

RF Transformer

ADT1-1WT-1+

75Ω 1 to 400 MHz

Maximum Ratings

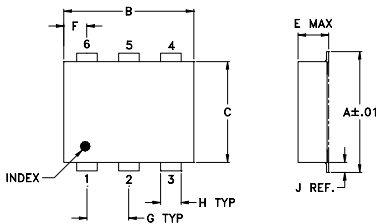
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	250mW
DC Current	30mA

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

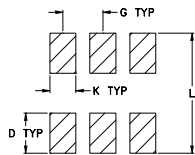
Pin Connections

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

Outline Drawing



PCB Land Pattern



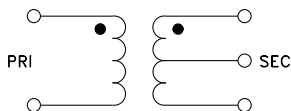
Suggested Layout,
Tolerance to be within ±0.02

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. A



Features

- 1dB bandwidth covers entire frequency range
- good return loss, 21 dB typ.
- leaded surface mount
- aqueous washable
- protected under US patent 6,133,525

Applications

- high speed data communications
- baluns



Generic photo used for illustration purposes only

CASE STYLE: CD542

+RoHS Compliant

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



Available Tape and Reel
at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500, 1000

Transformer Electrical Specifications

Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*	PHASE UNBALANCE (Deg.) Typ.	AMPLITUDE UNBALANCE (dB) Typ.	RETURN LOSS** (dB)	
					Typ.	Min.
1	1-400	1-400 1dB MHz	5 1 dB bandwidth	0.7 1 dB bandwidth	21	16

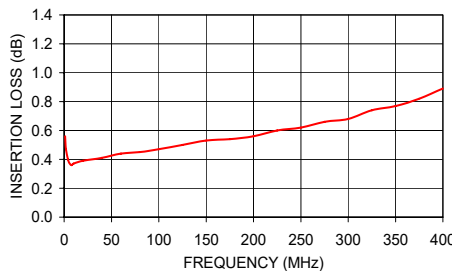
* Insertion Loss is referenced to mid-band loss, 0.5 dB typ.

** Return loss specified from 1 to 250 MHz

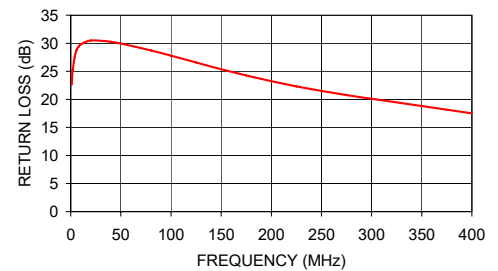
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
1.00	0.56	22.65	0.05	0.28
2.00	0.47	25.12	0.03	0.16
4.00	0.40	27.64	0.02	0.08
6.00	0.37	28.83	0.02	0.03
8.00	0.36	29.44	0.01	0.02
10.00	0.37	29.80	0.01	0.01
20.00	0.39	30.47	0.01	0.29
40.00	0.41	30.27	0.00	0.56
60.00	0.44	29.55	0.02	0.83
80.00	0.45	28.73	0.03	1.18
100.00	0.47	27.78	0.07	1.44
125.00	0.50	26.57	0.11	1.84
150.00	0.53	25.39	0.17	2.23
175.00	0.54	24.26	0.22	2.63
200.00	0.56	23.23	0.29	3.04
225.00	0.60	22.30	0.37	3.40
250.00	0.62	21.50	0.45	3.72
275.00	0.66	20.78	0.54	4.20
300.00	0.68	20.11	0.65	4.57
325.00	0.74	19.48	0.76	4.98
350.00	0.77	18.81	0.87	5.34
375.00	0.82	18.16	1.01	5.66
400.00	0.89	17.52	1.16	5.96

INSERTION LOSS



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

