

# Ceramic Low Pass Filter

50Ω DC to 80 MHz

## LFCN-80+ LFCN-80



### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8.5W max. at 25°C
DC Current Input to Output	0.5A max. at 25°C

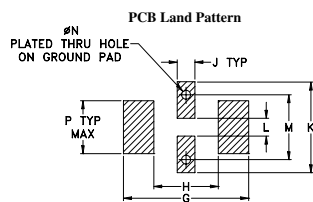
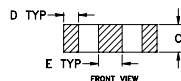
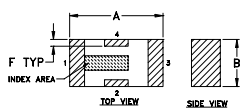
\* Passband rating, derate linearly to 3.5W at 100°C ambient.

### Pin Connections

RF IN	1**
RF OUT	3**
GROUND	2,4

\*\* RF IN & RF OUT can be interchanged

### Outline Drawing

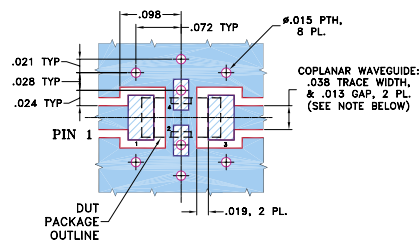


Suggested Layout,  
Tolerance to be within ±.002

### 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)



- NOTES: 1. COPLANAR WAVEGUIDE 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, 8.5W
- small size
- 7 sections
- temperature stable
- hermetically sealed
- protected by U.S. Patent 6,943,646

### Applications

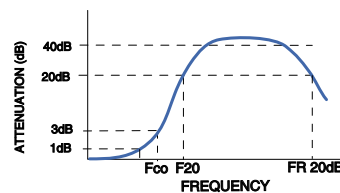
- harmonic rejection
- VHF/UHF transmitters/receivers
- RF suppression for DC lines on PCB
- anti-aliasing for A/D converter

### Electrical Specifications<sup>1</sup> (T<sub>AMB</sub>=25°C)

PASSBAND (MHz) (loss < 1 dB)	fco, MHz Nom. (loss 3 dB)	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20 Max.	40 Typ.	FR 20 Typ.	Stopband Typ.	Passband Typ.	
DC-80	145	200	225-1550	4500	20	1.2	7

1. For applications requiring DC voltage to be applied to the Input or output, use LFCN-80D (DC Resistance to ground is 100 Mohms min.)

### typical frequency response

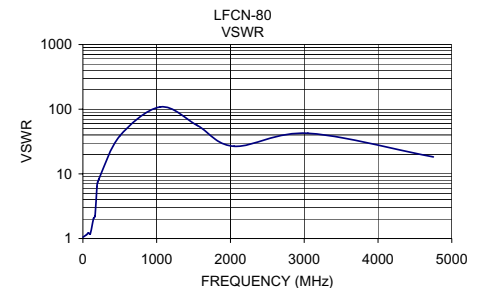
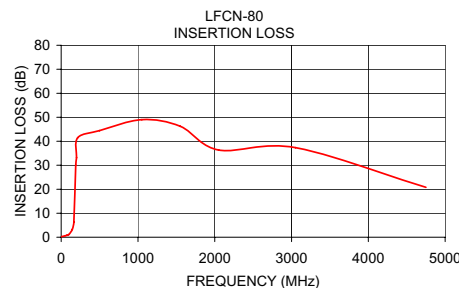


### electrical schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.22	1.05
51.00	0.59	1.15
75.00	0.81	1.22
100.00	1.14	1.18
145.00	3.27	2.06
165.00	6.35	2.22
190.00	29.96	6.35
200.00	33.16	7.47
215.00	41.46	8.23
500.00	44.42	38.61
1050.00	48.99	108.58
1550.00	46.23	56.04
2050.00	36.35	26.74
3050.00	37.33	42.38
4750.00	20.80	18.30



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