Low Pass Filter

DC⁽¹⁾ to 2500 MHz 50Ω

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



Maximum Ratings

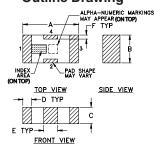
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RE Power Input*	10W may at 25°C

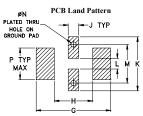
^{*} Passband rating, derate linearly to 3.5W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded

Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing





Suggested Layout, Tolerance to be within ±.002

Features

- · excellent power handling, 10W
- 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(1,2) at 25°C

Parameter		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
Stop Band		F3	3675	20	_	_	dB
	Rejection Loss	F4-F5	3800-6100	_	30	_	dB
		F6	8000	_	20	_	dB
	VSWR	F3-F6	3675-8000	_	20	_	:1

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

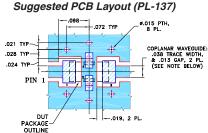
Typical Frequency Response F1 F2 F3 F4 FREQUENCY



Outline Dimensions (inch)

A .126 3.20	B .063 1.60	C .037 0.94	.020 0.51	E .032 0.81	.009	G .169 4.29	
Н	J	K	L	M	Ν	Р	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



COPLANAR WAYEGUIDE PARAMETERS ARE SHOWN FOR ROGERS ROA\$50B WITH THICKNESS .020" ± .0015". COPPER: 1/2 02. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

DENOTES DESCRIPTION OF THE PCB IS CONTINUOUS GROUND PLANE.

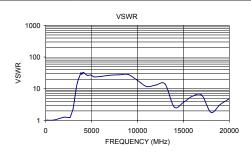
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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 visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp