

Coaxial Directional Coupler

50Ω

0.2 to 250 MHz

ZDC-20-3



Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

Coaxial Connections

INPUT	3
OUTPUT	2
COUPLED	1

Features

- excellent directivity, 33 dB typ.
- excellent insertion loss, 0.25 dB typ.
- rugged shielded case

Applications

- HF/VHF/UHF
- instrumentation
- communication receivers & transmitters
- amateur radio

CASE STYLE: M22

Connectors	Model	Price	Qty.
BNC	ZDC-20-3	\$45.95 ea.	(1-9)
BRACKET (OPTION "B")		\$5.00	(1+)
BRACKET (OPTION "BR")		\$1.50	(1+)

Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS¹						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	±0.5	0.35	0.6	0.25	0.5	0.35	0.6	36	30	33	25	25	20	1.2	1.5	4.0

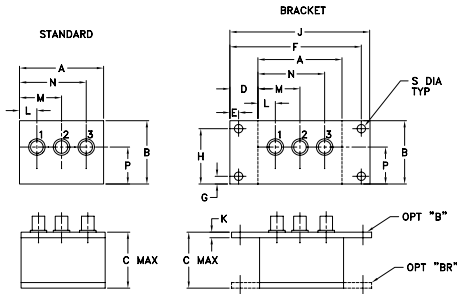
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]

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) In	Return Loss (dB) Out	Cpl
0.20	0.32	19.34	50.22	21.46	21.09	20.80
0.60	0.28	19.37	49.85	28.15	26.69	26.38
1.00	0.25	19.33	50.58	30.85	28.75	28.35
28.00	0.19	19.29	47.42	38.60	33.01	28.36
64.00	0.21	19.31	43.53	33.07	30.00	22.73
110.00	0.22	19.40	38.54	28.85	26.79	18.52
160.00	0.21	19.42	34.38	25.72	24.09	15.58
205.00	0.31	19.64	31.27	23.51	22.14	13.69
230.00	0.17	19.51	29.52	22.48	21.25	12.86
250.00	0.32	19.82	28.26	21.75	20.60	12.29

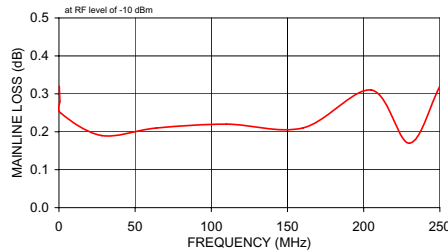
Outline Drawing



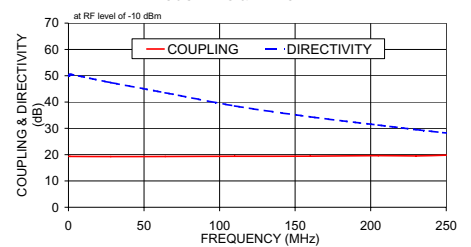
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
2.25	1.38	1.24	.50	.150	3.100	.138	1.238
57.15	35.05	31.50	12.70	3.81	78.74	3.51	31.45
J	K	L	M	N	P	S	wt
3.25	.10	.40	1.15	1.86	.64	.150	grams
82.55	2.54	10.16	29.21	47.24	16.26	3.81	74.0

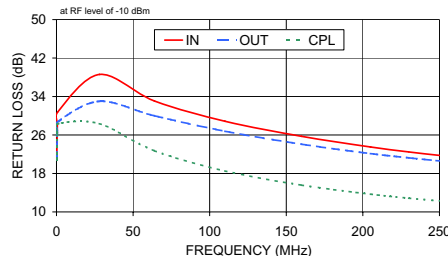
ZDC-20-3
MAINLINE LOSS



ZDC-20-3
COUPLING & DIRECTIVITY



ZDC-20-3
RETURN LOSS



electrical schematic

