

# Plug-In Bi-Directional Coupler

50Ω 0.5 to 200 MHz

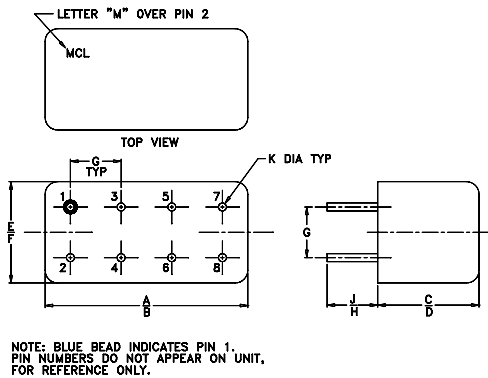
## Maximum Ratings

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

## Pin Connections

INPUT	1
OUTPUT	4
COUPLED (forward)	3
COUPLED (reverse)	6
GROUND	2,5,7,8
CASE GROUND	2,5,7,8

## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K		wt
.200	.20	.14	.031		grams
5.08	5.08	3.56	0.79		5.2

## Features

- up to 5W power input
- excellent VSWR, 1.1:1 typ.
- very low insertion loss, 0.3 dB typ.
- excellent directivity, 35 dB typ.
- rugged welded construction, hermetically sealed

## Applications

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

PDC-20-1BD+  
PDC-20-1BD



CASE STYLE: A01

PRICE: \$19.20 ea. QTY. (1-9)

+ 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

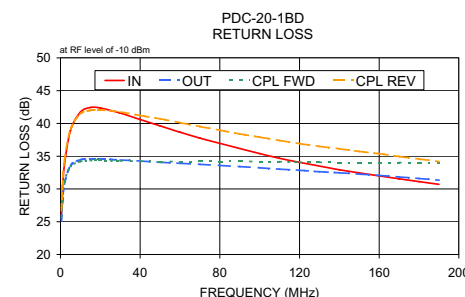
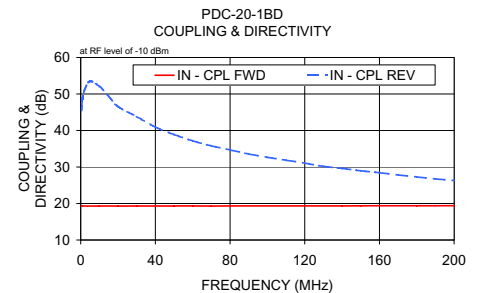
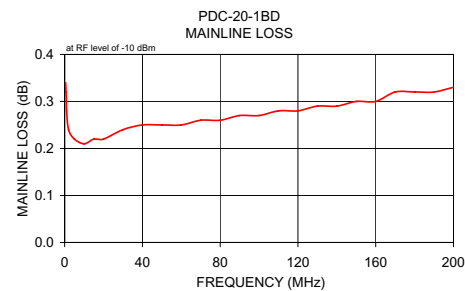
FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W	
			L		M		U		L		M		U			L	MU
	f <sub>L</sub> -f <sub>U</sub>	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.		Min.	Typ.
0.5-200	19.2±0.5	±0.5	0.3	0.7	0.3	0.5	0.4	0.6	40	30	35	20	22	18	1.1	3.0	5.0

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)	Coupling (dB)		Directivity (dB)		Return Loss (dB)			
	In-Out	In-Cpl Fwd	Out-Cpl Rev	Out-Cpl Fwd	In-Cpl Rev	In	Out	Cpl Fwd	Cpl Rev
0.50	0.34	19.38	19.40	60.80	45.48	26.08	25.12	25.68	26.72
1.00	0.28	19.35	19.35	61.66	48.74	29.86	28.08	28.62	30.56
5.00	0.22	19.30	19.31	59.50	53.47	38.93	33.54	33.43	39.10
10.00	0.21	19.30	19.30	58.75	52.11	41.72	34.47	34.19	41.47
20.00	0.22	19.29	19.29	57.01	46.56	42.36	34.57	34.35	42.07
50.00	0.25	19.32	19.33	50.59	38.89	39.63	34.07	34.20	40.71
100.00	0.27	19.35	19.39	42.93	32.65	35.40	33.24	34.20	37.92
130.00	0.29	19.33	19.43	39.14	30.18	33.49	32.64	34.07	36.51
160.00	0.30	19.38	19.47	35.48	28.44	31.99	32.08	34.04	35.39
200.00	0.33	19.40	19.56	31.91	26.30	30.32	31.08	33.89	33.80



## electrical schematic

