

Low Pass Filter

RLP-320+

50Ω DC to 320 MHz

Maximum Ratings

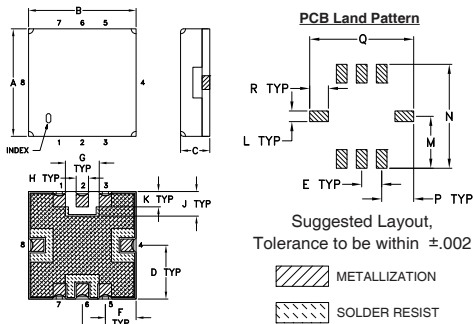
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max

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

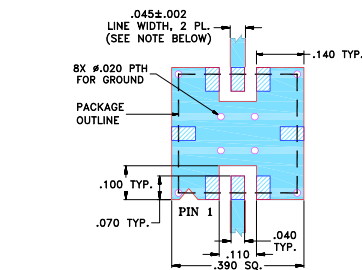


Outline Dimensions (inch/mm)

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	

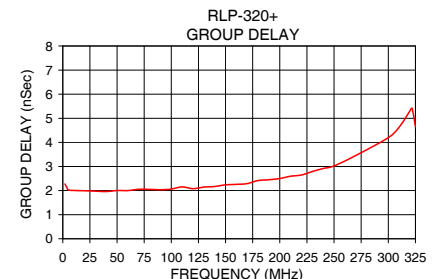
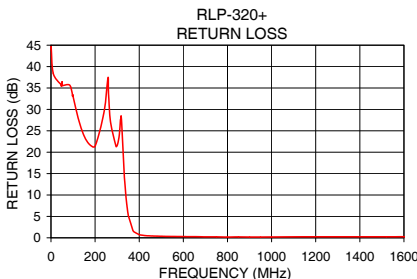
Note: Please refer to case style drawing for details

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



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.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

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

Applications

- wireless communications
- receivers / transmitters



Generic photo used for illustration purposes only
CASE STYLE: GP731

+RoHS Compliant

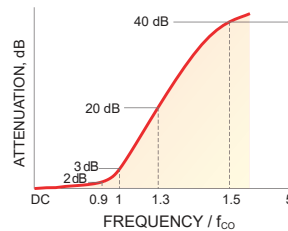
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

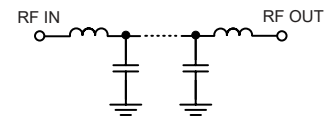
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz)	f _{co} , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 320	345	440 - 510	510 - 1600	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}	σ			
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