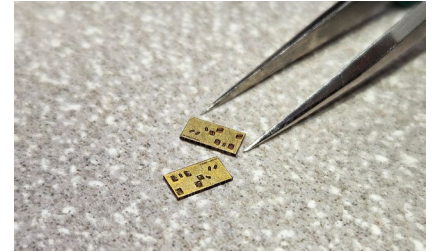


High Q SMT Filters



Break-through **3D glass-based filter technology** delivers ultra-high Q, steep rejection, and low insertion loss in an ultra-compact footprint. High Q SMT filters leverage a glass-based topology that integrates passive elements into a layered structure, enabling superior electrical performance and dramatic size reduction.



- **Designed for Size:** Ultra-compact footprint with high-density integration
- **Optimized Performance:** High Q filtering for steep rejection and low loss
- **Built for Stability:** Consistent, repeatable electrical performance
- **Simplified Integration:** SMT packaging for easy, scalable implementation

Challenge	Our Solution	System Impact
Large, bulky filters	3D glass integrated structure	Small footprint, higher density
Poor selectivity and signal loss	High Q resonators, low-loss design	Steeper skirts, improved rejection
Signal variability	Embedded passive architecture	Stable, repeatable performance
Complex integration	SMT-compatible packaging	Easier integration, scalable designs

Where Spectrum Delivers Value: Delivers compact, high-performance RF filtering solutions that simplify integration while enhancing signal integrity across advanced communication and defense systems.

Applications



Test &
Measurement



Electronic
Warfare



Radar



Healthcare
Electronics



Satellites



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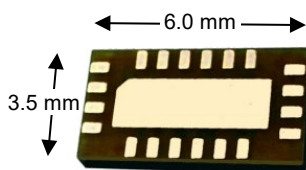


Offers low insertion loss with over 65 dB of rejection & can handle up to 1 watt of incident RF power. Maintain performance across temperature extremes from -55°C to +100°C

- MMG-0001 – Passband from 3.25 to 4.25 GHz
- MMG-0007 – Passband from 3.5 to 4.5 GHz
- MMG-0019 – Passband from 3.75 to 4.75 GHz
- MMG-0020 – Passband from 6.5 to 9.55 GHz
- Low insertion loss of 2 dB

Custom derivatives available including multiplexers and switched filter banks

Metallization 1	The proprietary top-side metallization layer enables reliable bonding while supporting high current flow.
Silicone Nitride	A thin layer of silicon nitride serves as both a dielectric and an insulator.
Metallization 2	A secondary proprietary metallization layer serves as the signal routing layer, completing the bandpass circuit.
Glass	This Alumina compound layer is used due to its stability low loss characteristics and low CTE.
Back Metallization	This proprietary back metallization layer adds rigidity for the alumina derivative layer above it.
Adhesive	The adhesive layer bonds the alumina assembly to the copper ground-plane backside metallization.
Copper	This copper layer acts as a heat sink, evenly distributing thermal energy to the PCB interface.



LGA package designed for use with standard pick-and-place assembly.



About Spectrum Control

Spectrum Control is a mission-focused technology company delivering innovative, adaptable solutions across RF, optical, power, digital, and EMI protection that go beyond specifications to support system performance and program success.

RF Signal Chain

Power/Protect/
Interconnect

Communications
& Data Layer

To learn more about these products or
Spectrum Control email us at
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