

Surface Mount RF Transformer

50Ω 30 to 1800 MHz

ADTL2-18+
ADTL2-18



CASE STYLE: CD542

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

Features

- wideband, 30 to 1800 MHz
- balanced transmission line
- excellent amplitude unbalance, 0.3 dB typ. and phase unbalance, 3 deg. typ. in 1dB bandwidth
- aqueous washable
- protected under US patent 6,133,525

Applications

- baluns
- wideband impedance matching
- cellular
- PCN
- GPS

+ 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.

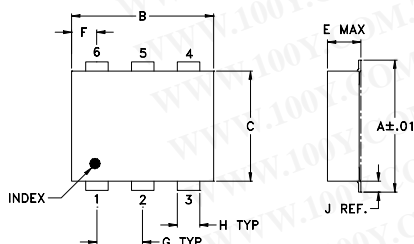
Transformer Electrical Specifications

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
2	30-1800	30-1800	-	100-1500	3	-	0.3	-

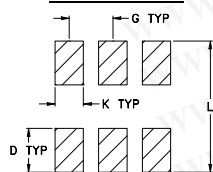
* Insertion Loss is referenced to mid-band loss, 0.6 dB typ.

** Deviation from 180°

Outline Drawing



PCB Land Pattern



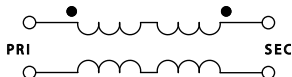
Suggested Layout,
Tolerance to be within ±.002

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	

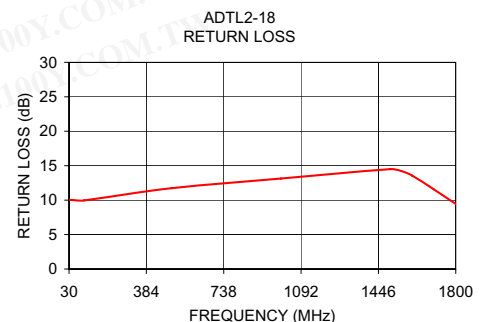
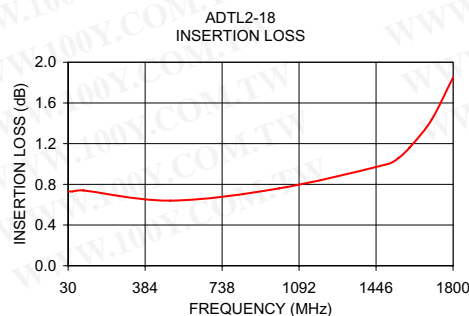
Demo Board MCL P/N: TB-94

Config. G



Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
30.00	0.73	10.06	1.07	5.86
50.00	0.73	10.01	0.95	3.68
100.00	0.74	9.96	0.85	1.64
500.00	0.64	11.73	0.64	2.41
1000.00	0.76	13.14	0.25	3.74
1500.00	1.00	14.50	0.18	1.90
1550.00	1.06	14.22	0.22	1.55
1600.00	1.16	13.58	0.24	1.24
1700.00	1.43	11.56	0.30	0.50
1800.00	1.85	9.44	0.34	0.29



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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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.

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