

Plug-In Directional Coupler

50Ω

10 to 400 MHz

TDC-6-1+
TDC-6-1



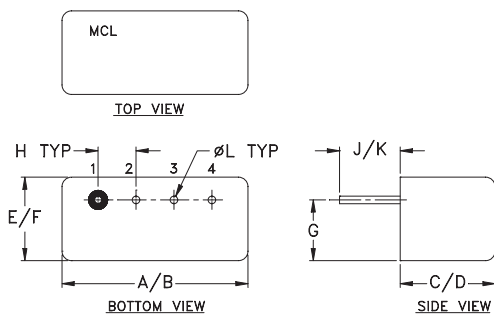
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

Pin Connections

INPUT	1
OUTPUT	2
COUPLED	4
GROUND	3
CASE GROUND	3

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

Features

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

Applications

- VHF/UHF
- instrumentation
- communication receivers & transmitters

CASE STYLE: B02
PRICE: \$26.20 ea. QTY (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

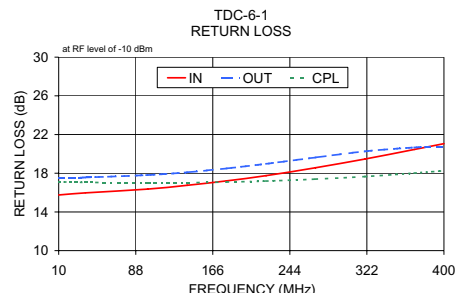
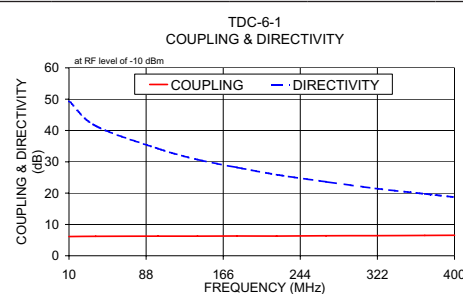
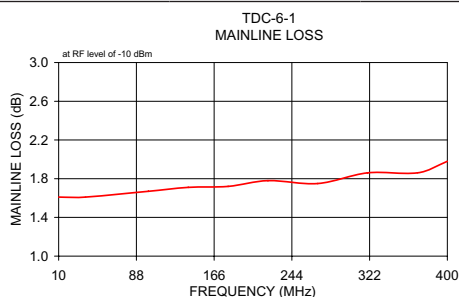
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W		
	Nom.	Flatness	L		M		U		L		M		U			Typ.	Max.	Max.
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
10-400	6.3±0.4	±0.4	2.0	2.4	2.0	2.4	2.0	2.5	36	30	30	25	20	15	1.5	1.0	2.0	

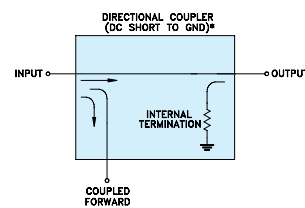
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]
1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
10.00	1.61	6.13	49.37	15.75	17.54	17.12
37.00	1.61	6.21	41.47	15.97	17.57	17.06
100.00	1.67	6.25	34.23	16.36	17.82	17.02
140.00	1.71	6.27	30.72	16.75	18.10	17.03
180.00	1.72	6.30	28.19	17.21	18.50	17.09
220.00	1.78	6.28	25.90	17.75	18.98	17.19
270.00	1.75	6.38	23.63	18.57	19.63	17.39
320.00	1.86	6.40	21.51	19.47	20.27	17.66
370.00	1.86	6.48	19.76	20.46	20.67	18.02
400.00	1.98	6.54	18.72	21.06	20.73	18.27



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMERS THAT ROUTES DC FROM RF PORTS TO GROUND.

Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site

The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

I/F/R/MICROWAVE COMPONENTS

REV. B
M119986
TCD-6-1
WZ/TD/CP/AM
081111