

Low Pass Filter

50Ω DC to 216 MHz

RLP-216+



Generic photo used for illustration purposes only
CASE STYLE: GP731

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

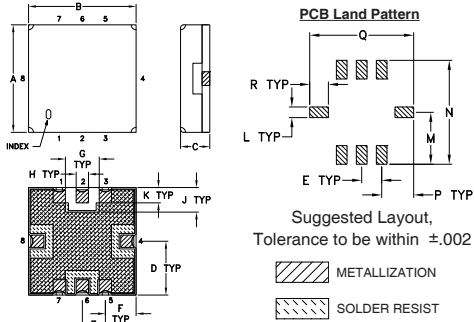
- wireless communications
- receivers / transmitters

+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

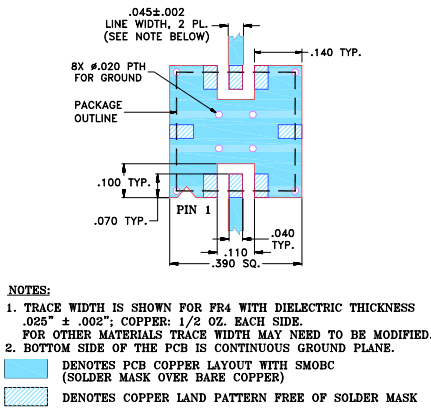


Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.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)

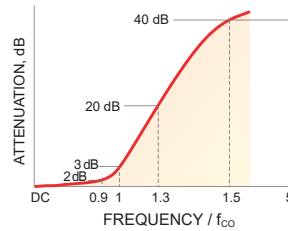


- NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES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

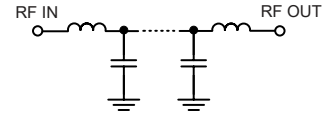
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz)	f _{co} , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 216	232	295 - 340	340 - 1300	1.1	20

Typical Frequency Response

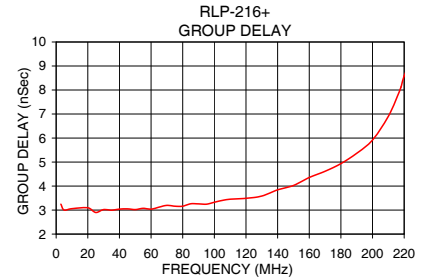
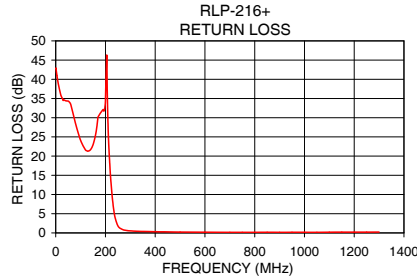
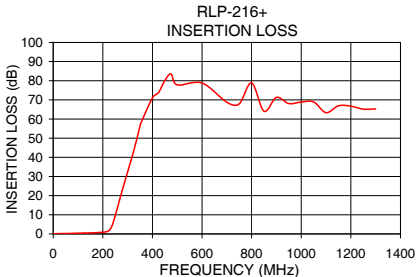


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	\bar{x}	σ			
0.5	0.05	0.01	42.75	3.0	3.25
50.0	0.20	0.00	34.32	5.0	3.00
100.0	0.37	0.00	24.10	10.0	3.06
200.0	0.89	0.01	34.46	25.0	2.90
216.0	1.22	0.04	19.35	40.0	3.04
220.0	1.43	0.07	15.08	55.0	3.07
227.0	2.14	0.15	9.51	70.0	3.20
232.0	3.06	0.22	6.64	85.0	3.26
239.0	5.09	0.33	3.90	100.0	3.33
252.0	10.54	0.41	1.63	120.0	3.49
274.0	20.77	0.41	0.76	130.0	3.59
295.0	30.10	0.41	0.56	150.0	4.02
340.0	50.42	0.67	0.40	160.0	4.36
400.0	80.53	5.62	0.32	170.0	4.62
500.0	75.90	6.34	0.22	190.0	5.37
800.0	74.72	3.28	0.15	210.0	6.91
1000.0	69.23	2.91	0.17	216.0	7.79
1300.0	67.62	3.20	0.21	220.0	8.59



Notes

- A. 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.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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