

Low Pass Filter

RLP-176+

50Ω DC to 176 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

Features

- high rejection
- sharp insertion loss roll off
- excellent VSWR, 1.1:1 typ. @ passband
- aqueous washable

Applications

- wireless communications
- receivers / transmitters



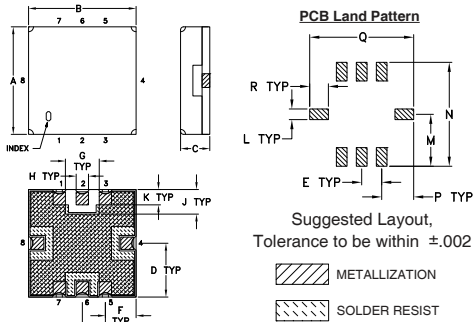
Generic photo used for illustration purposes only
CASE STYLE: GP731

+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

Outline Drawing

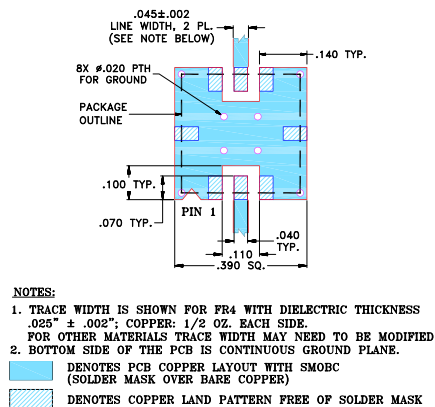


Outline Dimensions (inch/mm)

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

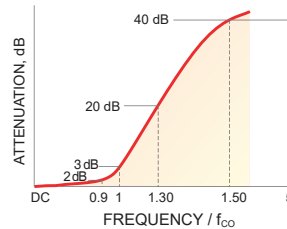
Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



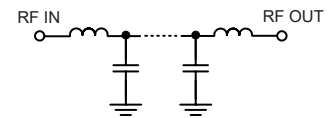
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz)	f _{co} , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 176	191	245 - 285	285 - 1000	1.1	20

Typical Frequency Response

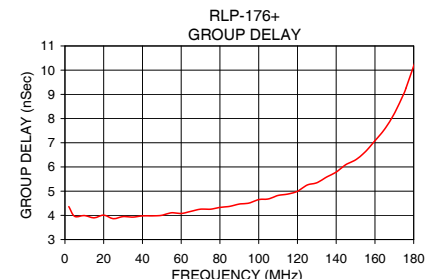
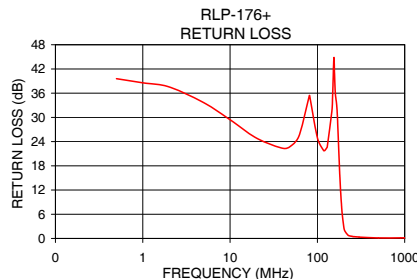
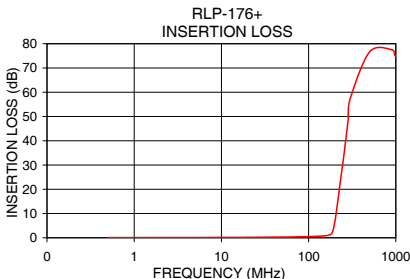


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	\bar{x}	σ			
0.5	0.08	0.01	39.59	2.0	4.36
50.0	0.30	0.01	22.96	5.0	3.96
100.0	0.48	0.01	24.93	10.0	3.99
150.0	0.78	0.01	36.17	20.0	4.01
176.0	1.23	0.02	21.44	30.0	3.95
185.0	1.97	0.06	11.39	40.0	3.98
188.0	2.47	0.09	8.93	60.0	4.08
191.0	3.19	0.12	6.89	70.0	4.26
200.0	6.60	0.19	3.06	80.0	4.33
206.0	9.64	0.21	1.89	90.0	4.47
225.0	19.92	0.19	0.77	100.0	4.65
245.0	29.97	0.18	0.55	110.0	4.82
255.0	34.74	0.17	0.48	130.0	5.35
285.0	49.18	0.26	0.38	140.0	5.79
300.0	57.36	0.55	0.33	150.0	6.29
500.0	76.65	8.71	0.13	160.0	7.08
900.0	77.53	6.17	0.14	176.0	9.25
1000.0	74.82	4.14	0.14	180.0	10.17



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-Circuits' applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits' 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-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

