

Ceramic

# Low Pass Filter

## LFCN-6700

50Ω DC<sup>(1)</sup> to 6700 MHz



CASE STYLE: FV1206

### Maximum Ratings

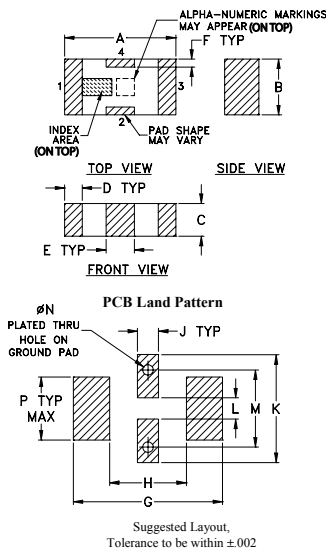
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	9W max. at 25°C

\* 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

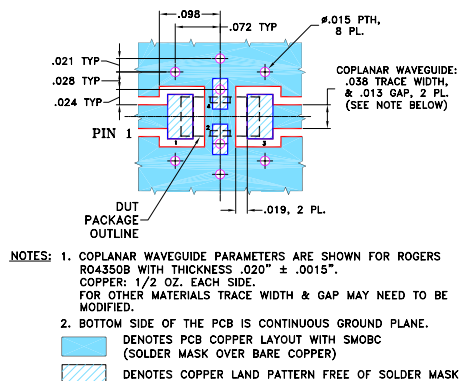
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	
.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	wt
.087	.024	.122	.024	.087	.012	.071	grams
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

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

### Features

- excellent power handling, 9W
- small size
- 7 sections
- temperature stable
- LTCC construction
- protected by U.S. Patent 6,943,646

### Applications

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

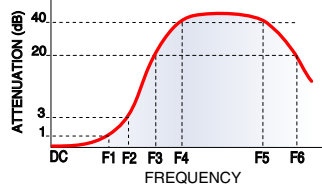
### Electrical Specifications<sup>(1,2)</sup> at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-6700	—	—	1.2	dB
	Freq. Cut-Off	F2	7600	—	3.0	—	dB
	VSWR	DC-F1	DC-6700	—	1.3	—	:1
Stop Band	Rejection Loss	F3	9300	20	—	—	dB
		F4-F5	9500-11000	—	30	—	dB
		F6	18000	—	20	—	dB
	VSWR	F3-F6	9300-18000	—	20	—	:1

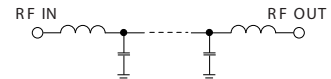
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required. Alternatively, if DC pass IN-OUT is required, Mini-Circuits "D" suffix version of this model will support DC IN-OUT, and provide >100 MOhm isolation to ground.

(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	0.03	1.01
500.00	0.08	1.02
1000.00	0.15	1.01
3500.00	0.25	1.05
5000.00	0.47	1.16
6700.00	0.79	1.32
7600.00	3.12	3.22
8000.00	7.62	7.34
9000.00	26.00	21.20
10000.00	55.95	44.55
12000.00	34.91	108.58
15000.00	26.32	22.58
17000.00	23.79	18.90
18000.00	21.88	40.41
19890.00	22.46	2.30

