Plug-In

Directional Coupler

PDC-20-6-75

75Ω 0.05 to 40 MHz

CASE STYLE: A01
PRICE: $26.20 ea. QTY. (1-9)

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	3
GROUND	2,5,7,8
CASE GROUND	2,5,7,8
NOT USED	6

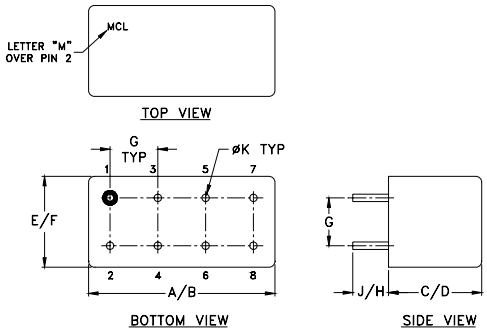
Features

- excellent directivity, 35 dB typ.
- very low mainline loss, 0.1 dB typ.
- good VSWR, 1.2 typ.
- rugged welded construction, hermetically sealed

Applications

- HF
- amateur radio
- communications

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

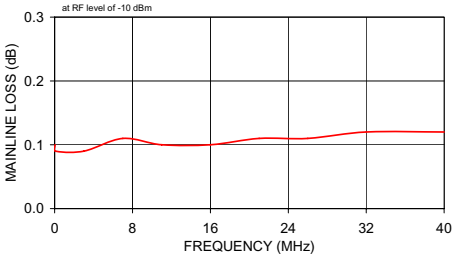
FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS[1] (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W	
			L		M		U		L		M		U			L	MU
f_L-f_U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Max.
0.05-40	20.4±0.3	±0.25	0.1	0.25	0.1	0.2	0.1	0.3	45	35	35	20	25	18	1.2	1.5	3.0

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.

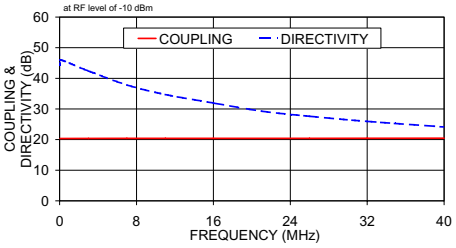
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB) In	Return Loss (dB) Out	Return Loss (dB) Cpl
0.05	0.10	20.36	44.45	25.62	25.51	23.65
0.10	0.09	20.36	46.04	31.78	31.21	29.80
3.00	0.09	20.38	42.42	50.08	41.19	39.21
7.00	0.11	20.39	37.84	50.01	42.13	31.42
11.00	0.10	20.39	34.73	48.84	42.60	27.35
16.00	0.10	20.40	31.96	48.07	43.19	24.01
21.00	0.11	20.41	29.29	46.66	43.46	21.67
26.00	0.11	20.41	27.63	45.29	43.86	19.85
32.00	0.12	20.43	25.96	44.41	44.03	18.06
40.00	0.12	20.45	24.14	43.54	44.44	16.15

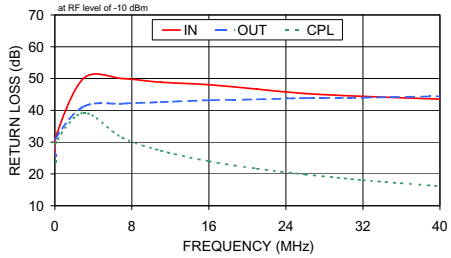
PDC-20-6-75
MAINLINE LOSS



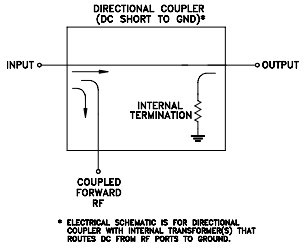
PDC-20-6-75
COUPLING & DIRECTIVITY



PDC-20-6-75
RETURN LOSS



Electrical Schematic



Notes
A. 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.
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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