

# Coaxial Directional Coupler

## ZFDC-10-22

50Ω

1 to 750 MHz



BNC version shown

CASE STYLE: K18

### 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

- excellent directivity, 25 dB typ.
- excellent VSWR, 1.25:1 typ.
- rugged shielded case

### Applications

- VHF/UHF
- instrumentation
- communications receivers & transmitters

Connectors	Model	Price	Qty.
BNC	ZFDC-10-22	\$49.95	(1-9)
SMA	ZFDC-10-22-S	\$54.95	(1-9)
N-TYPE	ZFDC-10-22-N	\$54.95	(1-9)
BRACKET (OPTION "B")		\$5.00	(1+)

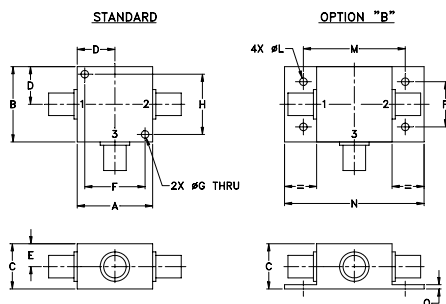
### Directional Coupler Electrical Specifications

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			Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
1-750	11±0.5	±0.5	1.1	1.9	1.2	1.7	1.4	1.9	35	30	25	20	25	20	1.25	1.0	2.0	

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)

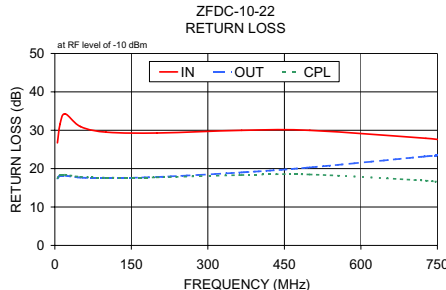
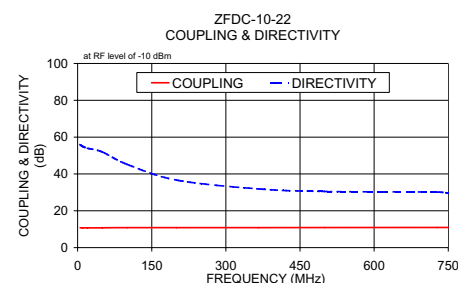
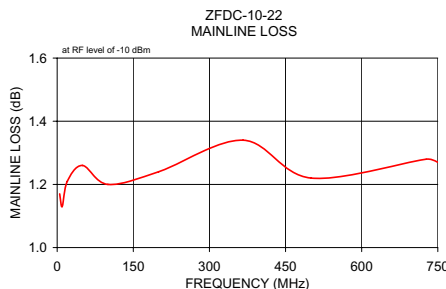
A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

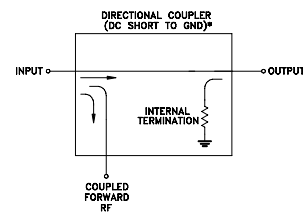
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)		Return Loss (dB)	
			In	Out	In	Out
5.00	1.17	10.76	56.00	26.72	17.45	17.54
10.00	1.13	10.72	55.00	31.54	18.12	18.32
20.00	1.21	10.74	54.00	34.28	18.19	18.42
50.00	1.26	10.79	52.00	30.97	17.69	17.87
100.00	1.20	10.85	45.27	29.52	17.58	17.66
200.00	1.24	10.84	36.71	29.28	17.84	17.74
366.22	1.34	10.87	31.90	29.98	19.03	18.34
500.00	1.22	10.90	30.51	29.97	20.33	18.48
727.43	1.28	10.96	30.19	27.90	23.20	16.88
750.00	1.27	10.94	29.66	27.62	23.46	16.58



### Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMERS THAT ROUTES DC FROM RF PORTS TO GROUND.

For detailed performance specs & shopping online see web site



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REV. A  
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ZFDC-10-22  
WZ/TD/CP/AM  
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