

# Low Pass Filter

# RLP-264+

50Ω DC to 264 MHz

### Maximum Ratings

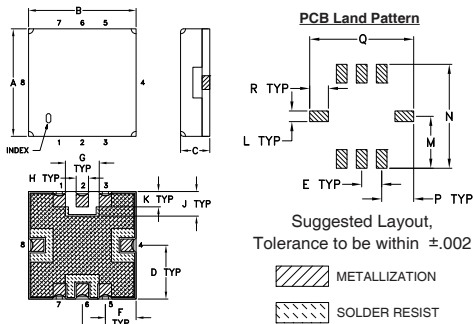
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max

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

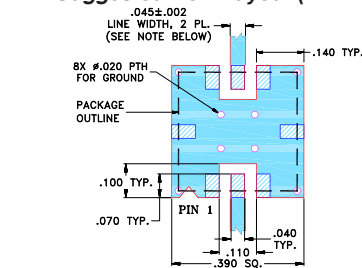


### Outline Dimensions (inch/mm)

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	1.91	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	

Note: Please refer to case style drawing for details

### 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, 1.2:1 typ. @ passband
- aqueous washable

### Applications

- wireless communications
- receivers / transmitters



Generic photo used for illustration purposes only  
CASE STYLE: GP731

### +RoHS Compliant

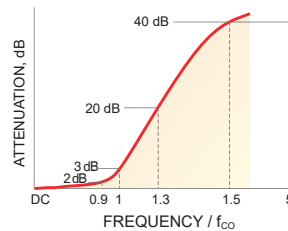
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost	
Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500, 1000

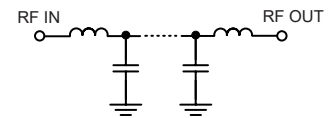
### Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 264	288	365 - 425	425 - 1500	1.2	20

### Typical Frequency Response

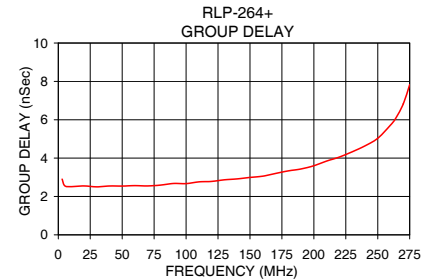
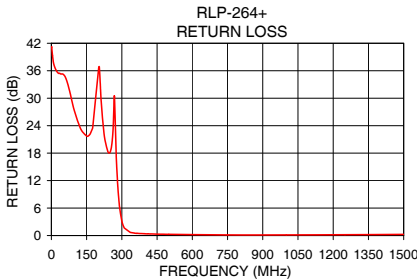
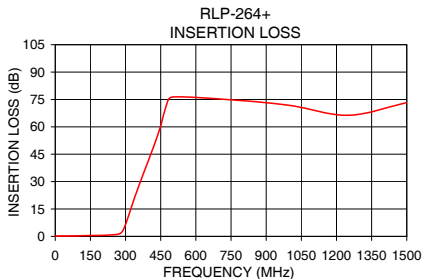


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
0.5	0.08	0.07	40.94	3.0	2.90
50.0	0.19	0.07	35.24	5.0	2.56
80.0	0.26	0.07	31.06	10.0	2.51
125.0	0.38	0.07	23.29	30.0	2.50
150.0	0.45	0.07	21.73	50.0	2.54
202.0	0.58	0.07	36.85	70.0	2.55
264.0	1.09	0.08	24.64	90.0	2.68
276.0	1.52	0.10	17.67	100.0	2.67
288.0	3.07	0.21	7.44	120.0	2.79
300.0	6.45	0.33	3.13	140.0	2.92
311.0	10.57	0.37	1.62	160.0	3.06
335.0	19.87	0.37	0.71	190.0	3.44
365.0	30.57	0.37	0.48	200.0	3.60
425.0	51.05	0.76	0.36	220.0	4.05
500.0	76.32	8.01	0.27	240.0	4.64
1000.0	71.79	6.79	0.14	250.0	5.03
1250.0	66.32	2.76	0.18	264.0	6.07
1500.0	73.26	6.64	0.25	275.0	7.83



#### 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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