

Surface Mount

# RF Transformer

## ADT4-6WT

50Ω 0.5 to 600 MHz

### Maximum Ratings

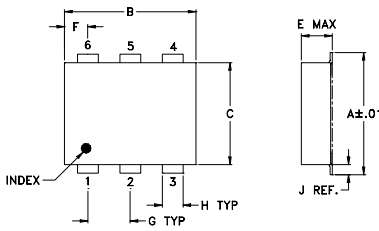
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.5W
DC Current	30mA

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

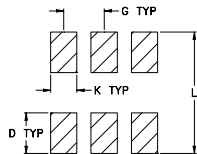
### Pin Connections

PRIMARY DOT	3
PRIMARY	1
SECONDARY DOT	4
SECONDARY	6
SECONDARY CT	5
NOT USED	2

### Outline Drawing



### PCB Land Pattern



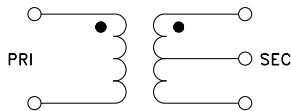
Suggested Layout,  
Tolerance to be within ±.002

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.162	.055	.100
6.91	7.87	5.59	2.54	4.11	1.40	2.54
H	J	K	L	wt		
.030	.026	.065	.300	grams		
0.76	0.66	1.65	7.62	0.25		

Demo Board MCL P/N: TB-430+

### Config. A



### Features

- excellent amplitude unbalance, 0.1 dB typ. and phase unbalance, 1 deg typ. 1 dB bandwidth
- excellent return loss, 20 dB typ. in 1 dB bandwidth
- aqueous washable
- protected under US patent 6,133,525

### Applications

- impedance matching
- balanced amplifiers



Generic photo used for illustration purposes only

CASE STYLE: CD636

### Transformer Electrical Specifications

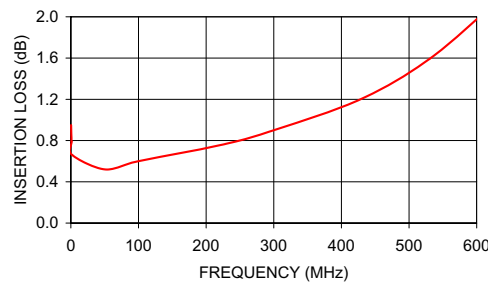
Ω RATIO (Secondary/Primary)	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
4	0.5-600	0.5-600	0.7-475	2-300	1	2	0.1	0.2

\* Insertion Loss is referenced to mid-band loss, 0.4 dB typ.

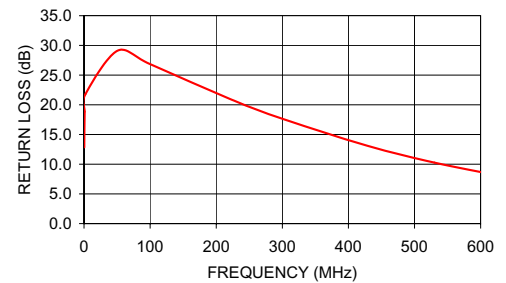
### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
0.35	0.95	12.84	0.07	0.01
1.00	0.79	18.82	0.07	0.00
2.00	0.66	21.76	0.06	0.02
51.00	0.52	29.12	0.06	0.06
100.00	0.60	26.84	0.08	0.01
224.00	0.76	20.84	0.16	0.30
300.00	0.90	17.65	0.24	0.68
428.00	1.20	13.13	0.38	2.63
530.00	1.59	10.27	0.48	5.92
632.00	2.16	7.99	0.59	12.04

ADT4-6WT  
INSERTION LOSS



ADT4-6WT  
INPUT RETURN LOSS



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

