

Low Pass Filter

Features

- high rejection
- sharp insertion loss roll off
- excellent VSWR, 1.1:1 typ.@ passband
- aqueous washable

Applications

- wireless communications
- receivers / transmitters
- TV distribution / digital TV

HT-RLP-190+



50Ω DC to 190 MHz

Low Pass Filter Electrical Specifications

PASSBAND (MHz) (loss < 2 dB)	f _{co} (MHz) Nom. (loss 3 dB)	STOPBAND (MHz)		VSWR (:1)	
		(loss > 20 dB)	(loss > 40 dB)	Passband Typ.	Stopband Typ.
DC-190	220	264-300	300-1300	1.1	20

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.

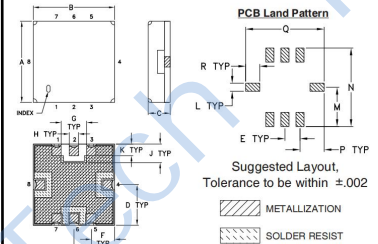
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	\bar{x}	σ			
.5	0.09	0.00	39.92	0.5	3.52
5.0	0.10	0.00	33.48	5.0	3.61
40.0	0.26	0.01	20.08	16.0	3.49
120.0	0.47	0.01	21.69	32.0	3.42
160.0	0.65	0.01	20.87	56.0	3.54
190.0	0.95	0.02	25.34	72.0	3.67
208.0	1.46	0.04	20.08	88.0	3.83
216.0	2.49	0.12	9.42	112.0	4.11
220.0	3.62	0.19	6.30	128.0	1.41
224.0	5.25	0.27	4.21	136.0	4.53
228.0	7.30	0.34	2.88	144.0	4.71
240.0	14.50	0.43	1.23	160.0	5.28
252.0	21.68	0.45	0.78	168.0	5.69
264.0	28.50	0.44	0.61	176.0	6.17
300.0	49.86	0.65	0.39	184.0	6.64
500.0	85.78	8.95	0.16	186.0	6.81
1000.0	84.88	4.71	0.06	188.0	6.98
1300.0	79.26	5.38	0.11	190.0	7.17

Pin Connections

RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8

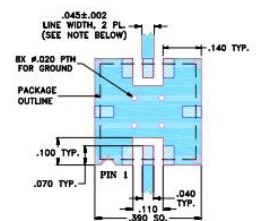
Outline Drawing



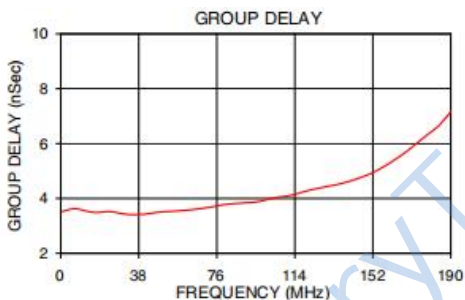
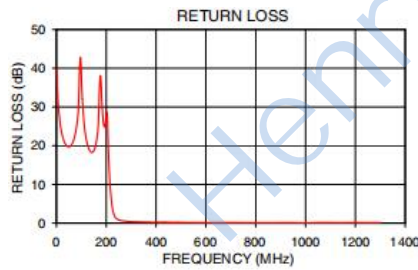
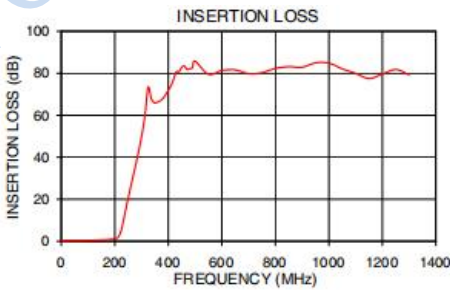
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.350	.350	.100	.175	.075	.100	.110	.040	.080
8.89	8.89	2.54	4.45	1.91	2.54	2.79	1.02	2.03
K	L	M	N	P	Q	R		wt.
.050	.040	.195	.390	.120	.390	.070		grams
1.27	1.02	4.95	9.91	3.05	9.91	1.78		0.25

Suggested PCB Layout



- NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .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



Functional Schematic

