Plug-In

Bi-Directional Coupler

PDC-10-1BD+

50Ω 1 to 400 MHz

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

+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.

Pin Connections

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

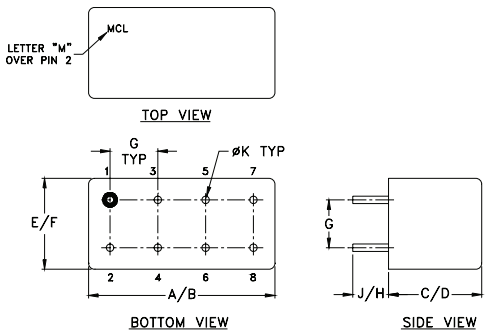
Features

- 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 & transmmitters
- instrumentation

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

Directional Coupler Electrical Specifications

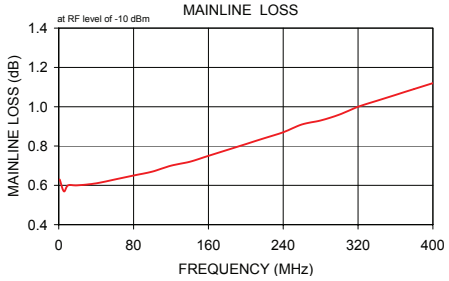
FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS[1] (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W	
			L		M		U		L		M		U			L	MU
f_L-f_U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Max.
1-400	11.5±0.5	±0.5	0.6	0.9	0.8	1.1	0.9	1.3	55	35	35	20	22	15	1.2	2.0	4.0

L = low range [f_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.

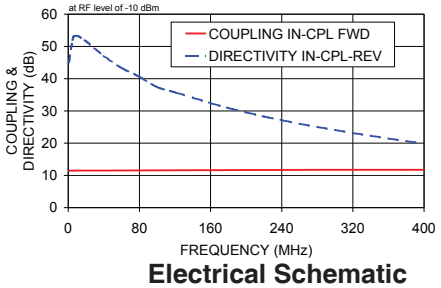
Typical Performance Data

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
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

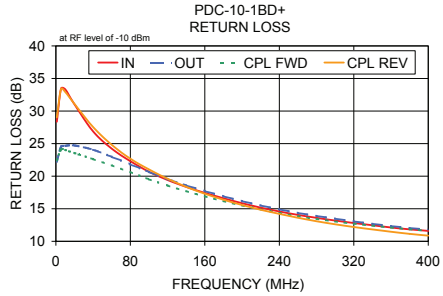
PDC-10-1BD+
MAINLINE LOSS



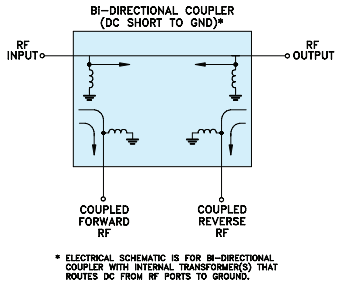
PDC-10-1BD+
COUPLING & DIRECTIVITY



PDC-10-1BD+
RETURN LOSS



Electrical Schematic



Notes
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B. 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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