

# Low Pass Filter

# RLP-340+

50Ω DC to 340 MHz

### Maximum Ratings

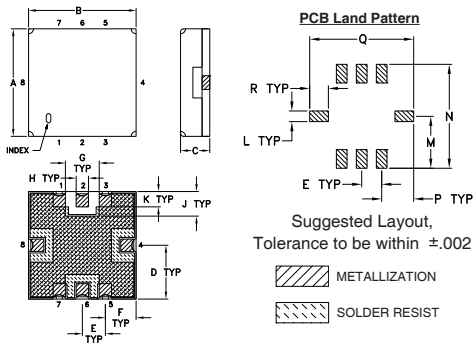
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max

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

### Pin Connections

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

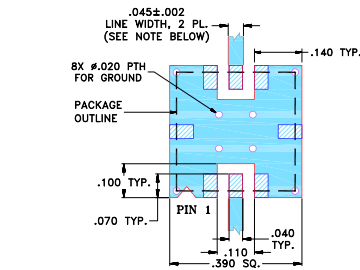
### Outline Drawing



### 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	1.93	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	

### Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



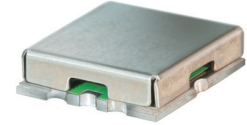
- NOTES:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Features

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

### Applications

- wireless communications
- receivers / transmitters



CASE STYLE: GP731

### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

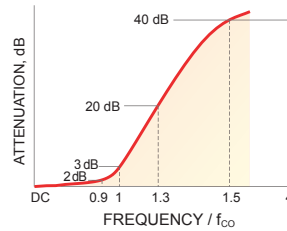
Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500, 1000

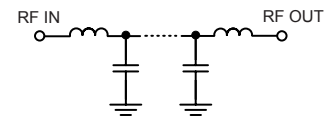
### Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 340	365	475 - 560	560 - 1500	1.15	20

### Typical Frequency Response

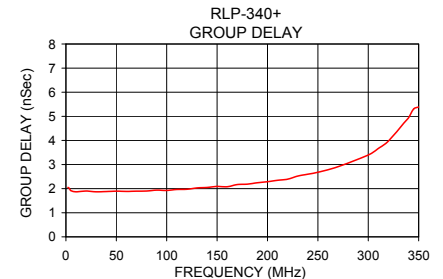
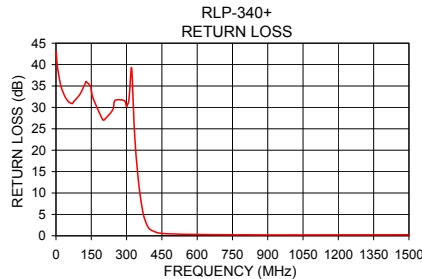
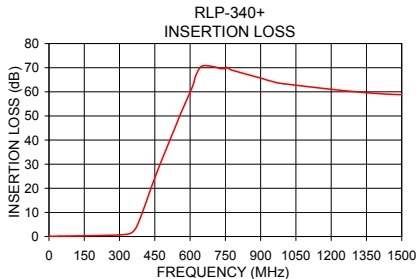


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
0.5	0.02	0.01	41.88	3.0	2.03
50.0	0.15	0.00	31.53	5.0	1.91
150.0	0.30	0.01	33.97	10.0	1.87
300.0	0.68	0.01	30.15	30.0	1.87
320.0	0.81	0.01	39.21	50.0	1.90
340.0	1.10	0.05	19.06	70.0	1.90
356.0	1.90	0.16	10.20	110.0	1.96
365.0	2.89	0.24	6.87	130.0	2.03
376.0	4.77	0.34	4.09	150.0	2.09
396.0	9.66	0.42	1.69	170.0	2.17
432.0	19.55	0.38	0.69	190.0	2.24
460.0	26.81	0.36	0.51	210.0	2.35
475.0	30.57	0.37	0.47	250.0	2.68
518.0	40.89	0.39	0.39	270.0	2.91
560.0	50.95	0.81	0.35	300.0	3.40
700.0	70.40	4.16	0.26	310.0	3.67
1000.0	63.32	2.29	0.21	340.0	4.94
1500.0	58.88	2.43	0.24	350.0	5.38



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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