# Ceramic Low Pass Filter

## 50Ω

## DC<sup>(1)</sup> to 2500 MHz

## **Maximum Ratings**

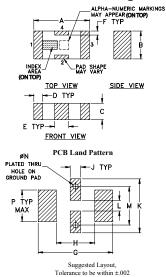
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

\* 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

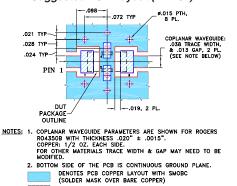
## Outline Drawing



## Outline Dimensions (inch)

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

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



DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

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

## Applicationsharmonic rejection

- VHF/UHF transmitters/receivers
- lab use

# LFCN-2500+



Generic photo used for illustration purposes only CASE STYLE: FV1206

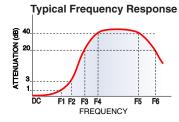
+RoHS Compliant The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



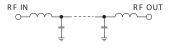
## Electrical Specifications<sup>(1,2)</sup> at 25°C

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

In Applications where DC isolation to ground is required, coupling capacitors are recommended to avoid DC leakage. 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.
 Measured on Mini-Circuits Characterization Test Board TB-270.

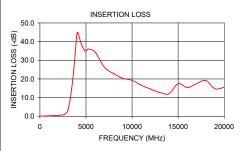


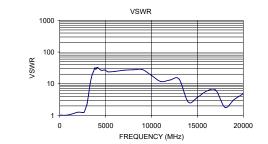
## Electrical Schematic



## 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-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 wisit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

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