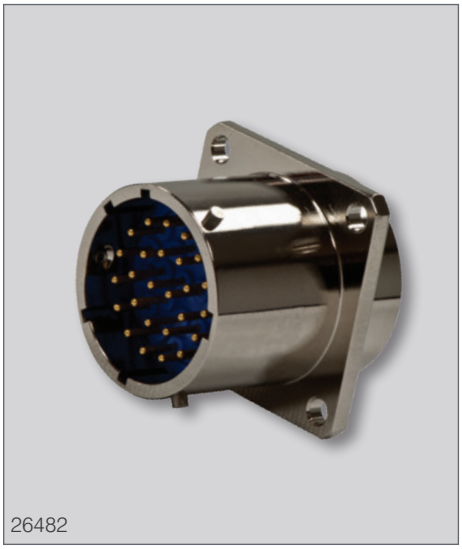
Circular Filter Connectors For EMI Protection


26482


38999 III


38999 IV

INTRODUCTION

Amphenol CIT's circular filter connectors meet the requirements of their specific connector Mil-Spec's including shock and vibration at temperature. These low-pass filter connectors include the most popular circuits, C, CL/LC, Pi and T, and are constructed using planar filter technology for maximum strength and high performance from low to high frequencies. Multiple capacitance values, circuits, feedthrus and/or grounds can be incorporated into the arrangement to produce the desired performance. All thermal processes are profiled and controlled, cleanliness is checked and 100% of the contacts undergo electrical testing to ensure a quality product.

PERFORMANCE, BENEFITS, & CERTIFICATIONS

- Planar design
- Sealed (for aqueous cleaning)
- Ferrite immobilization
- Can offer solderless designs
- Space qualified
- Can incorporate filtering plus transient voltage suppression

DESIGN CONSIDERATIONS

CIRCULAR	MATING END CONTACTS	FILTER TYPES*	ELECTRICAL	ENVIRONMENTAL	MOUNTING HARDWARE	CONTACT TERMINATIONS
MIL-DTL-38999 Series I,II,III,IV	Pin	C	DWV min ____ VDC	Thermal Cycle	Clinch Nut	PC Tails
	Socket	Pi	IR	Thermal Shock	Helicoil	Soldercup
MIL-DTL-26482 Series 2		C-L/L-C	Capacitance	Burn-in	Board Mounted Flange	Crimp
		T	Feed Thru Contacts	Immersion		Wire wrap
Other			Ground Contacts			
			Attenuation			

* Maximum or Mixed Capacitance Requirement? ____pF

Circular Filter Connectors For EMI Protection

MECHANICAL & ENVIRONMENTAL PERFORMANCE

Connectors are designed to meet customer specifications and the applicable MIL Specification requirements. The following are the typical requirements for M38999 filter connectors.

TEST DESCRIPTION	PROCEDURE
Temperature Cycling	Method 1003, MIL-Std-1344, Condition A
Moisture Resistance	MIL-STD-202, Method 106
Durability	500 Matings at a rate of 200 ± 100 cycles per hour
Shock	Method 2004, MIL-STD-1344, Test Condition D
Vibration	Method 2005, MIL-STD-1344, Test Condition VI, Letter J, 8 Hours longitudinal and perpendicular axes
Fluid Immersion	MIL-STD-1344, Method 1016, Fluids (a) and (d)
Salt Spray	MIL-STD-202, Method 101, Condition B
Humidity	MIL-STD-1344, Method 1002, Condition B

Burn-in, thermal shock and thermal cycle testing available in-house

ATTENUATION GRAPHS