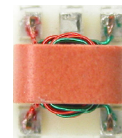


Surface Mount RF Transformer

50Ω 800 to 1900 MHz

TCL1-19+



CASE STYLE: AT224-1

Maximum Ratings

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25 W
DC Current	30 mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

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

Features

- wideband, 800 to 1900 MHz
- balanced transmission line
- plastic base with leads
- aqueous washable

Applications

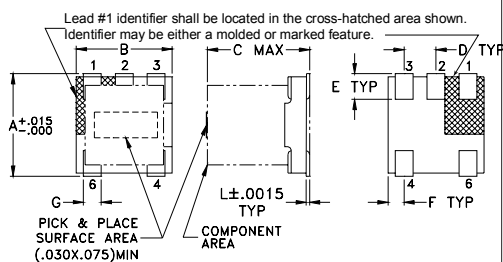
- cellular
- PCN
- GPS
- baluns
- impedance matching

+RoHS Compliant

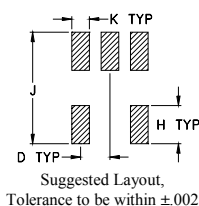
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

Outline Drawing AT224-1



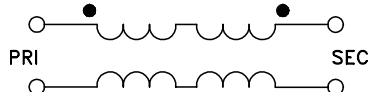
PCB Land Pattern



Outline Dimensions (inch)

A	B	C	D	E	F
.150	.150	.160	.050	.040	.025
3.81	3.81	4.06	1.27	1.02	0.64
G	H	J	K	L	wt
.028	.065	.190	.030	.007	grams
0.71	1.65	4.83	0.76	0.18	0.15

Config. G



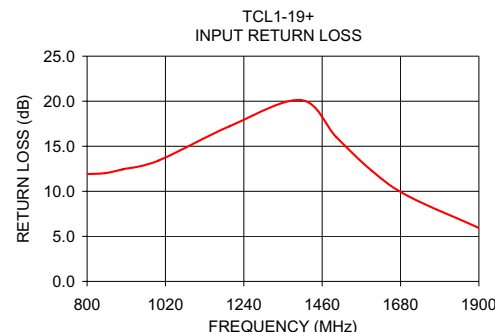
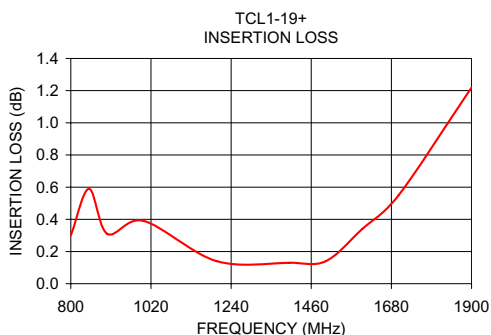
Transformer Electrical Specifications

MODEL NO.	Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*	
			3 dB MHz	1 dB MHz
TCL1-19+	1	800-1900	800-1900	800-1400

* Insertion Loss is referenced to mid-band loss, 0.2 dB typ.

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
800.00	0.30	11.91
850.00	0.59	12.02
900.00	0.31	12.44
1000.00	0.39	13.40
1200.00	0.14	17.22
1400.00	0.13	20.13
1500.00	0.14	16.01
1600.00	0.34	12.26
1700.00	0.55	9.49
1900.00	1.22	5.94



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



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