

Coaxial Directional Coupler

ZFDC-10-21

50Ω

1 to 1000 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

- wideband, 1 to 1000 MHz
- excellent directivity, 25 dB typ.
- rugged shielded case

Applications

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

Connectors	Model	Price	Qty.
BNC	ZFDC-10-21	\$54.95	(1-9)
SMA	ZFDC-10-21-S	\$59.95	(1-9)
N-TYPE	ZFDC-10-21-N	\$59.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

Directional Coupler Electrical Specifications

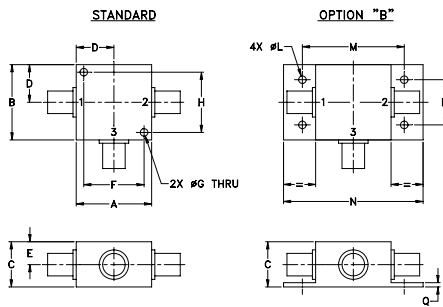
FREQ. RANGE (MHz)	COUPLING* (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)		
	Nom.	Flatness	L		M		U		L		M		U			Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
1-1000	11±0.5	±0.5	1.2	2.1	1.2	1.7	1.6	2.0	40	30	25	20	25	20	1.2	1.0	2.0	

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.

* Upper range coupling flatness ±0.75 dB

Outline Drawing



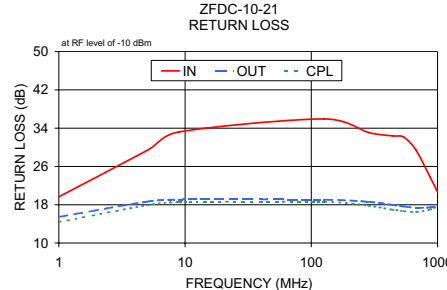
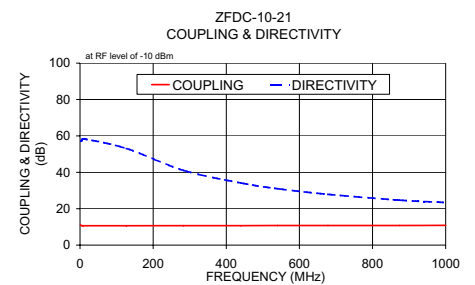
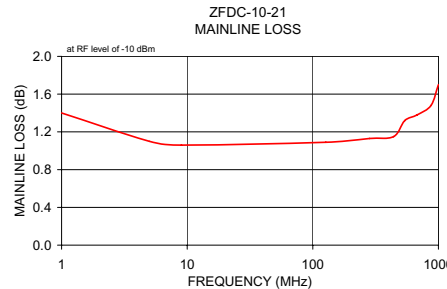
Outline Dimensions (inch/mm)

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

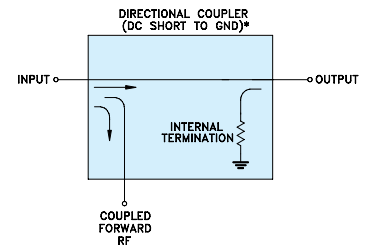
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
1.00	1.40	11.11	57.10	19.66	15.47	14.40
5.00	1.10	10.69	57.53	29.35	18.65	17.89
9.00	1.06	10.64	58.41	33.22	19.11	18.54
127.00	1.09	10.63	53.14	35.93	19.06	18.61
283.00	1.13	10.67	41.08	33.11	18.61	17.79
440.00	1.15	10.67	34.18	32.39	17.97	16.96
540.00	1.32	10.77	31.02	32.13	17.66	16.67
678.00	1.38	10.77	27.90	29.33	17.37	16.50
873.00	1.48	10.76	24.75	23.76	17.46	17.00
1000.00	1.70	10.84	23.41	20.67	17.70	17.66



Electrical Schematic



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

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IF/RF MICROWAVE COMPONENTS

REV. A
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WZ/TD/CP/AM
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