

Benchmark Lark Technology offers customizable millimeter wave stripline broadband bandpass filters ranging from 5 GHz to 40 GHz. This series uses a mix of high-performance soft thermoplastic substrates and rigid thermoset materials to offer a balance of desired electrical and mechanical performance. The filters are designed with temperature varying environments in mind. These SWaP-enabling filters are ideal for applications where size reduction is critical, such as Ka/Ku band aerospace/satcom/defense and mmWave infrastructure.



### Features:

- Small size and light weight
- Easily stacked and surface mounted
- Customized passbands and bandwidths
- Low dissipation factor and low moisture absorption
- Excellent temperature stability

### Specifications

- Connectors: SMT
- Frequency Range: 5GHz to 40 GHz
- % BW: 10% - 25%
- Operating temperature: -40 °C to 85 °C
- Size: Depends on number of poles and operating frequency

The filter shown in the picture is a good example of our capabilities. This is a mmW-STL bandpass filter centered at 40.2 GHz, BW (-3dB) of 6124 MHz, and return loss greater than 10 dB. IL at the center frequency is 3.58 dB. This filter offers a spurious rejection of more than 40 dB. Size (L x W x H): 0.275" x 0.080" x 0.025".

Bottom plot shows filter performance over +25 °C to +90 °C temperature range. We are continuously improving the performance of our filters.

Please feel free to contact our Engineering Department for more information about this series or the new series mmW-FH for millimeter wave 5G bands

