

Coaxial Directional Coupler

ZFDC-20-5-75

75Ω

100 to 1500 MHz



Generic photo used for illustration purposes only

CASE STYLE: K18

Connectors	Model
BNC	ZFDC-20-5-75

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

- very wideband, 100 to 1500 MHz
- excellent directivity, 25 dB typ.
- mainline loss, 0.9 dB typ.
- rugged shielded case

Applications

- catv
- cellular
- communications receivers & transmitters

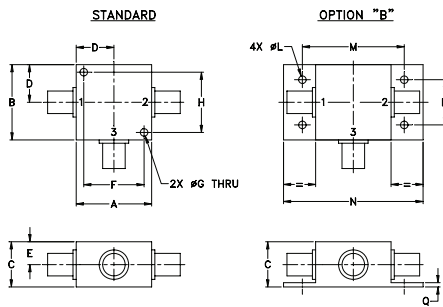
Electrical Specifications

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.				
100-1500	20±0.5	±0.75	0.9	1.3	0.9	1.2	1.1	1.5	30	20	25	18	22	13	1.3	1.0	1.0	

L = 100-500 MHz M = 500-1000 MHz U = 1000-1500 MHz

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

Outline Drawing



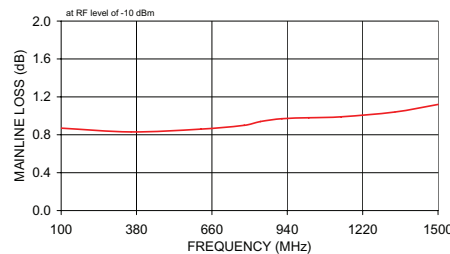
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	wt
1.25	1.25	.75	.63	.38	1.00	.125	1.000	--	--	.125	1.688	2.18	.75	.07	grams
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40	--	--	3.18	42.88	55.37	19.05	1.78	70.0

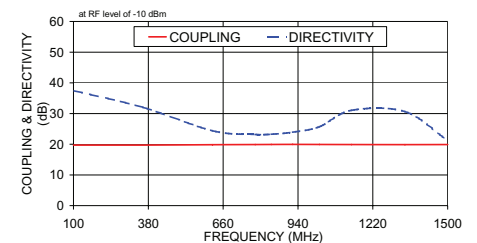
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
100.00	0.87	19.71	37.48	20.21	22.84	22.65
360.00	0.83	19.73	32.02	22.37	24.31	20.76
620.00	0.86	19.84	24.40	20.31	19.42	18.00
780.00	0.90	19.90	23.19	18.18	17.21	16.60
840.00	0.94	19.92	23.27	17.62	16.70	16.22
920.00	0.97	19.95	23.93	17.13	16.33	15.83
1020.00	0.98	19.93	25.69	16.79	16.26	15.48
1140.00	0.99	19.91	31.05	16.93	16.78	15.24
1340.00	1.04	19.88	30.64	18.18	19.34	14.84
1500.00	1.12	19.90	21.26	19.83	23.70	14.44

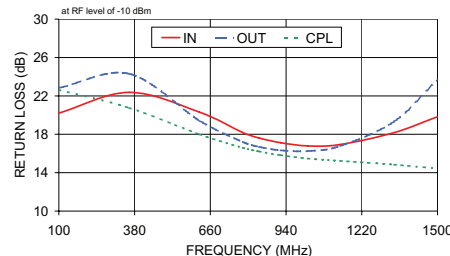
ZFDC-20-5-75 MAINLINE LOSS



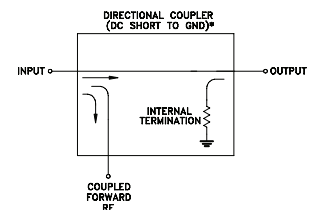
ZFDC-20-5-75 COUPLING & DIRECTIVITY



ZFDC-20-5-75 RETURN LOSS



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TERMINATIONS THAT ROUTES DC FROM RF PORTS TO GROUND.

Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/WCLStore/terms.jsp



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. B
M151107
ZFDC-20-5-75
WZ/TD/CP/AM
200811