

Ceramic Low Pass Filter

DC to 1800 MHz

LFCN-1800+
LFCN-1800



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

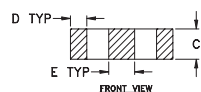
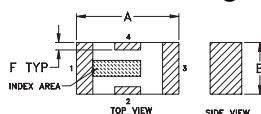
*Passband rating, derate linearly to 3.5W at 100°C ambient.

Pin Connections

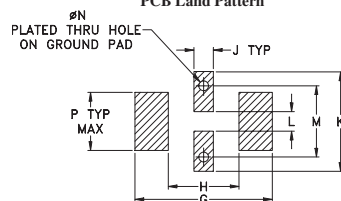
RF IN	1**
RF OUT	3**
GROUND	2,4

**RF IN & RF OUT can be interchanged

Outline Drawing



PCB Land Pattern



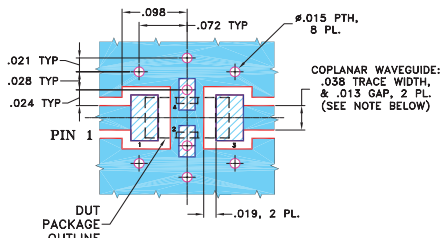
Suggested Layout,
Tolerance to be within ±.002

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.
- COPLANAR WAVEGUIDE: .038 TRACE WIDTH, & .013 GAP, 2 PL. (SEE NOTE BELOW)
 - DUT PACKAGE OUTLINE
 - 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 US Patent 6,943,646

Applications

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

CASE STYLE: FV1206

Model	Price	Qty.
LFCN-1800+	\$2.99	(10-49)
LFCN-1800	\$2.99	(10-49)
LFCN-1800D+	\$3.49	(10-49)
LFCN-1800D	\$3.49	(10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

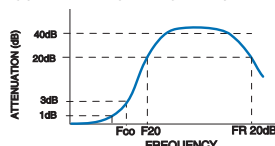
The + suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Low Pass Filter Electrical Specifications¹ (T_{AMB}=25°C)

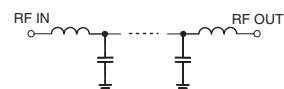
MODEL NO.	PASSBAND (MHz) (loss < 1 dB) Max.	fco, MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
			F 20 Min.	30 Typ.	FR 20 Typ.	Stopband Typ.	Passband Typ.	
LFCN-1800(+)	DC-1800	2125	2425	2500-7200	8600	20	1.2	7

1. For Applications requiring DC voltage to be applied to the Input or output, use LFCN-1800D (DC Resistance to ground is 100 Mohms min.)

typical frequency response

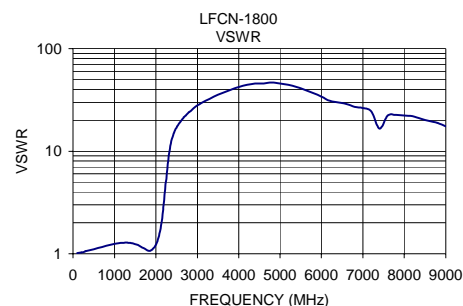
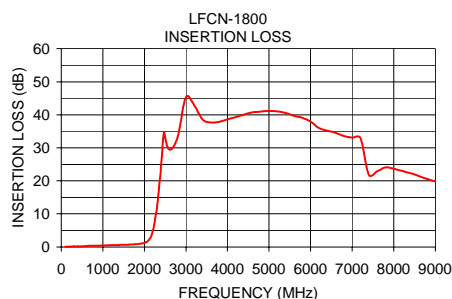


schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	0.07	1.01
500.00	0.21	1.11
1000.00	0.41	1.24
1500.00	0.62	1.24
1850.00	0.86	1.06
1875.00	0.90	1.07
2000.00	1.21	1.22
2125.00	2.29	1.88
2450.00	32.51	15.53
2500.00	33.42	17.05
4000.00	38.61	42.38
6000.00	37.95	34.07
7200.00	32.93	24.48
8800.00	20.55	18.90
9000.00	19.80	17.39



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