

# Very Wideband RF Choke NON-CATALOG

## ADCH-80

50Ω 50 to 10000 MHz



CASE STYLE: CD542

### Maximum Ratings

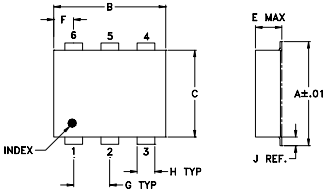
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
DC Current	250 mA

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

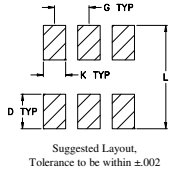
### Pin Connections

RF-IN & DC	2
DC	5
NOT USED	1,3,4,6

### Outline Drawing



### PCB Land Pattern



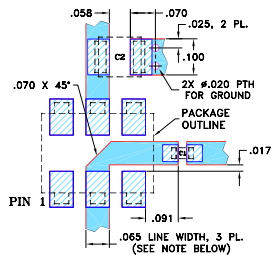
### Outline Dimensions (inch/mm)

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-52 Suggested PCB Layout (PL-210)



CAPACITORS: C1: 6800 pF, 0603 SIZE; C2: 1.0 uF, 1311 SIZE.  
 NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.  
 ■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
 ■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Features

- low parasitic capacitance 0.1 pf typ.
- effective parallel resistance, Rch 800 ohm typ.
- aqueous washable
- protected by US Patent, 6,133,525

### Applications

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

### Electrical Specifications

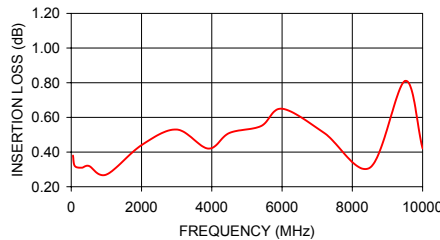
FREQ. RANGE (MHz)	INSERTION LOSS* (dB)		VSWR* (:1)		DC CURRENT (mA)	INDUCTANCE (μH) Typ.		
	Typ.	Max.	Typ.	Max.		@ 0mA	@ 50mA	@ 100mA
50-8000	0.3	1.0	1.1	1.35	100	7.0	1.8	1.0
50-10000	0.3	2.0	1.1	1.6	100	7.0	1.8	1.0

\*tested with circuit shown below, Zo=50 ohms

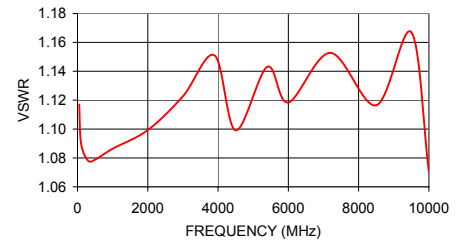
### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	VSWR (:1)
50.00	0.38	1.12
100.00	0.32	1.09
300.00	0.31	1.08
500.00	0.32	1.08
1000.00	0.27	1.09
2000.40	0.44	1.10
3000.90	0.53	1.12
3900.00	0.42	1.15
4500.00	0.51	1.10
5400.00	0.55	1.14
6000.00	0.65	1.12
7199.80	0.51	1.15
8500.00	0.31	1.12
9500.20	0.81	1.17
10000.30	0.42	1.07

ADCH-80+ INSERTION LOSS

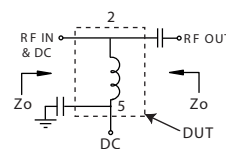


ADCH-80+ VSWR



### Electrical Schematic

TEST CIRCUIT\*



### 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-Circuits' applicable established test performance criteria and measurement instructions.
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www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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 DJ/CP/AM  
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