FILTER CONNECTORS

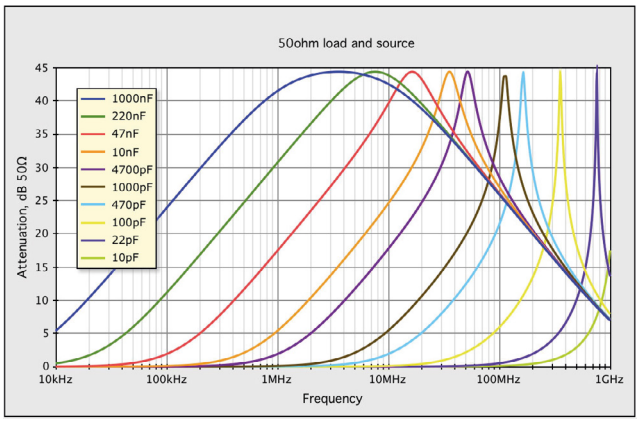
TopFlite Engineers will be happy to work with you and your team or your contract manufacturer to solve your EMI and transient protection problems. TopFlite produces filter connectors not only for custom connector builds, but also for popular industry series such as MIL-DTL-38999, MIL-C-26482, MIL-C-5015, MIL-C-83723, MIL-C-26500, Micro Connectors, and D-Sub Rectangular applications.

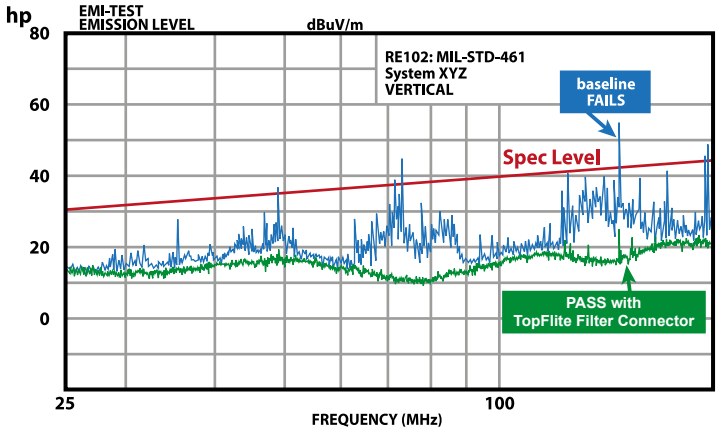
Our Filter Connectors can withstand extreme mechanical and environmental abuse; environmental and mechanical tests conducted by indepednet laboratories show that even severe environements do not affect the integrity of this rugged product line. Components and wiring are fully embedded in protetive silicone material and all internal wiring is gold plated per MIL-G-25204. These advantages allow our connectors to withstand severe temperature ranges and exposure to many deteriorating influences such as ozone, chemicals, aging, and Ultra Violet emissions.

TYPICAL CAPACITOR RANGES		
Connector Insert Density	WVDC (Working Voltage DC)	Max Capacitance Values(min 1pf)
Very High	50VDC →	1µF
	1000VDC →	8.2nf
Medium to Low	50VDC →	4.7µF
	2000VDC →	4.7nf

Other values may be available

TYPICAL CAPACITOR ATTENUATION CURVE





FILTER CONNECTORS
TYPICAL PERFORMANCE DATA

Shock

MIL-STD-1344A Method 2004.1, Test Condition C (except 150g instead of 100g): 1/2 sine, 6 ms, 6 shocks/axis, total 3 axes

Vibration

MIL-STD-1344A Method 2005.1, Test Condition IV: 10-2000Hz, 20g, 4 hours/axis, total 3 axes and MIL-STD-810E paragraph 514.4: 3.75Hz @ 0.07g to 33.75Hz @ 2.5g to 500Hz @0.002g2/Hz, 4 hours/axis, total 3 axes

Salt Spray

Method 1001.1: 48 hr exposure at 95F

Thermal Cycling

RTCA/DO160C: -55C to +125C, 20 cycles

Humidity Exposure

RTCA/DO160C Category A: 95%RH @ 50C for 24hr, @ 30C for 24hr

Temperature-Altitude

MIL-STD-5400 4.6.2.3 Class 1A: -55C to 125C, 30,000 ft

Durability

MIL-STD-1344A Method 2016: 250, 375 & 500 mate/demate cycles

Fluid Immersion

MIL-STD-1344A Method 1016, Fluids a, c, d & e, with connectors mated: 5 minute immersion @ 85C in each of Hydraulic Fluid, 2 Lubricating Oils & JP-5

Removal Re-Use Assessment

128pin EESeal® completely removed from connector and re-inserted 12 times

Porosity

MIL-STD-1344A Method 1017: Contacts exposed to 70% HNO3 (concentrated reagent grade nitric acid) for 75 minutes at 23C, 10 minutes in air @ 125C, no corrosion observed

Fungus

MIL-STD-810F Method 508.5 modified to 84 days

Out-gassing

ASTM E-595-07, TML <1%; CVCM <0.1%, Post bake required, 24 hours @300F