

Filter RF Connectors – BNC Series

FILTERED RF CONNECTOR PROTECTING THE SYSTEM FROM EMI/ESD

Amphenol's BNC RF connectors provide optimum capacitive decoupling between the connector body and the mounting panel, by harmlessly dissipating EMI (Electromagnetic Interference) on the coaxial shield to the chassis ground through capacitors, while not affecting the DC and power supply frequencies. These connectors eliminate the need for additional filter elements on PCB and saves on PCB real estate and cost, while providing better EMI control.

- Inter-mateable and inter-changeable with standard non-filtered versions
- RF performance parameters identical to non-filtered counterpart
- Additional capacitance values are available for different performance levels
- High working voltage of up to 200VDC

FEATURES

- Integrated stress isolated chip capacitors between coaxial shield and mounting panel shunts EMI on the shield to the chassis ground
- 10000 pF capacitors provides filter insertion loss up to 30dB at 1000 MHz
- Available in Filtered, panel-insulated, and grounded version with integrated spark gap arrestors, and a 1MΩ resistor
- Wide operating temperature range from -20°C to +85°C
- Standard BNC mating interface and mounting
- 50 and 75Ω impedance
- Vertical, right angle
- PCB tail, press-fit, solder cup
- Cable, Jack-to-Jack adaptors
- RoHS compliant



TARGET MARKETS



BENEFITS

- Eliminates noise on coaxial shield to protect system and provides DC isolation to reduce ground loop problems
- Prevents coaxial noise over a wide frequency range
- Wide range of electrical options for a variety of applications
- Suitable for demanding applications and harsh environments
- Direct replacement of standard unfiltered BNC Connectors
- Range of styles for all applications
- Meets environmental, health and safety requirements

TECHNICAL INFORMATION

MATERIAL

- Shell: Zinc Die Cast or Brass; Nickel plated
- Contacts: Phosphor bronze or beryllium copper; gold plated (456–107S is silver plated)
- Contact Insulator: Nylon or teflon
- Insulator Body: Thermoplastic

ELECTRICAL PERFORMANCE

- Capacitance: 10000pF
- Working Voltage: 200V DC
- Dielectric Withstanding Voltage: 600V DC, 500VRMS
- Filter Insertion Loss dB: 4 @ 1MHz – 30 @ 1000MHz (EMI frequency)
- Impedance: 50Ω and 75Ω

PACKAGING

- Box

SPECIFICATION

- Amphenol Product Specification: MIL-STD-1344

APPROVALS AND CERTIFICATIONS

- RoHS
- UL E135615
- CSA LR68598

MECHANICAL PERFORMANCE

- Operating Temperature: –20°C to +85°C

TARGET MARKETS/APPLICATIONS



Automotive



Datacom
Telecommunications



Energy
Industrial



Medical

PART NUMBERS

Description	Type	Part Numbers
BNC Filtered RF Connector	10000 pF, 50Ω	456E–117
BNC Filtered RF Connector	10000 pF, 75Ω	456E–717
BNC Filtered RF Connector	10000 pF, 50Ω, Grounded	456E–117G
BNC Filtered RF Connector	10000 pF, 75Ω, Grounded	456E–717G

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