

Low Pass Filter

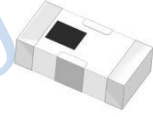
Features

- 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-4400+

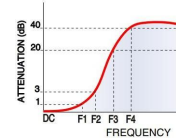


50Ω DC to 4400 MHz

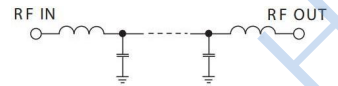
Maximum Ratings	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

* 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



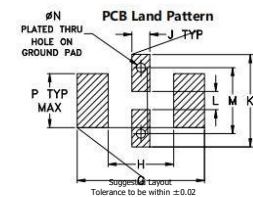
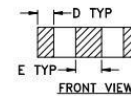
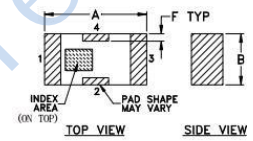
Electrical Schematic



Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing



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	w	0.02g

Electrical Specifications at 25°C

Parameter	F#	Frequency(MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-4400	-	0.8	1.0	dB
	Freq.Cut-Off	F2	5290	-	3.0	-	dB
	VSWR	DC-F1	DC-4400	-	1.2	1.5	:1
Stop Band	Rejection Loss	F3	6700	20	30	-	dB
		F4-F5	6280-9800	25	30	-	dB
	VSWR	F6	9800-13000	15	23	-	dB
		F3-F6	6700-13000	-	20	-	:1

Measured on Characterization Test Board T-39.

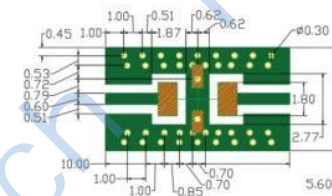
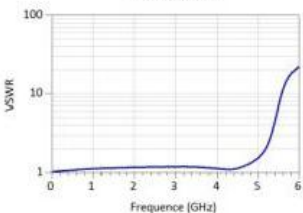
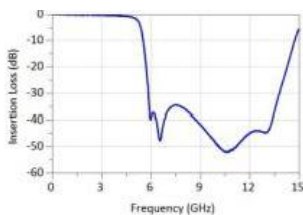
Typical Performance Data

(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
4800	0.89	1.22
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

Demo Board P/N: T-39

Suggested PCB Layout (PL-137)



- 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