

Coaxial Directional Coupler

ZFDC-15-6

50Ω

0.03 to 35 MHz



BNC version shown
CASE STYLE: K18

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

- excellent directivity, 35 dB typ.
- excellent mainline loss, 0.2 dB typ.
- excellent VSWR, 1.15:1 typ.
- rugged shielded case

Applications

- hf communications
- amateur radio
- instrumentation

Connectors	Model	Price	Qty.
BNC	ZFDC-15-6	\$49.95	(1-9)
SMA	ZFDC-15-6-S	\$54.95	(1-9)
N-TYPE	ZFDC-15-6-N	\$54.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

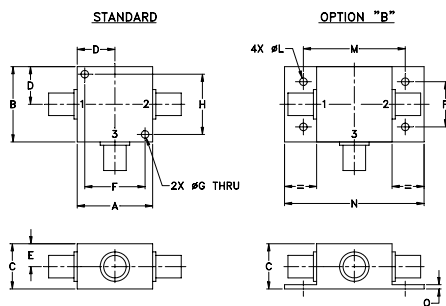
Directional Coupler Electrical Specifications

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.				
f _L -f _U																		
0.03-35	15±0.5	±0.5	0.3	0.6	0.2	0.4	0.3	0.6	38	30	35	25	28	20	1.15	2.0	4.0	

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



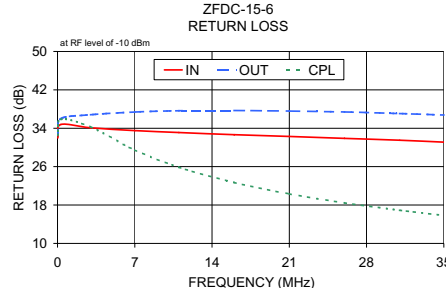
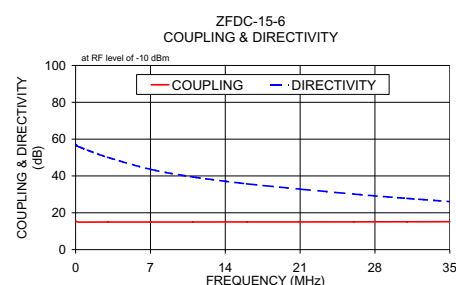
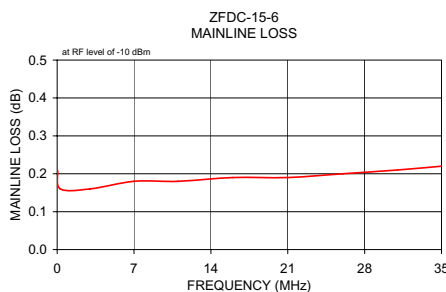
Outline Dimensions (inch/mm)

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

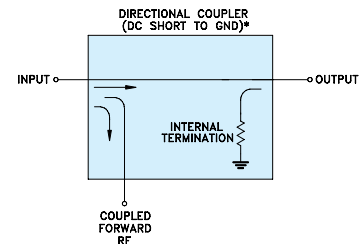
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
0.03	0.21	15.35	56.83	31.97	32.85	32.50
0.30	0.16	14.96	55.85	34.78	36.00	35.85
3.00	0.16	14.97	50.17	34.09	36.81	34.28
7.00	0.18	14.98	43.63	33.51	37.39	29.46
11.00	0.18	15.00	39.48	33.10	37.65	25.87
16.00	0.19	15.01	35.75	32.66	37.71	22.70
21.00	0.19	15.03	32.87	32.29	37.59	20.33
26.00	0.20	15.07	30.17	31.89	37.40	18.46
31.00	0.21	15.11	27.85	31.50	37.07	16.91
35.00	0.22	15.15	26.10	31.11	36.76	15.83



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-15-6
WZ/TD/CP/AM
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