

# Coaxial Directional Coupler

50 $\Omega$

0.5 to 500 MHz

ZDC-10-1



## Maximum Ratings

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

## Coaxial Connections

INPUT	3
OUTPUT	2
COUPLED	1

## Features

- excellent directivity, 32 dB typ.
- excellent insertion loss, 0.65 dB typ.
- rugged shielded case

## Applications

- VHF/HF
- instrumentation
- communication receivers & transmitters

CASE STYLE: M22

Connectors	Model	Price	Qty.
BNC	ZDC-10-1	\$44.95 ea.	(1-9)
BRACKET (OPTION "B")		\$5.00	(1+)
BRACKET (OPTION "BR")		\$1.50	(1+)

## Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS¹						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
			L		M		U		L		M		U				
	f <sub>L</sub> -f <sub>U</sub>	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.
0.5-500	11.5±0.5	±0.6	0.85	1.3	0.65	1.0	0.85	1.3	32	25	32	25	22	15	1.2	1.5	3.0

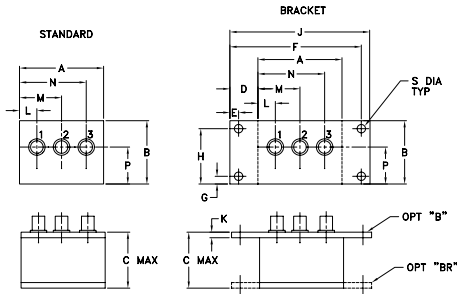
L = low range [ $f_L$  to  $10 f_L$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

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

## Typical Performance Data

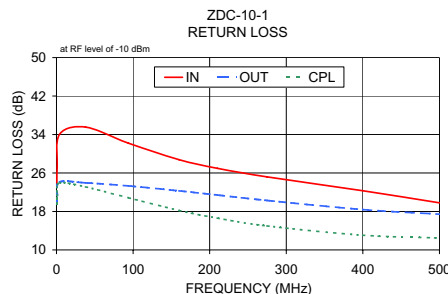
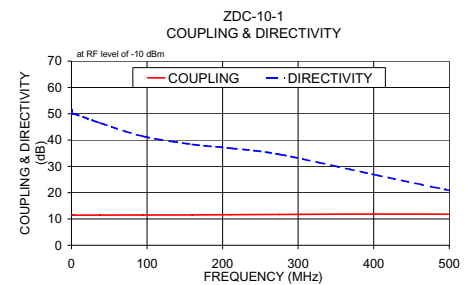
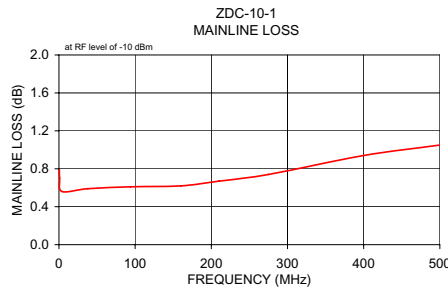
Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
0.50	0.79	11.64	51.25	23.85	19.63	19.66
0.90	0.70	11.56	50.03	27.29	21.30	21.28
4.00	0.56	11.44	49.98	34.05	24.12	23.94
38.00	0.59	11.48	46.48	35.54	23.96	23.10
94.00	0.61	11.51	41.48	32.20	23.33	20.84
160.00	0.62	11.54	38.35	28.76	22.29	18.21
210.00	0.67	11.63	36.91	26.97	21.43	16.63
275.00	0.74	11.71	34.57	25.19	20.29	15.00
400.00	0.94	11.85	26.91	22.30	18.40	13.06
500.00	1.05	11.79	20.87	19.79	17.45	12.48

## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
2.25	1.38	1.24	.50	.150	3.100	.138	1.238
57.15	35.05	31.50	12.70	3.81	78.74	3.51	31.45
J	K	L	M	N	P	S	wt
3.25	.10	.40	1.15	1.86	.64	.150	grams
82.55	2.54	10.16	29.21	47.24	16.26	3.81	74.0



## electrical schematic

