

Coaxial Directional Coupler

50Ω

0.2 to 250 MHz

ZFDC-20-3+
ZFDC-20-3



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, 0.25 dB typ.
- rugged shielded case

Applications

- VHF
- instrumentation

Connectors	Model	Price	Qty.
BNC	ZFDC-20-3(+)	\$44.95	(1-9)
SMA	ZFDC-20-3-S(+)	\$49.95	(1-9)
N-TYPE	ZFDC-20-3-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 ¹						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.	Max.
0.2-250	19.5±0.5	±0.25	0.35	0.6	0.25	0.5	0.35	0.6	36	25	33	25	25	20	1.2	1.5	4.0

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.

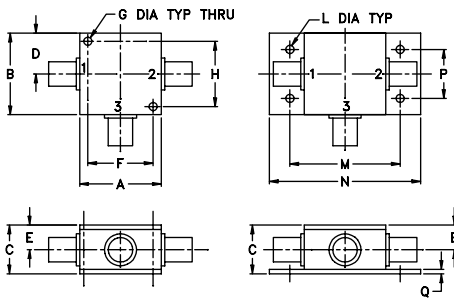
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
0.20	0.22	19.25	51.15	28.24	27.54	28.44
0.60	0.22	19.26	49.36	35.75	32.69	32.47
1.00	0.21	19.24	50.27	38.37	34.30	33.77
37.00	0.17	19.20	39.35	42.77	38.65	36.63
81.00	0.18	19.19	33.35	35.73	34.10	33.94
130.00	0.21	19.18	29.34	31.27	30.06	30.67
155.00	0.19	19.13	28.05	29.52	28.45	29.25
182.00	0.21	19.16	26.89	27.96	27.00	27.95
218.00	0.23	19.09	25.81	26.19	25.31	26.32
250.00	0.25	19.11	25.10	24.80	23.98	25.04

Outline Drawing

STANDARD

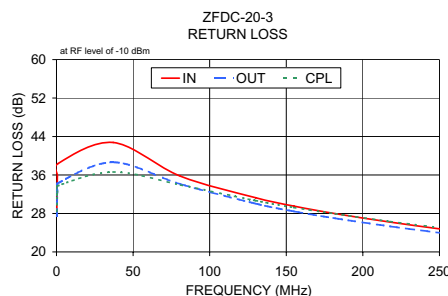
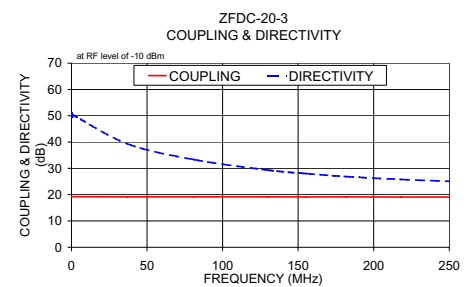
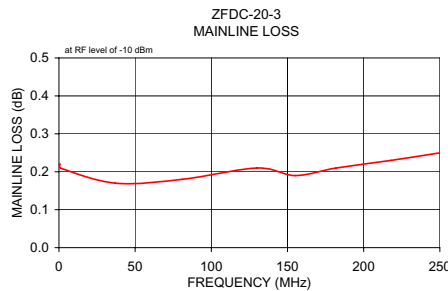
OPTION "B"



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

