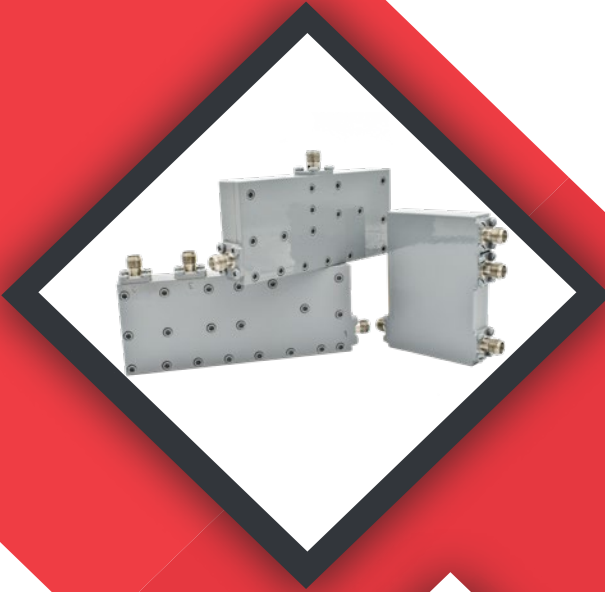


# TTE

FILTERS



**TTE FILTERS**  
*RF & Microwave Filters*  
*Since 1956*

**2021 Filters Brochure**

Established in 1956, TTE Filters is a leader in the design, development and manufacture of RF and microwave filters. TTE offers standard products and application-specific custom designs from 50 Hz to 40 GHz. The company also manufactures standard and custom bias tees, amplitude equalizers, diplexers, multiplexers and EMI/RFI filters. The company prides itself on quick turnaround; many products are in stock. TTE's portfolio includes products from Microwave Circuits and Instec Filters; those companies were acquired in recent years.

## PASSIVE RF & MICROWAVE FILTERS

### Design Capabilities & Typical Frequencies



	LUMPED ELEMENT	COMBLINE/CAVITY	CERAMIC	MICROSTRIP	HELICAL	WAVEGUIDE
Bandpass	500 Hz - 5 GHz	400 MHz - 40 GHz	400 MHz - 3 GHz	3 GHz - 26 GHz	300 MHz - 500 MHz	8 GHz - 40 GHz
Lowpass	100 Hz - 10 GHz	----	----	3 GHz - 26 GHz	----	----
Highpass	100 Hz - 10 GHz	----	----	3 GHz - 26 GHz	----	----
Band Rejection	50 Hz - 1 GHz	400 MHz - 10 GHz	----	----	----	----

## DESIGNS

Standard RF and Microwave Filter designs include Lumped Element, Comblines/Cavity, Ceramic Resonator, Microstrip, Helical and Waveguide. Filter types include Bandpass, Lowpass, Highpass, Band Rejection (Notch). Topologies include Bessel, Butterworth, Chebyshev, Elliptical Function (Anti-Aliasing), Guassian and TTE-specific designs. TTE Filters also manufactures a line of Custom Diplexers, Triplexers, Quadruplexers, Quintaplexers and Multiplexers, as well as Bias Tees and Amplitude Equalizers. EMI/RFI Filter styles include Bolt-Style Resin-Sealed Filters, Bolt-Style Hermetic Filters, Solder-In Filters, Filter Assemblies and Customer-Specific Designs.

- Standard connector options include SMA, BNC, Type N, Waveguide, Surface Mount, PCB, GPO, 2.92MM, and others depending on type of filter, frequency power and other factors.
- High power versions are also available with power handling capabilities to 600 CW, 1 kW pulsed typically.
- RoHS-compliant equivalents are available for most filter products.



## CAPABILITIES

- Design engineering
- Prototype tooling
- Machine tool and design center
- Soft tooling for proof of concept or small production quantities
- Custom case design
- Proprietary manufacturing equipment
- Automated production equipment
- In-house Environmental Test Lab
- High reliability testing for military QPL
- Class 100,000 cleanrooms
- Electronic documentation
- Quality standards AS9100, ISO 9001, ISO 13485, AEC-Q200
- ITAR Registered
- Disaster Recovery Plan Ready

*Thousands of filters have been specified, designed and built for our customers over the years. In addition to standard product lines, additional application-specific or custom designs are feasible. Please contact TTE Filters for assistance with your filter requirements.*



# ADDITIONAL PASSIVE Product Capabilities

## LC9S Series Lowpass Filters Available from Stock

- 9-pole Chebyshev design; 12 unique part numbers
- -3dBc passband frequencies from 30 MHz to 6 GHz
- SMA female connectors
- Available for immediate shipment



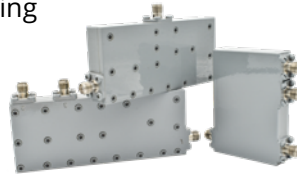
## Bias Tees Available from Stock

- High Current (BTHC) series to 7 Amp from 20 MHz to 6 GHz
- Standard (BTS) series from 10 MHz to 18 GHz
- High Frequency (BTHF) series from 10 MHz to 40 GHz
- Available for immediate shipment



## Diplexers, Duplexers, Quad, Quint & Multiplexers

- Application-specific designs from 1 MHz to 20 GHz
- Wide assortment of existing designs available including specifications and plotted data
- Shipments as soon as 6-8 weeks
- Some existing designs (models) may be available from stock



## Amplitude Equalizers

- Application-specific designs from 1 GHz to 26 GHz
- Wide assortment of existing designs available including specifications and plotted data
- Shipments as soon as 6-8 weeks
- Some existing designs (models) may be available from stock

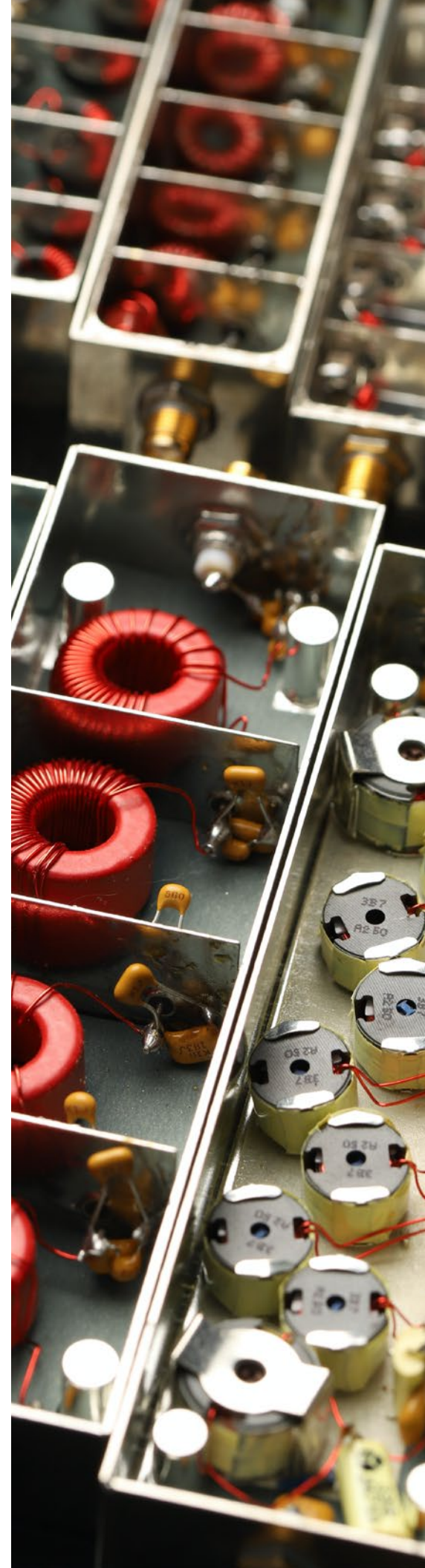


## EMI/RFI Filters

- Solder-In Filters for high-frequency/microwave applications
- Bolt-Style Hermetic Filters for harsh environments
- Bolt-Style Resin-Sealed Filters for demanding applications
- Specialists in custom solutions
- Pb and Pb-free designs
- Upscreening to MIL-PRF-15733 or MIL-PRF-28861



*TTE is a leader in customer service and engineering support with many decades of engineering and sales experience. Vertically integrated, the company maintains a large inventory of standard materials ensuring that many filter products can ship within 2 weeks. Expedited lead times as short as 3 to 5 days are also available on many Lumped Element Filters. TTE's line of Bias Tees and LC9S Lowpass Filters are also available from stock in prototype quantities. TTE's 315P series of Comblin/Cavity Filters available to ship starting in 2 weeks. Additional Comblin/Cavity Filters and other designs available to ship starting in 6 to 7 weeks. EMI/RFI filters are typically delivered in as few as 1 to 2 weeks. All of TTE's filter products are proudly manufactured in the USA and include a limited warranty.*



# TALK TO US TODAY

LET US HELP YOU WITH YOUR NEXT PROJECT

Visit [TTE.com](https://www.tte.com) to learn more and talk to us about your filter needs.

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