PRODUCT BRIEF

MM6005

Miniaturized High-Power 7-Channel UHF Filter

Menlo Micro has developed a miniaturized UHF Filter utilizing breakthrough Ideal Switch™ technology to provide a seven-channel discrete tuning range from 225-512 MHz.

The filter's innovative design results in low insertion loss across the passband, fast discrete switching, and high-power input handling.

When compared to traditional solid-state switched filter bank designs, the MM6005 exhibits 2 dB to 3 dB lower losses. The Ideal Switch technology enables greater than 3 billion switching cycles with very minimal change in performance over a temperature range of -40 to +85°C.

The design also offers a considerable 90% reduction in size when compared with comparable solid-state or electromechanical switched filter bank designs.

FEATURES

- 225-512 MHz Frequency Span
- 7 Channel Discrete Tunable Range
- 60 W Max Input Power
- Low Insertion Loss: 1.5 dB @ 512 MHz
- 30 dB Rejection @ +/- 50 MHz
- 10µs Max Fast Discrete Switching Speed
- High Reliability: Greater than 3 Billion Operations

APPLICATIONS

- Military Communications
- EW Systems
- Frequency Mitigation
- Amplifier Filtering

MARKETS

- Defense and Aerospace
- Test and Measurement Systems
- Wireless Infrastructure

ideal switch™

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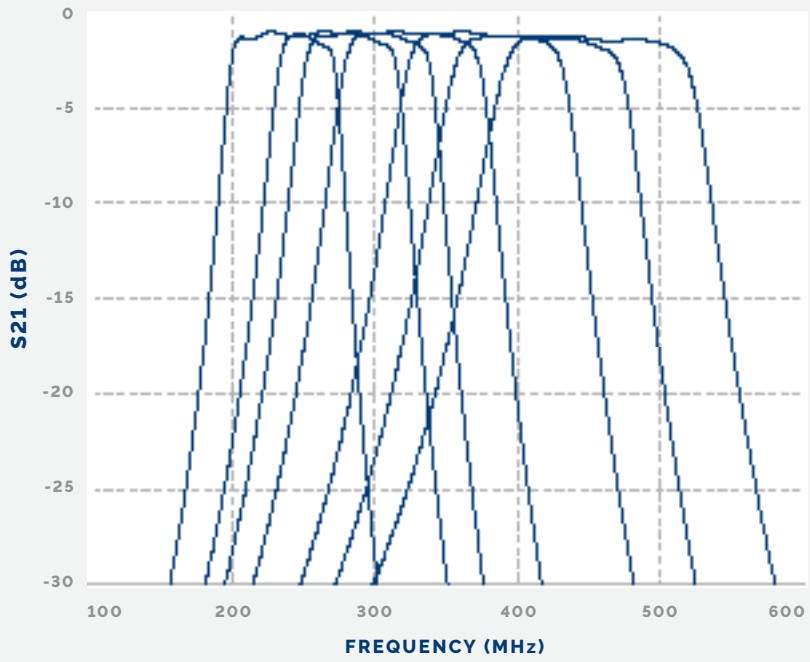
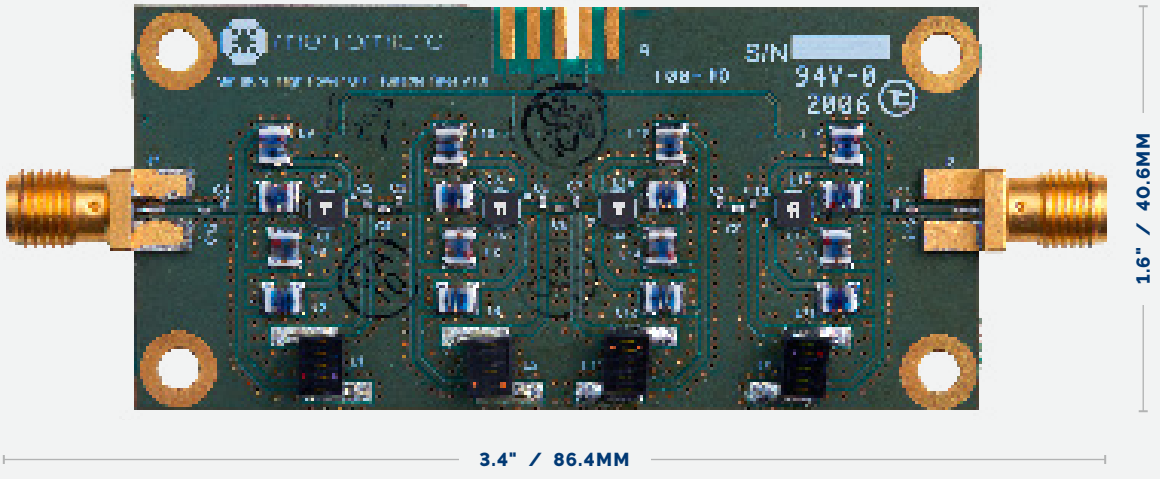
FIG. 1 Filter Passband Response



DESIGN ADVANTAGES

- PCB Size: 3.4" x 1.6" (86.4 mm x 40.6 mm) with SMA connectors
- Fewer filter components: 70% component reduction compared with existing switched filter bank designs
- Significantly reduced losses – MEMS switch resistance totals in parallel resulting in up to 3 dB improvement in insertion loss
- Ability to select multiple simultaneous switch filter paths

FIG. 2 Filter PCB



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