

Low Pass Filter

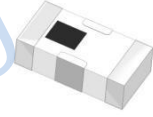
Features

- 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-1800+

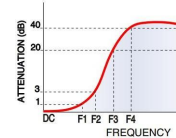


50Ω DC to 1800 MHz

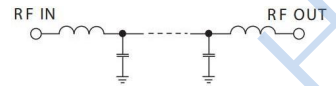
Maximum Ratings	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

* Passband rating, derate linearly to 3.5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Typical Frequency Response



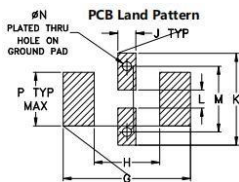
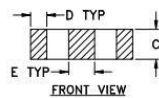
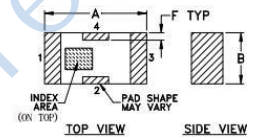
Electrical Schematic



Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing



Suggested Layout
Tolerance to be within ±0.02

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

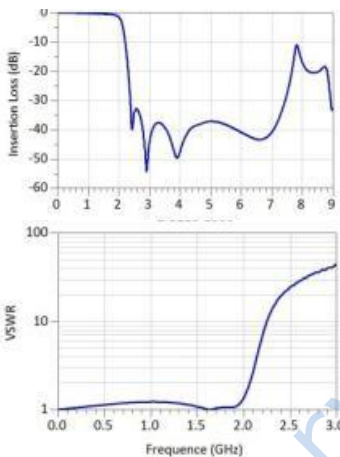
Electrical Specifications at 25°C

Parameter	F#	Frequency(MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-1800	-	1.0	1.3	dB
	Freq.Cut-Off	F2	2190	-	3.0	-	dB
	VSWR	DC-F1	DC-1800	-	1.2	1.5	:1
Stop Band	Rejection Loss	F3	2410	25	30	-	dB
		F4-F5	2770-7200	30	35	-	dB
	VSWR	F6	8600	25	30	-	dB
		F3-F6	2410-8600	-	20	-	:1

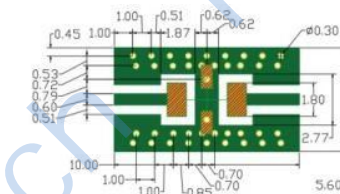
Typical Performance Data

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

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100	0.07	1.03
1000	0.36	1.25
1500	0.52	1.12
1800	0.83	1.12
2075	3.00	2.19
2440	39.56	21.46
2582	32.94	27.70
2923	54.18	38.67
3395	37.23	50.16
4173	54.49	66.03
5029	44.96	65.39
6059	62.17	55.21
7512	26.70	33.56
8032	17.94	23.74
9024	26.04	19.60



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