

EMI PROTECTION

Filtered Connector Express

Revolutionary, custom configured per-line filtered circular connectors with radical reduction in turnaround time. From specs to finished products in 12 weeks.



12-Week Turnaround

INTRODUCING

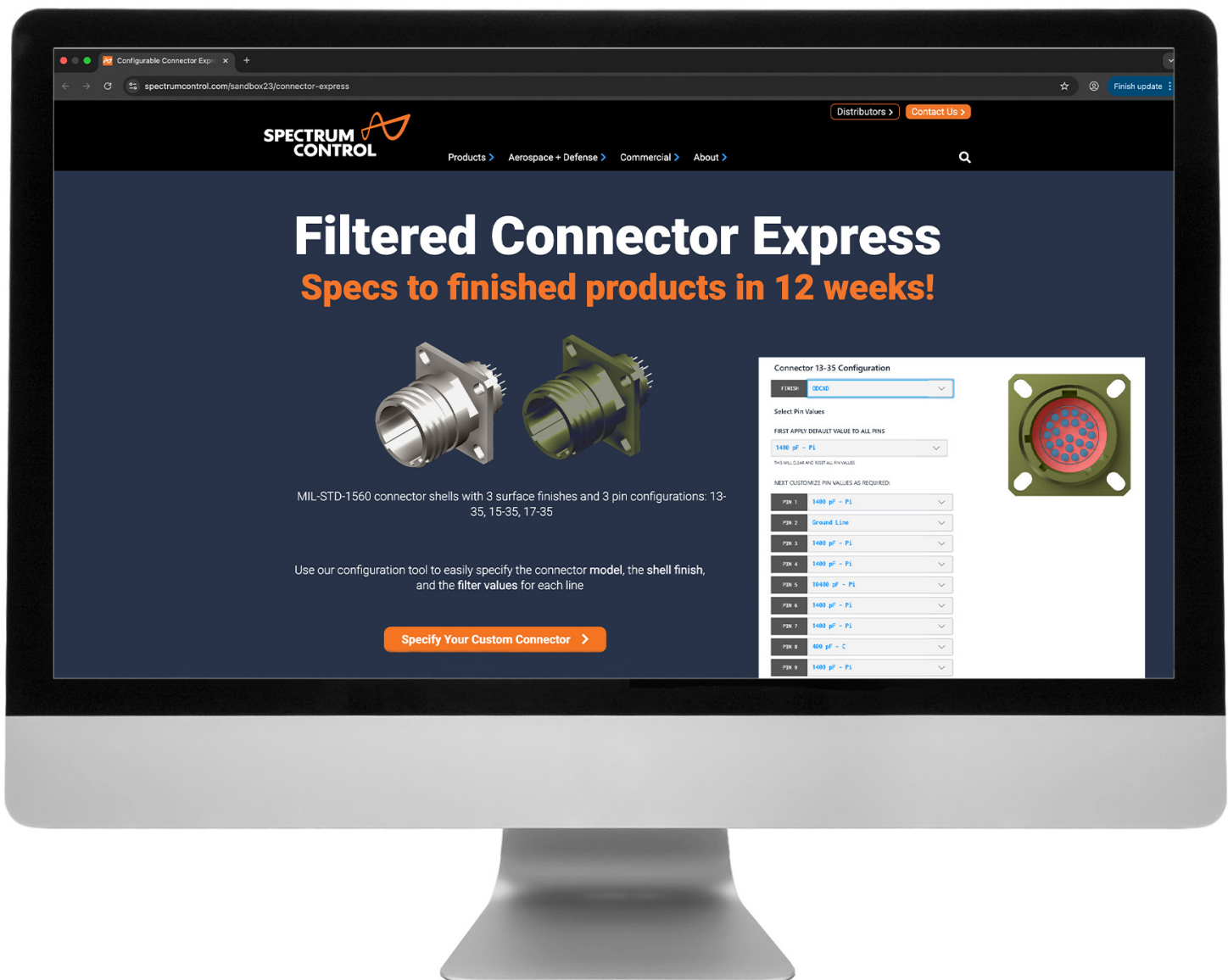
Filtered Connector Express

From specs to finished products in 12 weeks!

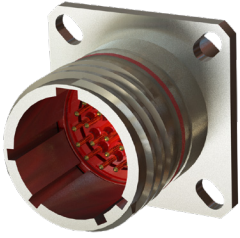
Filtering electromagnetic interference in the connector, before it enters your system, is the most space-efficient and best solution to mitigating EMI. A single EMI filtered connector can replace up to 128 discrete filters. But custom filtered connectors from your drawing can often take up to 24 weeks to produce. That means your prototype/proof-of-concept has to wait!

Spectrum Control has applied its 50 years of experience in managing EMI/EMC to create an expedited approach to building custom connectors for military and aerospace applications. We can now deliver custom filtered connectors to your specifications in only 12 weeks with no NRE.

Use our new Filtered Connector Express configuration tool to specify custom filtered connectors for prototyping or production orders



spectrumcontrol.com/connector-express



MIL-STD-1560
3 PIN CONFIGURATIONS
13-35, 15-35, 17-35

Standard Product Attributes	
MIL-DTL-38999 Series III	Square flange (wall mount)
Aluminum shell	PC tail termination
N keying	DWV: 200 VDC working/500 VDC
Male contact gender	Current rating: 5 Amps
Size 22D contact size	

1 Choose Finish

Variety of environmental protections to meet military and RoHS requirements

Nickel

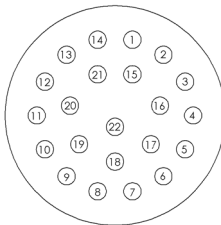
- Meets MIL-DTL-38999 finish F requirements

ODCAD (Olive Drab Cadmium)

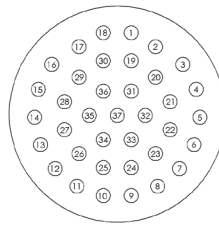
- Meets MIL-DTL-38999 finish W requirements
- Improved corrosion and anti-reflective finish

2 Choose Insert Configuration

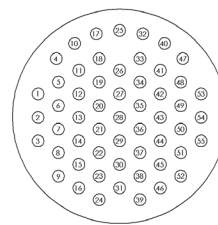
MIL-STD-1560



13-35 (22 lines)



15-35 (37 lines)



17-35 (55 lines)

3 Configurable Circuit Values

Select the filtering value for each pin from these standard options.

- 400 pF – C
- 1400 pF – Pi
- 2600 pF – Pi
- 5100 pF – Pi
- 10400 pF – Pi
- Ground Line

4 Production

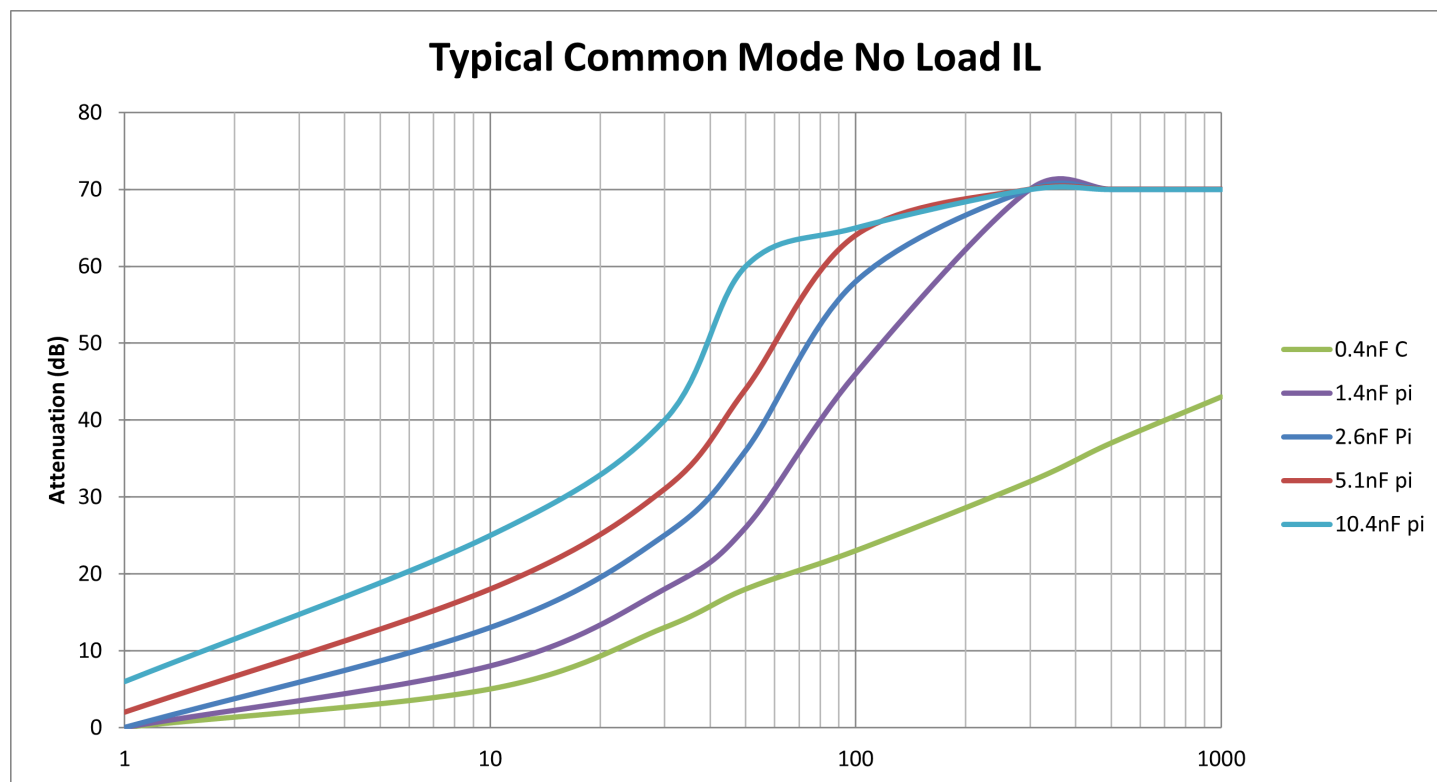
Vertically integrated manufacturing for control and best-in-class 12-week lead time

Get the exact line filtering you need

You can configure the filter values for each pin in the connector. Choose from

- 400 pF – C
- 5100 pF – Pi
- 1400 pF – Pi
- 10400 pF – Pi
- 2600 pF – Pi
- Ground

The table below shows the attenuation over frequency for each of the filter circuits



Quality Acceptance - Test Specifications

All EMI filtered connectors undergo extensive testing to ensure that all products meet specification requirements. Many tests are performed 100% by computer-controlled test sets, including capacitance, dissipation factor, dielectric withstanding voltage, and Insulation resistance as routine. Others are tested on a sample basis as applicable. Test plans can be configured to specific customer requirements.

Qualification/special testing - Spectrum has a fully qualified test laboratory and can provide additional acceptance testing upon the customer's request. This could be a one-time qualification exercise or ongoing periodic testing.

- All test conditions at $25 \pm 5^\circ\text{C}$ & 30-50% relative humidity
- DF at 1.0 Vrms @ 1 KHz $\pm 1\%$
- IL per MIL-STD-220, no load condition
- IR per MIL-STD-202, Method 302
- •DWV per MIL-STD-202, Method 302, 1-5 sec. 50 mA max.
- •CAP. per MIL-STD-202, Method 305, 1.0 VRMS @ 1KHz. $\pm 1\%$

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Spectrum Control reserves the right to make changes to datasheets at any time without notice.

Quick turnaround

For quick prototyping or production units, from specs to finished products in 12 weeks; no NRE

Superior EMI filtering

Combination of a planar and substrate filtering for superior performance versus chip-on-board (COB) or chip-in-seal versions

Fully configurable

Easily choose circuits/values for mixed signals to meet your requirements

Large capacitance pin to pin ratio range

For consistent performance with power and signal filtering in a single package

Aluminum shell

For rugged environmental and/or weight sensitive applications

Soldered construction

For better high-frequency performance over mechanical designs



High-Quality Materials

High-Quality Assembly

Rigorous Testing

Superior EM Filtration

Trusted Solutions from the EMI/EMC Leader

When it comes to protecting against electromagnetic interference (EMI), Spectrum Control is not just a manufacturer, we are the premier source for EMI troubleshooting, solutions, and compliance. With over five decades of industry leadership, Spectrum Control combines unparalleled engineering expertise, cutting-edge innovation, and advanced manufacturing capabilities to deliver solutions that redefine performance and reliability.

Proven Expertise

Since 1968, Spectrum Control has been at the forefront of EMI filter technology, serving multiple industries with groundbreaking solutions. Our dedicated team of engineers leverages sophisticated simulation tools and exhaustive in-house testing to ensure every product not only meets but exceeds functional and compliance standards.

Trusted by Innovators Worldwide

Leading organizations trust Spectrum Control to solve complex EMI challenges. From off-the-shelf products to fully custom solutions, our engineering-driven approach ensures optimal results for every application.

When you partner with Spectrum Control, you gain a trusted ally committed to delivering innovative, high-performance EMI protection solutions tailored to your specific needs.

