

# Coaxial Directional Coupler

75Ω

100 to 1500 MHz

ZFDC-20-5-75



CASE STYLE: K18

Connectors	Model	Price	Qty.
BNC	ZFDC-20-5-75	\$64.95 ea.	(1-9)

## Maximum Ratings

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

## Coaxial Connections

INPUT	1
OUTPUT	2
COUPLED	3

## Features

- very wideband, 100 to 1500 MHz
- excellent directivity, 25 dB typ.
- mainline loss, 0.9 dB typ.
- rugged shielded case

## Applications

- catv
- cellular
- communications receivers & transmitters

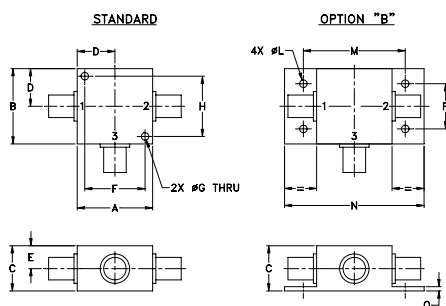
## Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)				DIRECTIVITY (dB)			VSWR (:1)	POWER INPUT (W)						
	Nom.	Flatness	L		M		U		Typ.		Min.	Typ.	Max.	MU			
			Typ.	Max.	Typ.	Max.	Typ.	Max.									
100-1500	20.5±0.5	±0.75	0.9	1.3	0.9	1.2	1.1	1.5	30	20	25	18	22	13	1.3	1.0	1.0

L = 100-500 MHz M = 500-1000 MHz U = 1000-1500 MHz

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

## Outline Drawing

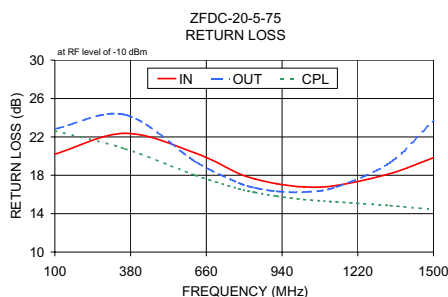
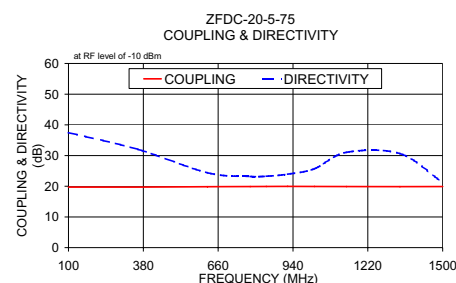
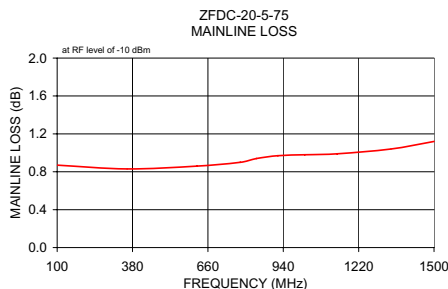


## Outline Dimensions (inch/mm)

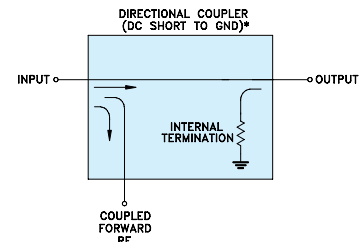
A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

## Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
100.00	0.87	19.71	37.48	20.21	22.84	22.65
360.00	0.83	19.73	32.02	22.37	24.31	20.76
620.00	0.86	19.84	24.40	20.31	19.42	18.00
780.00	0.90	19.90	23.19	18.18	17.21	16.60
840.00	0.94	19.92	23.27	17.62	16.70	16.22
920.00	0.97	19.95	23.93	17.13	16.33	15.83
1020.00	0.98	19.93	25.69	16.79	16.26	15.48
1140.00	0.99	19.91	31.05	16.93	16.78	15.24
1340.00	1.04	19.88	30.64	18.18	19.34	14.84
1500.00	1.12	19.90	21.26	19.83	23.70	14.44



## Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.

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IF/RF MICROWAVE COMPONENTS

REV. A  
M119986  
ZFDC-20-5-75  
WZ/TD/CP/AM  
081112