

# Ceramic Low Pass Filter

50Ω DC to 1575 MHz

# LFCN-1575+ LFCN-1575



## Maximum Ratings

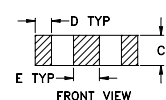
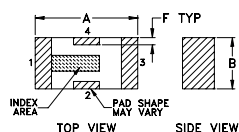
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

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

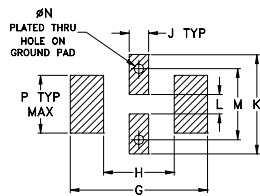
## Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

## Outline Drawing



### PCB Land Pattern



Suggested Layout,  
Tolerance to be within ±.002

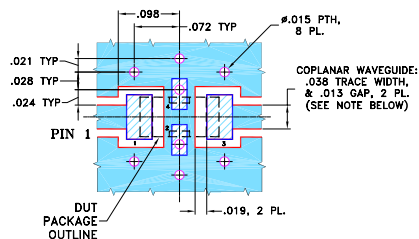
## Outline Dimensions (inch)

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:**
- 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.
  - 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, 10W
- small size
- 7 sections
- temperature stable
- protected by U.S Patent 6,943,646

## Applications

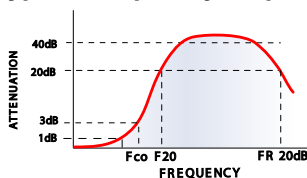
- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

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

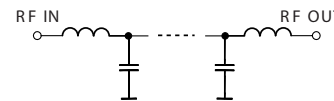
PASSBAND (MHz) (loss < 1 dB)	f <sub>co</sub> , MHz Nom. (loss 3 dB)	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20	30	FR 20	Stopband	Passband	
Max.	Typ.	Min.	Typ.	Typ.	Typ.	Typ.	
DC-1575	1875	2175	2225-6800	7100	20	1.2	7

1. For applications requiring DC voltage to be applied to the Input or output, use LFCN-1575D+ (DC Resistance to ground is 100 Mohms min.)

## typical frequency response

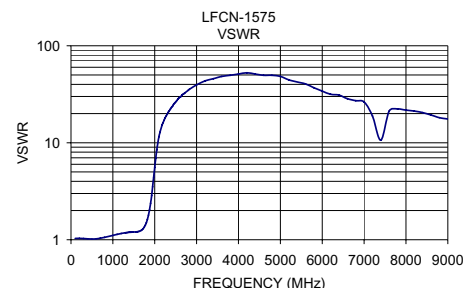
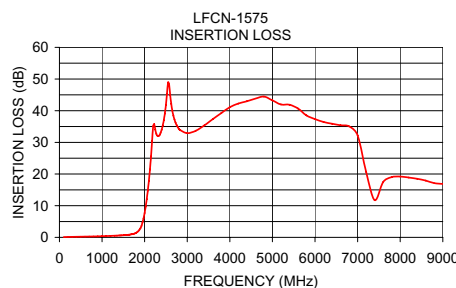


## electrical schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	0.08	1.03
1000.00	0.36	1.11
1575.00	0.76	1.21
1875.00	2.32	2.03
2000.00	7.66	5.56
2200.00	35.08	16.11
2275.00	32.67	18.90
2500.00	41.82	26.33
2700.00	37.22	32.18
4000.00	41.10	51.10
5000.00	43.27	48.26
6000.00	37.34	34.07
6800.00	35.05	27.16
7200.00	20.70	18.90
9000.00	16.86	17.57



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IF/RF MICROWAVE COMPONENTS

REV. F  
M121640  
LFCN-1575  
ED-11960/AM  
AD/CP/AM  
090225