

Low Pass Filter

Features

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

Applications

- defense communications
- receivers / transmitters
- harmonic rejection

HT-SXLP-45+



50Ω DC to 45 MHz

Low Pass Filter Electrical Specifications

PASSBAND (MHz) (loss < 1 dB)	f _{co} (MHz) Nom. (loss 3 dB)	STOPBAND (MHz)		VSWR (:1)	
		(loss > 20 dB)	(loss > 40 dB)	Passband Typ.	Stopband Typ.
DC-45	54	70-90	90-1600	1.7	18

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	\bar{x}	σ			
0.5	0.03	0.00	41.56	0.5	16.36
5.0	0.09	0.01	24.26	2.0	16.83
26.0	0.20	0.01	23.64	10.0	16.96
42.0	0.42	0.01	19.21	12.0	17.11
45.0	0.56	0.02	15.99	14.0	17.29
45.0	0.56	0.02	15.99	16.0	17.49
51.0	0.94	0.06	19.09	18.0	17.67
53.0	1.80	0.16	9.35	20.0	17.88
54.0	2.79	0.23	6.34	22.0	18.16
57.0	7.02	0.35	2.20	26.0	18.87
60.0	12.29	0.34	1.02	32.0	20.47
70.0	27.17	0.28	0.43	34.0	21.32
90.0	48.22	0.34	0.32	36.0	22.47
100.0	56.89	0.56	0.28	38.0	23.92
200.0	82.06	2.63	0.24	40.0	25.33
400.0	100.39	4.06	0.26	42.0	26.31
600.0	93.18	2.34	0.29	45.0	26.84
1000.0	82.80	4.51	0.44	49.0	26.40
1200.0	73.70	2.94	0.43	54.0	26.76
1600.0	63.66	2.85	0.65	55.0	26.35

Maximum Ratings

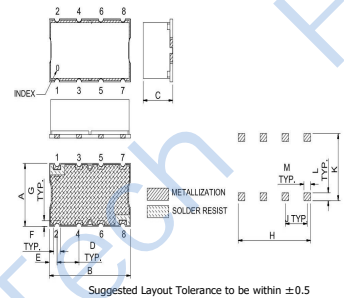
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.5W Max. @ 25°C

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

Pin Connections

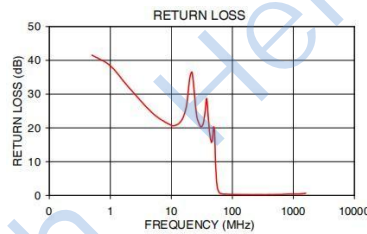
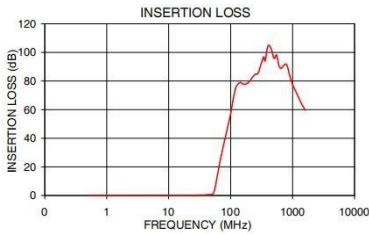
INPUT	1
OUTPUT	8
GROUND	2,3,4,5,6,7

Outline Drawing

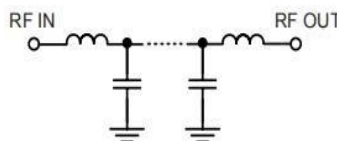


Outline Dimensions: Unit (mm)

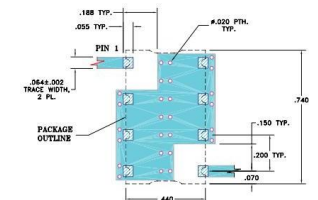
A	11.18	G	1.02
B	18.80	H	16.76
C	6.86	J	5.08
D	5.08	K	11.94
E	1.78	L	1.40
F	1.52	M	1.52
WT	0.3g		



Functional Schematic



Suggested PCB Layout



- NOTE:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: 0.025 ± 0.002 " COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH 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