

Surface Mount Directional Coupler

50Ω 10 dB 5 to 1000 MHz

Features

- very flat coupling
- very broadband, multi octave
- temperature stable, LTCC base
- all welded construction
- leads attached for better solderability
- micro miniature coupler
- aqueous washable
- protected by US Patents 6,140,887 & 6,784,521

Applications

- VHF/UHF receivers/transmitters
- cellular

DBTC-10-13X+



Generic photo used for illustration purposes only

CASE STYLE: AT1667-1

+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
13"	500, 1000, 2000

Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		5		1000	MHz
Mainline Loss ¹	5-50	—	1.3	2.0	dB
	50-500	—	1.4	1.8	
	500-1000	—	1.6	2.0	
Nominal Coupling	5-1250	—	10.3±0.5	—	dB
Coupling Flatness(±)	5-1250	—	0.8	—	dB
Directivity	5-50	17	21	—	dB
	50-500	13	18	—	
	500-1000	10	15	—	
VSWR ²	5-1000	—	1.3	—	dB
Input Power	5-500	—	—	0.5	W
	500-1000	—	—	1.0	

1. Includes theoretical coupled power loss of 0.4 dB at 10 dB coupling.

2. For coupled port VSWR above 500 MHz, 1.6:1 typ.

Maximum Ratings

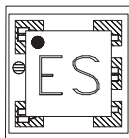
Parameter	Ratings
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

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

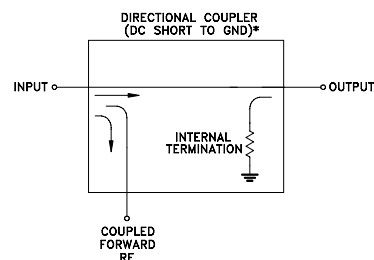
Pin Connections

Function	Pin Number
INPUT	3
OUTPUT	4
COUPLED	1
GROUND	2
ISOLATE (DO NOT USE)	6

Product Marking



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.



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