

# Coaxial Directional Coupler

## ZEDC-10-2B

50Ω

1 to 1000 MHz



Generic photo used for illustration purposes only

CASE STYLE: V37

### 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 directivity, 30 dB typ.
- rugged shielded case

### Applications

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

Connectors	Model
SMA	ZEDC-10-2B

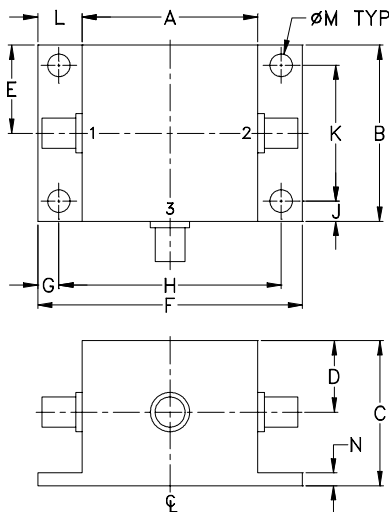
### Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)				DIRECTIVITY (dB)			VSWR (:1)	POWER INPUT (W)						
	Nom.	Flatness	L		M		U		L		M	U	L	MU			
f <sub>L</sub> -f <sub>U</sub>			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Max.		
1-1000	11±0.5	±0.75	1.3	1.8	1.5	1.8	1.5	1.8	35	30	30	20	18	13	1.3	1.5	3.0

L = low range [f<sub>L</sub> to 10 f<sub>L</sub>] M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2] U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]

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

### Outline Drawing

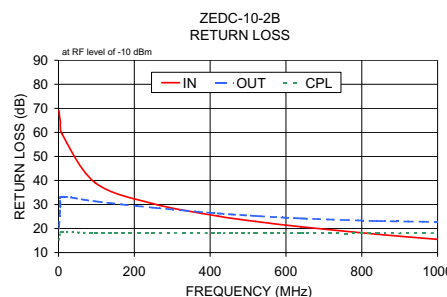
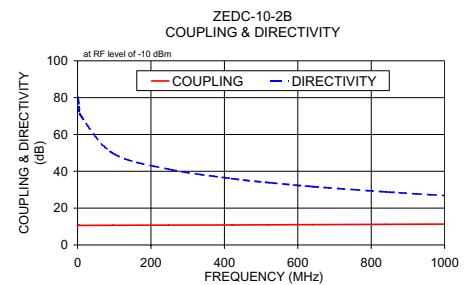
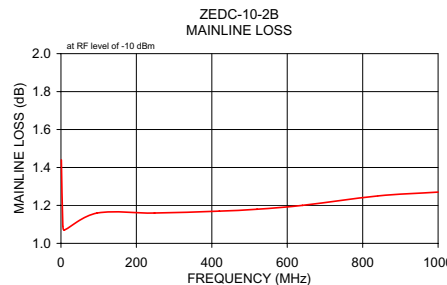


### Outline Dimensions (inch/mm)

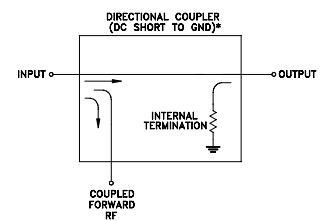
A	B	C	D	E	F	G
.83	.83	.75	.37	.42	1.25	.10
21.08	21.08	19.05	9.40	10.67	31.75	2.54
H	J	K	L	M	N	wt
1.050	.10	.640	.21	.106	.06	grams
26.67	2.54	16.26	5.33	2.69	1.52	22.0

### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)	
				In	Out
1.00	1.44	11.03	80.15	69.12	20.04
5.00	1.09	10.64	74.80	64.16	29.77
9.00	1.07	10.62	70.11	59.49	33.22
96.00	1.16	10.69	49.83	39.14	31.36
248.00	1.16	10.76	41.15	30.39	28.72
420.00	1.17	10.84	36.04	25.20	26.31
520.00	1.18	10.92	33.89	22.97	25.24
640.00	1.20	11.01	31.72	20.71	24.23
840.00	1.25	11.21	28.83	17.62	23.14
1000.00	1.27	11.32	26.81	15.49	22.76



### Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) 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.
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