

Low Pass Filter

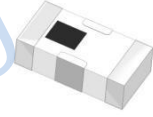
Features

- excellent power handling
- small size
- 7 sections
- temperature stable
- LTCC construction, and has good moisture resistance, corrosion resistance, high reliability.

Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- Base Station of Mobile Communication, lab use.

HT-LFCN-3800+



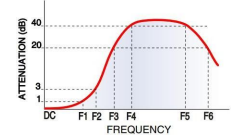
50Ω DC to 3900 MHz

Maximum Ratings

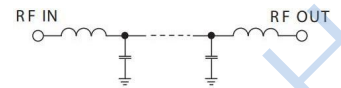
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W max. at 25°C

* Passband rating, derate linearly to 3W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Typical Frequency Response



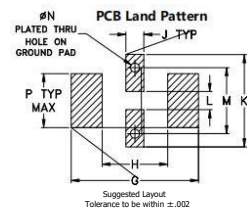
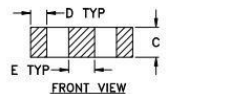
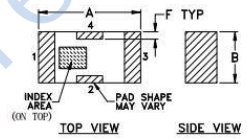
Electrical Schematic



Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing



Outline Dimensions: Unit (mm)

A	3.20	B	1.60	C	0.95
D	0.51	E	0.81	F	0.23
G	4.29	H	2.21	J	0.61
K	3.10	L	0.61	M	2.21
N	0.30	P	1.80	wt	0.02g

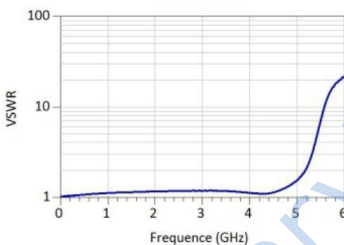
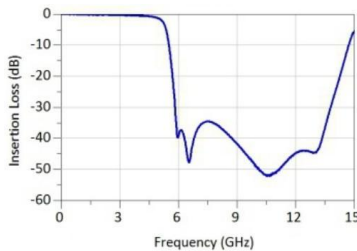
Electrical Specifications at 25°C

Parameter	F#	Frequency(MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-3900	-	0.8	1.0	dB
	Freq.Cut-Off	F2	5090	-	3.0	-	dB
	VSWR	DC-F1	DC-3900	-	1.2	1.5	:1
Stop Band	Rejection Loss	F3	6000	20	30	-	dB
		F4-F5	5700-8300	25	30	-	dB
	VSWR	F6	13000	15	23	-	dB
		F3-F6	6000-13000	-	20	-	:1

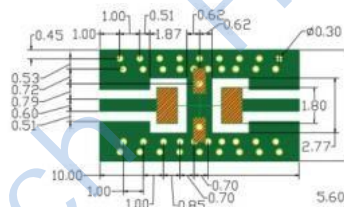
Typical Performance Data

(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
500	0.09	1.10
1500	0.21	1.25
3000	0.28	1.19
3900	0.41	1.11
4500	0.65	1.06
4700	0.88	1.13
4800	1.07	1.26
5000	2.04	1.87
5500	17.9	8.77
6000	32.5	14.56
7000	36.65	42.40
8000	36.07	73.26
9000	36.60	84.59
10000	34.47	72.20
13000	27.08	18.61



Suggested PCB Layout



- NOTES:
1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 WITH THICKNESS .508" ± .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