

## Description

The mmW-XFH series by Benchmark Lark Technology offers advanced SIW bandpass filters in the 5 GHz to 40 GHz range. These filters blend high-performance soft thermoplastic and rigid thermoset materials, ensuring optimal electrical and mechanical performance in varying temperatures. Designed for compact spaces, they are perfect for Ka/Ku band aerospace/satcom/defense, and mmWave infrastructure applications.



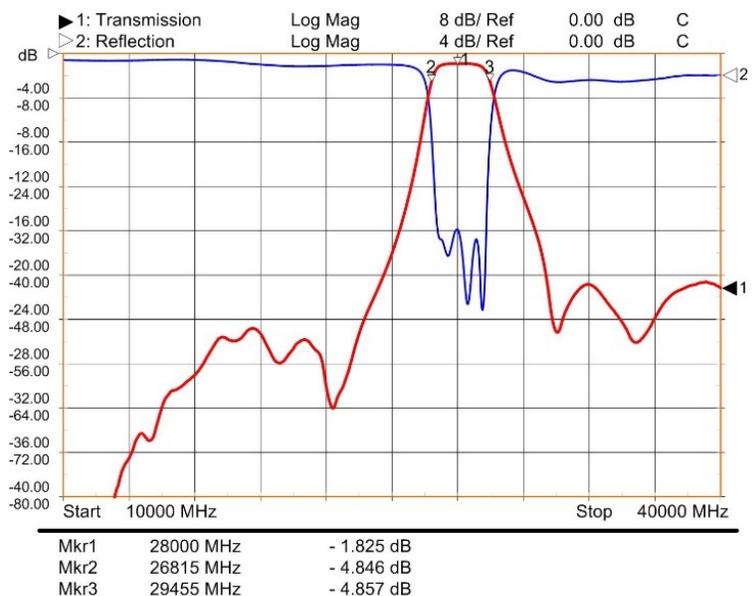
## Features

- Millimeter wave performance, optimized for narrowband, in a compact form. Combines planar transmission lines with cavity technologies for superior performance
- Easily interconnected with other printed circuit boards such as Microstrip, CPW, Stripline, etc.
- Compatible with various printed circuit boards (Microstrip, CPW, Stripline, etc.).
- Suitable for 5G, LEO Satcom systems, and Ku/Ka band defense applications.
- Durable design ensures stable performance across different temperatures.

## Specifications

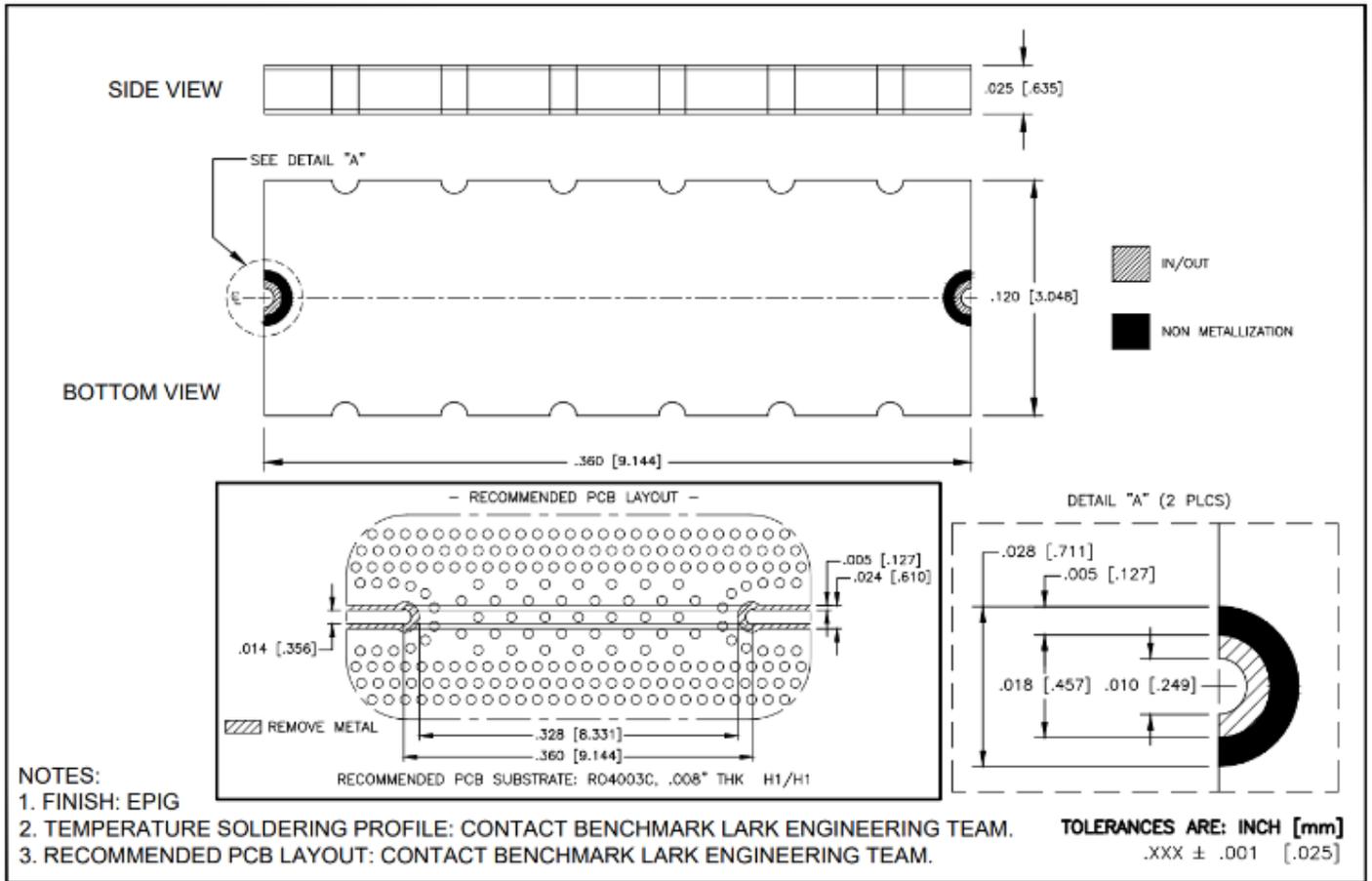
- **Impedance:** 50 Ohms
- **Center frequency:** 28000 MHz
- **Passband:** 2000 MHz
- **Insertion loss:** < 2 dB @  $F_0$
- **VSWR:** 1.65:1 Max.
- **Rejection:** 40dB @ 23500 MHz & 32500 MHz
- **Operating temperature:** -40 °C to 85 °C
- **Humidity:** 95% R.H.
- **Dimensions:** (L x W x H): 0.360 x 0.120 x 0.025 in.  
(9.144 x 3.048 x 1.778 mm)

## Typical Measured Performance



Tested at room temperature on a Rogers RO4003C@ 0.008" substrate with 50 Ohms CPW traces.

# Mechanical Specifications



*This data is for reference only. The specifications and data herein are subject to change. Visit our website for the latest information. We reserve the right to alter or update this document at our discretion without prior notice.*