

## **MCX Ultraminiature Product Series**

### 50 ohm Connectors & Cable Assemblies for the Smallest Applications



### **Overview**

Amphenol RF offers MCX connectors and cable assemblies designed for micro-coax cable types. These 50 ohm cable assemblies are ideal for applications with space constraints such as IoT infrastructure and consumer devices.

These robust assemblies feature maximum flexibility and secure mating to ultraminiature interfaces. Using the MCX mounted externally on a panel, the microcoax termination can be routed easily within an enclosure to mate with the appropriate AMC or AMC4 PCB or adapter interface. This option is well-suited for external antennas with an MCX plug interface.

MCX plug to AMC or AMC4 assemblies are also available. This configuration can be used to make connections between PCBs or modules in tight spaces.

### **Features and Benefits**

- · Robust mechanical design
- · Quick connect/disconnect snap-on mating
- · Micro-miniature package size

### **Applications**

- · Wireless Modules
- · Wi-Fi Access Points
- GPS Units
- · External Antenna Connections
- · Handheld Devices
- · Drones and UAVs

### **Amphenol RF**

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# Ordering Information

#### **MCX Ultraminiature Connectors**

Cable Type	Straight Bulkhead Jack – Rear Mount	Straight Plug	Right-Angle Plug
1.13 mm	252197	252204	252196
1.32 mm DS	252200	252198	252199
1.31 mm	252203	252201	252202
RG-178	252167	919-388P-51S	919-389P-51A

#### MCX to AMC Ultraminiature Cable Assemblies

Part Number	Description
336503-08-XXXX	MCX Straight Bulkhead Jack to AMC Right-Angle Plug, RG-178
336503-12-XXXX	MCX Straight Bulkhead Jack to AMC Right-Angle Plug, 1.13 mm
336503-13-XXXX	MCX Straight Bulkhead Jack to AMC Right-Angle Plug, 1.32 mm
336503-14-XXXX	MCX Straight Bulkhead Jack to AMC Right-Angle Plug, 1.37 mm
095-900-559-XXX	MCX Right-Angle Plug to AMC Right-Angle Plug, 1.13 mm
095-900-560-XXX	MCX Straight Plug to AMC Right-Angle Plug, 1.13 mm

### MCX to AMC4 Ultraminiature Cable Assemblies

Part Number	Description
095-900-561-XXX	MCX Right-Angle Plug to AMC4 Right-Angle Plug, 1.13 mm
095-900-562-XXX	MCX Straight Plug to AMC4 Right-Angle Plug, 1.13 mm

Note: 'XXXX' and 'XXX' denotes length code. See available lengths in chart below.



### **Technical Specifications**

### Connectors

### Electrical

Impedance		50Ω	
Frequency Range		DC - 6 GHz	
Voltage Rating		225 Volts RMS Max Continuous	
Dielectric Withstanding Voltage		1000 VRMS Max	
VSWR (Return Loss)	DC - 6 GHz	1.3 (-18dB) Max	
Insulation Resistance		10000 MΩ Min	
Center Contact Resistance		5 mΩ Min	
Outer Contact Resistance		1 mΩ Min	
RF Leakage		-60 dB Max @ 1 GHz	
Insertion Loss		0.10 dB Max @ 1 GHz	

#### **Envrionmental**

Temperature Range	−65°C to +165°C	
RoHS Compliance	Compliant with Excemption 6C	

#### Mechanical

Mating Cycles	500 Min	
Coupling Mechanism	Push-On	

### Materials

Body	Brass or Beryllium Copper, Gold or Nickel Plated	
Contact	Brass, Gold Plated	
Insulator	PTFE, Natural	

### Cable Assemblies

### **Electrical**

	мсх	AMC	AMC4
Impedance	50Ω		
Frequency Range	DC - 6 GHz		

### Mechanical

Mating Cyalas	EOO Min	20 Min
Mating Cycles	500 Min	30 Min

### Materials

Body	Brass	Phosphor Bronze, Gold Plated	Phosphor Bronze, Silver Plated
Female Contact	Beryllium Copper	Phosphor Bronze, Gold Plated	Phosphor Bronze, Gold Plated
Male Contact	Brass		
Insulator	PTFE	PBT	High Temp Engineering Plastic

Note: Technical specificatons are typical and may vary by specific part number. Please see component drawing.