

# Surface Mount RF Transformer

## ADT8-1T+ ADT8-1T

50Ω 0.1 to 130 MHz

### Maximum Ratings

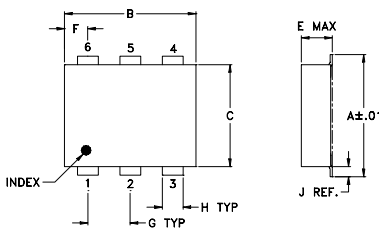
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.5W
DC Current	30mA

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

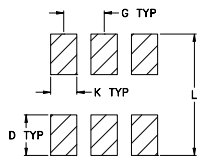
### Pin Connections

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

### Outline Drawing



### PCB Land Pattern



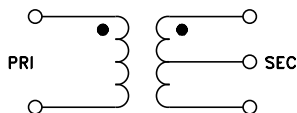
Suggested Layout,  
Tolerance to be within ±.002

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.206	.055	.100
6.91	7.87	5.59	2.54	5.23	1.40	2.54
H	J	K	L	wt		
.030	.026	.065	.300	grams		
0.76	0.66	1.65	7.62	0.40		

Demo Board MCL P/N: TB-430

### Config. A

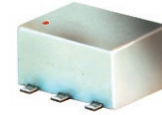


### Features

- excellent amplitude unbalance, 0.05 dB typ. in 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



CASE STYLE: CD637  
PRICE: \$4.50 ea. QTY (10-49)

+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site  
for RoHS Compliance methodologies and qualifications.

### Transformer Electrical Specifications

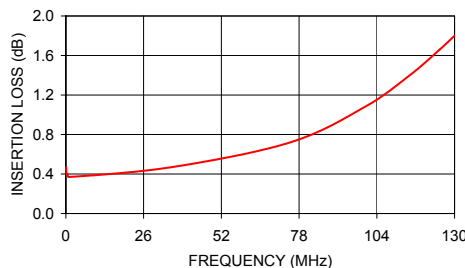
Ω RATIO (Secondary/Primary)	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
8	0.1-130	0.1-130	0.15-110	0.2-75	1	2	0.5	0.1

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

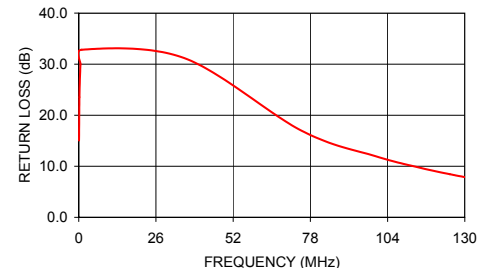
### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
0.09	0.47	15.05	0.04	0.00
0.24	0.40	23.55	0.04	0.00
0.57	0.40	29.96	0.04	0.03
1.00	0.37	32.82	0.04	0.04
35.50	0.47	31.20	0.04	0.91
75.00	0.72	16.98	0.01	2.34
100.00	1.08	11.97	0.04	3.69
115.00	1.40	9.71	0.09	4.78
125.00	1.66	8.44	0.14	5.67
130.00	1.80	7.87	0.17	6.17

ADT8-1T  
INSERTION LOSS



ADT8-1T  
INPUT RETURN LOSS



**Mini-Circuits®**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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For detailed performance specs  
& shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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).

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