

Low Pass Filter

HT-LFCN-6000+



50Ω DC to 6000 MHz

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.

Electrical Specifications at 25°C

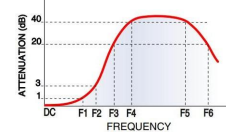
Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-6000	-	0.9	1.2	dB
	Freq.Cut-Off	F2	6680	-	3.0	-	dB
	VSWR	DC-F1	DC-6000	-	1.5	-	:1
Stop Band	Rejection Loss	F3	8500	20	-	-	dB
		F4-F5	8700-14000	-	35	-	dB
		F6	20000	-	20	-	dB
	VSWR	F3-F6	8500-20000	-	20	-	:1

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	9W 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.

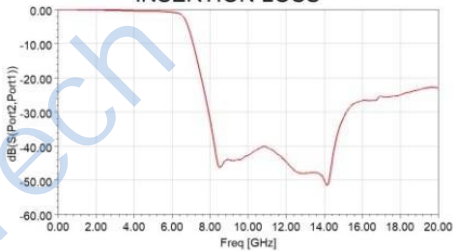
Typical Frequency Response



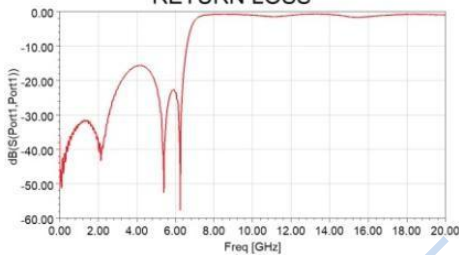
Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

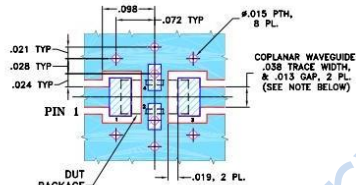
INSERTION LOSS



RETURN LOSS

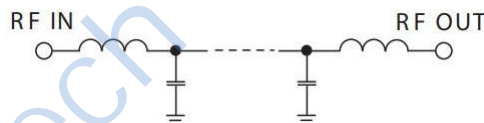


Suggested PCB Layout

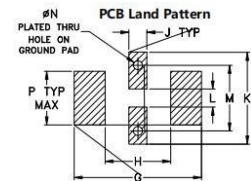
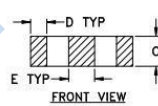
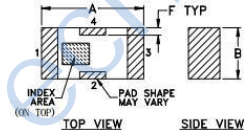


- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Electrical Schematic



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