

# Low Pass Filter

## Features

- high rejection
- sharp insertion loss roll off
- excellent VSWR, 1.15:1 typ.@ passband
- aqueous washable

## Applications

- wireless communications
- receivers / transmitters

## HT-RLP-320+



50Ω DC to 320 MHz

### Low Pass Filter Electrical Specifications

PASSBAND (MHz)  (loss < 2 dB)	f <sub>co</sub> (MHz) Nom.  (loss 3 dB)	STOPBAND (MHz)		VSWR (:1)	
		(loss > 20 dB)	(loss > 40 dB)	Passband Typ.	Stopband Typ.
DC-320	345	440-510	510-1600	1.15	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.

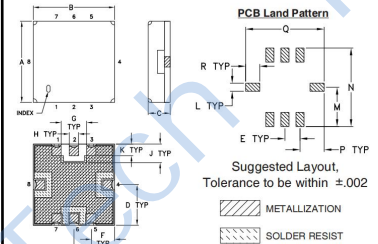
### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	$\sigma$			
0.5	0.02	0.01	43.90	2.0	2.28
50.0	0.16	0.01	36.42	5.0	2.03
150.0	0.32	0.00	23.81	10.0	2.01
260.0	0.58	0.01	35.04	30.0	1.98
300.0	0.83	0.01	21.57	50.0	2.00
320.0	1.05	0.02	27.20	70.0	2.05
334.0	1.58	0.09	13.25	90.0	2.04
345.0	2.78	0.19	7.23	110.0	2.15
350.0	3.65	0.23	5.39	130.0	2.14
372.0	9.63	0.36	1.65	150.0	2.24
400.0	18.59	0.35	0.72	170.0	2.29
424.0	25.84	0.35	0.53	200.0	2.50
440.0	30.27	0.34	0.47	220.0	2.65
510.0	49.88	0.71	0.35	250.0	3.02
700.0	71.17	3.47	0.23	270.0	3.46
1000.0	69.30	5.48	0.19	300.0	4.20
1300.0	61.56	3.53	0.24	320.0	5.31
1600.0	59.10	3.16	0.25	325.0	4.65

### Pin Connections

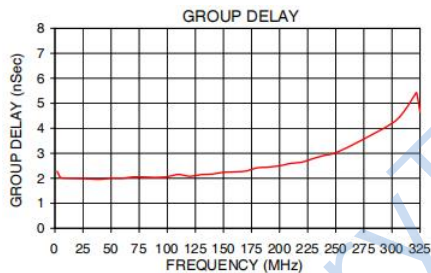
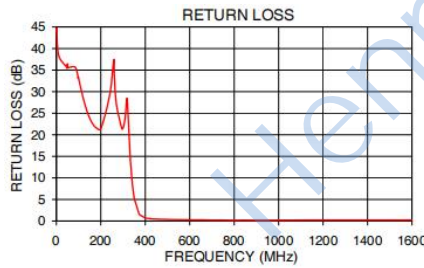
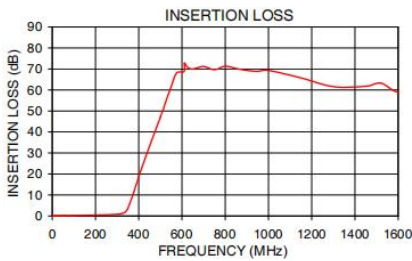
RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8

### Outline Drawing

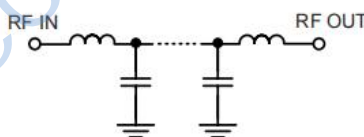


### Outline Dimensions (inch/mm)

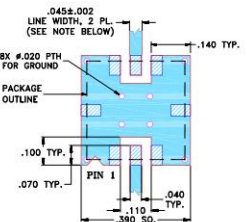
A	B	C	D	E	F	G	H	J
.350	.350	.100	.175	.075	.100	.110	.040	.080
8.89	8.89	2.54	4.45	1.91	2.54	2.79	1.02	2.03
K	L	M	N	P	Q	R		wt.
.050	.040	.195	.390	.120	.390	.070		grams
1.27	1.02	4.95	9.91	3.05	9.91	1.78		0.25



### Functional Schematic



### Suggested PCB Layout



- NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .085" ± .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