

# Surface Mount RF Transformer

## ADT1-1+ ADT1-1

50Ω 0.15 to 400 MHz



### Maximum Ratings

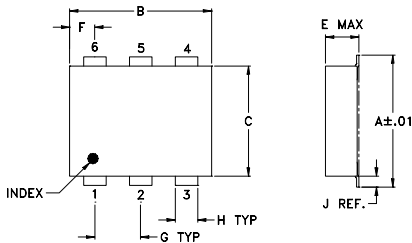
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	30mA

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

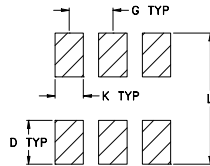
### Pin Connections

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

### Outline Drawing



### PCB Land Pattern



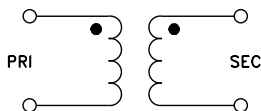
Suggested Layout.  
Tolerance to be within ±.002

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.112	.055	.100
6.91	7.87	5.59	2.54	2.84	1.40	2.54
H	J	K	L			wt
.030	.026	.065	.300			grams
0.76	0.66	1.65	7.62			0.20

Demo Board MCL P/N: TB-430

### Config. C



### Features

- good return loss, 22 dB in 1 dB bandwidth
- excellent amplitude unbalance, 0.1 dB typ. and phase unbalance, 2 deg. typ. in 1dB bandwidth
- aqueous washable
- protected under US patent 6,133,525

### Applications

- impedance matching
- baluns

CASE STYLE: CD542  
PRICE: \$2.95 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

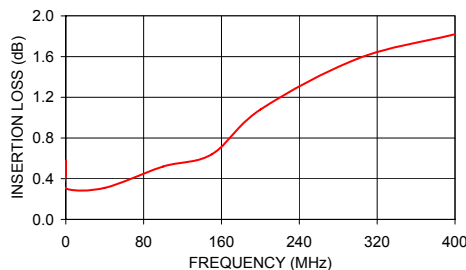
Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
1	0.15-400	0.15-400	0.2-200	0.3-100	2	5	0.1	0.5

\* Insertion Loss is referenced to mid-band loss, 0.3 dB typ.

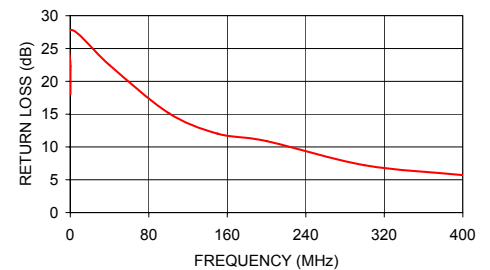
### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
0.15	0.58	18.04	0.01	0.06
0.20	0.51	19.90	0.01	0.02
0.30	0.44	22.30	0.02	0.00
1.00	0.30	27.82	0.00	0.08
40.00	0.31	22.47	0.04	1.44
100.00	0.52	15.19	0.22	3.60
150.00	0.64	12.04	0.53	5.83
200.00	1.08	10.90	0.99	7.98
300.00	1.58	7.21	2.21	14.28
400.00	1.82	5.71	4.06	24.39

ADT1-1  
INSERTION LOSS



ADT1-1  
INPUT RETURN LOSS



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

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IF/RF MICROWAVE COMPONENTS

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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