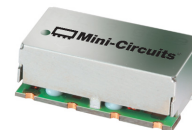


Surface Mount Bandpass Filter

SXBP-2150+

50Ω 2050 to 2250 MHz



Generic photo used for illustration purposes only
CASE STYLE: HF1139

The Big Deal

- Fast roll-off on the upper sideband
- Good Matching and low loss in the pass band
- Miniature shielded package

Product Overview

SXBP-2150+ is a wideband bandpass filter in a miniature shielded package covering 2050 to 2250 MHz. This is designed for asymmetric rejection applications such as super-heterodyne receivers. By having asymmetric band, faster roll-off at upper side band is achieved in a comparatively smaller package and lower pass band insertion loss. It has repeatable performance across lots and consistent performance across temperature.

Key Features

Feature	Advantages
Fast roll-off on the upper side band	Wide bandwidth filter with fast-roll off on the upper side band, which increases selectivity on the adjacent channel.
Good matching and low loss in pass band	This filter has good matching and low loss in the pass band
Small size, 0.44" X 0.74" X 0.27"	The surface mount package enables the SXBP-2150+ to be used in compact designs.
High power handling	This model uses high Q capacitors and high current handling inductors which is well suited for high power applications.

Notes

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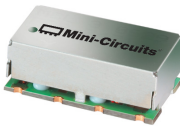


Surface Mount

Bandpass Filter

50Ω 2050 to 2250 MHz

SXBP-2150+



Generic photo used for illustration purposes only
CASE STYLE: HF1139

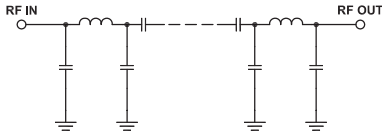
Features

- Wide bandwidth
- Better rejection
- Miniature shielded package

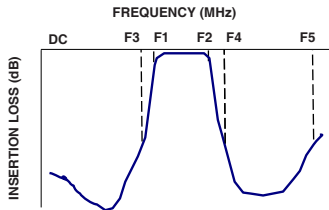
Applications

- Defense systems
- Fixed microwave
- IMT
- Auxiliary broadcasting
- Private and public land mobile

Functional Schematic



Typical Frequency Response



Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	2150	-	MHz
	Insertion Loss	F1-F2	2050-2250	-	1.0	2.0	dB
	VSWR	F1-F2	2050-2250	-	1.3	2.3	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-950	20.0	30.0	-	dB
	VSWR	DC-F3	DC-950	-	20.0	-	:1
Stop Band, Upper	Insertion Loss	F4-F5	2675-5000	20.0	31.0	-	dB
	VSWR	F4-F5	2675-5000	-	20.0	-	:1

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	6.3 W max.

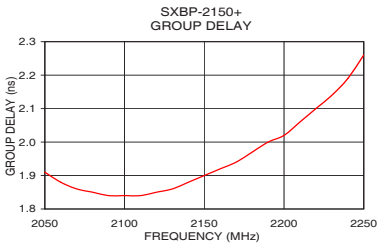
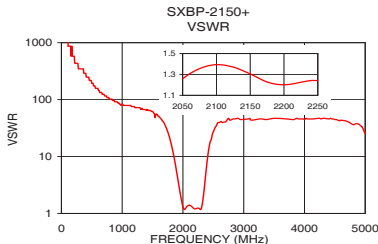
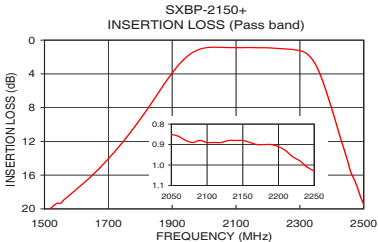
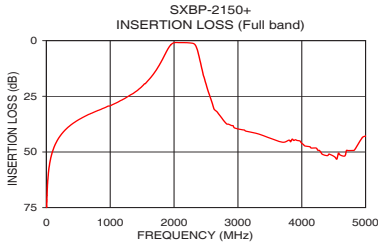
Permanent damage may occur if any of these limits are exceeded.

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	89.17	1737.18	2050	1.91
100	49.46	1737.18	2070	1.86
250	41.53	434.30	2080	1.85
850	30.91	96.51	2090	1.84
950	29.63	86.86	2100	1.84
1490	20.77	62.05	2110	1.84
1800	9.37	17.75	2120	1.85
1900	3.90	5.09	2130	1.86
1960	1.56	2.10	2140	1.88
2050	0.85	1.26	2150	1.90
2150	0.88	1.30	2160	1.92
2250	1.03	1.24	2170	1.94
2320	1.57	1.49	2180	1.97
2360	3.75	3.43	2190	2.00
2400	8.15	8.55	2200	2.02
2525	21.93	31.60	2210	2.06
2675	32.02	40.41	2220	2.10
3100	40.13	46.96	2230	2.14
4300	50.15	46.96	2240	2.19
5000	42.88	25.56	2250	2.26

+RoHS Compliant

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



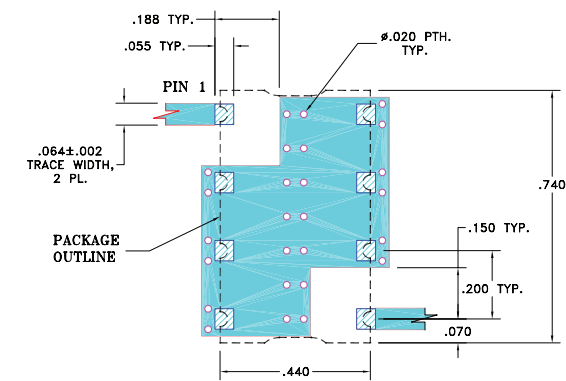
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Pad Connections

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

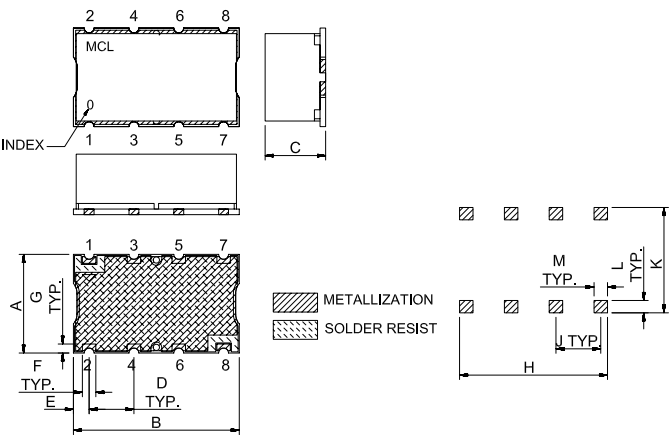
Demo Board MCL P/N: TB-368+
Suggested PCB Layout (PL-230)



- 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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