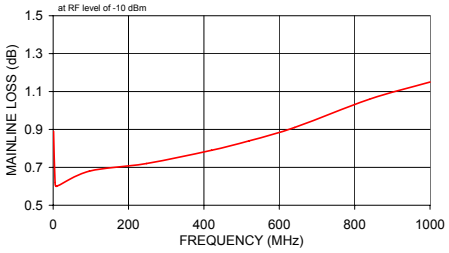
L = low range [$f_L$ to 10 $f_L$] M = mid range [10 $f_L$ to $f_U$/2] U= upper range [$f_U$/2 to $f_U$]

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

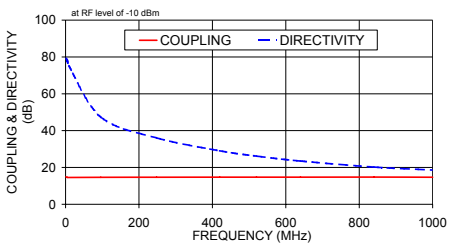
### Typical Performance Data

| Frequency (MHz) | Mainline Loss (dB) In-Out | Coupling (dB) In-Cpl | Directivity (dB) | Return Loss (dB) In | Return Loss (dB) Out | Return Loss (dB) Cpl |
|---|---|---|---|---|---|---|
| 1.00 | 0.89 | 14.88 | 79.23 | 20.86 | 18.52 | 18.59 |
| 5.00 | 0.62 | 14.60 | 77.98 | 28.31 | 22.92 | 22.83 |
| 9.00 | 0.60 | 14.58 | 75.18 | 30.07 | 23.46 | 23.42 |
| 96.00 | 0.68 | 14.64 | 47.38 | 28.75 | 22.70 | 22.81 |
| 248.00 | 0.72 | 14.68 | 36.05 | 27.13 | 22.32 | 22.74 |
| 420.00 | 0.79 | 14.71 | 29.08 | 25.36 | 21.07 | 22.68 |
| 520.00 | 0.84 | 14.73 | 26.18 | 24.45 | 19.92 | 22.58 |
| 640.00 | 0.91 | 14.73 | 23.49 | 23.56 | 18.30 | 22.45 |
| 840.00 | 1.06 | 14.76 | 20.21 | 22.53 | 15.42 | 22.17 |
| 1000.00 | 1.15 | 14.70 | 18.59 | 22.05 | 13.20 | 21.93 |

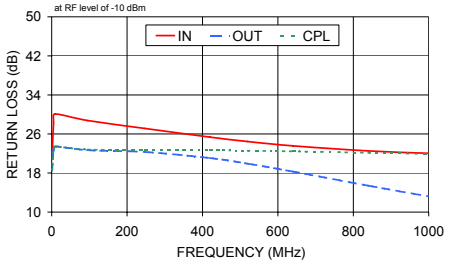
ZEDC-15-2B
MAINLINE LOSS



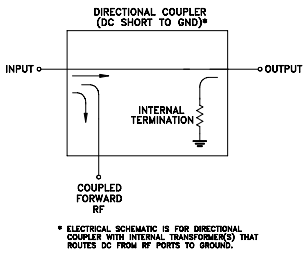

ZEDC-15-2B
COUPLING & DIRECTIVITY




ZEDC-15-2B
RETURN LOSS




### Electrical Schematic




Notes

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