

# Ceramic Low Pass Filter

## LFCN-160+

50Ω DC<sup>(1)</sup> to 160 MHz



CASE STYLE: FV1206

### Maximum Ratings

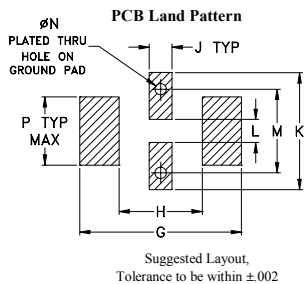
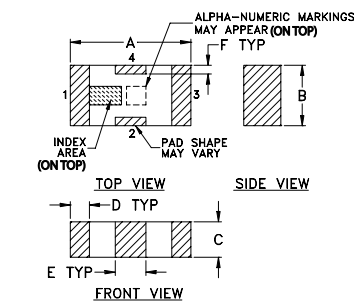
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W max. at 25°C

\* 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



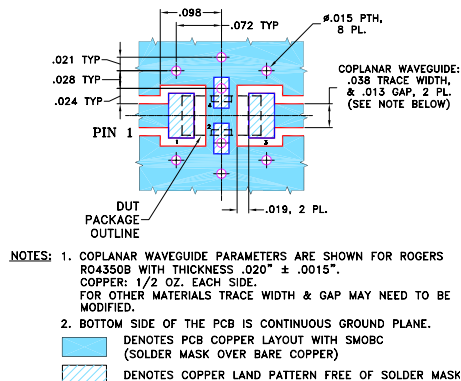
### Outline Dimensions (inch)

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)



### 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

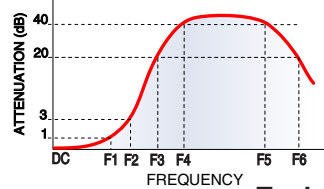
### Electrical Specifications<sup>(1,2)</sup> at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-160	—	—	1.0	dB
	Freq. Cut-Off	F2	230	—	3.0	—	dB
	VSWR	DC-F1	DC-160	—	1.2	—	:1
Stop Band	Rejection Loss	F3-F4	330-480	20	—	—	dB
		F4-F5	480-2700	—	35	—	dB
	VSWR	F5-F6	2700-6100	—	20	—	dB
		F3-F6	330-6100	—	17	—	:1

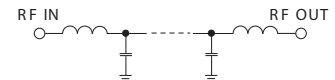
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

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

### Typical Frequency Response

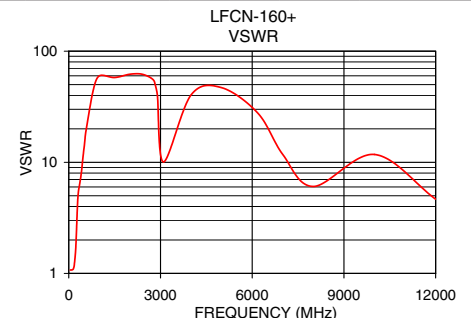
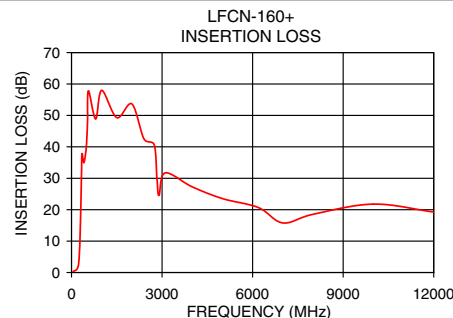


### Electrical Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
40	0.29	1.07
100	0.53	1.07
150	0.77	1.09
160	0.85	1.11
210	1.60	1.41
230	2.50	1.74
260	5.92	2.80
280	10.64	3.89
310	21.67	5.22
330	30.84	5.74
350	37.58	6.13
480	39.25	12.26
1000	54.13	59.91
2700	41.64	56.04
6100	20.85	27.59
9000	33.07	14.03
12000	19.52	4.50



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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).

REV. E  
M151107  
LFCN-160+  
EDR-7071/3  
RAV  
150817  
Page 1 of 1