

Description

MCX connectors conform to the European CECC 22220 spec and were introduced in the 1980's. While the MCX uses identical inner contact and insulator dimensions as the SMB, the outer diameter of the plug is .140 inches, which is 30% smaller than the SMB. This series provides designers with options where weight and physical space are limited. MCX provides broadband capability though 6 GHz with a snap-on connector design. A range of connectors are available, including printed circuit board and cable connectors and they are all used in the Automotive, Wireless LAN, Broadband and Wireless Infrastructure markets.

Features/Benefits

- Broadband performance with low reflection DC to 6 GHz
- Quick connect/disconnect snap-on mating reduces installation time
- Accommodates a wide range of miniature RG flexible semi-rigid coaxial cables

Applications

- Base Station
- Components
- GPS
- Head End Equipment
- Instrumentation
- PC/LAN
- Radios
- Telecom
- Wireless/Networks Antenna

50 Ω MCX Specifications

Electrical

Impedance	50 Ω
Frequency Range	0-6 GHz
Voltage Rating	335 VRMS
Dielectric Withstanding Voltage	1,000 volts
VSWR	Straight connectors: 1.00 @ 2.5 GHz Right angle connectors: 1.10 @ 2.5 GHz
Contact Resistance	Center contact: 5 m Ω; Outer contact: 1.0 m Ω
Insulation Resistance	5,000 M Ω minimum
Insertion Loss	0.10 dB @ 1 GHz

Mechanical

Mating	Snap-on coupling per CECC 22220
Braid/Jacket Cable Affixment	Hex Crimp
Center Conductor Cable Affixment	Solder
Contact Captivation	All types unless noted otherwise
Engagement Forces	Engagement: 4.5 lbs (20N) maximum Disengagement: 2.3 lbs (10N) minimum
Connector Durability	500 mating cycles minimum

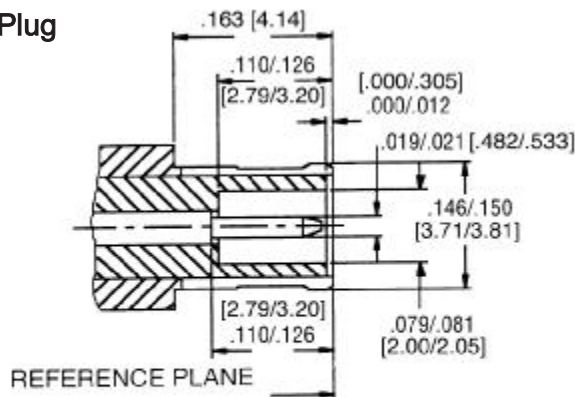
Material

Male Contact	Brass per QQB-626
Female Contact	Beryllium copper per QQC-530, heat-treated per MIL-H-7199
Contact Plating	30 μ" Gold
Body, Metal Parts	Brass per QQB-626
Body/Metal Parts Finish	Nickel or Gold
Insulator	PTFE
Gasket	Silicone rubber
Crimp Ferrule	Seamless copper tubing alloy
Ferrule Finish	Nickel or Gold

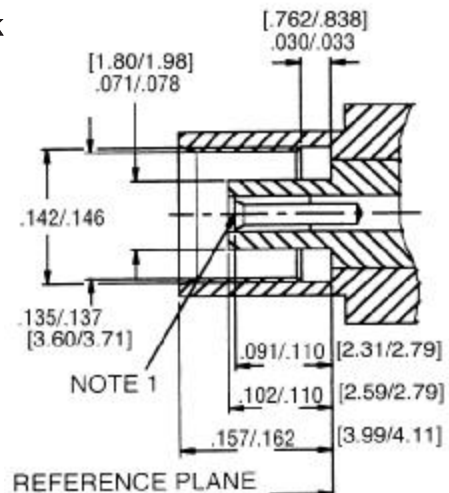
Environmental

Temperature Range	-65°C to +165°C
Thermal Shock	MIL-STD-202 method 107, test condition B (except high temperatures @ 200°C
Shock	MIL-STD-202 method 213, snap-on, test condition B
Vibration	MIL-STD-202 method 204, snap-on, test condition B
Corrosion	MIL-STD-202 method 101, test condition B. 5% salt solution

Plug



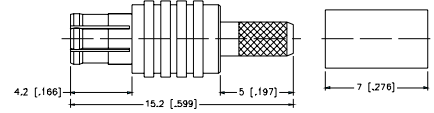
Jack



MCX Coaxial Connectors

Straight Crimp Plug - Miniature cable

P.N.	Cable Group	Plt.	Ins.	Imp.	Crimp Tool
MCX1121A1-NT30G-5-50	05	Nickel	Teflon	50	1
MCX1121A1-3GT30G-5-50	05	Gold	Teflon	50	1
MCX1121A1-002-NT30G-5A-50	5A	Nickel	Teflon	50	2
MCX1121A1-002-3GT30G-5A-50	05A	Gold	Teflon	50	2
MCX1121A1-NT30G-6-75	06	Nickel	Teflon	75	2
MCX1121A1-3GT30G-6-75	06	Gold	Teflon	75	2
MCX1121A1-NT30G-6A-75	06A	Nickel	Teflon	75	2
MCX1121A1-3GT30G-6A-75	06A	Gold	Teflon	75	2
MCX1121A1-NT30G-14-50	14	Nickel	Teflon	50	1
MCX1121A1-3GT30G-14-50	14	Gold	Teflon	50	1



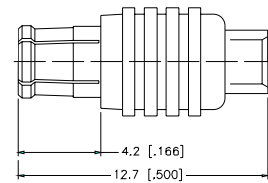
Assembly Instruction J - page 236

Straight Solder Plug - Semi-Rigid Cable

P.N.	Cable Group	Plt.	Ins.	Imp.	Crimp Tool
MCX1181A2-NT30G-10-50	10	Nickel	Teflon	50	N/A
MCX1181A2-3GT30G-10-50	10	Gold	Teflon	50	N/A
MCX1181A1-NT30G-11-50	11	Nickel	Teflon	50	N/A
MCX1181A1-3GT30G-11-50	11	Gold	Teflon	50	N/A
MCX1181A1-3GT30G-13-50	13	Gold	Teflon	50	N/A



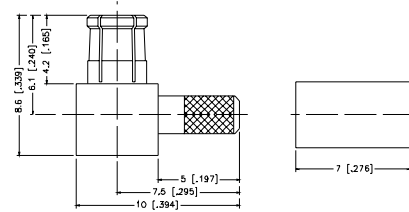
MCX1181A1-3GT30G-13-50



Assembly Instruction C - page 229
Assembly Instruction E - page 231

Right Angle Crimp Plug - Standard and Miniature Cable

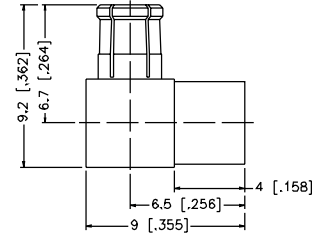
P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX1112A1-NT30G-1-50	01	Nickel	Teflon	50	3
MCX1112A1-3GT30G-1-50	01	Gold	Teflon	50	3
MCX1112A1-NT30G-1A-50	01A	Nickel	Teflon	50	4
MCX1112A1-3GT30G-1A-50	01A	Gold	Teflon	50	4
MCX1112A1-NT30G-5-50	05	Nickel	Teflon	50	1
MCX1112A1-3GT30G-5-50	05	Gold	Teflon	50	1
MCX1112A1-NT30G-5A-50	05A	Nickel	Teflon	50	2
MCX1112A1-3GT30G-5A-50	05A	Gold	Teflon	50	2
MCX1112A1-NT30G-6-75	06	Nickel	Teflon	75	1
MCX1112A1-3GT30G-6-75	06	Gold	Teflon	75	1
MCX1112A1-NT30G-6A-75	06A	Nickel	Teflon	75	2
MCX1112A1-3GT30G-6A-75	06A	Gold	Teflon	75	2
MCX1112A1-NT30G-14-50	14	Nickel	Teflon	50	1
MCX1112A1-3GT30G-14-50	14	Gold	Teflon	50	1



Assembly Instruction I - page 235

Right Angle Solder Plug - Semi-Rigid Cable

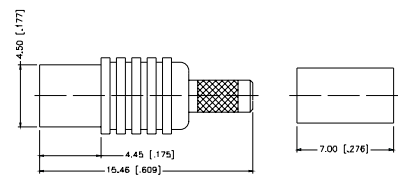
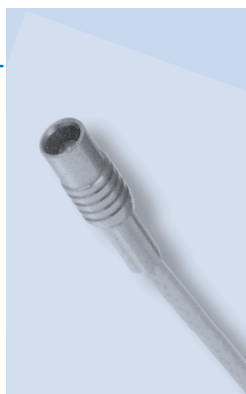
P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX1182A1-NT30G-10-50	10	Nickel	Teflon	50	N/A
MCX1182A1-3GT30G-10-50	10	Gold	Teflon	50	N/A
MCX1182A1-NT30G-11-50	11	Nickel	Teflon	50	N/A
MCX1182A1-3GT30G-11-50	11	Gold	Teflon	50	N/A
MCX1182A1-3GT30G-13-50	13	Gold	Teflon	50	N/A



Assembly Instruction F - page 232

Straight Crimp Jack - Miniature Cable

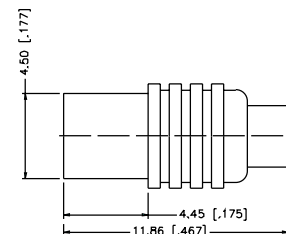
P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6121A1-NT30G-5-50	05	Nickel	Teflon	50	1
MCX6121A1-3GT30G-5-50	05	Gold	Teflon	50	1
MCX6121A1-NT30G-5A-50	05A	Nickel	Teflon	50	2
MCX6121A1-3GT30G-5A-50	05A	Gold	Teflon	50	2
MCX6121A1-NT30G-14-50	14	Nickel	Teflon	50	1
MCX6121A1-3GT30G-14-50	14	Gold	Teflon	50	1
MCX6121A1-NT30G-6-75	06	Nickel	Teflon	75	1
MCX6121A1-3GT30G-6-75	06	Gold	Teflon	75	1
MCX6121A1-NT30G-6A-75	06A	Nickel	Teflon	75	2
MCX6121A1-3GT30G-6A-75	06A	Gold	Teflon	75	2



Assembly Instruction J - page 236

Straight Solder Jack - Semi-Rigid Cable

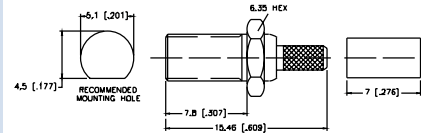
P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6181A1-NT30G-11-50	11	Nickel	Teflon	50	N/A
MCX6181A1-3GT30G-11-50	11	Gold	Teflon	50	N/A
MCX6181A1-3GT30G-13-50	13	Gold	Teflon	50	N/A
MCX6182A1-3GT30G-13-50 Right Angle Jack	13	Gold	Teflon	50	N/A



Assembly Instruction C - page 229
 Assembly Instruction E - page 231
 Assembly Instruction F - page 232

Straight Crimp Bulkhead Jack - Miniature Cable

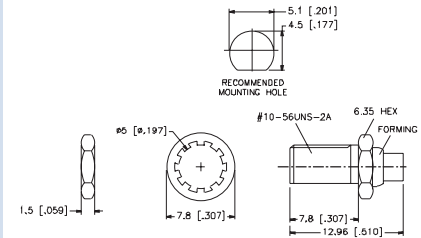
P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6421A1-NT30G-5-50	05	Nickel	Teflon	50	1
MCX6421A1-3GT30G-5-50	05	Gold	Teflon	50	1
MCX6421A1-NT30G-5A-50	05A	Nickel	Teflon	50	2
MCX6421A1-3GT30G-5A-50	05A	Gold	Teflon	50	2
MCX6421A1-NT30G-6-75	06	Nickel	Teflon	75	1
MCX6421A1-3GT30G-6-75	06	Gold	Teflon	75	1
MCX6421A1-NT30G-6A-75	06A	Nickel	Teflon	75	2
MCX6421A1-3GT30G-6A-75	06A	Gold	Teflon	75	2
MCX6421A1-NT30G-14-50	14	Nickel	Teflon	50	1
MCX6421A1-N/3GT30G-14-50	14	Gold	Teflon	50	1



Assembly Instruction J - page 236

Straight Solder Bulkhead Jack - Semi-Rigid Cable

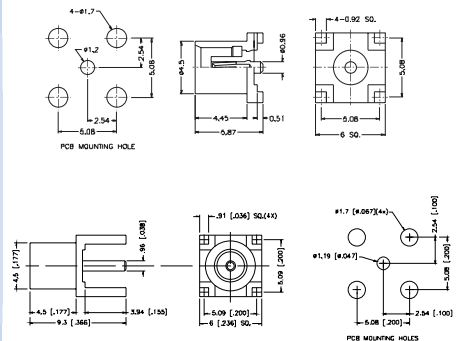
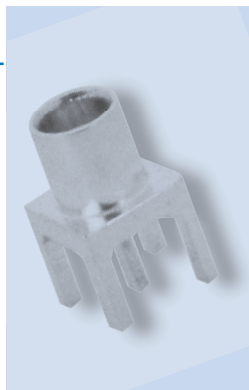
P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6481A1-3GT30G-11-50	11	Gold	Teflon	50	N/A
MCX6481A1-3GT30G-13-50	13	Gold	Teflon	50	N/A



Assembly Instruction B - page 228
Assembly Instruction C - page 229

Straight Jack for P.C. Board

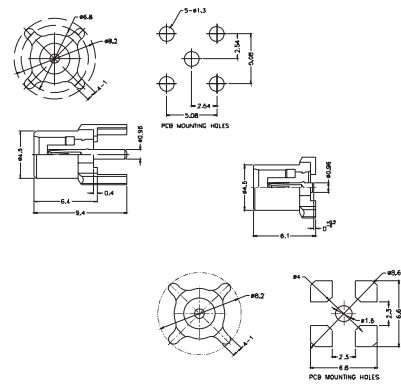
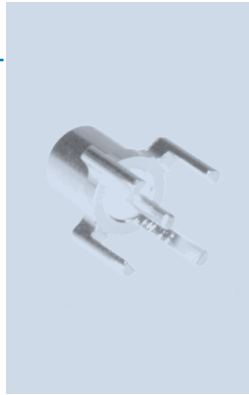
P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6251B1-NT30G-50	N/A	Nickel	Teflon	50	N/A
MCX6251B3-NT30G-50 2.92mm [1.15"] LEGS	N/A	Nickel	Teflon	50	N/A
MCX6251B1-3GT30G-50	N/A	Gold	Teflon	50	N/A
MCX6251B3-3GT30G-50 2.92mm [1.15"] LEGS	N/A	Gold	Teflon	50	N/A
MCX6251B4-NT30G-50 Surface Mount	N/A	Nickel	Teflon	50	N/A
MCX6251B4-3GT30G-50 Surface Mount	N/A	Gold	Teflon	50	N/A



Straight Jack for P.C. Board

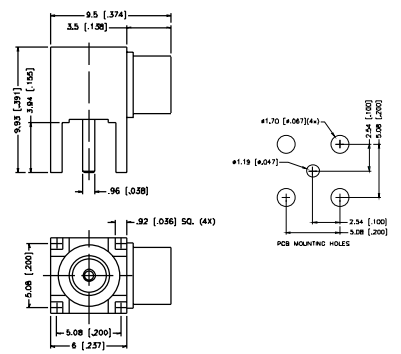
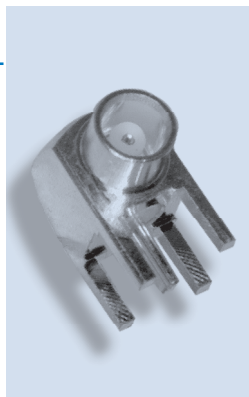
P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6251A1-3GT30G-50	N/A	Gold	Teflon	50	N/A
MCX6251A4-3GT30G-50	N/A	Gold	Teflon	50	N/A

Surface Mount
Low cost version, diecast



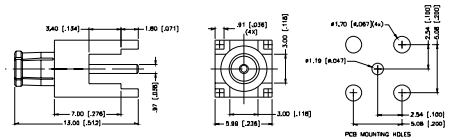
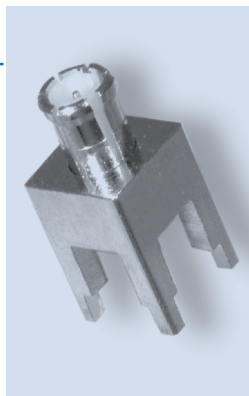
Right Angle Jack for P.C. Board

P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6252B1-NT30G-50	N/A	Nickel	Teflon	50	N/A
MCX6252B1-3GT30G-50	N/A	Gold	Teflon	50	N/A
MCX6252B1-001-NT30G-50	N/A	Nickel	Teflon	50	N/A
2.92 mm [115] LEGS					
MCX6252B1-001-3GT30G-50	N/A	Gold	Teflon	50	N/A
2.92 mm [115] LEGS					
MCX6252B1-004-NT30G-50	N/A	Nickel	Teflon	50	N/A
1.73 mm [68] LEGS					
MCX6252B1-004-3GT30G-50	N/A	Gold	Teflon	50	N/A
1.73 mm [68] LEGS					
MCX6252B4-NT30G-50	N/A	Nickel	Teflon	50	N/A
Surface Mount					
MCX6252B4-3GT30G-50	N/A	Gold	Teflon	50	N/A
Surface Mount					



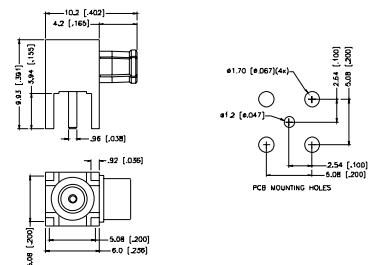
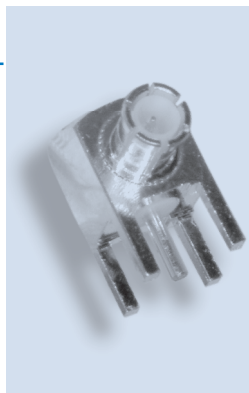
Straight Plug for P.C. Board

P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX1251B1-001-NT30G-50	N/A	Nickel	Teflon	50	N/A
MCX1251B1-001-3GT30G-50	N/A	Gold	Teflon	50	N/A



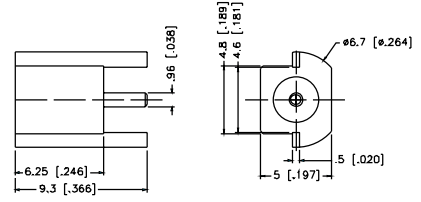
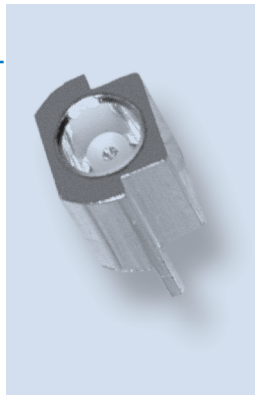
Right Angle Plug for P.C. Board

P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX1252B1-NT30G-50	N/A	Nickel	Teflon	50	N/A
MCX1252B1-3GT30G-50	N/A	Gold	Teflon	50	N/A



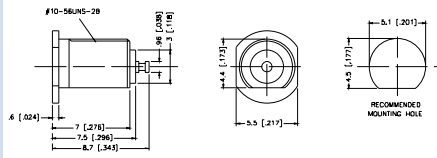
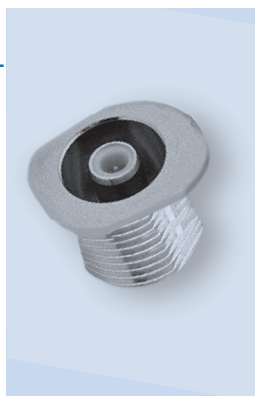
Edgecard Receptacle for P.C. Board

P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX625100-001-NT30G-50	N/A	Nickel	Teflon	50	N/A
MCX625100-001-3GT30G-50	N/A	Gold	Teflon	50	N/A



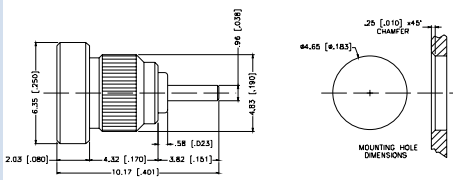
Straight Bulkhead Receptacle

P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6351B9-NT30G-50	N/A	Nickel	Teflon	50	N/A
MCX6351B9-3GT30G-50	N/A	Gold	Teflon	50	N/A



Straight Bulkhead Receptacle - Press Fit

P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX6051A1-NT30G-50	N/A	Nickel	Teflon	50	N/A
MCX6051A1-3GT30G-50	N/A	Gold	Teflon	50	N/A



Straight Bulkhead Plug Receptacle

P.N.	Cable Group	Pit.	Ins.	Imp.	Crimp Tool
MCX1451A1-001-NT30G-50	N/A	Nickel	Teflon	50	N/A
MCX1451A1-001-3GT30G-50	N/A	Gold	Teflon	50	N/A

