

# Coaxial Directional Coupler

50Ω

0.5 to 500 MHz

## ZMDC-10-1



CASE STYLE: M21

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

### Applications

- HF/VHF/UHF
- amateur radio
- instrumentation

Connectors	Model	Price	Qty.
SMA	ZMDC-10-1	\$49.95	(1-9)
<b>BRACKET (OPTION "B")</b>		\$5.00	(1+)
<b>BRACKET (OPTION "BR")</b>		\$2.50	(1+)

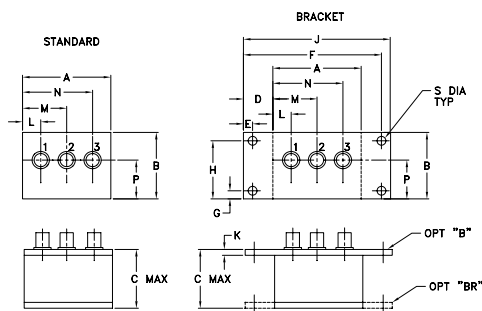
### Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup>						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)		
	Nom.	Flatness	L		M		U		L		M		U			Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
$f_L$ - $f_U$	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.

### Outline Drawing



### Outline Dimensions (inch/mm)

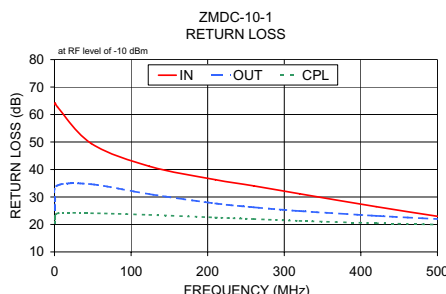
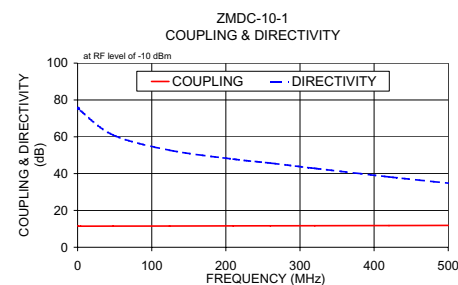
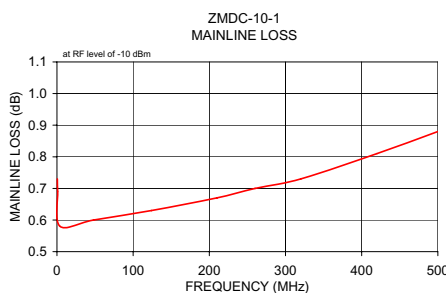
A	B	C	D	E	F	G	H
1.50	1.13	1.00	.50	.155	2.345	.138	.987
38.10	28.70	25.40	12.70	3.94	59.56	3.51	25.07

J	K	L	M	N	P	S	wt
2.50	.10	.31	.75	1.19	.66	.150	grams
63.50	2.54	7.87	19.05	30.23	16.76	3.81	40.0

### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
0.50	0.73	11.62	75.22	63.60	25.33	20.56
0.90	0.69	11.57	75.75	64.18	28.71	21.79
4.00	0.58	11.45	74.20	62.75	34.21	24.05
48.00	0.60	11.49	60.95	49.46	34.66	24.10
124.00	0.63	11.55	52.70	41.15	31.03	23.50
210.00	0.67	11.62	47.91	36.29	27.67	22.54
260.00	0.70	11.66	45.71	34.05	26.27	21.97
320.00	0.73	11.71	42.88	31.17	24.90	21.32
420.00	0.81	11.80	38.25	26.46	23.14	20.45
500.00	0.88	11.86	34.83	22.98	21.97	19.97



### electrical schematic

