

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

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

INPUT	3
OUTPUT	1
COUPLED	2

Features

- wideband, 1 to 1000 MHz
- excellent directivity, 27 dB typ.
- excellent mainline 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")		\$5.00	(1+)

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

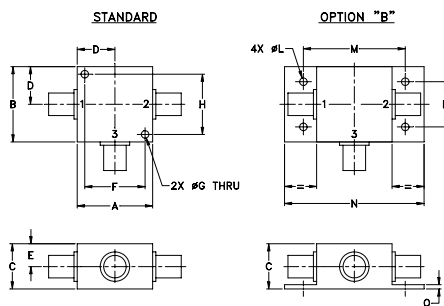
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
f_L - f_U	Nom.	Flatness	L		M		U		L		M		U		Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	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	18	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.

Outline Drawing

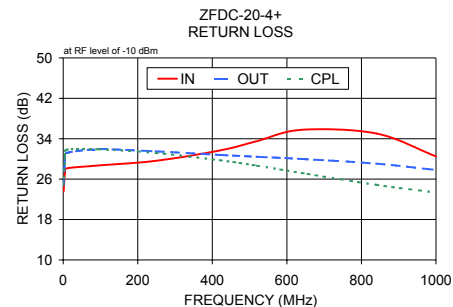
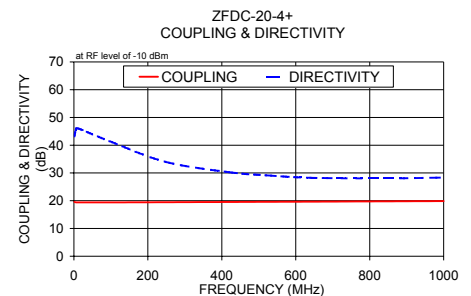
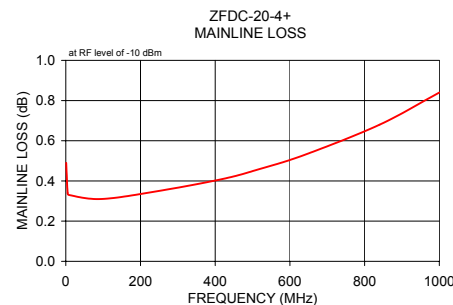


Outline Dimensions (inch/mm)

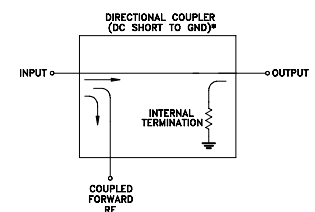
A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

Typical Performance Data

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



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMERS THAT ROUTES DC FROM RF PORTS TO GROUND.

For detailed performance specs & shipping online see web site

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