

Directional Coupler

75Ω

5 to 1000 MHz

ADC-25-4-75+



CASE STYLE: CD636

PRICE:\$6.95 ea. QTY (10-49)

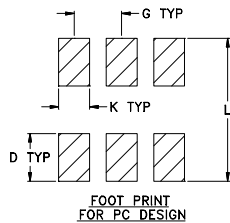
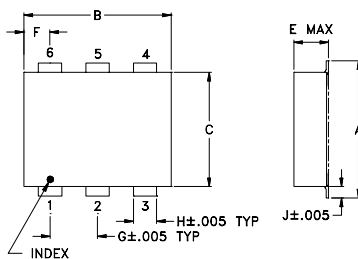
Maximum Ratings

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

Pin Connections

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

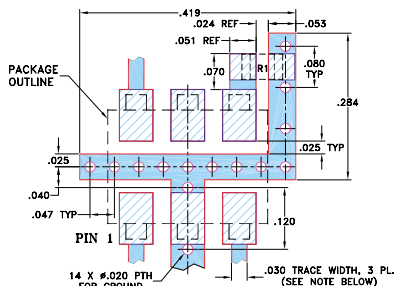
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.280	.310	.220	.100	.162	.055	.100
7.11	7.87	5.59	2.54	4.11	1.40	2.54
H	J	K	L	M	N	P
.030	.030	.065	.300			
0.76	0.76	1.65	7.62			
wt	grams					
	0.25					

Demo Board MCL P/N: TB-08 Suggested PCB Layout (PL-042)



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 SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- wideband, 5-1000 MHz
- low insertion loss, 0.3 dB typ.
- high coupling, 25 dB typ.
- excellent VSWR, 1.2:1 typ.
- protected by US patents 6,133,525 & 6,140,887

Applications

- CATV

Directional Coupler Electrical Specifications

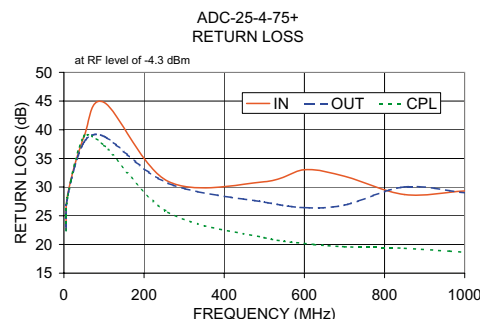
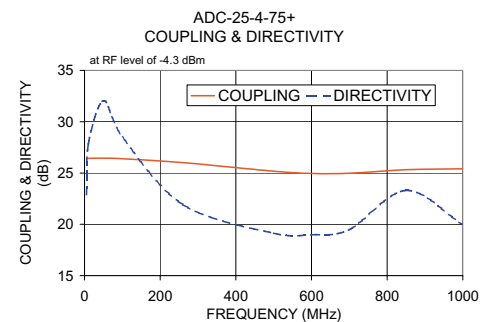
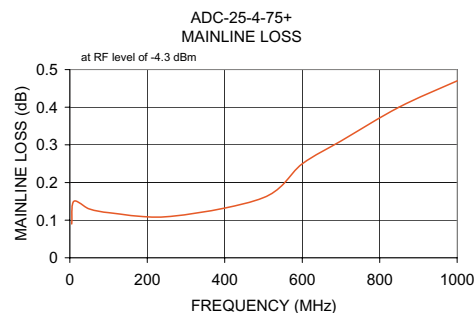
FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT, W
	Nom.	Flatness	L		M		U		L		M		U		Typ.	Max.
5-1000	25±1.0	±2.0	0.1	0.5	0.1	0.4	0.3	0.7	27	13	25	14	20	12	1.2	0.5

L= 5-50 MHz M= 50-500 MHz U= 500-1000 MHz

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

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
5.00	0.09	26.38	22.91	22.68	22.47	22.43
10.00	0.15	26.42	27.82	28.87	28.63	28.52
50.00	0.13	26.44	32.03	38.74	37.83	38.85
100.00	0.12	26.39	28.51	44.75	38.86	37.28
260.00	0.11	26.01	21.92	31.00	30.67	25.64
500.00	0.16	25.18	19.14	30.93	27.38	21.21
600.00	0.25	24.96	18.98	33.03	26.45	20.18
700.00	0.31	24.98	19.48	31.89	26.89	19.63
850.00	0.40	25.33	23.30	28.69	30.04	19.36
1000.00	0.47	25.41	19.99	29.32	29.04	18.66



electrical schematic

