

Surface Mount Low Pass Filter

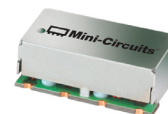
SXLP-3+

50Ω

DC to 3 MHz

The Big Deal

- Low frequency, DC-3 MHz
- Fast roll-off
- Good VSWR, 1.2:1 typical
- Miniature shielded package



CASE STYLE: HF1139

Product Overview

SXLP-3+ is a 50Ω lowpass filter fabricated using SMT technology. This lowpass filter covers from DC-3 MHz bandwidth, these units offer good matching within the passband and high rejection. This units uses a miniature high Q capacitors and wire welded inductors for high reliability. In addition it has repeatable performance across production lots and consistent performance across temperature.

Key Features

Feature	Advantages
Low frequency and fast roll-off	This is a low frequency filter and this will also attenuate frequencies closed to the passband with good rejection value of >20 dB.
Good VSWR, 1.2:1 typical in pass-band	The SXLP-3+ has very good return loss for a low frequency bandwidth and provides good interface when used with other devices.
Small size, 0.44" x 0.74" x 0.27"	The small surface mount package enables the SXLP-3+ to be used in compact designs.

Notes

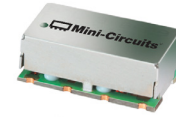
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Surface Mount Low Pass Filter

50Ω DC to 3 MHz

SXLP-3+



CASE STYLE: HF1139

Features

- High rejection (30 dB typical)
- Sharp cut-off
- Aqueous washable
- Miniature shielded package

Applications

- Receivers/transmitters
- Defense communications
- Harmonic rejection

Electrical Specifications at 25°C

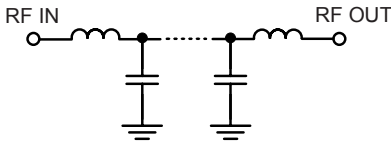
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-3	—	0.8	1.5 dB
	Freq. Cut-Off	F2	3.5	—	3.5	dB
	VSWR	DC-F1	DC-3	—	1.2	1.6 :1
Stop Band	Rejection Loss	F3-F4	4.6-800	20	30	dB
	VSWR	F3-F4	4.6-800	—	35	— :1

Maximum Ratings

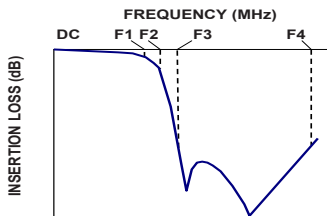
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

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

Functional Schematic



Typical Frequency Response

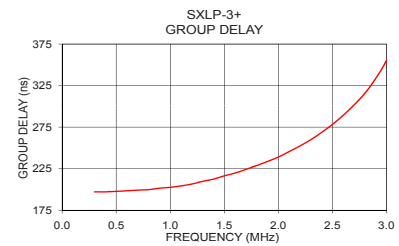
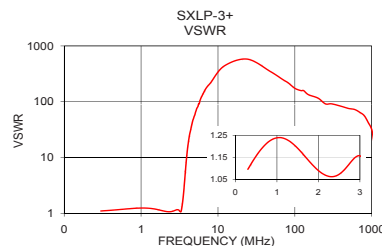
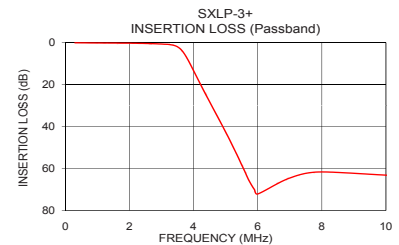
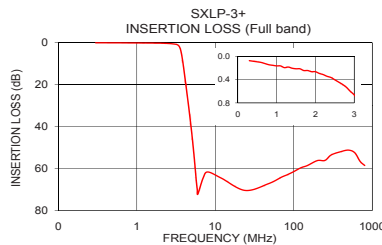


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
0.3	0.07	1.10	0.30	197.09
1.0	0.16	1.24	0.50	197.65
2.3	0.34	1.06	0.60	198.37
3.0	0.66	1.16	0.70	199.16
3.4	1.37	1.30	0.80	199.72
3.5	2.01	1.75	1.00	202.52
3.7	5.07	4.10	1.20	206.51
4.0	13.39	13.60	1.30	209.71
4.4	25.33	30.49	1.50	216.35
4.6	31.09	40.41	1.60	219.74
5.0	42.66	57.91	1.70	224.10
12.0	64.62	434.30	1.80	228.78
48.0	67.17	347.44	1.90	233.71
82.0	63.02	217.15	2.00	238.97
100.0	61.46	173.72	2.20	252.37
250.0	56.13	91.43	2.40	268.63
300.0	53.53	91.43	2.50	278.29
600.0	52.51	72.39	2.70	301.70
700.0	56.57	64.35	2.80	315.66
800.0	58.52	56.04	3.00	355.50

+RoHS Compliant

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



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REV. A
M160153
SXLP-3+
EDR-10387U
RAV/URJ/NY
161230
Page 2 of 3

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

Figure 1: Dimensions of the package outline. The diagram shows a rectangular package with various dimensions and features. Key dimensions include: .188 TYP. (top width), .055 TYP. (top width), .064±.002 TRACE WIDTH, 2 PL. (left side), .020 PTH. TYP. (top right), .740 (right side), .150 TYP. (bottom right), .200 TYP. (bottom right), .070 (bottom right), .440 (bottom width), and .070 (bottom width). A dashed line indicates the PACKAGE OUTLINE. A red arrow points to PIN 1.

The technical drawing shows three views of a rectangular metal plate:

- Top View:** A rectangle with eight numbered points (1-8) along its perimeter. Point 1 is at the bottom-left corner, 2 at the top-left, 3 at the bottom-center, 4 at the top-center, 5 at the bottom-right, 6 at the top-right, 7 at the bottom-center, and 8 at the top-center. The label "MCL" is located in the upper left area.
- Side View:** A simple rectangle showing the profile of the plate.
- Front View:** A detailed view of the plate's front face. It features a central hatched rectangular area. Dimensions are indicated: "A" is the total height; "C TYP." is the height of the central hatched area; "F TYP." is the thickness of the plate; "E" is the distance from the bottom edge to the start of the hatched area; "D TYP." is the width of the hatched area; and "B" is the total width. Numbered points 1 through 8 are also present along the perimeter of the front face.

A legend on the right side of the drawing defines two types of hatching patterns used in the front view.

A	B	C	D	E	F	G
.44	.74	.27	.200	.07	.060	.040
11.18	18.80	6.86	5.08	1.78	1.52	1.02
H	J	K	L	M		wt
.660	.200	.470	.055	.060		grams
16.76	5.08	11.94	1.40	1.52		3.0

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.

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