

# Plug-In Low Pass Filter

## PLP-1.9+

50Ω DC to 1.9 MHz

### Maximum Ratings

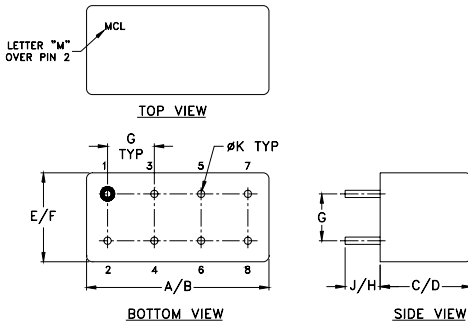
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

INPUT	1
OUTPUT	8
GROUND	2,3,4,5,6,7
CASE GROUND	2,3,4,5,6,7

### Outline Drawing



### Outline Dimensions (inch/mm)

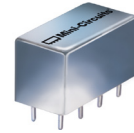
A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K	wt	
.200	.20	.14	.031	grams	
5.08	5.08	3.56	0.79	5.2	

### Features

- rugged welded case, hermetic
- other standard and custom PLP models available with wide selection of fco

### Applications

- test equipment
- lab use
- transmitters/receivers
- military/hi-rel applications



CASE STYLE: A01

### +RoHS Compliant

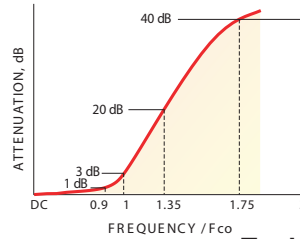
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Low Pass Filter Electrical Specifications

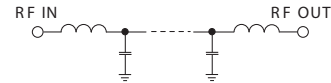
PASSBAND (MHz)	fco (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
		(loss > 20 dB)	(loss > 40 dB)	Passband Typ.	Stopband Typ.
DC-1.9	2.5	3.4-4.7	4.7-200	1.7	18

1 dB compression at +13 dBm input power

### typical frequency response

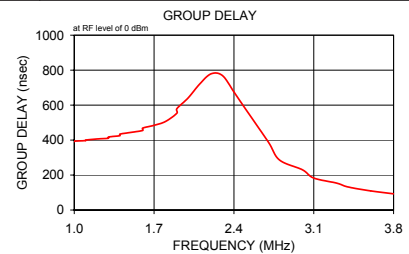
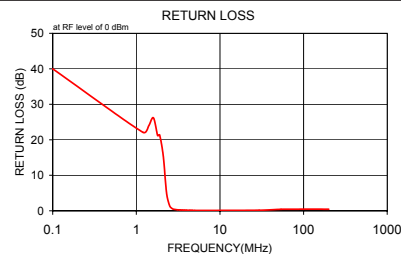
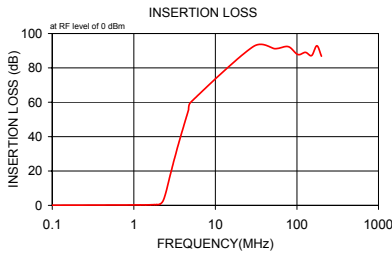


### electrical schematic



### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	$\sigma$			
0.10	0.09	0.01	40.00	1.00	390.94
1.20	0.24	0.02	22.11	1.00	393.92
1.40	0.26	0.01	23.88	1.10	397.21
1.60	0.31	0.01	26.19	1.10	400.27
1.80	0.40	0.02	21.19	1.20	406.34
1.90	0.45	0.02	21.37	1.30	410.76
2.10	0.75	0.12	15.39	1.30	417.77
2.30	2.93	0.75	5.05	1.40	425.39
2.50	8.32	1.21	1.43	1.40	434.33
2.70	14.69	1.17	0.59	1.50	444.37
2.80	17.71	1.12	0.45	1.60	455.27
3.00	23.30	1.01	0.32	1.60	468.79
3.10	25.89	0.96	0.29	1.70	484.50
3.30	30.68	0.90	0.24	1.80	506.65
3.40	32.92	0.87	0.22	1.90	554.15
3.60	37.12	0.84	0.20	1.90	579.78
3.80	41.00	0.81	0.18	2.00	642.41
4.00	44.61	0.79	0.17	2.10	720.76
4.30	49.67	0.81	0.15	2.20	779.41
4.50	52.78	0.80	0.14	2.30	768.87
4.70	55.74	0.88	0.13	2.40	675.19
5.00	60.00	0.86	0.11	2.50	579.64
29.40	92.50	4.17	0.17	2.70	390.84
53.80	91.19	3.63	0.42	2.80	286.22
78.10	92.39	2.10	0.45	3.00	230.56
102.50	87.80	2.75	0.46	3.10	182.81
126.90	89.05	3.87	0.47	3.30	153.96
151.30	87.17	2.60	0.46	3.40	132.22
175.60	92.87	7.14	0.44	3.60	109.19
200.00	86.82	4.04	0.44	3.80	92.80



### 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.
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