

Ceramic Low Pass Filter

DC to 400 MHz

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

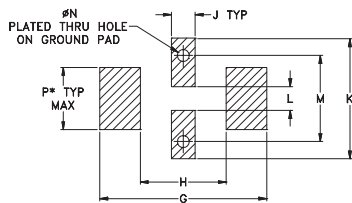
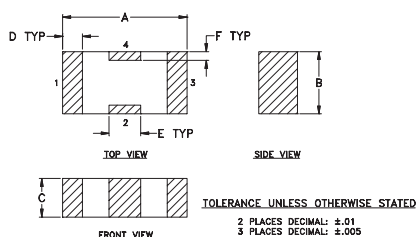
*Passband rating, derate linearly to 3.5W at 100°C ambient.

Pin Connections

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

**RF IN & RF OUT can be interchanged

Outline Drawing

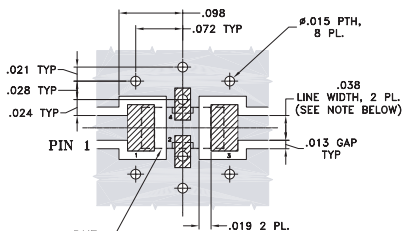


* LINE WIDTH SHOULD BE DESIGNED TO MATCH 50 OHMS CHARACTERISTIC IMPEDANCE, DEPENDING ON PCB MATERIAL & THICKNESS.

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

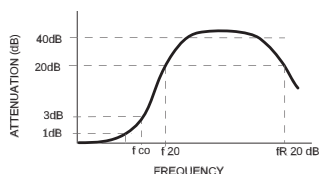
Applications

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

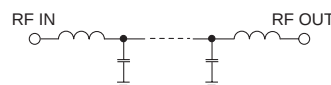
Low Pass Filter Electrical Specifications (T_{AMB}=25°C)

MODEL NO.	PASSBAND (MHz) (loss < 1 dB) Max.	f _{co} , MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
			f 20 Min.	40 Typ.	f _r 20 Typ.	Stopband Typ.	Passband Typ.	
LFCN-400	DC-400	560	650	680-3000	5500	20	1.2	7

typical frequency response

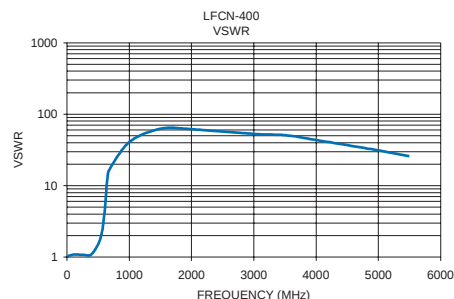
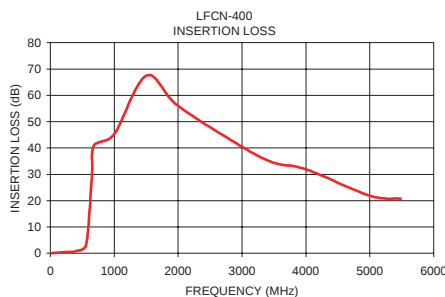


schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.06	1.02
100.00	0.24	1.08
250.00	0.46	1.08
400.00	0.82	1.11
560.00	3.32	2.23
650.00	29.34	13.37
680.00	40.84	16.68
1000.00	45.29	40.90
1500.00	67.47	62.43
2000.00	55.97	61.67
3000.00	40.46	52.99
3500.00	34.35	50.78
4000.00	31.93	43.48
5000.00	21.90	31.07
5500.00	20.67	25.87



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



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