

EMI

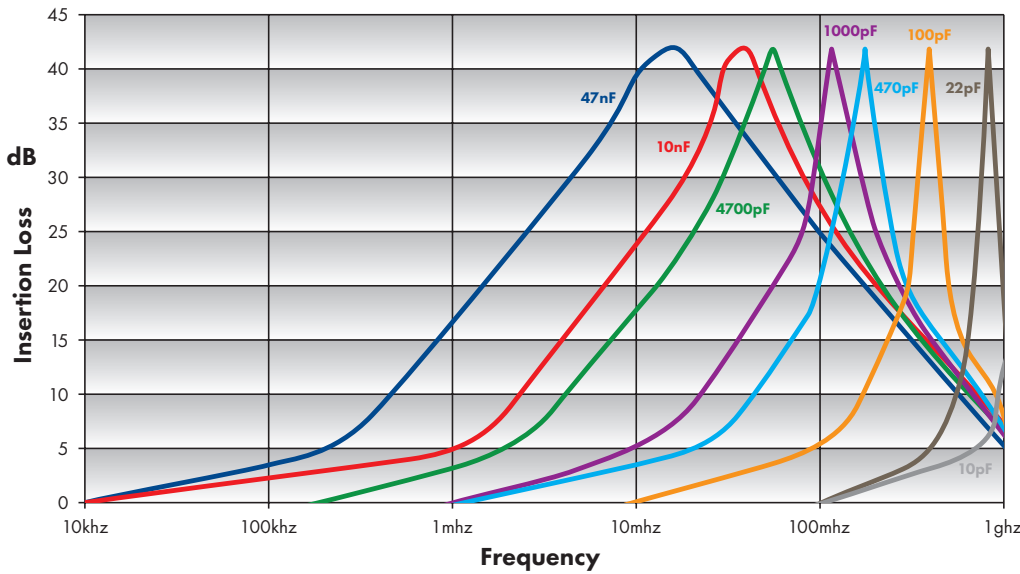
SOLUTIONS INC

YOUR EMI FILTER SPECIALISTS

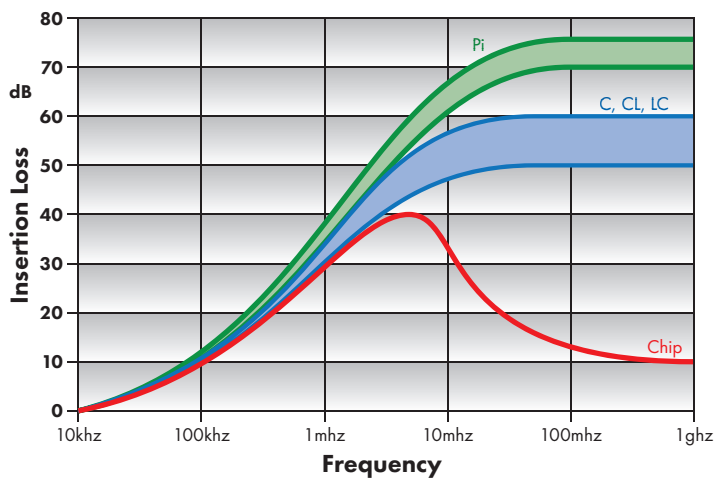


Check out all of our
EMI Solutions at
www.4EMI.com

Chip Capacitor Filter Performance



Filtered Connector Performance



	Capacitance Options	Filter Performance
Pi with Planar Arrays	100 pF – 1 uF+	70+ dB
Pi Tubes	47 pF – 12,000 pF	70+ dB
Discoidal Capacitor (C)	470 pF – 40,000 pF+	50 – 60 dB
Planar Array (CL & LC)	100 pF – 1 uF+	50 – 60 dB
Chip Capacitor	3 pF – 47,000 pF+	>40 dB



Pi Filtering

- ▶ Built with Pi Tubes, Discoidal or Planar Arrays
- ▶ Provides C-L-C Component Configuration
- ▶ Highest Performance: 70+ dB Insertion Loss
- ▶ Very Good High Frequency Performance

C, C-L or L-C Filtering

- ▶ Built with Chip Caps, Discoidals, Planars or C Tubes
- ▶ 45 - 60 dB Insertion Loss
- ▶ Good Broad Spectrum Filter Performance

Chip Capacitor Filtering

- ▶ 40+ dB Insertion Loss
- ▶ Quick Turn
- ▶ Lowest Cost Option
- ▶ Limited High Frequency Performance

Termination Options

Solder Cup



PC Tail

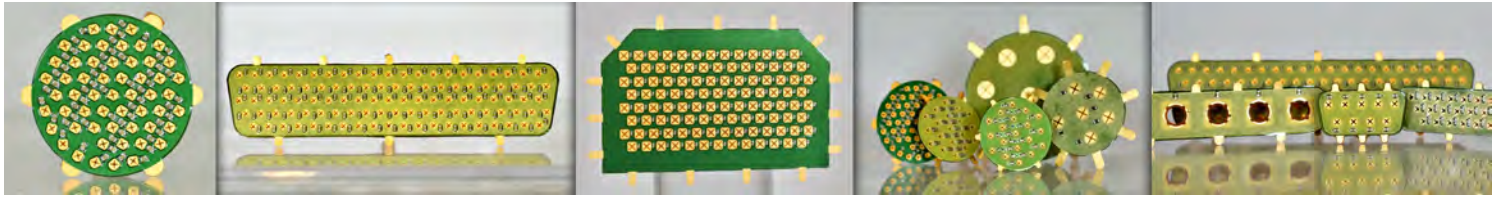


Wired



Widest range of cost effective filtering solutions

- ▶ Specializing in custom applications
- ▶ Stops EMI at the optimal location - the connector interface
- ▶ Made in the USA - each product manufactured and 100% tested at our US facility
- ▶ Proven high reliability - 1,000,000+ flight hours with ZERO failures
- ▶ Meets latest MIL-STD-810, MIL-STD-461 and DO 160 environmental standards
- ▶ Custom configurations available on pin by pin basis
- ▶ Optional Transient Voltage Suppression (TVS) components



EMI Solutions provides a wide range of cost effective, easy-to-use EMI FlexFilter inserts configured to your unique Mil-Circular, D-Subminiature and ARINC performance requirements.

Meets Requirements for:

- **DO-160**
- **MIL-STD 461**
- **MIL-STD 810G**

NEXT DAY SAMPLES AVAILABLE

- **Quick Turn**
- **Cost Effective**
- **High Reliability**
- ▶ Simple installation - configured to your existing connector
- ▶ Suited for High Voltage and Severe Environments
- ▶ Select Components (Caps, Resistors, Diodes and more) on a pin by pin basis

Transient Voltage Suppression (TVS) Components Available with all FlexFilter Options



Solid Copper Ground Plane With Etched Isolation Channels
Delivers Greater Than 90% Shielding Effectiveness

Optimum Spacing And Isolation Ensures Operation At High Voltages

Rugged Polyimide Material Delivers Contact And Retention Force For Severe Environments

Only EMI Solutions Offers Additional Higher Level Filtering Products



Filtered Connectors



Feed-Thru Filters



Flex Assemblies



Custom Filtering

ENGINEERING SUPPORT:
949.206.9960



www.4EMI.com



EMI Solutions' Mil-Circular filtered connectors offer the convenience and flexibility of standard configurations while delivering unsurpassed EMI/EMC performance.

Designs for all Mil-Circular Connectors including:

- **D38999**
- **M26462**
- **M5015**

Filtering Options:

Pi Filters

- Highest Performance with minimal resonance Insertion Loss of 70 – 80 dB
- Limited number of available capacitances and variations

Planar Arrays or Discoidal Capacitors

- Very good broadband performance
- Insertion loss of 50 – 60 dB
- Can be combined with Inductors (L) for improved performance

Chip Capacitor

- Good for "notch" type filtering
- Reduced higher frequency performance due to chip cap resonance
- Insertion Loss of 40 - 45 dB
- Wide variety of capacitances and variations available

Transient Voltage Suppression (TVS) Components Available with all Filtering Options

Termination Options

Solder Cup



PC Tail



Wired



Filtered connectors are the best means of eliminating unwanted noise from any electronic system. Using filtered connectors eliminates the EM and RF noise that will be picked up through the contacts/leads generated by any internal or external source right at the connector's interface. There are a multitude of ways to filter or shield at the board level, but none can outperform filtering at the boxes' interface.

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EMI Solutions' D-Sub filtered connectors offer the convenience and flexibility of standard configurations while delivering unsurpassed EMI/EMC performance.

Designs for all
Mil Spec D-Sub
Connectors:

- **MIL-24308**
- **MIL-83513**

Filtering Options:

C & Pi Filters:

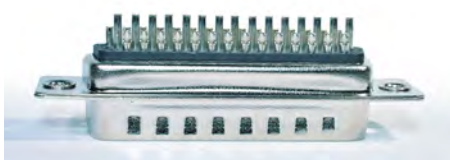
- Highest Filter Performance with Minimal Resonance
- Insertion Loss of 70 - 80 dB
- Limited number of available capacitances and variations

Chip Capacitor

- Good for "notch" type filtering
- Reduced higher frequency performance due to chip cap resonance
- Insertion Loss of 40 - 45 dB
- Wide variety of capacitances and variations available

Transient Voltage Suppression (TVS) Components Available with all Filtering Options

Termination Options



Solder Cup



PC Tail



Wired

Filtered connectors are the best means of eliminating unwanted noise from any electronic system. Using filtered connectors eliminates the EM and RF noise that will be picked up through the contacts/leads generated by any internal or external source right at the connector's interface. There are a multitude of ways to filter or shield at the board level, but none can outperform filtering at the boxes' interface.

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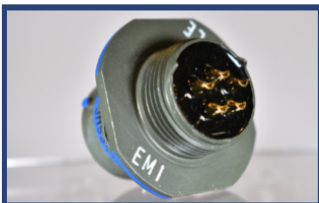
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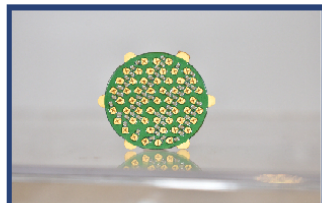
Product Options:

- Solder in, Screw in, or Press in versions
- Ideal for RF Applications
- Circuit types: C, CL, LC, Pi
- Typical Capacitance: 1.0pF to 20,000+ pF
- Operating Temp: -55°C - +125°C
- Hermetic Seal option
- Various sizes and threads
- High Working Voltage Rating: 50-500V typical
- Custom versions available

Only EMI Solutions Offers Additional Higher Level Filtering Products



Filtered Connectors



FlexFilter Inserts



Flex Assemblies

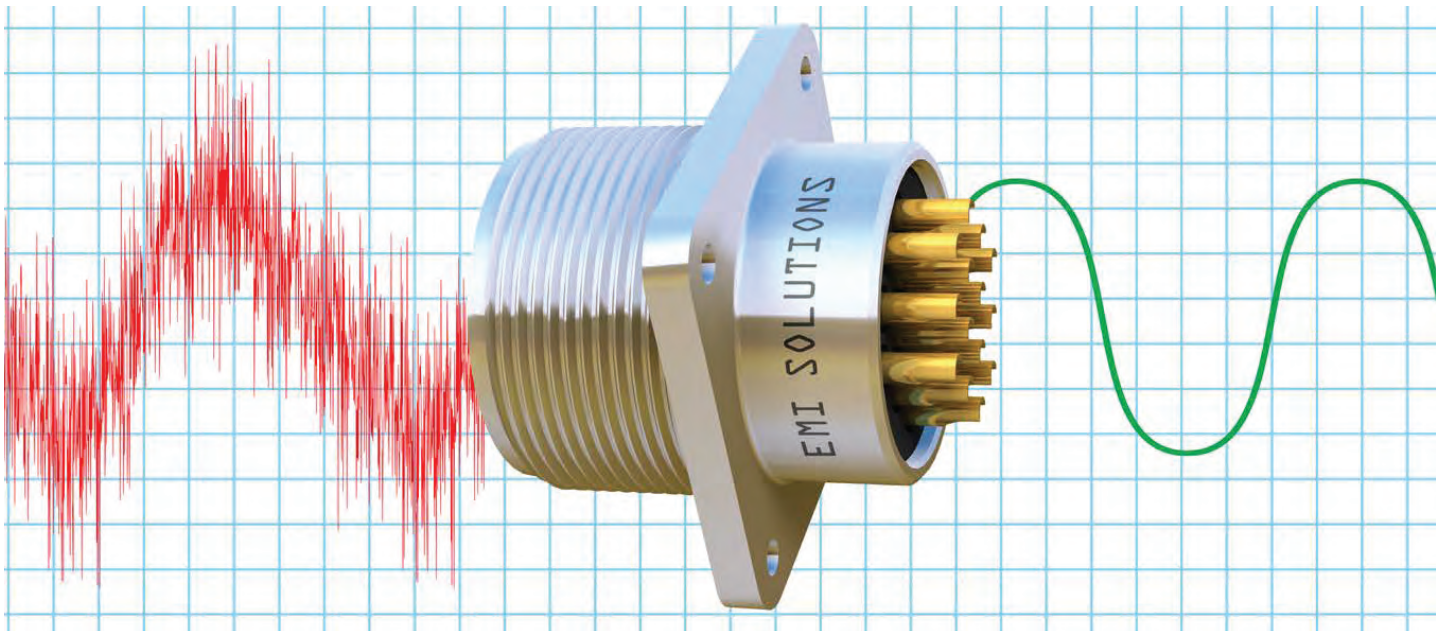


Filter Modules

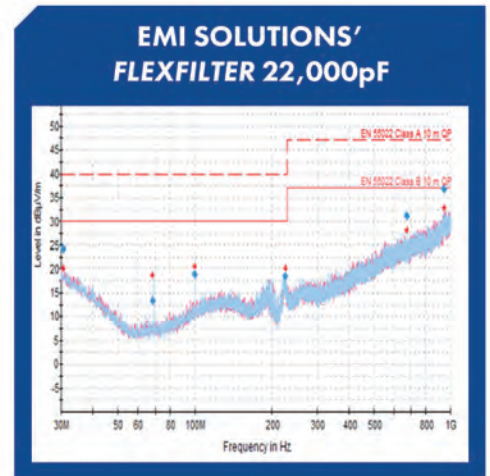
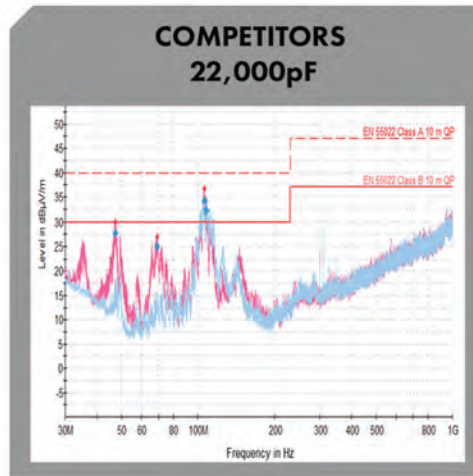
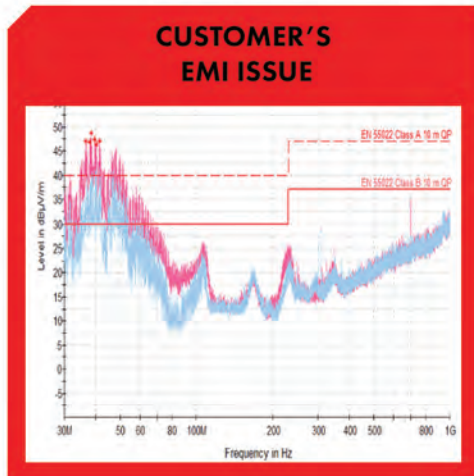
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Sales@4EMI.com



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EMI Solutions Provides Superior Results



About EMI Solutions:

Headquartered in our expanded facility in Irvine, California, our company was established in 1996 based on the development of our FlexFilter inserts for EMI filtering. Over the years, EMI Solutions has steadily grown by diversifying our product offering to meet our customer's needs.

With over 20 years of acquired expertise in the EMI/EMC marketplace, combined with continuous improvement in materials and processes used to develop our products to comply with the AS9100 and MIL-810/DO-160 standards, we are now recognized as the leading woman owned small business manufacturer of EMI filtering products for the military and aerospace supply chain, as well as a diversity of commercial applications.

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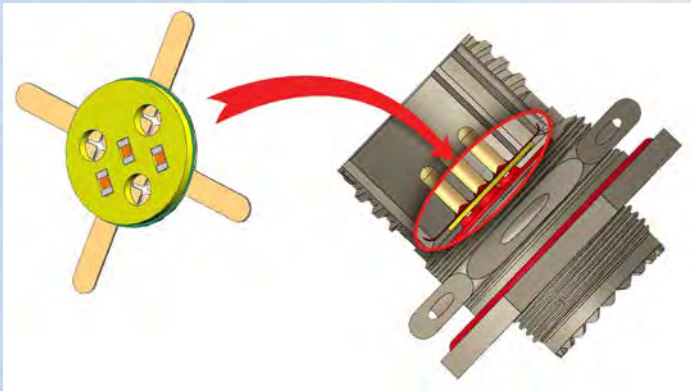
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EMI SOLUTIONS INC

We are the only company in the world that manufactures **BOTH** filter inserts and filtered connectors

ACHIEVE FILTERING OPTIMIZATION



STOP EMI AT THE CONNECTOR INTERFACE

- ✓ **Widest Range of Cost Effective Filtering Solutions**
- ✓ **Easy Access to Engineering**
- ✓ **Industry's Shortest Filtered Connector Lead Times**
- ✓ **FlexFilter Insert Samples Ship in One Business Day**

www.4EMI.com



FlexFilter Inserts

- Cost Effective
- Quick Turn EMI filter
- TVS Component options
- Fits existing Mil-Circular and D-Sub connectors
- Ideal for high voltage and severe environments



Filtered Mil-Circular

D38999, M26482, M5015, M83723

- Chip Cap, Discoidal, Planar or Pi Tube filtering on pin by pin basis
- TVS components



Filtered D-Sub

M24308, M83513

High Density options available

- Chip Cap or Pi Tube filtering on pin by pin basis
- TVS components



Feed-Thru Filters

- Hermetic and Non-Hermetic Options
- C, CL and Pi Filter Types
- Press in, Solder in or Screw in Termination Options



Custom Specialists

