



EMI/EMP Filter Connectors



Planar filter arrays and TVS diodes may be integrated into virtually any connector packaging

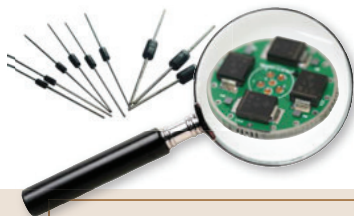
- Planar, multilayer ceramic capacitive filters, with and without transient voltage suppression diodes
- C, L-C, C-L and Pi filter electrical configurations
- PC tail, solder cup or crimp-contact termination
- 10 to 1,000,000 pF capacitance
- -55° to +125°C standard operating temperature range with selected designs available for higher operating temperatures
- Fast and reliable diode burn-in and test services

High reliability EMI/EMP filter connectors resolve even the most difficult EMC challenges



Performance Ratings	
Shock and Vibration	IAW MIL-DTL-38999
Thermal Shock	-55° C to +125° C per EIA-364-32; 380 cycles
Operating Temperature	-55° C to +125° C
Mating Cycles	500 Mating Cycles
Corrosion Resistance	1000 Hours on Stainless Steel Shells
Shielding Effectiveness	Effective over a range of 100MHz to 10GHz with a minimum 50dB effectiveness at 10GHz
Immersion Rating	MIL-STD-810 Method 512; 1 Meter for 1 Hr. (selected series)
Shell-to-Shell Resistance	2.5 Millivolt drop maximum, per EIA-364-83

Electrical Performance	
Current Rating	up to 220 Amps
Capacitance	10pF to 1,000,000pF
Insulation Resistance	5GΩ
Dielectric Withstanding Voltage	100 to 2500 VDC
Dissipation Factor	2.5% Max
Diode Clamping Voltage Range	3.3V to 260V
Diode Peak/Pulse Power	up to 30KW



Glenair's state-of-the-art diode burn in process tests leaded and surface mount diodes with leakage current monitored throughout the entire test procedure, ensuring field reliability.

Filter Module Elements

Multilayer Ceramic Planar Array: Containing a network of capacitors, feedthrus and ground lines.

Inductors: Ferrite Beads to provide inductance and increase insertion loss

Contact Types: Choose from Solder Cup, PC Tail or Piggy-Back Crimp (Consult Factory for PC Tail Length Options).

Contact Material: Gold Plated Copper Alloy.

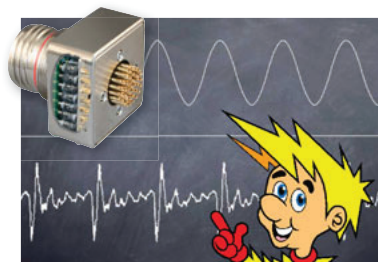
Pin/Hole Intersection: The business-end of the filter, providing each contact with its capacitance value and grounding.

Filter Types

C Single capacitor with low self inductance
LC, CL Single capacitor combined with an inductive element
Pi Dual capacitors with a single inductive element positioned between.



EMI/EMP Filter Connectors



When specifying transient voltage suppression for a given lightning strike waveform (or "shape") and level (or magnitude), diodes must be compatible with EMI filter dielectric withstanding voltage (DWV) rating.

The Industry's Most Comprehensive and Compliant Filter Service

Connector Series:		Line Types:	
38999	83513	CAN BUS	TTL
26482	5015	ARINC 429	Analog Sensors
83723	Series 80	RS 232	Thermocouple Wires
28840	Series 79	RS 422	USB
24308	Series ITS	RS 485	Ethernet
ARINC 600			

Requirement Compliance:	
MIL-STD-449D	RF Spectrum
MIL-STD-461E	EMI Susceptibility
MIL-STD-1310G	Shipboard EMC
MIL-STD-1512	Electroexplosive Subsystems
MIL-STD-1541A	EMC for Space Systems
MIL-STD-1795A	Aerospace Lightning Protection
MIL-STD-1857	Grounding, Bonding and Shielding
MIL-STD-1542B	EMC and Grounding for Space Systems
EN 61000-4-2...4-3, 4-4, 4-5, 4-6, 4-8	Electromagnetic, RF and Power
RTCA/DO-160 Section 22	Pin and Cable Level and Waveform

Unique and Special Purpose EMI/EMP Filter Connectors



EMI Filter Package with TVS EMP Diodes Unique Filter Package with Sidecar Filter Elements ARINC Rack and Panel Filter Connector EMP Diode-Equipped Connector with Oversized Shell

EMI Filter Rating in Dielectric Withstanding Voltage (DWV) For Compatibility with Transient Suppressing Diodes

DO 160 Waveform	Level	Waveform (Voc)	Recommended Dielectric Withstanding Voltage	Capacitance pF Minimum						
				19000	16000	9000	4000	1650	400	200
1 MHz Damped Ringing Sine	1	100		500	500	500	500	500	500	500
	2	250		500	500	500	500	500	500	
	3	600		500	500	500	670	720	720	
	4	1500		740	840	1210	1660	1800	1800	
	5	3200		1580	1790	2580	3530	3840	3840	
Double Exponential 6.4 x 70 μsec	1	50		500	500	500	500	500	500	
	2	125		500	500	500	500	500		
	3	300		500	500	500	500	500		
	4	750		820	850	900	900	900		
	5	1600		1920	1920	1920	1920	1920		
Double Exponential 40 x 120 μsec	1	50		500	500	500	500	500	500	
	2	125		500	500	500	500	500		
	3	300		500	500	500	500	500		
	4	750		900	900	900	900	900		
	5	1600		1920	1920	1920	1920	1920		