

Low Pass Filter

HT-SXLP-21.4+



50Ω DC to 22 MHz

Features

- high rejection
- sharp cut-off
- shielded package
- aqueous washable
- low cost

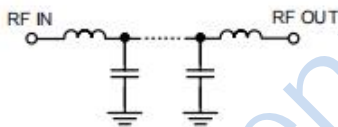
Applications

- defense communications
- receivers / transmitters
- harmonic rejection

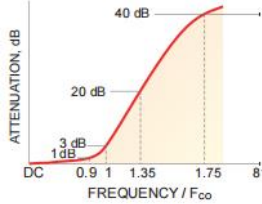
Low Pass Filter Electrical Specifications (T_{AMB}= 25°C)

PASSBAND (MHz) (Loss < 1dB)	FCO _A (MHz) Nom. (Loss 3dB)	STOPBAND (MHz)		VSWR(:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC-22	24.5	32-41	41-2000	1.3	18

Functional Schematic



Typical Frequency Response



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	×	σ			
0.5	0.04	0.01	39.37	0.5	34.48
2.5	0.08	0.01	24.51	2.0	36.18
11.0	0.16	0.01	27.34	4.0	36.18
19.0	0.33	0.01	22.33	6.0	36.53
22.0	0.47	0.01	26.05	8.0	37.40
23.5	0.95	0.04	11.82	10.0	38.72
24.0	1.53	0.09	7.93	12.0	39.90
24.5	2.46	0.14	5.23	14.0	41.60
25.5	5.35	0.26	2.24	16.0	44.45
27.5	12.69	0.38	0.58	18.0	48.34
32.0	26.80	0.44	0.20	20.0	53.79
41.0	46.58	0.58	0.12	21.0	58.29
70.0	85.52	4.94	0.10	21.4	61.06
100.0	83.48	4.91	0.11	21.8	64.61
300.0	93.44	3.07	0.20	22.0	66.39
500.0	88.28	4.20	0.29	23.0	78.07
1000.0	66.04	2.86	0.48	23.5	83.86
1500.0	55.48	1.81	1.92	24.0	87.44
2000.0	58.00	3.29	2.47	25.0	84.33

Maximum Ratings

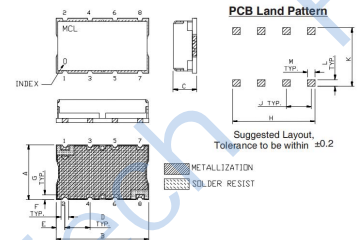
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.5W max.

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

INPUT	1
OUTPUT	8
GROUND	2,3,4,5,6,7

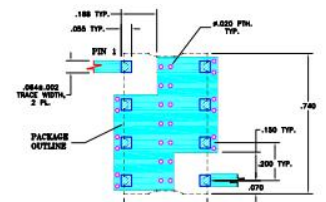
Outline Drawing



Outline Dimensions: Unit (mm)

A	11.18	G	1.02
B	18.80	H	16.76
C	6.86	J	5.08
D	5.08	K	11.94
E	1.78	L	1.40
F	1.52	M	1.52
WT	3g		

Suggested PCB Layout



- NOTE:
1. TRACE WIDTH IS SHOWN FOR PFA WITH DIELECTRIC THICKNESS: 0.025"±0.002". COPPER: 1/2 OZ EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE ADJUSTED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BASE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

