

Directional Coupler

查询"ADC-18-4-75R+"供应商

ADC-18-4-75R+

75Ω

20 to 1000 MHz



Maximum Ratings

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

Pin Connections

INPUT	1
OUTPUT	6
COUPLED	3
GROUND	2,5
NOT USED	4

Features

- wideband, 20-1000 MHz
- good directivity, 25 dB typ.
- excellent VSWR, 1.15:1 typ.
- internal load, no external components required
- aqueous washable
- protected by US Patent 6,133,525 & 6,140,887

Applications

- CATV power tap

CASE STYLE: CD542

PRICE: \$7.95 ea. QTY (10-49)

+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS
Compliance. See our web site for RoHS Compliance
methodologies and qualifications.

Directional Coupler Electrical Specifications

FREQ. (MHZ)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W
			L		M		U		L		M		U			
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.		
f _L -f _U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.
20-1000	17.7±0.5	±0.5	0.6	1.0	0.5	0.9	0.7	1.2	30	19	25	18	20	11	1.15	1.0

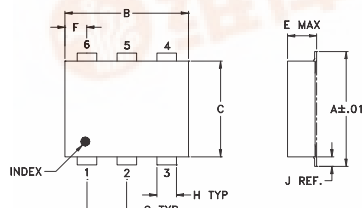
L= 20-200 MHz M= 200-500 MHz U= 500-1000 MHz

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

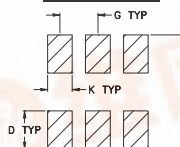
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB)		Coupling (dB)	Directivity (dB)	Return Loss (dB)		
	In-Out	In-Cpl			In	Out	Cpl
20.00	0.64	17.79	32.89	20.76	22.00	20.42	
50.00	0.58	17.73	41.84	24.04	26.77	23.55	
100.00	0.55	17.70	43.88	25.58	29.90	24.90	
240.00	0.56	17.71	30.92	27.26	35.24	27.17	
400.00	0.60	17.67	24.83	27.68	34.53	28.00	
540.00	0.65	17.63	21.34	28.01	31.80	27.82	
680.00	0.71	17.55	18.57	29.46	29.91	25.76	
800.00	0.76	17.47	16.59	31.69	28.56	23.12	
900.00	0.80	17.40	15.17	35.90	27.62	21.50	
1000.00	0.86	17.33	13.84	42.87	27.02	20.11	

Outline Drawing



PCB Land Pattern

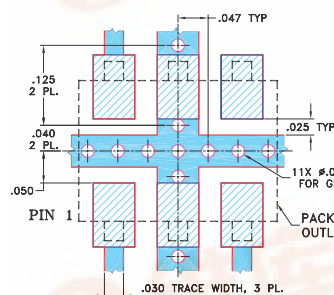
Suggested Layout,
Tolerance to be within ±0.02

Outline Dimensions (inch/mm)

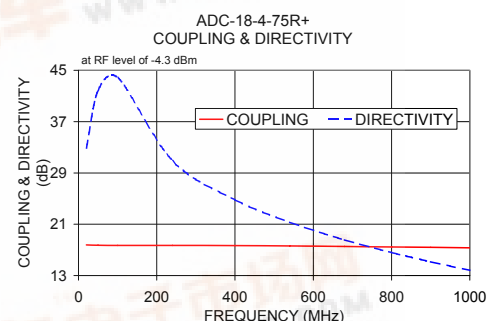
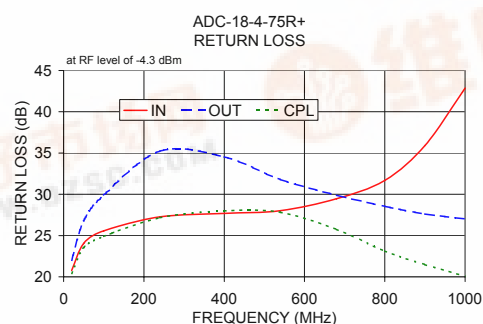
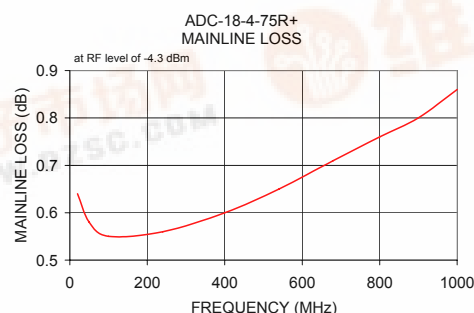
A	B	C	D	E	F	G
.272	.310	.220	.100	.112	.055	.100
6.91	7.87	5.59	2.54	2.84	1.40	2.54

H	J	K	L	wt
.030	.026	.065	.300	grams
0.76	0.66	1.65	7.62	0.20

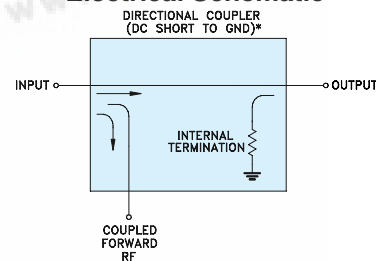
Demo Board MCL P/N: TB-356 Suggested PCB Layout (PL-213)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
3. DENOTES PCB COPPER LAYOUT WITH SMOBS (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK



Electrical Schematic



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

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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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REV. A
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ADC-18-4-75R+
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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS



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