

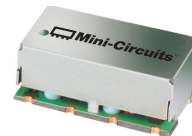
# Surface Mount High Pass Filter

## SXHP-2+

50Ω      2 to 400 MHz

### The Big Deal

- Low insertion loss
- High rejection
- Miniature shielded package



Generic photo used for illustration purposes only  
CASE STYLE: HF1139

### Product Overview

SXHP-2+ is a 50Ω high pass filter fabricated using SMT technology. This high pass filter covers from 2-400 MHz. This filter is built with high Q capacitors and wire wound inductors for superior performance. It has repeatable performance across lots and consistent performance across temperature.

### Key Features

Feature	Advantages
Low insertion loss	Can be used in high performance applications.
Good rejection	This enables the filter to attenuate spurious signals and reject harmonics for broad frequency band.
Small size, 0.44" x 0.74" x 0.27"	The small surface mount package enables the SXHP-2+ to be used in compact designs.

#### Notes

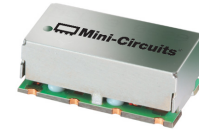
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50Ω 2 to 400 MHz

**SXHP-2+**



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CASE STYLE: HF1139

## Features

- Low Insertion loss
- High Rejection
- Miniature shielded package

## Applications

- Broadcasting
- Maritime mobile
- Radar applications

## Electrical Specifications at 25°C

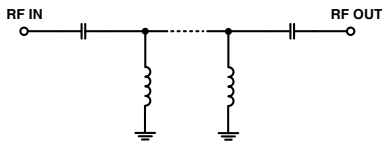
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Stop Band	Rejection Loss	DC-F1	DC-1.3	20	37	dB
	VSWR	DC-F1	DC-1.3	-	20	:1
Pass Band	Insertion Loss	F2-F4	2-400	-	0.6	dB
	VSWR	F2-F3	2-200	-	1.3	1.43
		F3-F4	200-400	-	1.3	-

## Maximum Ratings

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

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

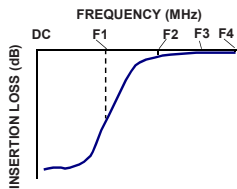
## Functional Schematic



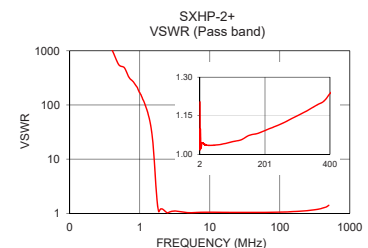
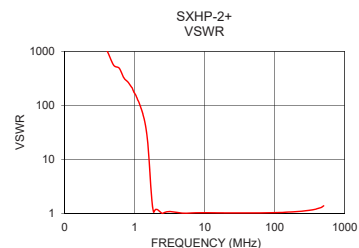
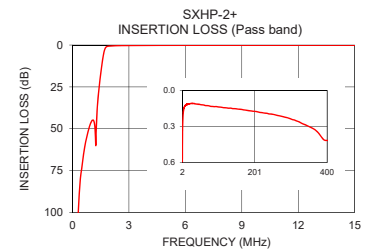
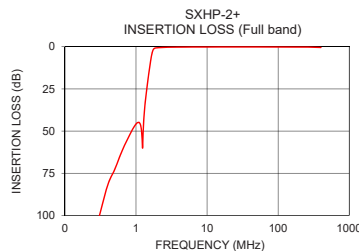
## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.30	101.47	1546.66
0.92	48.15	211.72
1.20	50.36	98.23
1.30	40.66	71.73
1.36	31.58	57.42
1.37	30.36	55.18
1.47	19.92	33.28
1.58	10.41	13.09
1.70	3.09	3.13
2.00	0.59	1.20
4.00	0.20	1.06
8.00	0.14	1.04
16.00	0.12	1.04
32.00	0.11	1.03
50.00	0.12	1.04
100.00	0.14	1.05
150.00	0.15	1.07
200.00	0.18	1.09
300.00	0.24	1.15
400.00	0.42	1.24

## Typical Frequency Response



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



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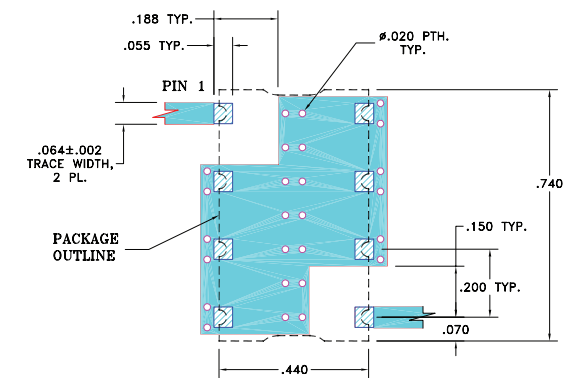
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REV. A  
ECO-005139  
SXHP-2+  
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Pad Connections

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

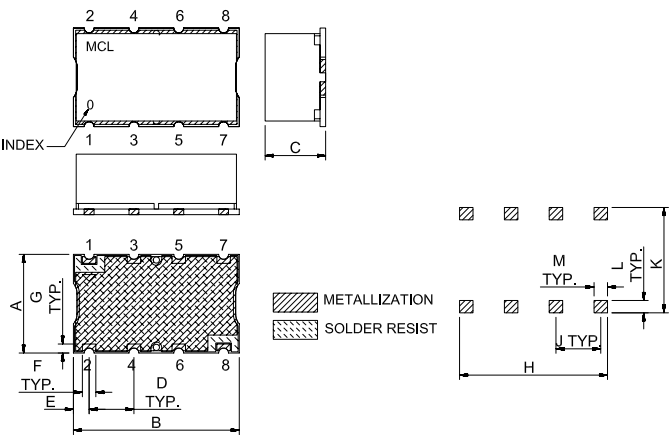
Demo Board MCL P/N: TB-368  
Suggested PCB Layout (PL-230)



- NOTE:
- 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.
  - 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

Outline Drawing



Outline Dimensions ( inch )

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

Note: Please refer to case style drawing for details

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