

Ceramic

# Low Pass Filter

## LFCN-4400

50Ω DC<sup>(1)</sup> to 4400 MHz



### Maximum Ratings

Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C

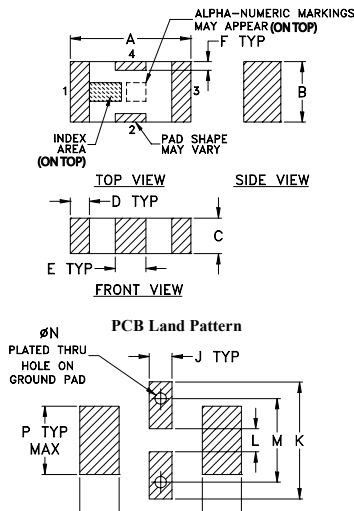
RF Power Input\* 8W max. at 25°C

\* Passband rating, derate linearly to 3W 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

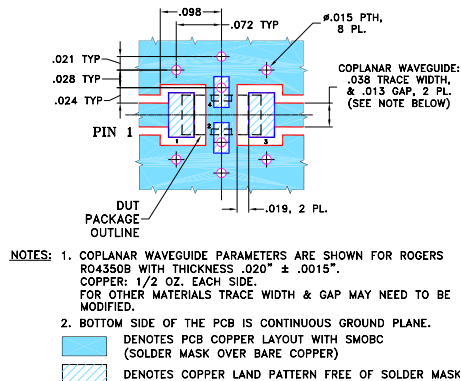
### Outline Drawing



### Outline Dimensions (inch/mm)

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

### Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



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

### Features

- excellent power handling, 8W
- small size
- 7 sections
- temperature stable
- hermetically sealed
- LTCC construction
- protected by U.S. Patent 6,943,646

### Applications

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

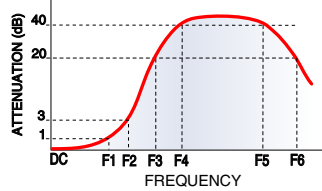
### Electrical Specifications<sup>(1,2)</sup> at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-4400	—	—	1	dB
	Freq. Cut-Off	F2	5290	—	3.0	—	dB
	VSWR	DC-F1	DC-4400	—	1.2	—	:1
Stop Band	Rejection Loss	F3	6700	20	—	—	dB
		F4-F5	6280-9800	—	30	—	dB
	VSWR	F5-F6	9800-13000	—	20	—	dB
		F3-F6	6700-13000	—	17	—	:1

(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

(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	0.04	1.03
320	0.12	1.06
1340	0.24	1.08
3740	0.57	1.33
4400	0.75	1.39
5170	1.98	1.88
5290	2.99	2.62
5580	7.66	6.63
5860	14.61	13.09
6280	31.47	21.20
6700	31.52	26.33
7400	28.90	26.33
9800	24.24	14.26
13000	19.94	12.80
20000	17.61	11.53

