

Surface Mount Directional Coupler

75Ω 16.5 dB 5 to 1250 MHz

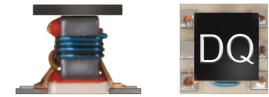
TCD-16-122-75X+

Features

- wideband, 5 to 1250 MHz
- low mainline loss, 1.5 dB typ.
- aqueous washable
- leads for excellent solderability
- protected by US Patent 6,140,887

Applications

- DOCSIS® 3.1 Systems
- VHF/UHF
- CATV
- cellular



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	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		5		1250	MHz
Mainline Loss ¹ (above theoretical 0.1 dB)	5 - 50	—	1.5	2.0	dB
	50 - 1000	—	1.4	1.8	
	1000 - 1250	—	1.5	1.9	
Nominal Coupling	5 - 1250	—	16.5±0.5	—	dB
Coupling Flatness(±)	5 - 1250	—	0.3	0.6	dB
Directivity	5 - 50	15	20	—	dB
	50 - 1000	18	22	—	
	1000 - 1250	15	23	—	
Return Loss (Input)	5 - 50	13	15	—	dB
	50 - 1000	17	25	—	
	1000 - 1250	17	20	—	
Return Loss (Output)	5 - 50	14	16	—	dB
	50 - 1000	18	23	—	
	1000 - 1250	17	20	—	
Return Loss (Coupling)	5 - 50	10	12	—	dB
	50 - 1000	14	17	—	
	1000 - 1250	17	20	—	
Input Power	5 - 100	—	—	0.5	W
	100 - 1250	—	—	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

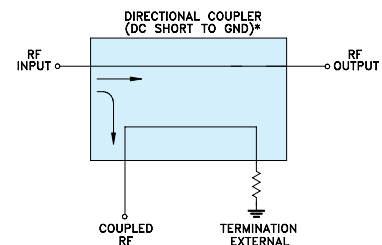
Permanent damage may occur if any of these limits are exceeded.

* Case temperature is defined as temperature on ground leads.

Pin Connections

Function	Pin Number
INPUT	3
OUTPUT	4
COUPLED	1
GROUND	2
75Ω TERM EXTERNAL	6
NOT USED	5

Electrical Schematic



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

