

# Coaxial Directional Coupler

75Ω

55 to 90 MHz

## ZDC-20-3-75-1+ ZDC-20-3-75-1



CASE STYLE: M22

Connectors	Model	Price	Qty.
BNC	ZDC-20-3-75-1	\$52.95 ea.	(1-9)
BRACKET (OPTION "B")		\$5.00	(1+)
BRACKET (OPTION "BR")		\$1.50	(1+)

### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### 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	3
OUTPUT	2
COUPLED	1

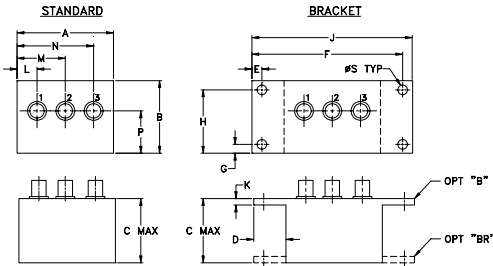
### Features

- excellent directivity, 35 dB typ.
- excellent mainline loss, 0.4 dB typ.
- rugged shielded case

### Applications

- VHF
- instrumentation
- amateur radio

### 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

### Directional Coupler Electrical Specifications

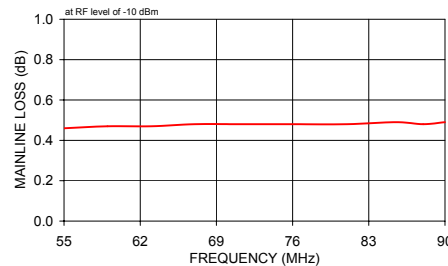
FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Flatness	Typ.	Max.	Typ.	Min.		
f <sub>L</sub> -f <sub>U</sub>								
55-90	18.6±0.5	±0.3	0.4	0.6	35	30	1.2	4.0

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

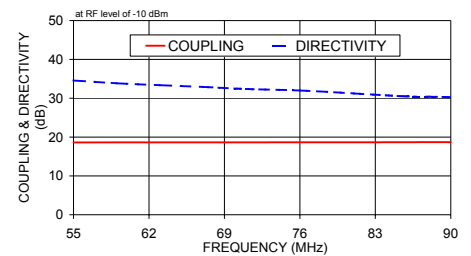
### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
55.00	0.46	18.61	34.58	25.04	26.15	19.84
59.00	0.47	18.63	33.86	24.76	25.84	19.26
63.00	0.47	18.63	33.36	24.50	25.57	18.71
67.00	0.48	18.65	32.92	24.23	25.28	18.17
71.00	0.48	18.65	32.39	23.98	25.01	17.67
76.00	0.48	18.67	31.99	23.67	24.68	17.08
81.00	0.48	18.67	31.23	23.37	24.39	16.56
85.50	0.49	18.69	30.52	23.10	24.10	16.12
88.00	0.48	18.70	30.40	22.96	23.96	15.88
90.00	0.49	18.70	30.28	22.85	23.82	15.70

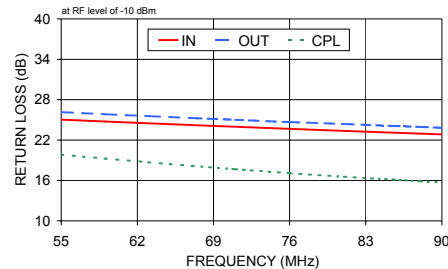
ZDC-20-3-75-1  
MAINLINE LOSS



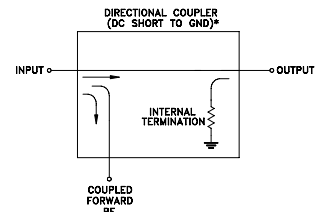
ZDC-20-3-75-1  
COUPLING & DIRECTIVITY



ZDC-20-3-75-1  
RETURN LOSS



### Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) 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.
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