

Coaxial Directional Coupler

50Ω

0.005 to 20 MHz

ZFDC-10-6



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, 40 dB typ.
- excellent mainline loss, 0.4 dB typ.
- rugged shielded case

Applications

- hf communications
- amateur radio
- instrumentation

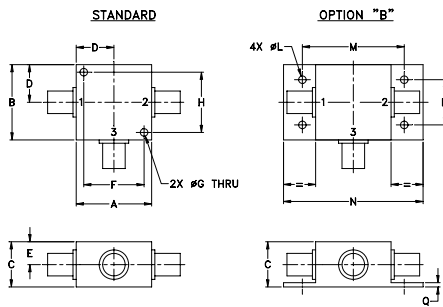
Connectors	Model	Price	Qty.
BNC	ZFDC-10-6	\$52.95	(1-9)
SMA	ZFDC-10-6-S	\$57.95	(1-9)
N-TYPE	ZFDC-10-6-N	\$57.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

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.				
0.005-20	11±0.5	±0.5	0.4	1.2	0.4	0.8	0.4	1.0	40	30	40	30	35	25	1.3	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



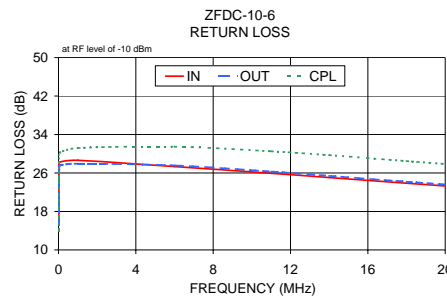
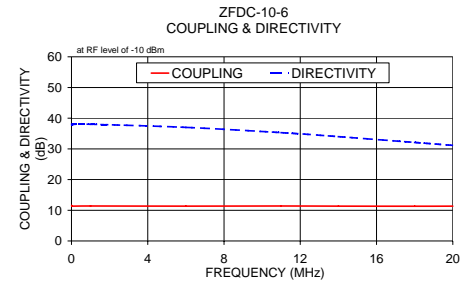
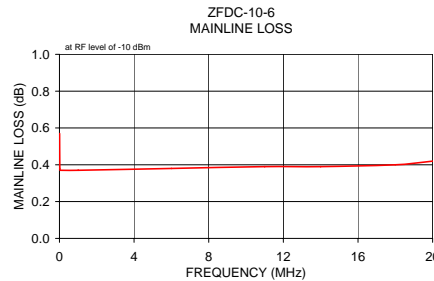
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
1.25	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

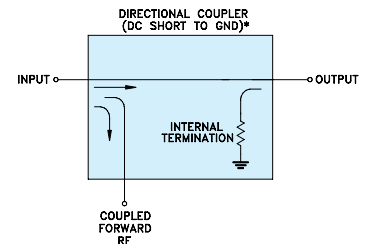
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
0.01	0.57	11.62	37.96	15.36	15.23	13.92
0.02	0.38	11.38	37.78	24.50	24.12	23.93
0.04	0.37	11.35	37.90	27.12	26.69	28.00
0.08	0.37	11.35	38.01	28.29	27.60	30.23
1.00	0.37	11.38	38.03	28.63	27.94	31.20
6.00	0.38	11.35	37.01	27.34	27.57	31.48
11.00	0.39	11.39	35.31	25.93	26.30	30.52
14.00	0.39	11.34	34.01	25.06	25.41	29.71
18.00	0.40	11.32	32.11	23.88	24.18	28.49
20.00	0.42	11.35	31.17	23.31	23.60	27.88



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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