

# Surface Mount Directional Coupler

50Ω 10 to 750 MHz

## TCD-10-1WX+

### Features

- wideband, 10 to 750 MHz
- low mainline loss, 1.2 dB typ.
- aqueous washable
- leads for excellent solderability
- protected by US Patent 6,140,887

### Applications

- VHF/UHF
- signal sampling
- communications



Generic photo used for illustration purposes only

CASE STYLE: DB1627

**+RoHS Compliant**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

### Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		10		750	MHz
Mainline Loss <sup>1</sup>	10 - 100	—	1.3	2.1	dB
	100 - 350	—	1.2	1.6	
	350 - 750	—	1.4	2.0	
Nominal Coupling		—	10.3±0.5	—	dB
Coupling Flatness(±)		—	±0.8	—	dB
Directivity	10 - 100	17	22	—	dB
	100 - 350	14	18	—	
	350 - 750	—	15	—	
VSWR	10 - 750		1.3		:1
Input Power	10 - 100	—	—	0.5	W
	100 - 750	—	—	1.0	

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

### Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 85°C*
Storage Temperature	-55°C to 100°C

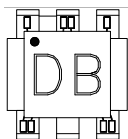
Permanent damage may occur if any of these limits are exceeded.

\* Case temperature is defined as temperature on ground leads.

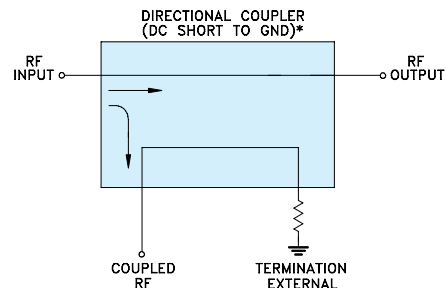
### Pin Connections

Function	Pin Number
INPUT	3
OUTPUT	4
COUPLED	1
GROUND	2
50Ω TERM EXTERNAL	6
NOT USED	5

### Product Marking



### Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) AND EXTERNAL TERMINATION.



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