

Coaxial Directional Coupler

ZFDC-10-21-75

75Ω

10 to 750 MHz



CASE STYLE: K18

Connectors	Model	Price	Qty.
BNC	ZFDC-10-21-75	\$54.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

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, 10 to 750 MHz
- excellent directivity, 30 dB typ.
- rugged shielded case

Applications

- catv
- VHF/UHF
- instrumentation
- communications receivers & transmitters

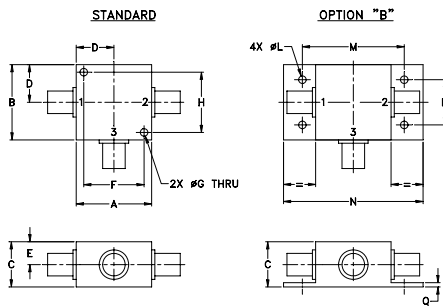
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (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.				
10-750	11±0.5	±0.75	1.5	1.8	1.5	1.9	1.7	2.1	36	30	30	20	26	20	1.4	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



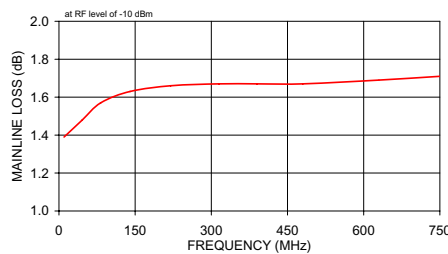
Outline Dimensions (inch/mm)

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

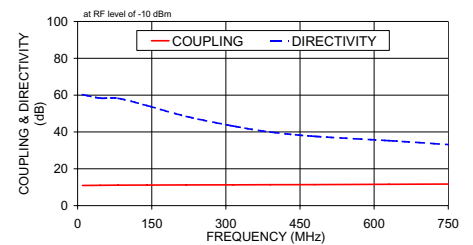
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
10.00	1.39	10.96	60.33	24.87	16.51	16.50
46.00	1.48	11.02	58.37	23.71	16.08	16.15
82.00	1.57	11.10	58.27	22.47	15.67	15.63
140.00	1.63	11.17	54.38	21.77	15.51	15.24
220.00	1.66	11.23	48.45	21.57	15.68	14.99
315.00	1.67	11.30	43.20	21.19	15.98	14.64
390.00	1.67	11.36	39.99	20.82	16.33	14.25
480.00	1.67	11.43	37.62	20.32	16.73	13.67
630.00	1.69	11.59	35.29	19.10	16.94	12.33
750.00	1.71	11.72	33.16	18.39	16.89	11.26

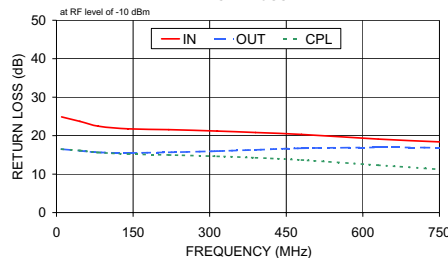
ZFDC-10-21-75
MAINLINE LOSS



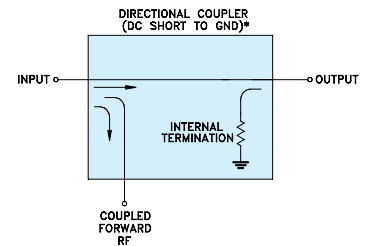
ZFDC-10-21-75
COUPLING & DIRECTIVITY



ZFDC-10-21-75
RETURN LOSS



Electrical Schematic



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

For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

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