

Low Pass Filter

RLP-40+

50Ω DC to 40 MHz

Maximum Ratings

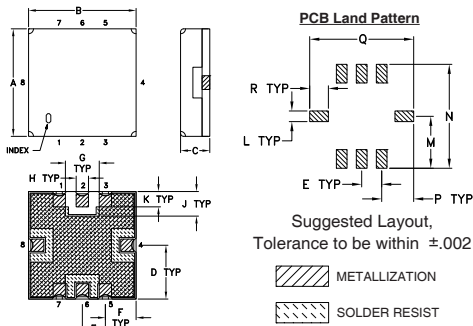
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max

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

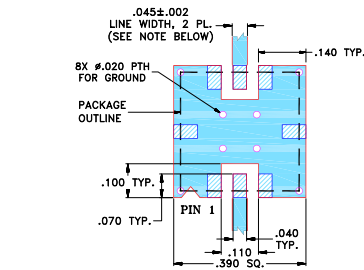


Outline Dimensions (inch/mm)

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, 1.1:1 typ. @ passband
- aqueous washable

Applications

- wireless broadband access
- receivers / transmitters



Generic photo used for illustration purposes only
CASE STYLE: GP731

+RoHS Compliant

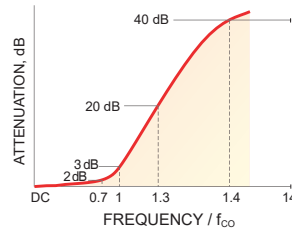
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

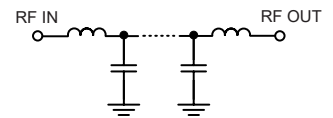
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz)	f _{co} , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 40	56	70 - 80	80 - 800	1.1	20

Typical Frequency Response

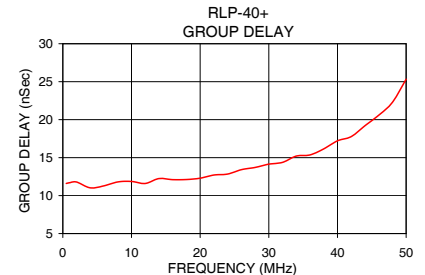
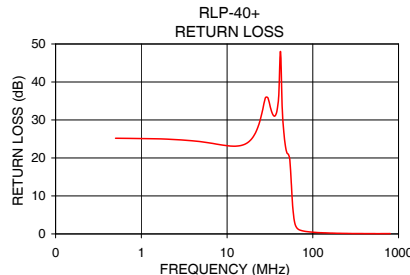
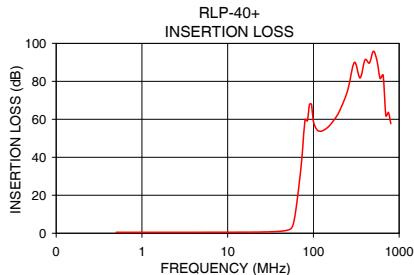


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	\bar{x}	σ			
0.5	0.50	0.00	25.19	0.5	10.93
10.0	0.52	0.00	23.23	2.0	11.54
26.0	0.67	0.01	32.63	4.0	11.64
40.0	1.01	0.01	36.25	8.0	11.41
56.0	2.80	0.15	13.58	12.0	12.00
60.0	6.79	0.54	4.42	16.0	12.17
62.0	10.60	0.70	2.66	20.0	12.56
66.0	19.71	0.82	1.43	22.0	12.65
70.0	29.39	0.96	1.05	24.0	12.90
80.0	58.83	0.65	0.71	28.0	13.47
100.0	61.12	1.81	0.46	30.0	13.75
200.0	64.67	1.40	0.17	34.0	15.19
300.0	85.19	3.99	0.10	38.0	16.03
400.0	85.20	6.09	0.08	40.0	16.49
500.0	91.89	3.18	0.08	42.0	17.86
600.0	85.33	6.16	0.07	44.0	19.00
700.0	62.07	0.55	0.08	48.0	21.55
800.0	58.10	0.51	0.10	50.0	25.56



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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