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## EMI-Filtered, High-Density D-Sub Adapters and Connectors

With the latest advancements in D-Sub filter design, EMI-Filtered, High-Density D-Sub Connectors are optimized for reliable noise suppression, enhanced frequency attenuation, and improved conductivity and durability. These connectors combine advanced C-filter technology with rugged construction to deliver superior EMI suppression and signal integrity. Ideal for high-performance applications, these d-sub connectors offer customizable configurations to meet diverse needs, ensuring reliable operation in demanding environment including aerospace and industrial sectors.

### **ADVANTAGES AND FEATURES**

#### **Provides efficient space utilization**

The EMI filters that are built into the connectors offer additional space on the PCB board.

#### Withstands lightning and AC transient environment conditions (up to DO160 Level IV)

Transient options are available.

## Enhances high-frequency performance

The one-piece, die-cast connector shells have a ground-plane shielded interface.

#### **Saves PCB space**

Grounded and insulated lines are in the same connector.

#### Offers vertical integration; saves time

These products are manufactured in the US to have better control over the supply chain.

Current	3.0A; RF current: 0.3A
UL Recognized	Yes
Shell Sizes	15, 26, 44
Operating Temperatures	-55 to +125°C

#### Provides versatility for ease of design

The adapters and connectors are available in an extensive selection of mechanical configurations.

## Supports segregated line insertion loss (IL) performance

Predictable line-to-line isolation improves signal quality and lowers insertion loss.

## Enhances connector performance for high reliability

These products are 100% tested for defined key parameters.

#### Promotes consistent performance with power and signal filtering in a single package

A large capacitance pin-to-pin ratio range is included.

#### Allows superior performance and minimal impedance compared to onboard filter with high impedance These connectors have low ground impedance.



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## EMI-Filtered High-Density D-Sub Adapters and Connectors

### MARKETS AND APPLICATIONS

**Military and Commercial aircraft** Flight controls Engine controls Navigation systems

#### **Military (defense)**

DATASHEET

Tactical weapons Unmanned aerial vehicle (UAV) flight controls Target acquisition systems Night vision sensors Airborne radios

Medtech Electronics Imaging equipment

**Telecommunications** Cellular base stations Mobile/cellular repeaters

Industrial automation Process equipment Gas monitors



Navigation Systems



UAV Flight Controls



Imaging Equipment



Cellular Base Stations



Graphics Systems and Workstations



Gas Monitors

### **SPECIFICATIONS**

#### **Electrical**

Voltage (max.): 100V Current (max.): 3.0A RF Current (max.): 0.3A Contact Resistance (max.): 15 milliohms Dielectric Withstanding Voltage (DWV): for high-density type connectors 300V UL recognized: Yes Capacitance values from 85 to 4000 pF Minimum Insertion Loss (dB): Varies based on frequency see below table

#### Physical

- Operating temperatures: -55 to +125°C Connector Types and Configurations: Common configurations include: 15, 26
- and 44 pins
- Connector options include:
- Threaded Locking Inserts (LI) • #4-40 UNC or metric M3.0 threaded inserts in mounting flanges
- Plated steel inserts with last thread upset for torque
- Grounding bracket (GB) right-angle mount PCB connectors
- Metal bracket in place of plastic
  Grounding Springs: Beryllium copper, tin plated per MIL-T- 10727
   Connectors designed to MIL-DTL-24308.

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## EMI-Filtered High-Density D-Sub Adapters and Connectors

Capacitance		3 Db Max. Cutoff	Dieletric	Contact	Contact	Working Voltage DC	Packaging							
Value	Tolerance	Frequency (Mhz)	Dieletitic	Rating	Resistance	-55 - 125°C	5MHz	5MHz	10MHz	20MHz	50MHz	100MHz	200MHz	1GHz
85pF	+/-25%	60	- 300V	3.0A	15 Milliohms Max.	100V	-	-	-	-	1	6	16	21
180pF	+/-25%	28					-	-	-	1	8	10	18	25
1,000pF	+/-25%	6.1					-	3	8	14	20	25	32	35
4,000pF	+/-25%	1.3					8	13	19	26	31	37	45	48

#### www.molex.com