

Description

MCX provides broadband capability through 6GHz. A range of connector configurations is available including printed circuit board and cable connectors. This series gives design engineers options in applications where weight and physical space are limited.

Applications

- Telecommunications
- Instrumentation
- Wireless
- Process Controls
- PC/LAN

Features

- Low cost combined with high quality.
- Broadband performance with low reflection DC to 6 GHz.
- Quick connect/disconnect snap-on mating.
- 50 ohm impedance.

MCX Series

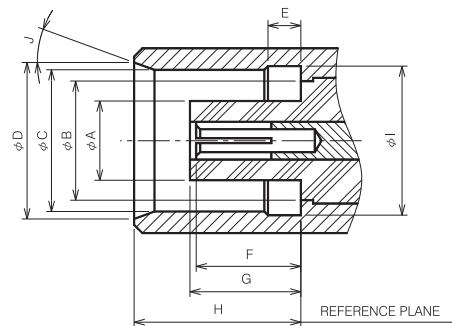
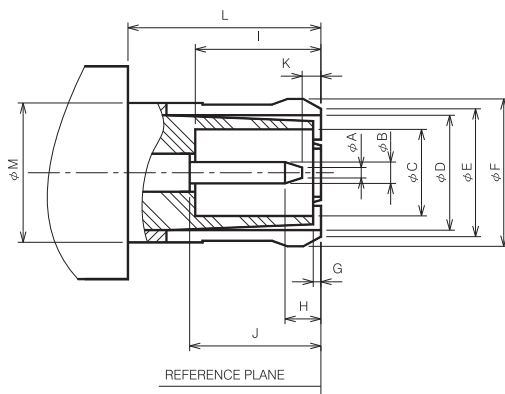
MCX - Specification

MCX . microminiature connectors provide repeatable performance from DC to 6 GHz. The design of these devices have taken into consideration the need for size reduction, low weight, durability and reliable performance. The MCX devices enable a 30% space reduction over similar SMB/SMC types.

The MCX is available for affixment to industry standard cable and as a printed circuit board device. The ** snap-on * connection feature between devices offer the user ease of assembly in dense packaging layouts.

Applications of the MCX are those where size, weight, performance and ease of assembly are the driving considerations to the final design decision. Typically, these include GPS, wireless communications (WLAN and mobile) and automotive.

Interface Mating Dimensions:



PLUG

Letter	Millimeters	
	Minimum	Maximum
A	-	0.25 (0.010)
B	0.48 (0.019)	0.53 (0.21)
C	2.00 (0.079)	2.07 (0.0815)
D	-	3.00 (0.118)
E	-	3.60 (0.142)
F	3.63 (0.143)	3.80 (0.150)
G	0.00 (0.000)	0.30 (0.012)
H	-	1.20 (0.047)
I	2.80 (0.110)	3.20 (0.126)
J	2.80 (0.110)	3.20 (0.126)
K	0.15 (0.006)	-
L	4.15 (0.163)	-
M	-	3.40 (0.134)

JACK

Letter	Millimeters	
	Minimum	Maximum
A	1.80 (0.079)	1.98 (0.078)
B	-	3.00 (0.118)
C	3.42 (0.135)	3.48 (0.137)
D	3.80 (0.150)	-
E	0.75 (0.029)	0.85 (0.033)
F	2.30 (0.090)	2.80 (0.110)
G	2.60 (0.102)	2.80 (0.110)
H	4.00 (0.157)	4.12 (0.162)
I	3.60 (0.142)	3.80 (0.150)
J	18°	22°

Electrical :

Impedance	50 ohm	75 ohm
Frequency Range	0 to 6 GHz	0 to 6 GHz
VSWR	0-2 GHz=1.22 max (straight) 1.5 max (right angle) 2-6 GHz=1.35 max (straight) 1.63 max (right angle)	
Dielectric Withstanding Voltage	RG-174,188,316 →750 volts rms max RG-178,196 →500 volts rms max	
Contact Resistance	Center Contact :5.0 milliohms max. Outer contact :1.0 milliohms max.	
RF Leakage	-60 db min	
Insertion Loss	0.4db max (straight) 0.6db max (right angle)	
Insulation Resistance	1,000 Meg ohms min	

Mechanical & Environmental :

Mating	"Push -pull" snap-on coupling
Durability	500 matings
Cable Retention	RG-174,188,316 →20 lbs min
Temperature Range	-65°C to 165°C
Vibration	MIL-STD-202 Method 204 test Cond.B.
Salt Spray	MIL-STD-202 Method 101 test Cond.B.
Temperature Cycling	MIL-STD-1344 Method 1003 test Cond.A.

Material :

	Material	Plating
Connector Body	Brass	Gold or Nickel
Center Contact	Male: Brass Female: Beryllium-Copper	30 μ " or 3 μ "gold over 80 μ " nickel 30 μ " or 3 μ " gold over 80 μ " nickel
Insulation	Teflon	None
Gasket	Silicone	None
Crimp Ferrule	Annealed Copper or Brass	Same as Body