

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

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)	
			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.	L
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

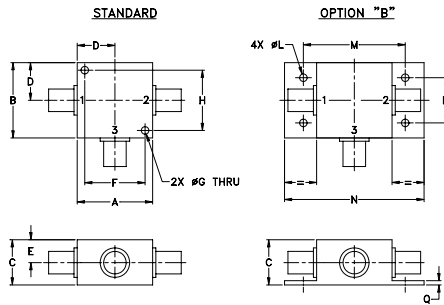
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

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

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

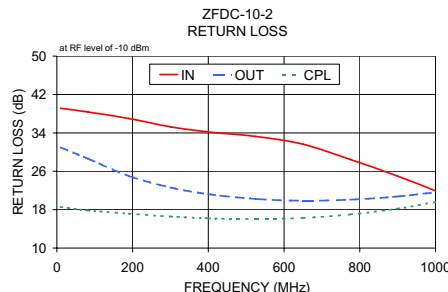
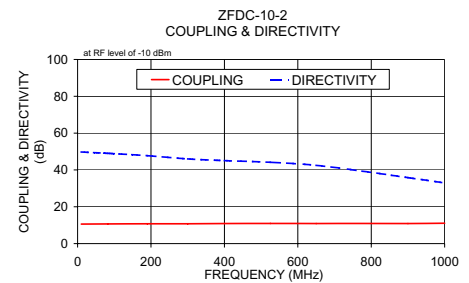
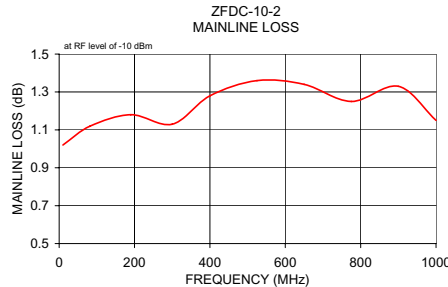
Outline Drawing



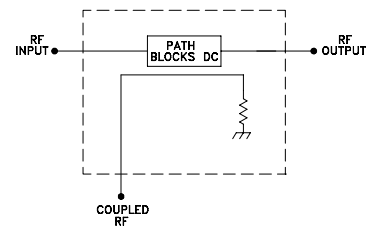
Outline Dimensions (inch/mm)

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



Mini-Circuits®
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

REV. OR
M93827
ZFDC-10-2
WZ/TD/CP
070315