

Circular EMI Filter Connectors >

Enabling reliable signal integrity and stability in space-constrained, high-frequency applications subject to harsh environmental conditions, Circular EMI Filter Connectors help maintain performance, safety and regulatory compliance. These connectors use sophisticated filters to reduce and block electromagnetic interference (EMI) and noise. The high-density circular connector design replaces multiple discrete filters and can be tailored to specific needs or specifications.

ADVANTAGES AND FEATURES

Delivers superior high-frequency performance

Soldered construction provides better high-frequency signal integrity compared to mechanical designs.

Consolidates power and signal filtering into a single package

The large capacitance pin-to-pin ratio range helps simplify system architectures.

Provides AC and lightning protection

Certain versions are capable of withstanding very-high-voltage surges for airborne equipment in transient environments up to DO160 Level IV.

Saves space and weight

The design combines grounded and insulated lines in the same connector.

Voltage (max.)	200V DC or 125V AC
Capacitance (max.)	200nF
Filter Circuit	C, Pi
Contact Termination Style	Pin to PCB, pin to solder cup, socket to PCB, socket to solder cup
Shell Style	Wall mount, jam-nut mount
Operating Temperatures	-55 to +125°C

Meets diverse needs with various shell and plating materials

A comprehensive selection of customizable shell and plating materials addresses application-specific weight, environmental, corrosion or mold resistance requirements.

Enables use in high-pressure and high-altitude applications

Rugged, hermetically sealed designs protect EMI circuits for use in aerospace and defense applications.



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MARKETS AND APPLICATIONS

Military/Defense

Engine controls
Flight controls
Ground communications systems
Missile systems
Military vehicles
Radar systems
Unmanned vehicles
Weapons systems



Unmanned Vehicles



Cockpit Displays



In-Flight Entertainment Systems

Aerospace

Actuator controls
Cabin control systems
Cockpit displays
Communications devices
De-icing systems
Electrical systems
Fire protection systems
Fuel tank sensors
In-flight entertainment systems
Lightning protection devices
Power distribution systems
Refueling systems

SPECIFICATIONS

Reference Information

Packaging: Bag
Designed in: Millimeters
RoHS: Varies by plating option
High-Voltage Surge Resistance:
Up to DO160 Level IV

Capacitance Values

Capacitance Code	102	252	103	253	503
Capacitance Value (pF)	1,000	2,500	10,000	25,000	50,000
Circuit Type	C, Pi	C, Pi	C, Pi	C	Pi

Custom capacitance values and tolerances are available.

Electrical

Capacitance (max.): 200nF
Capacitor Tolerances: +100/-0%; ±20%; ±10%
Working Voltage (max.):
200V DC/125V AC (standard)
Dielectric Withstanding Voltage: 500V DC
Dissipation Factor: <3.5%
Insulation Resistance:
1,000 Megohms μ F or 10,000 Megohms

Mechanical

Filter Circuits: C, Pi
Shell Style: Wall mount, jam-nut mount
Shell Sizes: 9, 11, 13, 15, 17, 19, 21, 23, 25
Contact Termination Styles: Pin to PCB, pin to solder cup, socket to PCB, socket to solder cup

Physical

Material Finish: Electroless nickel, olive drab
cadmium, black nickel zinc, nickel Teflon
Shell Material: Stainless steel, aluminum, composite
Operating Temperatures: -55 to +125°C