Plug-In

Directional Coupler

TDC-10-1+

50Ω 1 to 400 MHz

Generic photo used for illustration purposes only

CASE STYLE: B02

+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

* Case temperature is defined as temperature on ground leads. Permanent damage may occur if any of these limits are exceeded.

Pin Connections

INPUT	1
OUTPUT	2
COUPLED	4
GROUND	3
CASE GROUND	3

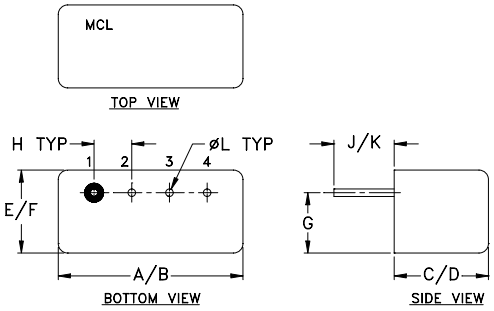
Features

- excellent directivity, 30 dB typ.
- rugged welded case, hermetically sealed

Applications

- VHF/UHF
- instrumentation
- communication receivers & transmitters

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F
.480	.500	.240	.255	.210	.230
12.19	12.70	6.10	6.48	5.33	5.84
G	**H**	**J**	**K**	**L**	**wt**
.16	.100	.14	.20	.020	grams
4.06	2.54	3.56	5.08	0.51	1.9

Directional Coupler Electrical Specifications

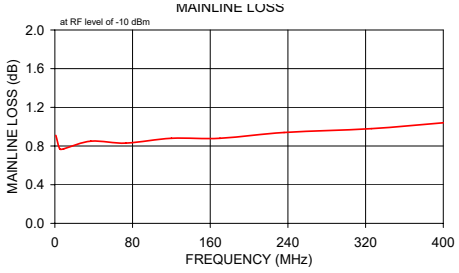
FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS[1] (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W	
			L		M		U		L		M		U			L	MU
f_L-f_U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Max.
1-400	10.0±0.5	±0.5	1.2	1.5	1.0	1.3	1.2	1.5	35	25	30	20	20	15	1.5	1.0	2.0

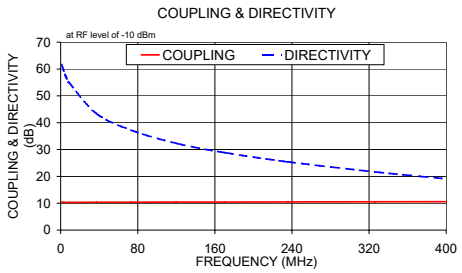
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]

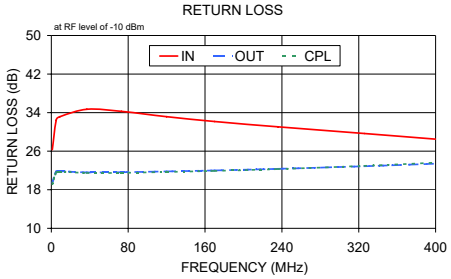
1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

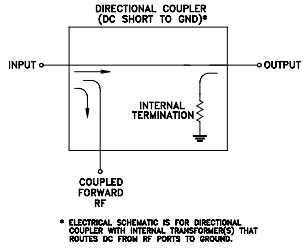
Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB) In	Return Loss (dB) Out	Return Loss (dB) Cpl
1.00	0.91	10.47	61.61	26.30	19.50	19.15
5.00	0.77	10.32	57.55	32.41	21.71	21.60
9.00	0.77	10.32	54.81	33.15	21.84	21.76
37.00	0.85	10.38	43.44	34.70	21.61	21.50
73.00	0.83	10.38	37.26	34.26	21.64	21.52
120.00	0.88	10.43	32.33	33.15	21.82	21.70
170.00	0.88	10.42	28.87	32.15	22.02	21.92
236.00	0.94	10.49	25.41	31.05	22.35	22.30
326.00	0.98	10.54	21.69	29.66	22.89	22.97
400.00	1.04	10.59	19.10	28.49	23.42	23.64







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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