Metal Shield

Low Pass Filter

RLP-70+

50Ω DC to 70 MHz



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

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

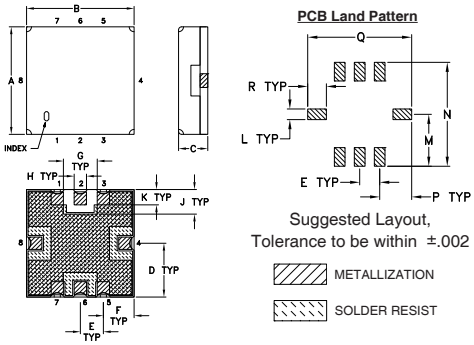
Features

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

Applications

- wireless communications
- receivers / transmitters

Outline Drawing



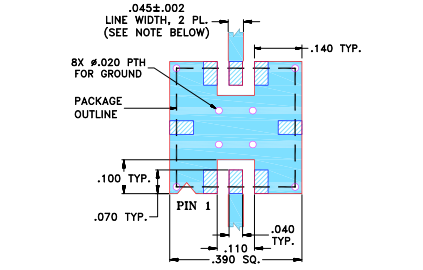
Outline Dimensions (inch / mm)

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.

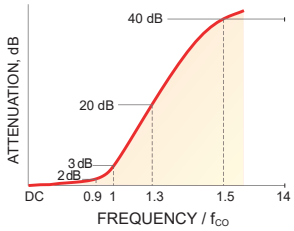
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

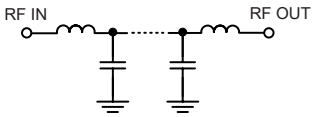
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz)	fco, MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
				Passband	Stopband
(Loss < 2dB)	(Loss 3dB)	(Loss > 20dB)	(Loss > 40dB)	Typ.	Typ.
DC - 70	77	100 - 115	115 - 1000	1.1	20

Typical Frequency Response



Functional Schematic



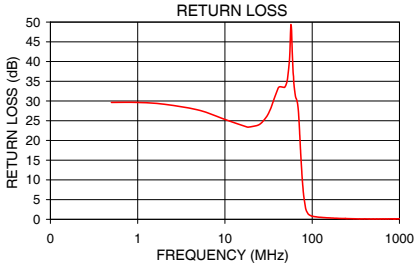
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
0.5	0.26	0.01	29.63	2.0	8.88
30.0	0.46	0.00	26.01	4.0	8.73
50.0	0.73	0.01	34.05	10.0	8.72
70.0	1.44	0.03	26.46	16.0	8.84
74.0	1.96	0.07	16.38	20.0	8.98
77.0	2.86	0.13	10.21	26.0	9.24
80.0	4.64	0.23	5.93	30.0	9.48
84.0	8.66	0.34	2.87	36.0	9.88
86.0	11.14	0.36	2.12	40.0	10.24
92.0	19.15	0.38	1.17	46.0	10.90
100.0	29.98	0.41	0.81	50.0	11.51
110.0	44.80	0.63	0.64	56.0	12.70
115.0	54.65	1.12	0.58	60.0	13.75
200.0	75.92	2.39	0.26	66.0	16.08
400.0	76.19	1.55	0.12	70.0	18.62
600.0	84.79	4.15	0.09	76.0	24.82
800.0	78.30	3.25	0.13	77.0	25.65
1000.0	58.09	0.60	0.14	80.0	26.75

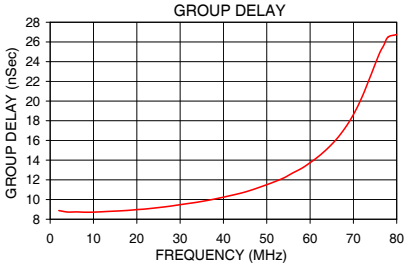
RLP-70+
INSERTION LOSS



RLP-70+
RETURN LOSS



RLP-70+
GROUP DELAY



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-Circuit's applicable established test performance criteria and measurement instructions.
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