

Coaxial Directional Coupler

50Ω

1 to 500 MHz

ZFDC-10-1+
ZFDC-10-1



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, 33 dB typ.
- excellent insertion loss, 0.8 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- instrumentation
- communication receivers & transmitters

BNC version shown
CASE STYLE: K18

Connectors	Model	Price	Qty.
BNC	ZFDC-10-1(+)	\$44.95	(1-9)
SMA	ZFDC-10-1-S(+)	\$49.95	(1-9)
N-TYPE	ZFDC-10-1-N(+)	\$49.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

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 LOSS¹						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
			L		M		U		L		M		U			L	MU
	f _L -f _U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.		
1-500	10.5±0.25	±0.6	1.0	1.3	0.8	1.1	1.0	1.3	32	25	33	25	22	15	1.2	1.5	3.0

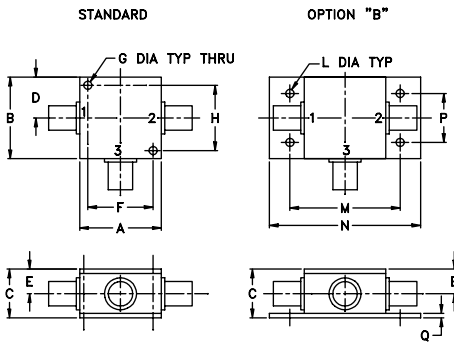
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

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

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
1.00	0.97	10.47	58.25	25.76	18.55	19.10
5.00	0.78	10.32	57.52	32.88	20.94	21.28
9.00	0.76	10.31	57.51	33.62	21.25	21.54
67.00	0.77	10.34	46.55	30.69	21.30	21.61
143.00	0.76	10.40	38.96	26.28	20.66	21.32
220.00	0.76	10.49	33.22	23.55	19.85	20.86
270.00	0.80	10.62	30.12	22.35	19.32	20.45
330.00	0.83	10.74	27.02	21.34	18.68	19.89
405.00	0.86	10.90	23.63	20.56	18.03	19.15
500.00	0.85	11.04	20.05	20.16	17.44	18.20

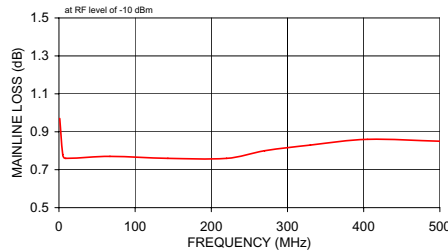
Outline Drawing



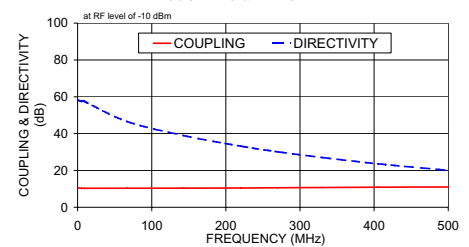
Outline Dimensions (inch/mm)

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

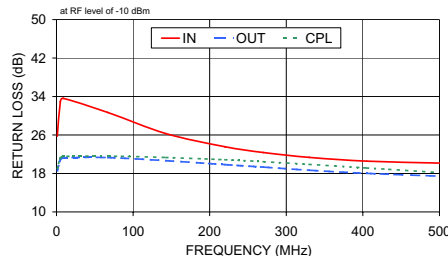
ZFDC-10-1
MAINLINE LOSS



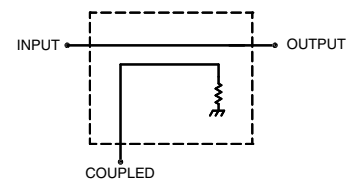
ZFDC-10-1
COUPLING & DIRECTIVITY



ZFDC-10-1
RETURN LOSS



electrical schematic



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