

Coaxial Directional Coupler

50Ω

10 to 1000 MHz

ZFDC-10-2



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	1
OUTPUT	2
COUPLED	3

Features

- wideband, 10 to 1000 MHz
- excellent directivity, 30 dB typ.
- rugged shielded case

Applications

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

Connectors	Model	Price	Qty.
BNC	ZFDC-10-2	\$51.95	(1-9)
SMA	ZFDC-10-2-S	\$56.95	(1-9)
N-TYPE	ZFDC-10-2-N	\$56.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

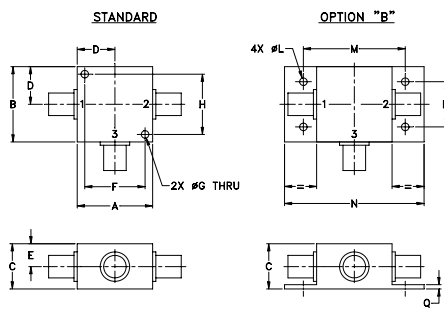
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)				DIRECTIVITY (dB)				VSWR (:1)	POWER INPUT (W)					
	Nom.	Flatness	L		M		U		L			M		U			
f_L - f_U			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Max.
10-1000	10.75±0.5	±0.5	1.5	2.0	1.2	1.8	1.5	2.0	35	28	30	25	27	20	1.5	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.

Outline Drawing



Outline Dimensions (inch/mm)

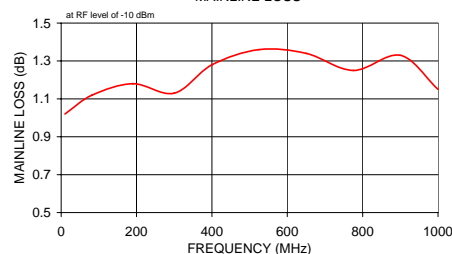
A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

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

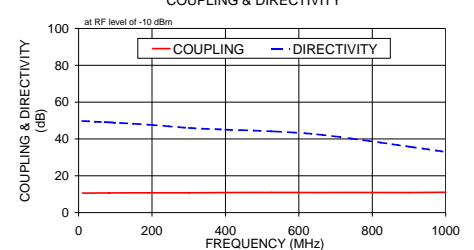
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
10.00	1.02	10.60	49.75	39.14	30.98	18.57
82.00	1.12	10.67	49.03	38.36	28.65	17.85
190.00	1.18	10.76	47.76	37.00	25.04	17.16
300.00	1.13	10.75	46.01	35.26	22.63	16.58
400.00	1.28	10.89	45.09	34.20	21.25	16.22
525.00	1.36	10.92	44.18	33.26	20.24	16.05
650.00	1.34	10.89	42.52	31.63	19.87	16.29
775.00	1.25	10.93	39.39	28.46	20.10	17.02
900.00	1.33	10.88	35.85	24.98	20.76	18.22
1000.00	1.15	11.06	32.99	21.93	21.65	19.61

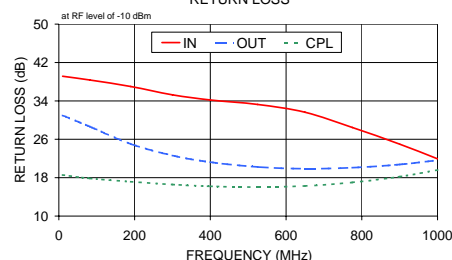
ZFDC-10-2 MAINLINE LOSS



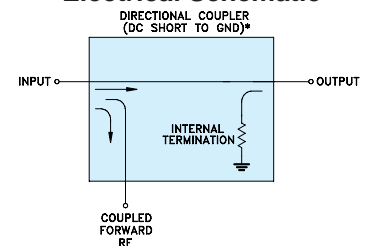
ZFDC-10-2 COUPLING & DIRECTIVITY



ZFDC-10-2 RETURN LOSS



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.

For detailed performance specs & shipping online see web site

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