

Coaxial Directional Coupler

50Ω

1 to 1000 MHz

ZFDC-20-4



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	3
OUTPUT	1
COUPLED	2

Features

- wideband, 1 to 1000 MHz
- excellent directivity, 27 dB typ.
- excellent insertion loss, 0.4 dB typ.
- excellent VSWR, 1.1:1 typ.
- rugged shielded case

Applications

- VHF/UHF
- cellular
- instrumentation
- communication receivers & transmitters

Connectors	Model	Price	Qty.
BNC	ZFDC-20-4	\$64.95	(1-9)
SMA	ZFDC-20-4-S	\$69.95	(1-9)
N-TYPE	ZFDC-20-4-N	\$69.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS¹						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
			L		M		U		L		M		U				
	f _L -f _U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.
1-1000	19.5±0.5	±0.5	0.4	1.2	0.4	0.8	0.8	1.5	36	28	27	20	23	28	1.1	0.5	2.0

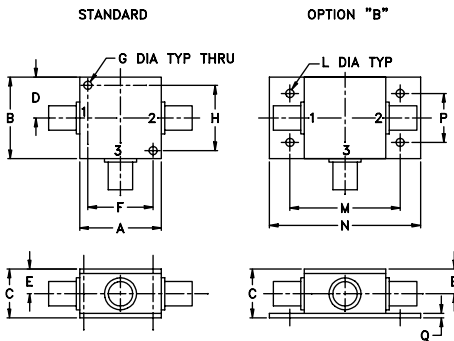
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

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

Typical Performance Data

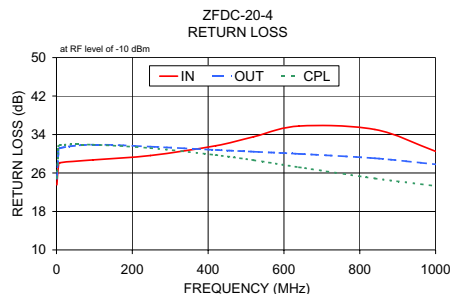
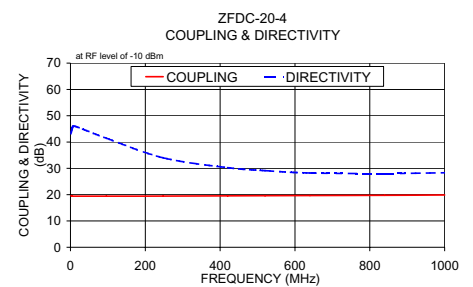
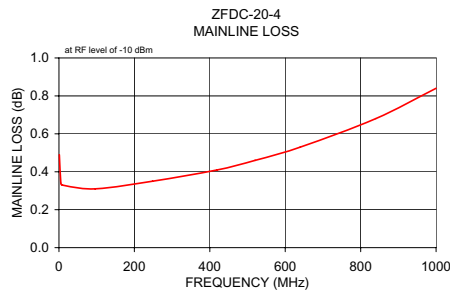
Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
1.00	0.49	19.58	43.20	23.54	24.84	24.95
5.00	0.34	19.44	45.40	27.48	30.16	30.85
9.00	0.33	19.42	46.16	28.13	31.18	31.81
96.00	0.31	19.42	41.47	28.71	31.90	31.89
248.00	0.35	19.47	34.00	29.63	31.49	31.18
420.00	0.41	19.55	30.27	31.67	30.80	29.73
520.00	0.46	19.60	29.14	33.53	30.43	28.67
640.00	0.53	19.66	28.26	35.77	29.99	27.20
840.00	0.68	19.77	28.03	35.04	29.07	24.87
1000.00	0.84	19.87	28.35	30.50	27.81	23.33

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



electrical schematic

