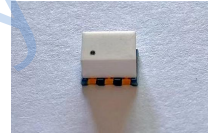


# Directional Coupler

## HT-ADC-6-13+



50Ω 200 to 1300 MHz

### Features

- wideband, 200-1300 MHz
- excellent VSWR. 1.3:1 typ.
- excellent coupling flatness,  $\pm 0.5$  typ.
- aqueous washable

### Applications

- cellular
- VHF/UHF receivers

### Directional Coupler Electrical Specifications

FREQ. (MHz)	COUPLING (dB)		INSERTION LOSS dB		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT, W
	Nom.	Flatness	Typ.	Max.	Typ.	Min.		
200-1300	6.2 $\pm$ 0.5	$\pm$ 0.9	1.8	2.5	17	10	1.30	0.5

### Typical Performance Data

Freq. (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
200	1.65	6.88	15.32	16.16	16.90	16.50
400	1.57	6.77	16.43	19.27	20.13	18.30
500	1.56	6.70	16.81	20.80	20.81	18.80
600	1.59	6.61	17.19	22.02	21.38	18.99
700	1.64	6.52	17.56	22.18	21.50	19.24
900	1.76	6.29	18.16	20.67	20.99	20.13
1000	1.86	6.20	18.24	19.90	21.46	20.64
1100	1.95	6.11	18.05	18.85	19.86	21.99
1200	2.05	6.14	17.55	17.60	19.30	21.86
1300	2.56	6.30	16.79	16.50	18.90	22.83

### Maximum Ratings

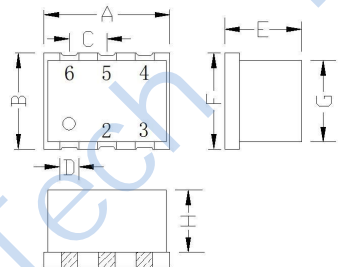
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

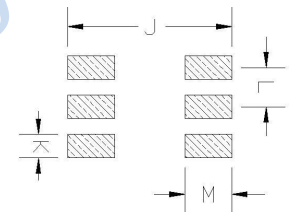
### Pin Connections

INPUT	1
OUTPUT	6
COUPLED	3
GROUND	2
50Ω TERM EXTERNAL	4
GROUND or NO CONNECTION	5

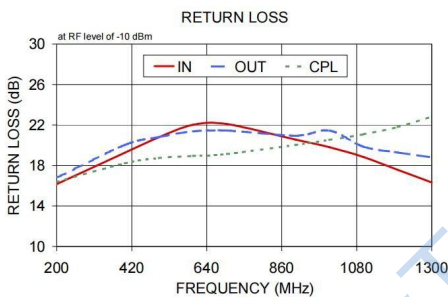
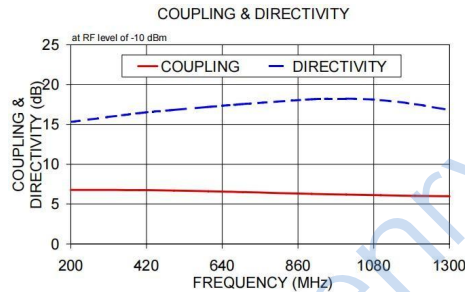
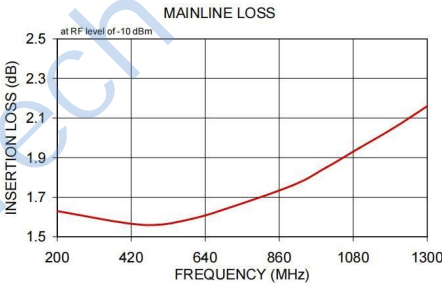
### Outline Drawing



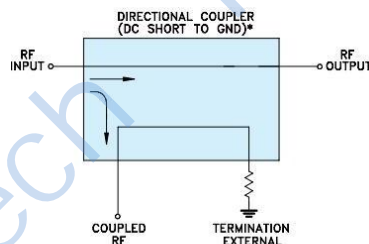
### PCB Land Pattern



Suggested Layout,  
Tolerance to be within  $\pm 0.5$



### Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) AND EXTERNAL TERMINATION.

### Outline Dimensions: Unit (mm)

A	8.70	J	8.00
B	6.50	K	1.50
C	2.54	G	5.50
D	1.30	H	4.30
E	5.40	L	2.54
F	6.50	M	2.00
WT	0.5g		