

# Ceramic Low Pass Filter

50Ω DC<sup>(1)</sup> to 2500 MHz

LFCN-2500+  
LFCN-2500

## Maximum Ratings

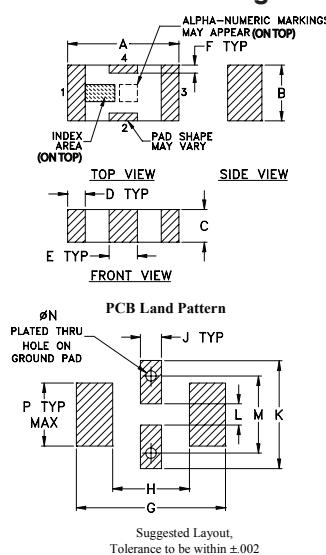
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

\* Passband rating, derate linearly to 3.5W at 100°C ambient.  
Permanent damage may occur if any of these limits are exceeded.

## Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

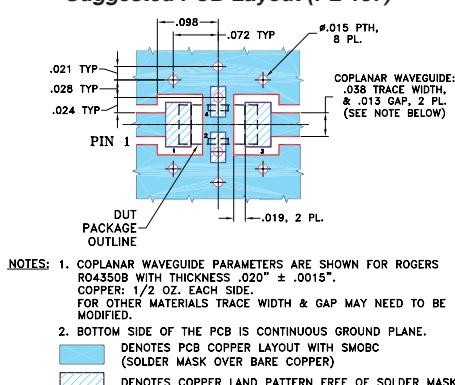
## Outline Drawing



## Outline Dimensions (inch mm)

A	B	C	D	E	F	G
.126	.063	.037	.020	.032	.009	.169
3.20	1.60	0.94	0.51	0.81	0.23	4.29
H	J	K	L	M	N	P
.087	.024	.122	.024	.087	.012	.071
2.21	0.61	3.10	0.61	2.21	0.30	1.80
						grams
						.020

## Demo Board MCL PN: TB-270 Suggested PCB Layout (PL-137)



## Features

- excellent power handling, 10W
- small size
- 7 sections
- temperature stable
- LTCC construction
- protected by U.S Patent 6,943,646

CASE STYLE: FV1206  
PRICE: \$1.99 ea. QTY (20)

### +RoHS Compliant

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



## Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

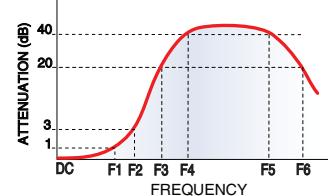
## Electrical Specifications<sup>(1,2)</sup> at 25°C

	Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-2500	—	—	1.0	dB
	Freq. Cut-Off	F2	3075	—	3.0	—	dB
	VSWR	DC-F1	DC-2500	—	1.2	—	:1
Stop Band	Rejection Loss	F3	3675	20	—	—	dB
	Rejection Loss	F4-F5	3800-6100	—	30	—	dB
	VSWR	F6	8000	—	20	—	dB
		F3-F6	3675-8000	—	20	—	:1

(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required. Alternatively, if DC pass IN-OUT is required, Mini-Circuits' "D" suffix version of this model will support DC IN-OUT, and provide >100 MΩ isolation to ground.

(2) Measured on Mini-Circuits Characterization Test Board TB-270.

## Typical Frequency Response

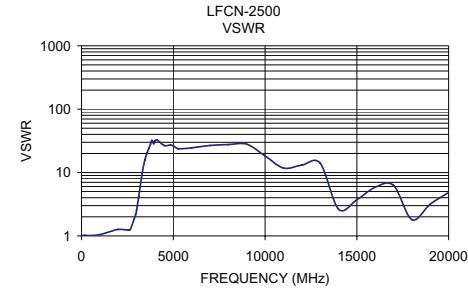
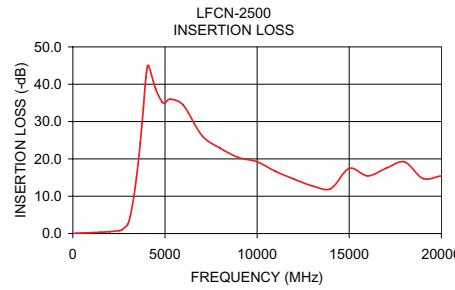


## Electrical Schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50.00	0.05	1.02
2000.00	0.50	1.26
2530.00	0.80	1.24
3000.00	2.72	2.58
3660.00	24.30	23.81
3760.00	29.63	28.03
4000.00	43.19	31.03
5000.00	34.98	26.33
6000.00	34.38	24.48
7000.00	26.29	26.74
8000.00	22.85	27.59
10000.00	19.22	18.30
12000.00	14.60	13.09
15000.00	17.48	3.73
20000.00	15.48	4.84



## 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](http://www.minicircuits.com/MCLStore/terms.jsp)