

Coaxial Directional Coupler

50Ω

10 to 1000 MHz

ZFDC-20-4L



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

- wideband, 10 to 1000 MHz
- excellent directivity, 30 dB typ.
- excellent insertion loss, 0.3 dB typ.
- excellent VSWR, 1.1:1 typ.
- rugged shielded case

Applications

- VSWR measurement
- power monitoring
- power leveling

CASE STYLE: K18

Connectors	Model	Price	Qty.
SMA	ZFDC-20-4L	\$64.95	(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.
10-1000	20.2±0.5	±0.5	0.2	0.5	0.3	0.7	0.7	1.2	40	20	30	16	20	14	1.1	1.0	1.0

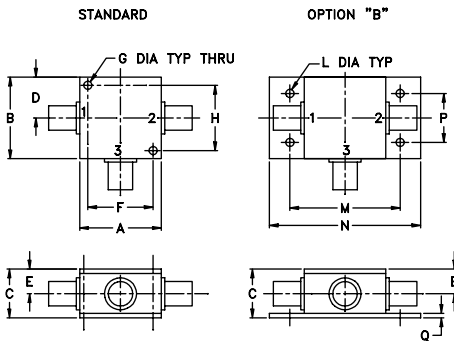
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

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	Return Loss (dB) Out	Cpl
10.00	0.31	20.17	50.40	30.24	25.89	24.94
46.00	0.24	20.20	59.55	39.34	32.99	30.42
82.00	0.22	20.24	62.11	41.87	35.39	32.02
160.00	0.23	20.25	61.48	41.22	37.69	33.57
280.00	0.25	20.29	57.03	36.74	39.80	35.11
420.00	0.33	20.36	52.07	31.72	36.42	35.02
520.00	0.39	20.41	49.83	29.42	32.57	33.33
640.00	0.46	20.47	47.67	27.20	28.73	30.72
840.00	0.60	20.44	44.82	24.39	23.97	26.89
1000.00	0.74	20.33	41.49	21.16	21.12	24.52

Outline Drawing

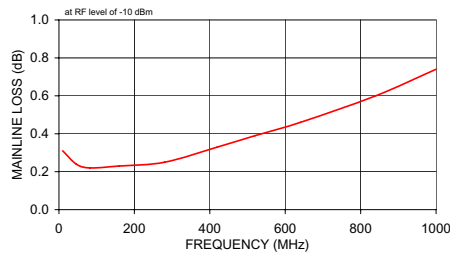


Outline Dimensions (inch/mm)

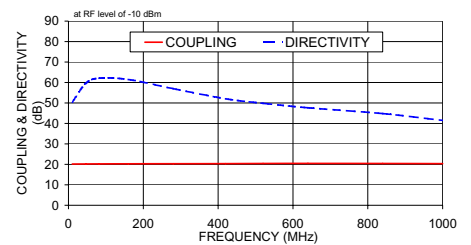
A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

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

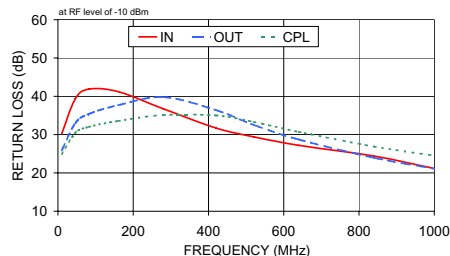
ZFDC-20-4L
MAINLINE LOSS



ZFDC-20-4L
COUPLING & DIRECTIVITY



ZFDC-20-4L
RETURN LOSS



electrical schematic

