

For 2M Filtered High Density Connectors, Look to the leader...

Amphenol® EMI Protection Connectors have been designed and manufactured for over 45 years. Our EMI protection connectors offer the versatility of our standard 2M connectors with EMI protection to suit the demands of your application.

Advantages of Filter Connectors

- Reduction in overall weight and space with the elimination of external filtering
- Reduction in solder joints
- Fewer components equals a cost effective solution with increased reliability
- Eliminates radiated and conducted EMI from entering the box
- Perfect for retrofits or late design-in
- Can utilize standard connector packaging



Resources

Amphenol Aerospace Factory Direct: 607.563.5011
Filter Technical Support: FilterApps@Amphenol-aao.com

Quality

All filter connectors undergo extensive mechanical and electrical testing to ensure consistent, quality hardware.

Standard Electrical Tests

- 100% Insulation Resistance testing
- 100% Dielectric Withstanding Voltage testing
- 100% Capacitance testing at 1KHz

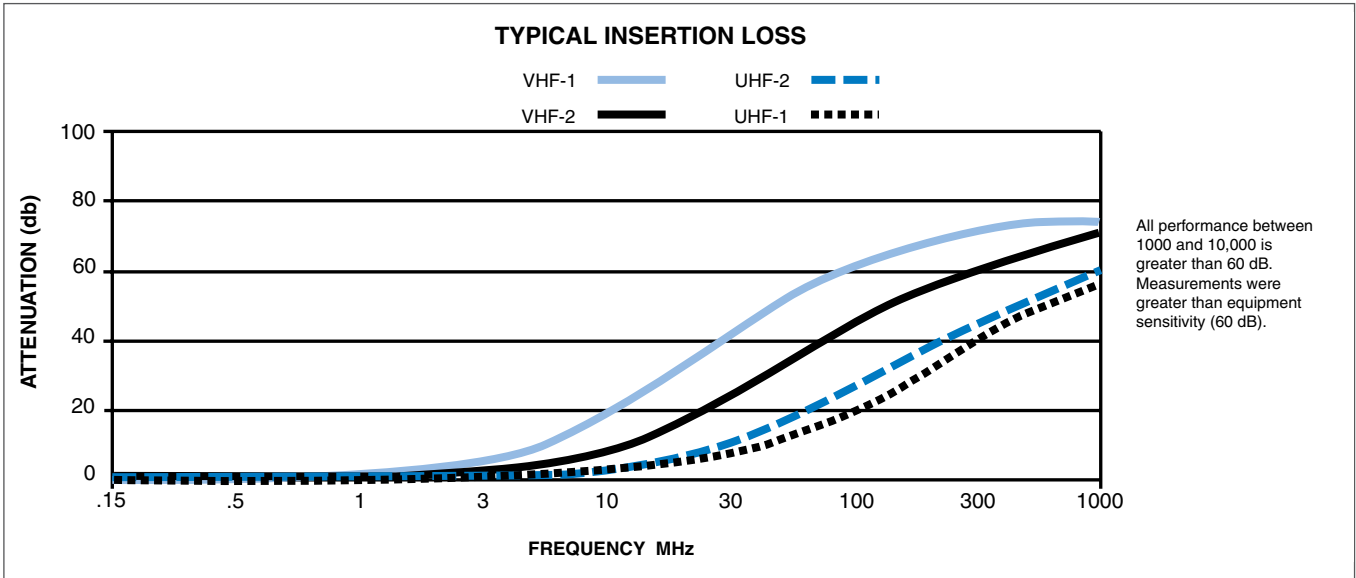
Special Tests/Processes Available

- Attenuation testing (through 100 MHz)
- Leakage inspection
- Thermal cycling/shock
- Burn-in
- De-gassing

**AMPHENOL WILL WORK TO PROVIDE THE BEST SOLUTION IN
STANDARD 2M PACKAGING FOR THE MOST COST
EFFECTIVE SOLUTIONS AVAILABLE**

Filtered 2M Attenuation Characteristics

Note: Below are typical capacitance values. Other capacitance values are available. Please consult Amphenol Aerospace for availability.



**TYPICAL INSERTION LOSS (dB)
PER MIL-STD-220, 5 ADC, 25°C**

Capacitance	1MHz	3MHz	10MHz	30MHz	100MHz	300MHz	1000MHz
375 pf UHF ₁	0	0	1	8	16	—	—
750 pf UHF ₂	0	0	3	10	19	—	—
2500 pf VHF ₂	0	2	8	20	28	—	—
7000 pf VHF ₁	5	9	17	23	40	—	—

Most filter attenuation curves and capacitance values are expressed at 25°C. However, temperature can affect the capacitance of a barium titanate filter element, affecting the insertion loss that the element will cause. In order to assist the user in anticipating the effect of various temperatures, the following charts applicable to Amphenol filter connectors utilizing VHF-1, VHF-2, UHF-1 and UHF-2 filters are provided. Please note that all insertion loss (attenuation) values given were measured with no load applied. The band designations refer to MIL-STD-2120.

VHF-1

Typical Capacitance = 7,000 pf Min. 4,900 pf Max. 12,000 pf
Band G, Type Pi

Temp.	F _{co}	1MHz	3MHz	10MHz	30MHz	100MHz	300MHz	1000MHz
-55°C	—	1	2	8	21	44	61	65
Room	1.27M	1	6	18	42	62	72	75
+125°C	—	0	2	9	24	45	62	64

Note: F_{co} = Cut-off Frequency

VHF-2

Typical Capacitance = 2,500 pf Min. 1,900 pf Max. 4,000 pf
Band E, Type Pi

Temp.	F _{co}	1MHz	3MHz	10MHz	30MHz	100MHz	300MHz	1000MHz
-55°C	—	0	2	7	17	40	58	71
Room	3.3M	0	2	8	24	46	61	71
+125°C	—	0	3	10	26	46	63	69

UHF-1

Typical Capacitance = 375 pf Min. 290 pf Max. 450 pf
Band B, Type Pi

Temp.	F _{co}	1MHz	3MHz	10MHz	30MHz	100MHz	300MHz	1000MHz
-55°C	—	0	0	1	6	21	43	58
Room	21.9M	0	0	1	8	18	42	56
+125°C	—	0	0	1	8	17	38	50

UHF-2

Typical Capacitance = 750 pf Min. 500 pf Max. 1,100 pf
Band C, Type Pi

Temp.	F _{co}	1MHz	3MHz	10MHz	30MHz	100MHz	300MHz	1000MHz
-55°C	—	0	0	3	9	25	46	61
Room	12.7M	0	0	3	10	28	46	61
+125°C	—	0	0	3	10	24	42	60

Please consult the Amphenol Circular Interconnects catalog 12-C Edition 4 for full Amphenol EMI/EMP Filter Protection information.