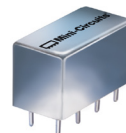


Directional Coupler

50Ω

40 to 400 MHz

PDC20-400HP+



CASE STYLE: A01

PRICE: \$52.20 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	2
COUPLED	5
GROUND	3,4,6,7,8
CASE GROUND	3,4,6,7,8

Features

- high power, up to 10W power input
- wideband, 40 to 400 MHz
- low mainline loss, 0.2 dB typ.
- excellent directivity, 30 dB typ.
- rugged welded construction, hermetically sealed

Applications

- power levelling
- military & defense communications
- VSWR measurement

Directional Coupler Electrical Specifications

FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W	
f_L - f_U	Nom.	Flatness	L		M		U		L		M		U		Typ.	L MU	
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.		Max.	Max.
40-400	21.5±0.5	±0.6	0.1	0.3	0.2	0.4	0.2	0.5	30	20	30	20	27	18	1.1	10.0	10.0

L = 40-100 MHz M = 100-200 MHz U = 200-400 MHz

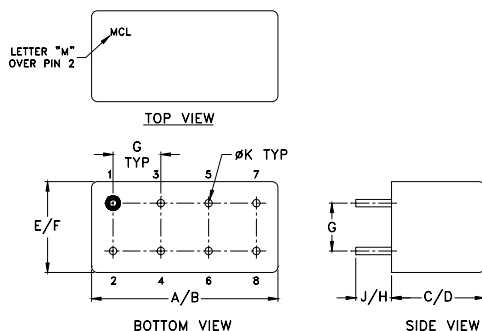
1. Mainline loss includes theoretical power loss at coupled port.

External heat sinking is recommended to reduce case temperature

Typical Performance Data

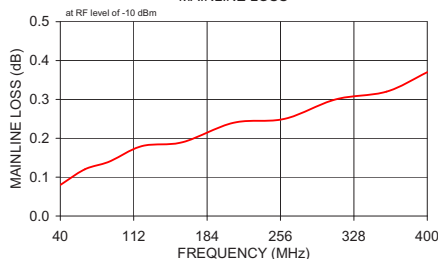
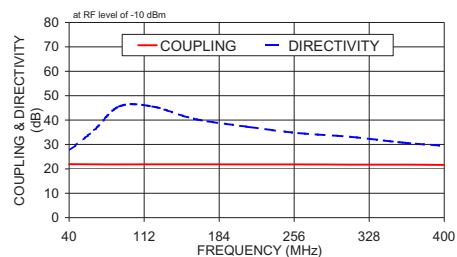
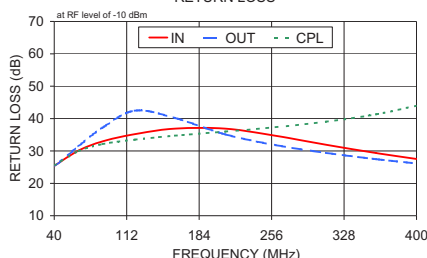
Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
40.00	0.08	21.91	27.54	25.40	25.17	25.48
64.00	0.12	21.84	35.86	30.09	31.45	29.93
88.00	0.14	21.81	45.58	32.95	37.18	32.12
120.00	0.18	21.84	45.56	35.19	42.43	33.49
160.00	0.19	21.84	40.49	36.89	40.19	34.73
210.00	0.24	21.83	37.31	36.89	35.12	35.99
260.00	0.25	21.81	34.65	34.69	31.80	37.34
310.00	0.30	21.73	33.12	31.93	29.39	39.03
360.00	0.32	21.72	30.76	29.36	27.46	41.34
400.00	0.37	21.62	29.41	27.52	26.13	43.97

Outline Drawing

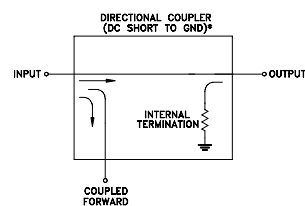


Outline Dimensions (inch/mm)

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

PDC20-400HP+
MAINLINE LOSSPDC20-400HP+
COUPLING & DIRECTIVITYPDC20-400HP+
RETURN LOSS

Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.

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.

C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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