# Low Pass Filter

#### DC<sup>(1)</sup> to 5500 MHz $50\Omega$

#### **Maximum Ratings**

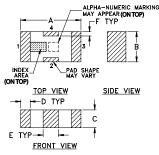
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DE Dower Input*	9M may at 25°C

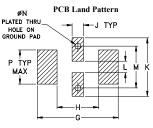
<sup>\*</sup> Passband rating, derate linearly to 3W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

#### **Pin Connections**

RF IN	1_
RF OUT	3
GROUND	2,4

#### **Outline Drawing**



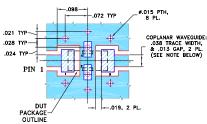


Suggested Layout, Tolerance to be within ±.002

#### Outline Dimensions (inch)

		G	F	E	D	С	В	Α
		.169	.009	.032	.020	.037	.063	.126
		4.29	0.23	0.81	0.51	0.94	1.60	3.20
t	wt	Р	N	M	L	K	J	Н
	grams	.071	.012	.087	.024	.122	.024	.087
1	.020	1.80	0.30	2.21	0.61	3.10	0.61	2.21

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



COPLANAR WAYEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE 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

#### **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

## CASE STYLE: FV1206

+RoHS Compliant

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

Generic photo used for illustration purposes only

LFCN-5500+

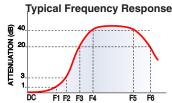


### Electrical Specifications(1,2) at 25°C

Parameter		F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC-5500	_	_	2.0	dB
Pass Band	Freq. Cut-Off	F2	6200	_	3.0	_	dB
	VSWR	DC-F1	DC-5500	_	1.3	_	:1
Stop Band		F3	7200	20	_	_	dB
	Rejection Loss	F4-F5	6770-9500	_	30	_	dB
		F5-F6	9500-12100	_	20	_	dB
	VSWR	F3-F6	7200-12100	_	17	_	: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.

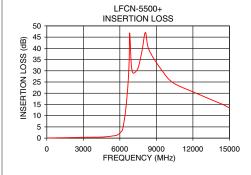


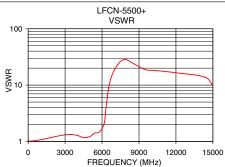
#### **Electrical Schematic**



FREQUENCY Typical Performance Data at 25°C

, , , , , , , , , , , , , , , , , , ,						
	Frequency	Insertion Loss	VSWR			
	(MHz)	(dB)	(:1)			
	40 500 1500 3000 4800 5500 6000 6200 6350 6550 6770 7200 9500 10500	0.02 0.09 0.20 0.38 0.56 1.09 1.88 3.68 7.44 16.23 26.76 35.64 28.62 29.85 24.08	1.04 1.03 1.11 1.36 1.16 1.53 1.32 1.79 3.91 9.63 13.81 15.53 23.49 19.54			
	12100	20.36	17.22			
	15000	14.53	9.38			





- 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

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