

# Ceramic Low Pass Filter

50Ω DC to 850 MHz

# LFCN-900+ LFCN-900



## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C
DC Current Input to Output	0.5A max. at 25°C

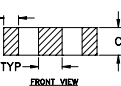
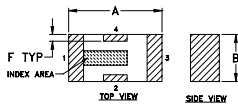
\* Passband rating, derate linearly to 3.5W at 100°C ambient.

## Pin Connections

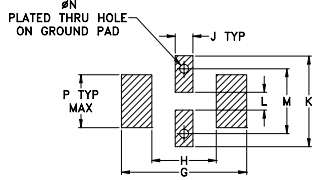
RF IN	1**
RF OUT	3**
GROUND	2,4

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

## Outline Drawing



### PCB Land Pattern



Suggested Layout, Tolerance to be within ±.002

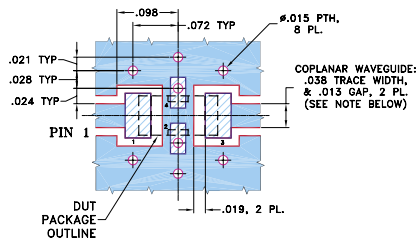
## Outline Dimensions (inch)

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: 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, 10W
- small size
- 7 sections
- temperature stable
- rejection in stopband, 45-50 dB typ.
- protected by U.S Patent 6,943,646

## Applications

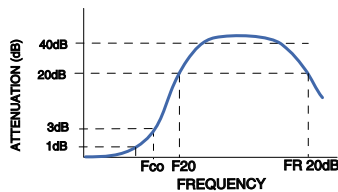
- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

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

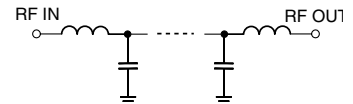
PASSBAND (MHz) (loss < 1.3 dB)	f <sub>co</sub> , MHz Nom. (loss 3 dB)	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20	30	FR 20	Stopband	Passband	
Max.	Typ.	Min.	Typ.	Typ.	Typ.	Typ.	
DC-900	1075	1275	1350-4850	5100	20	1.2	7

1. For applications requiring DC voltage to be applied to the Input or output, use LFCN-900D (DC Resistance to ground is 100 Mohms min.)

## typical frequency response

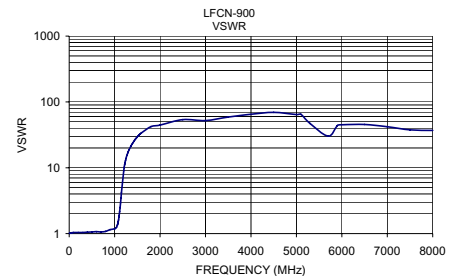
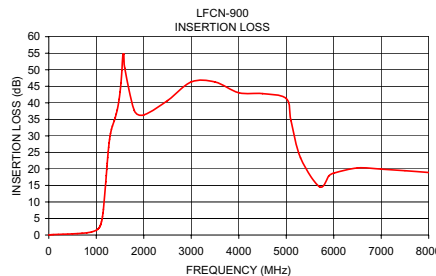


## electrical schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	0.14	1.04
500.00	0.35	1.06
1000.00	1.43	1.18
1075.00	2.52	1.48
1280.00	28.98	16.14
1360.00	33.79	21.44
1500.00	43.23	29.64
1600.00	50.48	34.26
3000.00	46.30	52.05
4000.00	43.04	64.96
5000.00	41.28	64.28
5300.00	23.36	47.10
6000.00	18.72	44.99
7000.00	19.93	41.97
8000.00	18.92	36.91



designers kit available

Kit No.	No. of Units in Kit	Description	Price \$ per Kit
K2-LFCN	60	5 of each: LFCN-800,-900,-1000,-1200,-1325,-1700,-2000,-2250,-2400,-5000,-6000,-6700	119.95



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