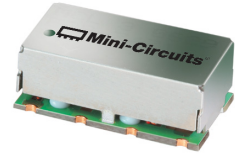


Bandpass Filter

50Ω 30 to 40 MHz

SXBP-35N+



Generic photo used for illustration purposes only
CASE STYLE: HF1139

Maximum Ratings

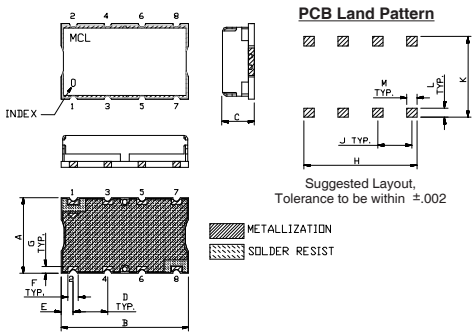
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5W Max. |

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

Pin Connections

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

Outline Drawing

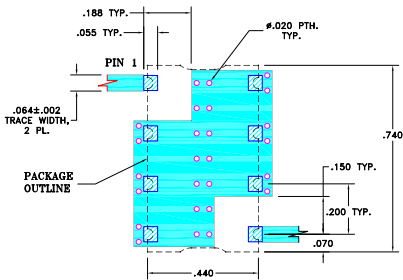


Outline Dimensions (inch/mm)

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

Note: Please refer to case style drawing for details

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

Features

- excellent rejection
- good VSWR, 1.1:1 typ @ passband

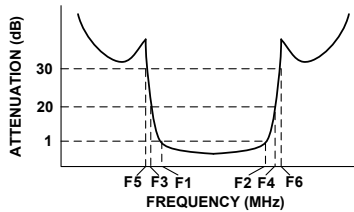
Applications

- FM radio rejection
- receivers / transmitters
- professional mobile radio / public Access mobile radio (PMR/ PAMR)

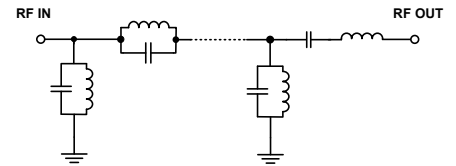
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

| CENTER FREQ. (MHz) | PASSBAND (MHz) (Loss < 1dB) F1 - F2 | STOPBANDS (MHz) | | | | VSWR (:1) | |
|--------------------|---|-----------------|----|-------------|-----------|---------------|---------------|
| | | Loss > 20dB | | Loss > 30dB | | Passband Max. | Stopband Typ. |
| | | F3 | F4 | F5 | F6 | | |
| 35 | 30 - 40 | 21 | 60 | 19 | 65 - 1350 | 1.5 | 18 |

Typical Frequency Response

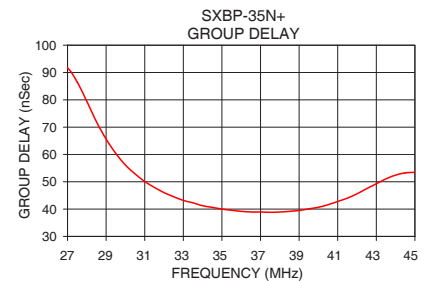
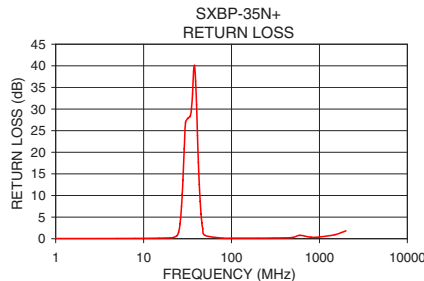
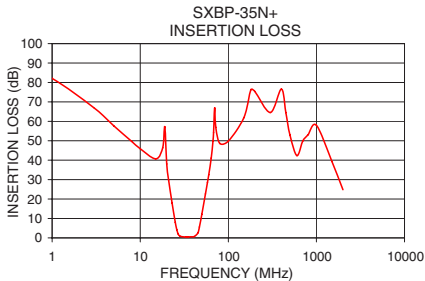


Functional Schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | | Return Loss (dB) | Frequency (MHz) | Group Delay (nSec) |
|-----------------|---------------------|----------|------------------|-----------------|--------------------|
| | \bar{x} | σ | | | |
| 1.0 | 82.11 | 0.27 | 0.04 | 27.0 | 91.70 |
| 19.0 | 57.19 | 1.77 | 0.17 | 28.0 | 79.45 |
| 21.0 | 29.79 | 0.24 | 0.23 | 29.0 | 65.64 |
| 23.0 | 17.86 | 0.30 | 0.42 | 30.0 | 56.11 |
| 25.0 | 7.98 | 0.43 | 1.52 | 31.0 | 50.11 |
| 26.0 | 4.23 | 0.44 | 3.50 | 32.0 | 46.02 |
| 27.0 | 1.98 | 0.32 | 7.49 | 33.0 | 43.18 |
| 30.0 | 0.60 | 0.05 | 26.89 | 34.0 | 41.24 |
| 35.0 | 0.52 | 0.02 | 30.12 | 35.0 | 40.01 |
| 40.0 | 0.64 | 0.04 | 31.03 | 36.0 | 39.17 |
| 44.0 | 1.59 | 0.27 | 8.65 | 37.0 | 38.94 |
| 46.0 | 3.83 | 0.56 | 3.67 | 38.0 | 38.92 |
| 48.0 | 7.66 | 0.70 | 1.54 | 39.0 | 39.48 |
| 51.0 | 14.31 | 0.67 | 0.57 | 40.0 | 40.67 |
| 60.0 | 32.50 | 0.62 | 0.19 | 41.0 | 42.78 |
| 65.0 | 43.63 | 0.84 | 0.16 | 42.0 | 45.62 |
| 500.0 | 53.02 | 0.17 | 0.30 | 43.0 | 49.26 |
| 1350.0 | 55.12 | 6.44 | 0.63 | 45.0 | 53.47 |



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.
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