

Coaxial Directional Coupler

50Ω

25 to 400 MHz

ZDC-20-1



CASE STYLE: M22

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, 35 dB typ.
- excellent insertion loss, 0.3 dB typ.
- high input power, up to 5W max.
- rugged shielded case

Applications

- VHF/HF
- instrumentation
- communication receivers & transmitters

Connectors	Model	Price	Qty.
BNC	ZDC-20-1	\$51.95 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.
25-400	20±0.5	±0.5	0.2	0.25	0.3	0.35	0.35	0.5	25	20	35	25	25	20	1.25	3.0	5.0

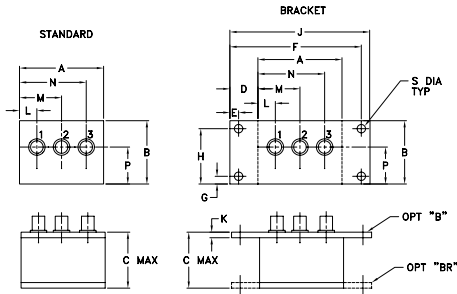
L = 25-50 MHz M = 50-300 MHz U = 300-400 MHz

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)	In	Return Loss (dB) Out	Cpl
25.00	0.13	19.97	35.76	34.28	33.88	39.90
45.00	0.14	19.98	35.38	33.99	31.38	38.66
80.00	0.14	19.98	34.30	33.78	27.78	36.78
120.00	0.14	20.01	33.33	34.16	24.90	35.11
160.00	0.14	20.02	32.39	33.90	22.55	33.12
210.00	0.15	20.08	30.90	34.23	20.48	31.35
260.00	0.15	20.13	29.21	33.58	18.79	29.50
310.00	0.10	20.15	27.48	32.70	17.46	28.08
360.00	0.15	20.23	25.48	31.39	16.45	26.85
400.00	0.21	20.28	24.37	29.89	15.74	26.00

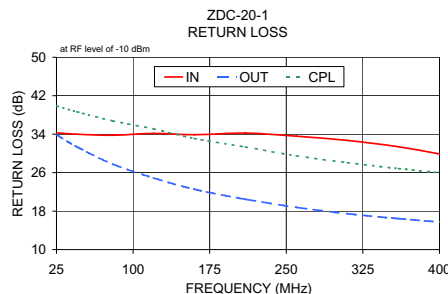
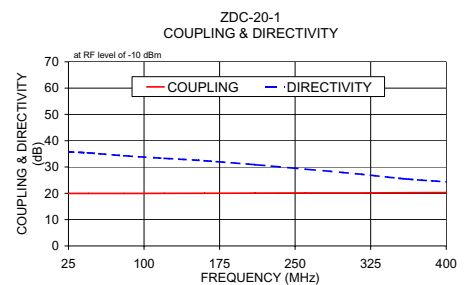
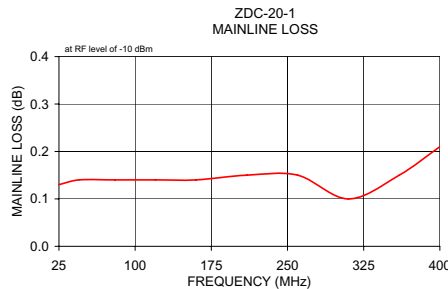
Outline Drawing



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



electrical schematic

