

# Ceramic Low Pass Filter

DC to 630 MHz

**NEW!**  
**LFCN-630**



**BLUE CELL™**

CASE STYLE: FV1206

## 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

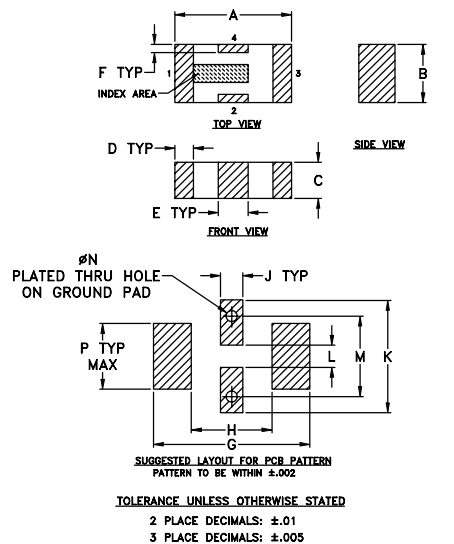
\*Passband rating, derate linearly to 3.5W at 100°C ambient.

## Pin Connections

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

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

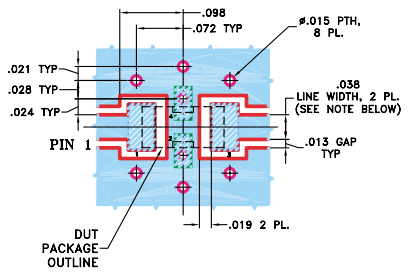
## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.126	.063	.039	.020	.032	.009	.169	.087
3.20	1.60	0.99	0.51	0.81	0.23	4.29	2.21
J	K	L	M	N	P	wt.	
.024	.122	.024	.087	.012	.071	grams	
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)



**NOTE:** 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT  
 DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

## Features

- excellent power handling, 8.5W
- small size
- 7 sections
- temperature stable
- patent pending

## Applications

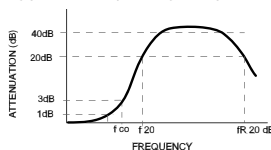
- harmonic rejection
- VHF/UHF transmitters/receivers
- RF suppression for DC lines on PCB
- anti-aliasing for A/D converter

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

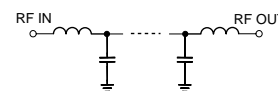
MODEL NO.	PASSBAND (MHz) (loss < 1 dB) Max.	f <sub>co</sub> , MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
			f 20 Min.	40 Typ.	f <sub>r</sub> 20 Typ.	Stopband Typ.	Passband Typ.	
LFCN-630	DC-630	830	1000	1050-3500	6000	20	1.2	7

1. For Applications requiring DC voltage to be applied to the Input or output, use LFCN-630D (DC Resistance to ground is 100 Mohms min.)

## typical frequency response

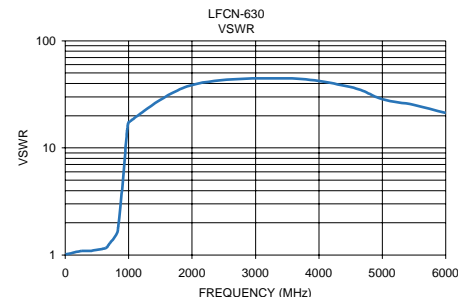
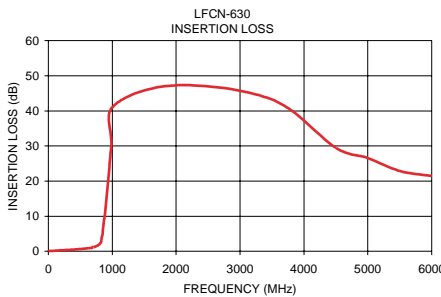


## schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.05	1.01
100.00	0.18	1.04
250.00	0.33	1.09
400.00	0.48	1.10
630.00	0.88	1.16
700.00	1.16	1.29
830.00	2.99	1.73
980.00	29.14	15.39
1020.00	41.38	17.75
2000.00	47.29	38.61
3500.00	43.24	44.55
4500.00	29.47	36.97
5000.00	26.58	28.49
5500.00	22.87	25.19
6000.00	21.45	21.20



## designers kit available

Kit No.	No. of Units in Kit	Description	Price \$ per Kit
K1-LFCN	35	5 of each: LFCN-225, -320, -400, -490, -530, -575, -630	99.95