

# Surface Mount RF Transformer

50Ω 0.3 to 300 MHz

## ADTT1-1+



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"	20, 50, 100, 200
13"	500, 1000

### Maximum Ratings

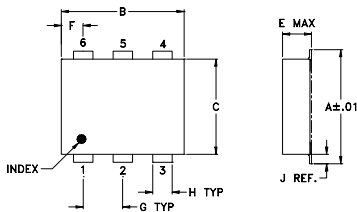
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	30mA

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

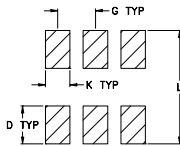
### Pin Connections

PRIMARY DOT	3
PRIMARY	1
PRIMARY CT	2
SECONDARY DOT	4
SECONDARY	6
SECONDARY CT	5

### Outline Drawing



### PCB Land Pattern



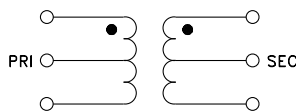
Suggested Layout,  
Tolerance to be within ±.002

### 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-211

### Config. B



### Features

- good return loss, 18 dB in 1 dB bandwidth
- excellent amplitude unbalance, 0.15 dB typ. and phase unbalance, 1 deg. typ. in 1 dB bandwidth
- aqueous washable
- protected under U.S. Patent 6,133,525

### Applications

- impedance matching
- baluns

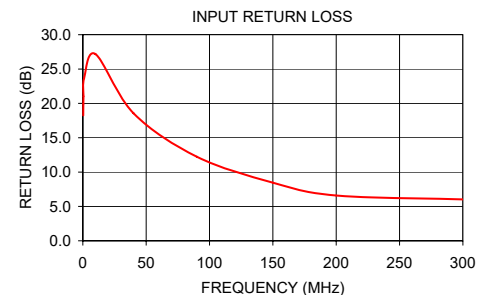
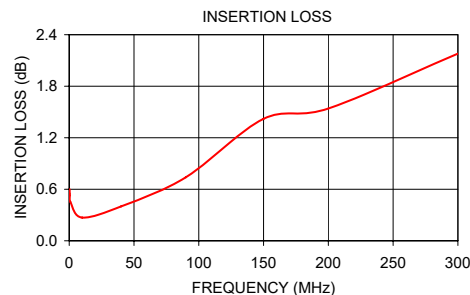
### Transformer Electrical Specifications

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	0.3-300	0.3-300	0.4-200	0.5-90	1	2	0.15	0.3

\* 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.)
0.30	0.60	18.25	0.16	0.14
0.40	0.55	19.91	0.16	0.14
0.50	0.53	21.02	0.15	0.13
1.00	0.45	23.66	0.17	0.05
10.00	0.27	27.17	0.16	0.16
40.00	0.40	18.56	0.15	0.33
90.00	0.74	12.23	0.10	0.79
150.00	1.42	8.46	0.01	1.35
200.00	1.54	6.59	0.13	1.71
300.00	2.18	6.02	0.47	1.89



### 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.
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