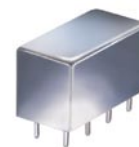


# Plug-In Bi-Directional Coupler

## PDC-10-1BD+

50Ω 1 to 400 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

### Features

- wideband, 1 to 400 MHz
- up to 4W power input
- excellent directivity, 35 dB typ.
- low mainline loss, 0.8 dB typ.
- rugged welded construction, hermetically sealed

### Applications

- VHF/UHF
- communication receivers & transmitters
- instrumentation

CASE STYLE: A01  
PRICE: \$13.70 ea. QTY. (1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

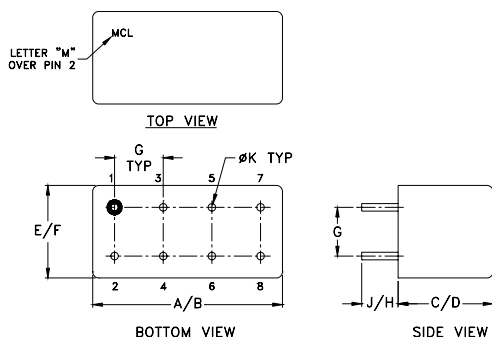
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Directional Coupler Electrical Specifications

FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W		
	Nom.	Flatness	L		M		U		L		M		U			Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
f <sub>L</sub> -f <sub>U</sub>																		
1-400	11.5±0.5	±0.5	0.6	0.9	0.8	1.1	0.9	1.3	55	35	35	20	22	15	1.2	2.0	4.0	

L = low range [f<sub>L</sub> to 10 f<sub>L</sub>] M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2] U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]  
1. Mainline loss includes theoretical power loss at coupled port.

### Outline Drawing

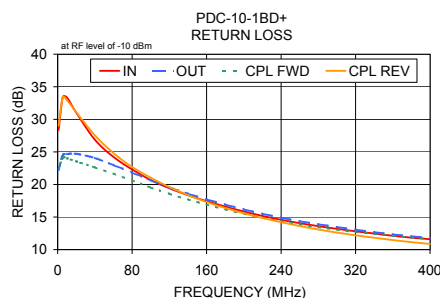
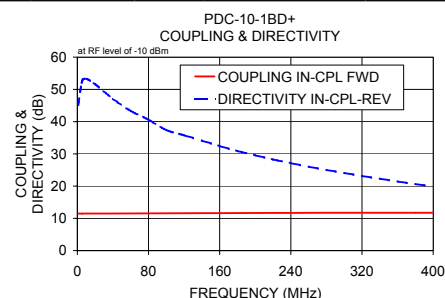
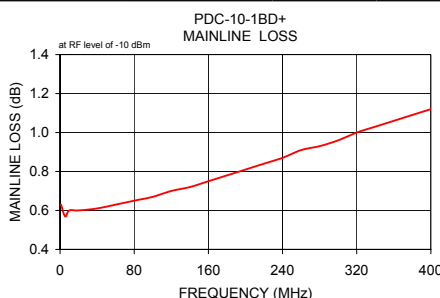


### Outline Dimensions (inch/mm)

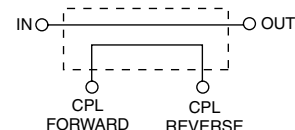
A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K		wt
.200	.20	.14	.031		grams
5.08	5.08	3.56	0.79		5.2

### 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	
1.00	0.63	11.50	11.50	81.10	45.13	28.35	22.22	22.43	29.02	
5.50	0.57	11.47	11.45	46.78	52.71	33.44	24.48	24.09	33.36	
10.00	0.60	11.49	11.48	41.73	53.31	33.34	24.67	24.02	32.94	
20.00	0.60	11.49	11.48	37.25	51.62	31.02	24.71	23.55	31.09	
40.00	0.61	11.51	11.48	34.59	47.08	26.87	24.06	22.62	27.54	
80.00	0.65	11.55	11.54	32.34	40.59	22.30	21.81	20.63	22.68	
160.00	0.75	11.63	11.67	27.76	32.42	17.43	17.71	16.91	17.30	
240.00	0.87	11.70	11.84	23.89	27.12	14.58	14.90	14.36	14.21	
320.00	1.00	11.74	12.05	20.01	23.15	12.81	13.06	12.71	12.19	
400.00	1.12	11.74	12.27	17.04	19.89	11.60	11.78	11.62	10.87	



### electrical schematic



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