

High Power Directional Coupler

NEW!
JYDC-23-1HP

50Ω 30 to 500 MHz

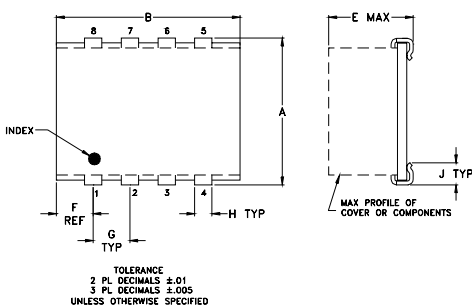
Maximum Ratings

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

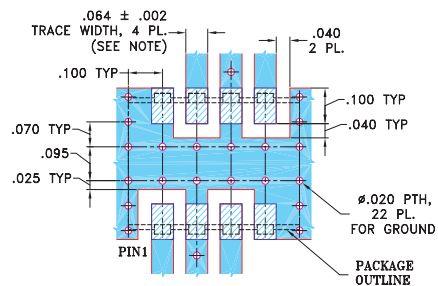
Outline Drawing



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-118)



NOTE: 1. TRACE WIDTH IS SHOWN FOR FR4 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 PCB IS CONTINUOUS GROUND PLATE.

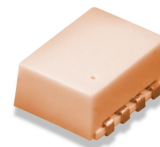
- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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



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

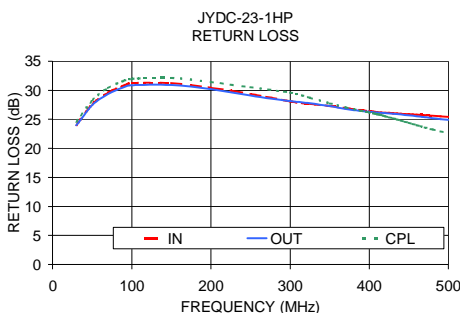
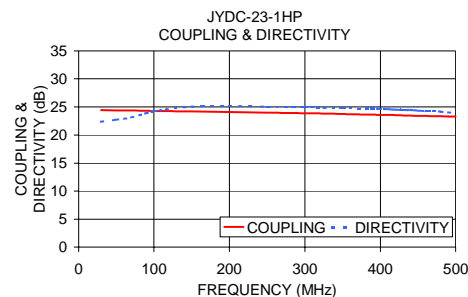
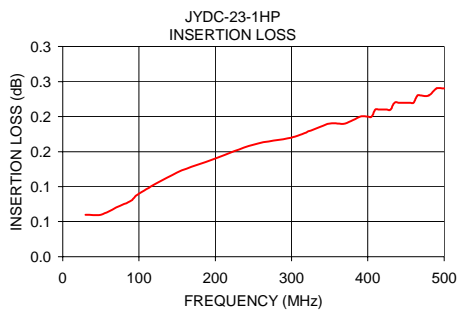
Directional Coupler Electrical Specifications

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

L= 30-250 MHz U= 250-500 MHz

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



Mini-Circuits®

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

REV. OR
M93197
ED-11133
JYDC-23-1HP
WZ/TD/CP/AM
040720