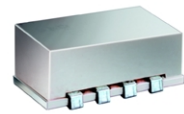


High Power Directional Coupler

JYDC-23-1HP

50Ω

30 to 500 MHz



CASE STYLE: BJ937
PRICE: \$22.95 ea. QTY (10-49)

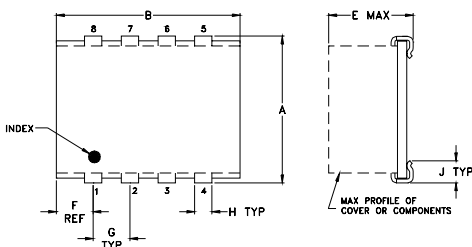
Maximum Ratings

Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C

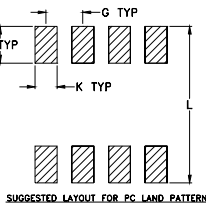
Pin Connections

INPUT	1
OUTPUT	7
COUPLED	3
GROUND	2,4,6,8
50Ω TERM EXTERNAL	5

Outline Drawing



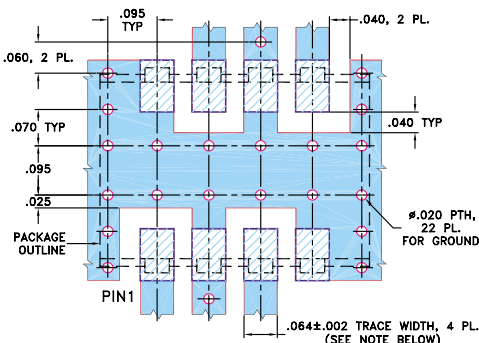
TOLERANCE
2 PL DECIMALS ±.01
3 PL DECIMALS ±.005
UNLESS OTHERWISE SPECIFIED



Outline Dimensions (inch/mm)

	A	B	C	D	E	F	G
	.395	.520	—	.100	.230	.110	.100
	10.03	13.21	—	2.54	5.84	2.79	2.54
	H	J	K	L	wt.		
	.047	.065	.065	.425	grams		
	1.19	1.65	1.65	10.80	.85		

Demo Board MCL P/N: TB-194
Suggested PCB Layout (PL-166)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS 0.030 ± 0.002, 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.

■ DENOTES PCB COPPER LAYOUT
■ DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Features

- low insertion loss, 0.2 dB typ.
- excellent VSWR, 1.10:1 typ.
- high power handling, 10 watts
- excellent directivity 24 dB typ.
- protected by patent 6,140,887

Applications

- VHF/UHF receivers
- cellular

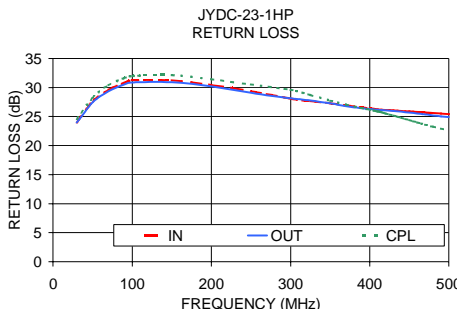
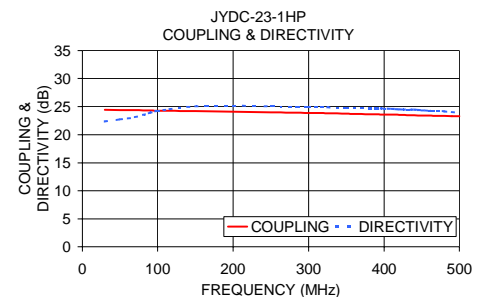
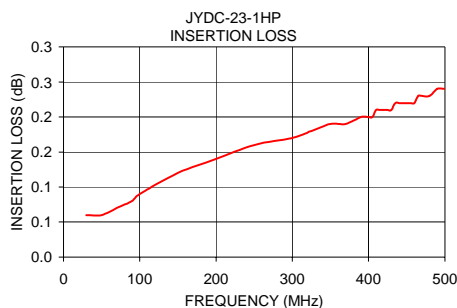
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)			DIRECTIVITY (dB)			VSWR (:1)	POWER INPUT, W							
	Nom.	Max. Flatness	L Typ.	M Typ.	U Typ.	L Typ.	M Typ.	U Typ.		L Max.	MU Max.						
f _L -f _U																	
30-500	23.5±1	±1.2	0.1	0.3	—	—	0.2	0.4	26	20	—	—	23	19	1.1	10	10

L= 30-250 MHz U= 250-500 MHz
1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
30.00	0.06	24.46	22.36	24.03	23.99	24.61
50.00	0.06	24.42	22.73	27.59	27.48	28.28
100.00	0.09	24.28	24.26	31.22	30.88	31.98
200.00	0.14	24.12	25.17	30.44	30.18	31.42
250.00	0.16	24.01	25.05	29.38	29.08	30.54
300.00	0.17	23.88	25.01	28.08	28.14	29.60
350.00	0.19	23.74	24.78	27.31	27.26	27.75
400.00	0.20	23.59	24.66	26.41	26.30	26.19
450.00	0.22	23.44	24.35	25.87	25.70	24.40
500.00	0.24	23.29	23.92	25.39	24.91	22.63



electrical schematic

