

Filter Micro–Ribbon Connectors – FCE57 Series

STANDARD MICRO–RIBBON INTERFACE WITH INTEGRATED EMI FILTERING

FCE57 Micro–Ribbon Filter connectors combine filtering and connectivity by having the capability to filter unwanted EMI while providing the required data connectivity. Also, enhanced EMI Control/EMC Compliance on the connector outperforms that of the same filter components on a PCB. Along with this, radiated and conducted emissions from the device as well as external EMI/RFI are shunted to the ground, thereby protecting both the device and the surrounding environment.

- PCB Space Savings – Integrated filter elements, saves PCB space
- Cost Saving – External filter components are not required; this reduces overall applied cost
- Easy EMI Upgrade – Filtered connectors fit standard non-filtered connector footprints



TARGET MARKETS



FEATURES

- Patented Stress–Isolated Design
- Wide Offering with 36/50/64 position standard arrangements, and Power/Signal Combos, in Pin and Socket Types, with PCB tails or solder cups
- Wide Operating Temperature Range from -40°C to $+85^{\circ}\text{C}$
- High Strength Thermoplastic components meet UL 94V–0
- Contact plating available in $15\mu\text{m}$, $30\mu\text{m}$ or $50\mu\text{m}$ of gold
- Up to 300V Working Voltage, 5A DC per contact
- Low impedance chip capacitors (NP0 or X7R) in standard values 50 pf to 47000 pf, other values also available
- Variety of Pin/Socket Filtered Adapters available

BENEFITS

- Solderless internal design protects ceramic capacitor filter elements from shock and vibration
- Direct replacement of standard non–filtered connectors for both Power and Signal
- Meets variety of demanding environments
- High reliability in applications requiring UL compliance
- Optimization of performance and value as required
- Meets demanding electrical requirements
- Wide range of Insertion Loss performance characteristics to address various EMI concerns
- Add filtering without replacing existing connectors

TECHNICAL INFORMATION

MATERIAL

- Shell: Stamped Steel, Zinc or Aluminum Die Cast, Tin Plated
- Contacts: Phosphor Bronze; 30μ" Au over Ni; Optional 50u Au available
- Inserts: High Strength Thermoplastic, UL compliance

ELECTRICAL PERFORMANCE

- Contact Resistance: 15MΩ max. per MIL-STD-1344 Method 3002
- Insulation Resistance: 3000MΩ min. per MIL-STD-1344 Method 3003.1
- Current Rating: 5 Amps DC max.

ENVIRONMENTAL

- Temperature Cycling: To MIL-STD-1344, Method 1003, Test Condition A
- Humidity: To MIL-STD-1344, Method 1002, Type I, Test Condition C

SPECIFICATION

- Amphenol Product Specification:
 - MIL-STD-1344
 - UL-STD-94
 - FCC Docket 20780, Part 68, Subpart F

PACKAGING

- Tray
- Carton

APPROVALS AND CERTIFICATIONS

- RoHS
- UL E135615
- CDA LR68598

MECHANICAL PERFORMANCE

- Operating Temperature: -40°C to +85°C
- Vibration: To MIL-STD-1344, Method 2005, Test Condition III
- Durability: 200 Cycles min. to MIL-STD-1344, Method 2016

TARGET MARKETS/APPLICATIONS



Automotive



Datacom
Telecommunications



Energy
Industrial



Medical

PART NUMBERS

Description	Type	Part Numbers
Filter Micro Ribbon	50 size, R/A, 470 pf	FCE57-09500-410
Filter Micro Ribbon	50 size, R/A, no filters	FCE57-09500-4NF
Filter Micro Ribbon	36 size, R/A, 820 pf	FCE57-22360-132
Filter Micro Ribbon	36 size, Adapter	FCE57-09360-1N1
Filter Micro Ribbon	50 size, Plug	FCE57-11500-2A6
Filter Micro Ribbon	50 size, Straight PCB	FCE57-85502-4N5
Filter Micro Ribbon	36 size, Receptacle	FCE57-22360-130
Filter Micro Ribbon	64 size, Receptacle	FCE57-21640-4B0
Filter Micro Ribbon	50 size, Plug	FCE57-11500-2D5