RF Transformer 50Ω

TCML1-19X+

Mini-Circuits

800 to 1900 MHz

FEATURES

- Wideband, 800 to 1900 MHz
- Balanced transmission line
- Plastic base with solder plated leads
- Aqueous washable



Generic photo used for illustration purposes only

CASE STYLE: DB1627

+RoHS Compliant The +Suffix identifies RoHS Compliance. See our website for methodologies and qualificatio

APPLICATIONS

- Cellular
- PCN
- GPS
- Baluns
- Impedance matching

ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Frequency (MHz)	Min.	Тур.	Max.	Units
Impedance Ratio			1		Ohm
Frequency Range		800		1900	MHz
Insertion Loss*	800 - 1900	_	3	_	dB
	800 - 1400	_	1	—	

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

MAXIMUM RATINGS

Parameter	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.

CONFIGURATION G



REV. C ECO-013883 TCML1-19X+ MCL NY 220623





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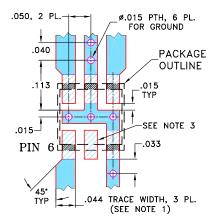
PAD CONNECTIONS

50Ω

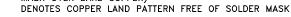
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
NOT USED	2,5

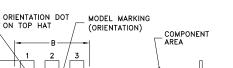
PRODUCT MARKING: AM

DEMOBOARD MCL P/N: TB-TCML1-19X+ SUGGESTED PCB LAYOUT (PL-244)

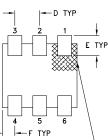


- 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015"; COPPER: 1/2 OZ. ON EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
- 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- 3. THIS PAD IS NOT REQUIRED FOR AT224 CASE STYLE. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)





OUTLINE DRAWING



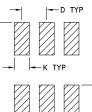
Orientation dot on Top-Hat & orientation feature on substrate corresponds to pin #1.

TOP-HAT / PICK & PLACE SURFACE AREA (.10X.10) MIN TOP-HAT TOTAL THICKNESS: 013 inches MAX

G TYP-

5 6

4



C MAX-

PCB Land Pattern



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SUGGESTED LAYOUT TOLERANCE TO BE WITHIN ±.002

OUTLINE DIMENSIONS (Inches)

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

TAPE & REEL INFORMATION: F47

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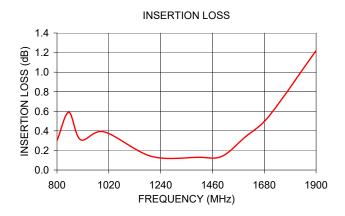
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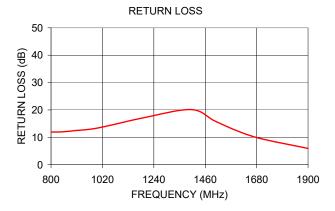
50Ω

800 to 1900 MHz

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	Return 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

- A. 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.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. 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/terms/viewterm.html