

Surface Mount Directional Coupler

75Ω, 13dB coupling, 5 to 1500 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
- catv



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		1500	MHz
Mainline Loss ¹	5-50		0.9	1.4	dB
	50-500		1.0	1.5	
	500-1000		1.1	1.6	
	1000-1500		1.4	2.2	
Nominal Coupling	5-1000		13.5±0.5		dB
	1000-1500		13.6±0.5		
Coupling Flatness(±)	5-1000			±0.6	dB
	1000-1500			±0.8	
Directivity	5-50	17	21		dB
	50-500	14	19		
	500-1000	—	18		
	1000-1500	—	17		
VSWR ²	5-1000		1.3		dB
	1000-1500		1.3		
Input Power	5-50			0.5	W
	50-500			1.0	
	500-1000			1.0	
	1000-1500			1.0	

1. Includes theoretical coupled power loss of 0.21 dB at 13 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.

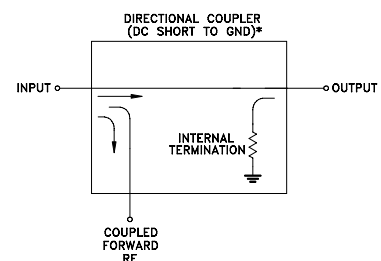
Pin Connections

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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