

Very Wideband^{top hat®} RF Choke

50Ω 50 to 8200 MHz

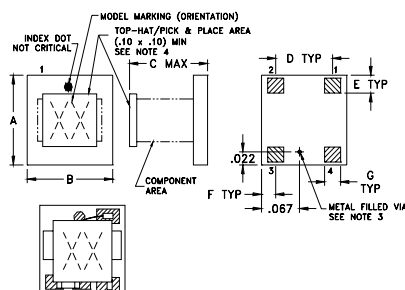
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
DC Current	300 mA
Permanent damage may occur if any of these limits are exceeded.	

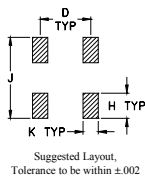
Pad Terminations

RF-IN & DC	1
DC	3
NOT USED	2,4

Outline Drawing



PCB Land Pattern

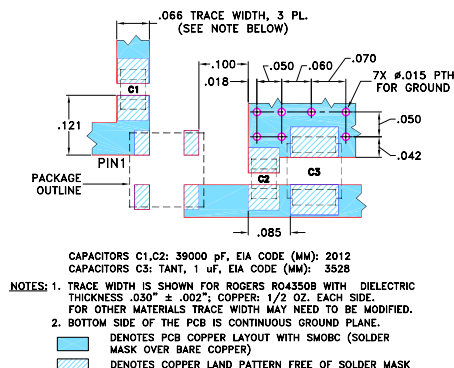


Notes:
1. Open style, Ceramic Base.
2. Termination Finish: Palladium Silver.
3. Must be isolated from external conductors on mounting surface. Suggested solder mask area is .025 x .025.
At Mini-Circuits option via may be removed.
4. Top-Hat total thickness: .013 inches MAX.

Outline Dimensions (inch)

A	B	C	D	E	F
.150	.150	.150	.100	.030	.025
3.81	3.81	3.81	2.54	0.76	0.64
G	H	J	K	wt	
.028	.050	.160	.030	grams	
0.71	1.27	4.06	0.76	0.10	

Demo Board MCL P/N: TB-272 Suggested PCB Layout (PL-147)



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-Circuits' 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/MCLStore/terms.jsp

TCCH-80+



CASE STYLE: GU1604

+RoHS Compliant

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

Features

- very broadband
- miniature size, 0.15"x0.15"
- low parasitic capacitance 0.1 pF typ.
- effective parallel resistance, Rch 500 ohm typ.
- usable up to 10GHz
- aqueous washable
- protected by U.S. Patent 7,012,485
- low DC resistance, 0.1Ω

Applications

- biasing amplifiers
- biasing of laser diodes
- biasing of active antennas

Electrical Specifications @ 25°C

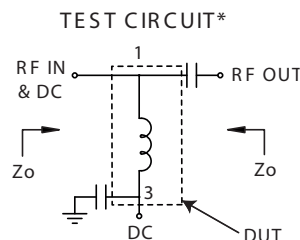
FREQ. RANGE (MHz)	INSERTION LOSS* (dB)	VSWR* (:1)	DC CURRENT (mA)	INDUCTANCE (μH) Typ. at
	Typ. Max.	Typ. Max.	Max.	0mA 50mA 100mA 200mA
50-8200	0.5 1.1	1.1 1.7	200	4 1.3 0.9 0.5

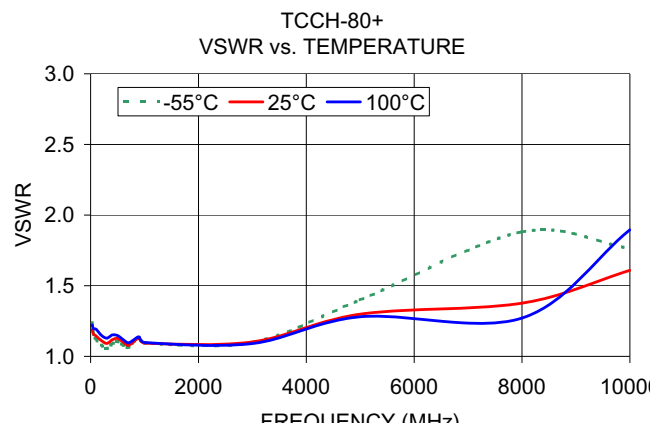
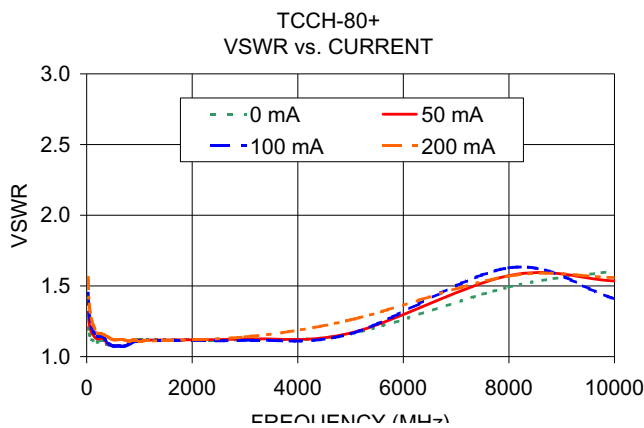
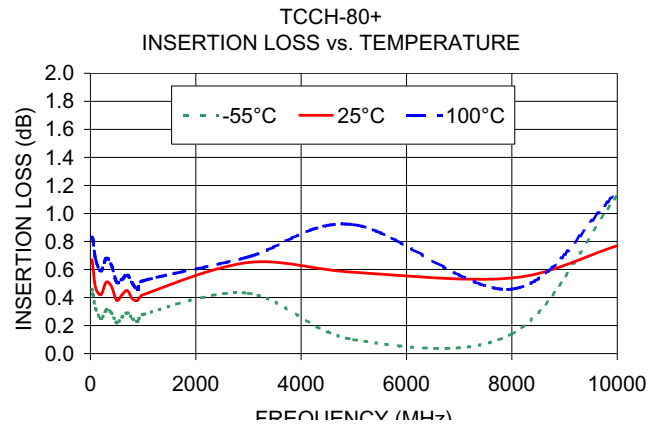
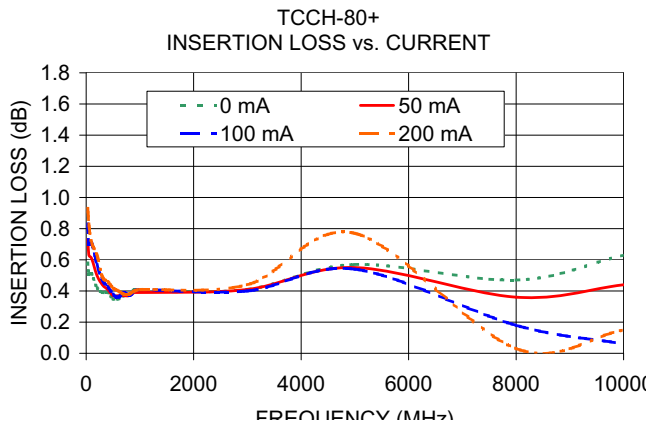
*tested with circuit shown below, Zo=50 ohms

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB) with current				VSWR (:1) with current			
	0mA	50mA	100mA	200mA	0mA	50mA	100mA	200mA
30	0.58	0.73	0.83	0.93	1.20	1.31	1.45	1.56
50	0.51	0.63	0.70	0.83	1.16	1.23	1.31	1.37
100	0.51	0.61	0.71	0.71	1.12	1.16	1.20	1.25
200	0.42	0.50	0.57	0.63	1.10	1.12	1.15	1.17
300	0.39	0.44	0.47	0.49	1.12	1.13	1.14	1.16
400	0.39	0.41	0.43	0.46	1.09	1.09	1.10	1.14
500	0.35	0.37	0.38	0.42	1.08	1.08	1.07	1.12
600	0.35	0.37	0.36	0.40	1.08	1.08	1.08	1.12
700	0.37	0.37	0.39	0.38	1.07	1.07	1.07	1.12
800	0.38	0.37	0.37	0.38	1.09	1.09	1.09	1.11
900	0.41	0.39	0.40	0.40	1.11	1.11	1.11	1.12
1000	0.40	0.39	0.41	0.41	1.12	1.12	1.11	1.11
3000	0.41	0.41	0.40	0.44	1.12	1.12	1.12	1.14
5000	0.57	0.55	0.54	0.77	1.16	1.17	1.16	1.26
8000	0.47	0.36	0.18	0.03	1.49	1.57	1.63	1.57
10000	0.63	0.44	0.06	0.15	1.61	1.54	1.41	1.56

Electrical Schematic





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

