

# Surface Mount Directional Coupler

50Ω 5 to 1000 MHz

## TCD-13-4X+

### Features

- wideband, 5 to 1000 MHz
- low mainline loss, 0.7 dB typ.
- aqueous washable
- leads for excellent solderability
- protected by US Patent 6,140,887

### Applications

- VHF/UHF
- CATV
- cellular



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		5		1000	MHz
Mainline Loss <sup>1</sup>	5 - 50	—	0.7	1.3	dB
	50 - 500	—	0.7	1.3	
	500 - 1000	—	0.8	1.5	
Nominal Coupling		—	13±0.5	—	dB
Coupling Flatness(±)		—	±0.6	—	dB
Directivity	5 - 50	17	21	—	dB
	50 - 500	12	18	—	
	500 - 1000	—	15	—	
VSWR	5 - 1000		1.2		:1
Input Power	5 - 50	—	—	0.5	W
	50 - 1000	—	—	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

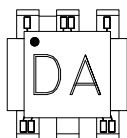
Permanent damage may occur if any of these limits are exceeded.

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

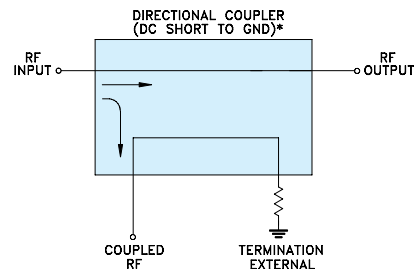
### Pin Connections

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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