

# Coaxial Directional Coupler

## ZFDC-10-1+ ZFDC-10-1

50Ω 1 to 500 MHz



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

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

### Applications

- VHF/UHF
- instrumentation
- communication receivers & transmitters

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.

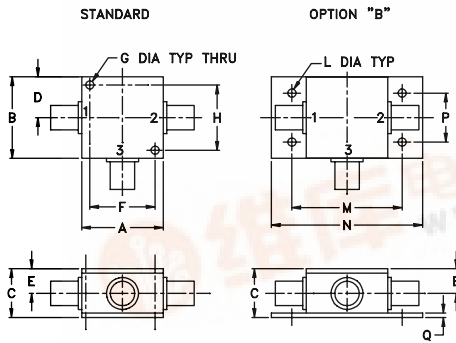
### Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup>						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
			L		M		U		L		M		U				
			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.

### Outline Drawing



### Outline Dimensions (inch/mm)

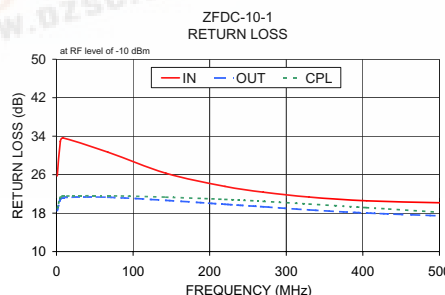
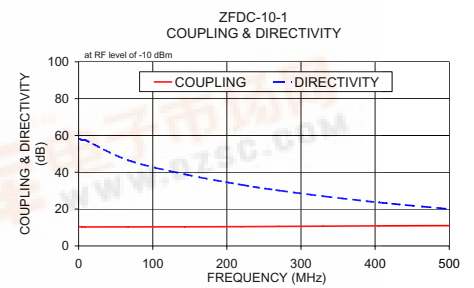
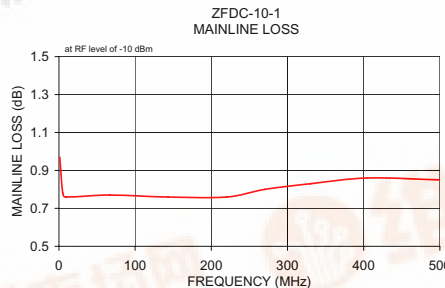
A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

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	Cpl
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



### electrical schematic

