

Directional Coupler

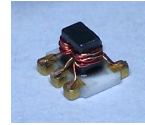
Features

- Wideband, 10 to 750 MHz
- Low mainline loss, 1.2 dB typ.
- Aqueous washable
- Leads for excellent solderability

Applications

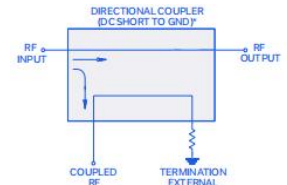
- VHF/UHF
- Signal sampling
- Communications

JY-TCD-10-1W+



50Ω 10 to 750 MHz

ELECTRICAL SCHEMATIC



Maximum 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.

* Case temperature is defined as temperature on ground leads.

Electrical Specifications at 25°C

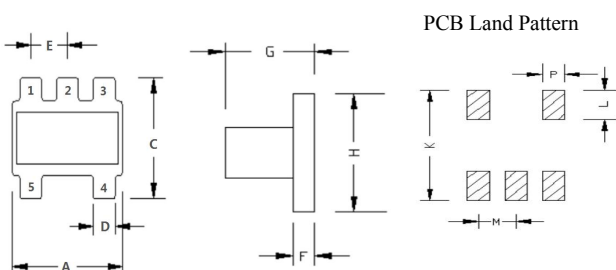
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		10		750	MHz
Mainline Loss ¹	10-100	-	1.3	2.1	dB
	100-350		1.2	1.6	
	350-750		1.4	2.0	
Coupling		-	10.3±0.5	-	dB
Coupling Flatness (±)		-	±0.8	-	dB
Directivity	10-100	17	22	-	dB
	100-350	14	18		
	350-750	-	15		
VSWR	10-750	-	13	-	:1
Input Power	10-100	-	-	0.5	W
	100-750			1.0	

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

Typical Performance Data

Freq.(MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				IN	OUT	CPL
9.00	1.18	10.17	22.87	17.95	27.94	17.96
15.00	1.18	10.14	22.85	18.48	30.46	18.53
24.00	1.18	10.13	22.75	18.67	31.68	18.74
30.00	1.18	10.14	22.68	18.71	31.90	18.79
50.00	1.20	10.16	22.53	18.77	31.89	18.87
70.00	1.21	10.16	22.38	18.78	31.59	18.90
100.00	1.21	10.17	22.13	18.78	30.97	18.93
300.00	1.25	10.31	19.54	18.13	26.04	18.34
500.00	1.32	10.49	16.70	17.03	22.79	17.34
800.00	1.47	10.73	13.13	15.61	19.73	15.58

Outline Drawing



PCB Land Pattern

Outline Dimensions: Unit (mm)

A	3.81	N	-
B	-	M	1.27
C	3.81	P	0.76
D	0.76	J	-
E	1.27	K	4.81
F	0.61	L	1.30
G	2.71	H	2.81
wt	0.16		

Pin Connections

Input	3
Output	4
Coupled	1
Ground	2
50Ω TERM EXTERNAL	5

Suggested L ayout, Tolerance to be within ±0.05mm

