

Plug-In Directional Coupler

PDC-10-54+

50Ω 10 to 1500 MHz



Generic photo used for illustration purposes only

CASE STYLE: A01

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

Features

- very wideband, 10 to 1500 MHz
- excellent directivity, 28 dB typ.
- rugged welded construction, hermetically sealed

Applications

- cellular/GPS
- VHF/UHF
- defense & federal communications
- wireless

Directional Coupler Electrical Specifications

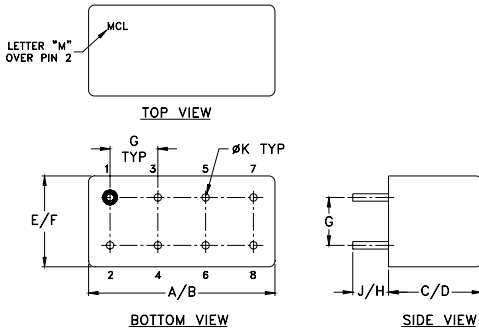
FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W	
			L		M		U		L		M		U				
	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.		Typ.	Max.
f _L -f _U																	
10-1500	10.5±0.5	±0.7	1.2	1.8	1.3	1.9	1.6	2.3	35	25	28	23	28	23	1.3	0.5	0.5

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	Out	Cpl
10.00	1.26	10.82	40.27	17.65	28.25	30.22
46.00	1.25	10.80	43.46	17.92	28.96	30.49
82.00	1.22	10.78	45.69	17.99	27.96	29.09
200.00	1.25	10.85	52.06	17.84	24.08	24.67
400.00	1.35	10.88	36.51	17.42	20.42	20.85
630.00	1.37	10.85	29.35	18.04	19.10	19.83
780.00	1.36	10.72	27.18	19.32	19.04	20.32
960.00	1.51	10.85	25.98	21.77	19.19	21.40
1260.00	1.66	10.92	26.26	24.05	18.16	21.35
1500.00	1.82	10.98	23.45	19.22	15.74	19.60

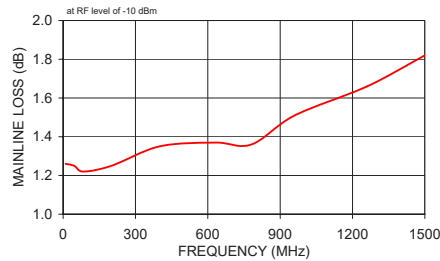
Outline Drawing



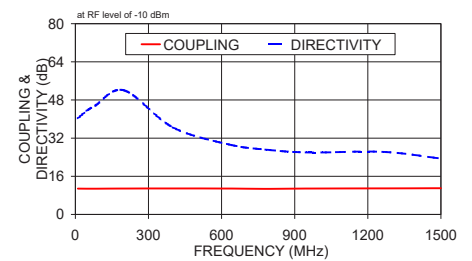
Outline Dimensions (inch/mm)

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	

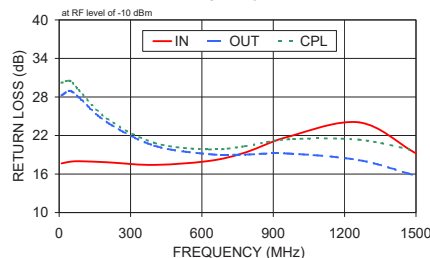
PDC-10-54+
MAINLINE LOSS



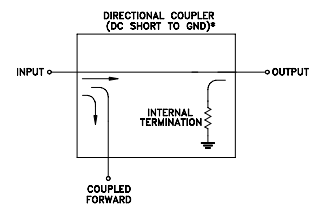
PDC-10-54+
COUPLING & DIRECTIVITY



PDC-10-54+
RETURN LOSS



Electrical Schematic



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

Notes

- 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.
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