

product details

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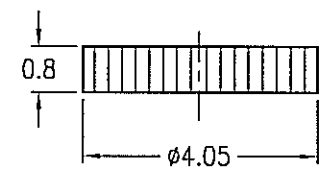
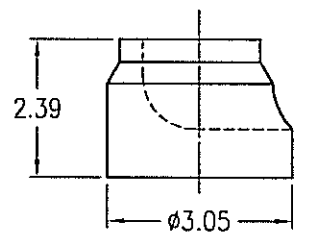
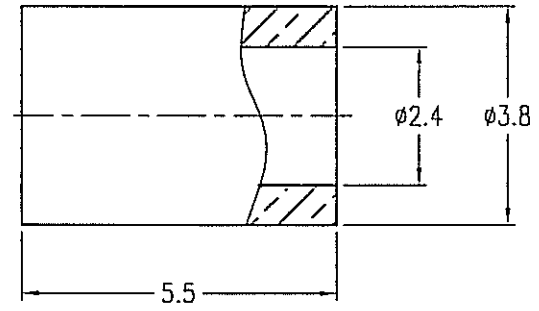
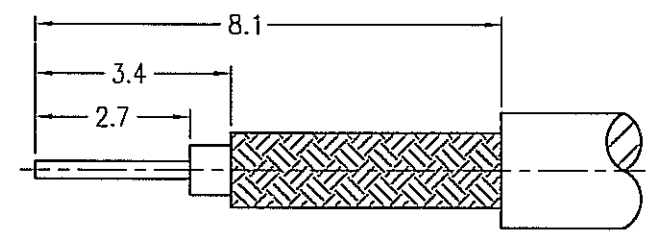
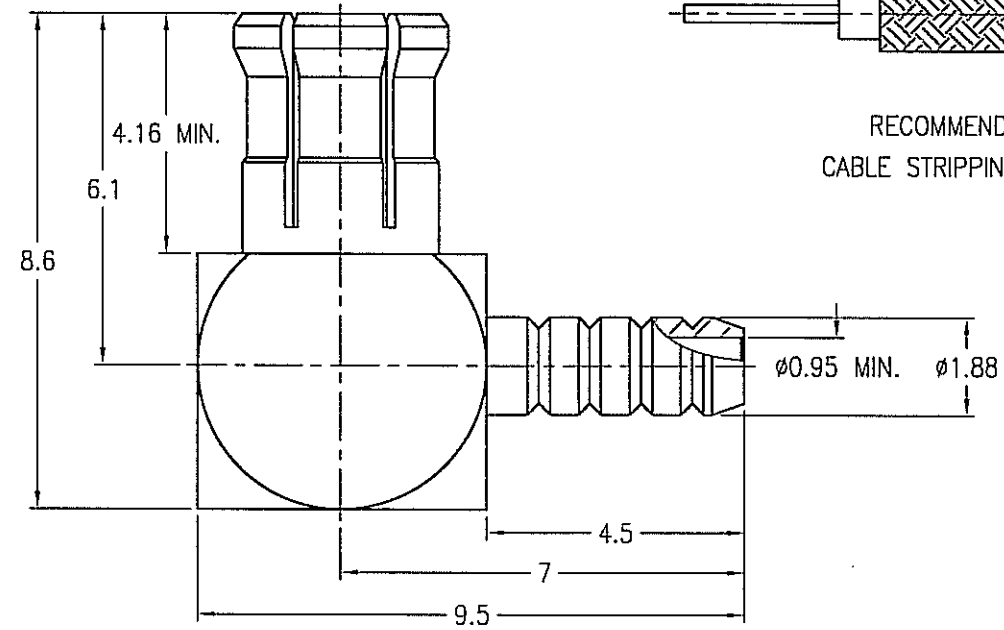
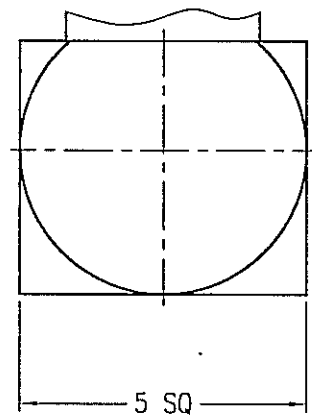
Please note: Images are for reference only

Amphenol Part Number:	919-NM122P-51A
Description:	Non-Magnetic Right Angle Plug for RG-178
Product Series:	MCX
Product Type:	Connectors » Cable
Body Plating:	White Bronze
Connector Body Style:	Right Angle
Contact Plating:	Gold
Gender:	Plug
Impedance:	50 Ohm
Non Magnetic:	Yes
RoHS Compliant:	Yes

NOTES:

1. MATERIALS AND FINISHES(PLATING THICKNESS IN MICRO-INCHES):
 BODY - BERYLLIUM COPPER, WHITE BRONZE PLATING
 CONTACT -BERYLLIUM COPPER, GOLD PLATING
 INSULATORS - DELRIN & TEFLON
 FERRULE - COPPER, WHITE BRONZE PLATING
 2. ELECTRICAL:
 A. IMPEDANCE: 50 OHM
 B. FREQUENCY RANGE: DC 0-6 GHz
 C. VSWR(RETURN LOSS): 1.5 MAX.
 D. DIELECTRIC WITHSTANDING VOLTAGE: 1000 VRMS, MIN.
 3. MECHANICAL:
 A. DURABILITY: 500 CYCLES MIN.
 B. TEMPERATURE RANGE: - 40°C to +155°C
- OTHER:
 A. CRIMPED FERRULE: HEX CRIMP SIZE .128"
 B. SOLDER CENTER CONDUCTOR
 C. INSTALL DISC INSULATOR
 D. PRESS FIT METAL COVER

919-NM122P-51A		REVISIONS			
PART NO.	REV	DESCRIPTION	DATE	ECO	APPR
THIRD ANGLE PROJ.	A	RELEASE TO MFG.	29-Jul-06	46108	CW
	B	SEE SHEET 1 AND CHANGED THE HEX CRIMP SIZE TO .105	25-Aug-06	46240	CW
	C	SEE SHEET 1 AND CHANGED THE HEX CRIMP SIZE TO .128	02-Aug-07	46731	
	D	SEE SHEET 1	9/18/07	46731	



CUSTOMER OUTLINE DRAWING
 ALL OTHER SHEETS ARE FOR INTERNAL USE ONLY

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN METRIC AND TOLERANCES ARE: 0.5 - 6mm ±0.1mm 6 - 30mm ±0.2mm 30 - 120mm ± 0.3mm ANGLES ±1°	MATERIAL	DRAWN C. WANG	DATE 29-Jul-06	TITLE MCX R/A CRIMP PLUG NON MAGNETIC (FOR RG-178)	Amphenol RF Danbury CT USA, Tainan Taiwan, Shenzhen China www.amphenolrf.com	
	REFERENCE MCX1112A1-3GT30G-196AU-50	ENGINEER G. WANG	DATE 29-Jul-06	APPROVED	SCALE: 6/1	SHEET 1 OF 1
NOTICE - These drawings, specifications, or other data (1) are, and remain the property of Amphenol Corp. (2) must be returned upon request; and (3) are confidential and not to be disclosed to any person other than those to whom they are given by Amphenol Corp. The furnishing of these drawings, specifications, or other data by Amphenol Corp., or to any other person to anyone for any purpose is not to be regarded by implication or otherwise in any manner licensing, granting rights or permitting such holder or any other person to manufacture, use or sell any product, process or design, patented or otherwise, that may in any way be related to or disclosed by said drawings, specifications, or other data.	FINISH	CAD FILE F:\DWG\CNPD\919\NM122P\51A-DSZ	DWG SIZE B	CODE ID 74868	REV D	DRAWING NO.
						ITEM NO. PART NO. 919-NM122P-51A

Description

MCX connectors conform to the European CECC 22220 Spec and was 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" which is 30% smaller than the SMB. This series provides designers with options where weight and physical space is limited.

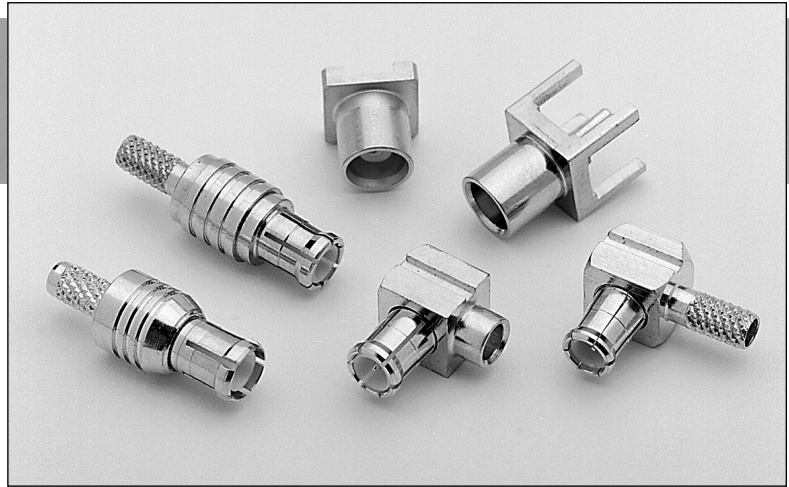
MCX provides broadband capability though 6GHz with a snap-on connector design. A range of connectors are available including PC board and cable connectors.

Features/Benefits

- Broadband performance with low reflection DC to 6 GHz. Low cost combined with high quality.
- Quick connect/disconnect snap-on mating reduces installation time.
- Accommodates a wide range of miniature RG flexible coaxial cables including semi-rigid cable provides customer flexibility in their design and manufacturing with a durable connector.

Application

- Antenna
- Automotive
- Base Station
- Components
- GPS
- Head End Equipment
- Instrumentation
- PC/LAN
- Radios
- Telecom
- WLAN



50 Ohm Coaxial Connectors

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Straight Solder & PCB	20-21

75 Ohm Coaxial Connectors

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ELECTRICAL

Impedance	50 ohms
Frequency range	0-6 GHz
Voltage rating	335 VRMS
Dielectric withstanding voltage	1000 Volts
VSWR	1.00 @ 2.5GHz (straight) 1.10 @ 2.5GHz (rt. angle)
Contact resistance	Center contact: 5 milliohms; Outer contact: 1.0 milliohms;
Insulation resistance	5000 megohms min.
Insertion loss:	0.10 dB @ 1 GHz

MECHANICAL

Mating	50 ohm snap-on coupling, per CECC 22220
Engagement forces	engagement 4.5 lbs (20N) max. disengagement 2.3 lbs (10N) min.
Connector affixment to cable	Braid and jacket: hex crimp.
Cable affixment to center contact	Solder
Contact captivation	All types, except as noted
Connector durability	500 mating and unmating cycles min.

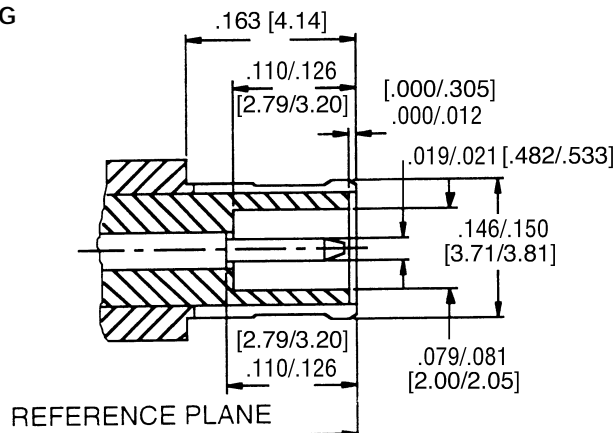
MATERIAL

Body, Metal Parts Finish	Brass per QQB-626 Nickel or Gold
Center contacts gold plated (30 u" gold)	Male: Brass per QQB626 Female: Beryllium copper per QQC 530 heat treated per MIL H 7199
Insulators	PTFE
Gasket	Silicone Rubber
Crimp ferrules	Seamless copper tubing alloy
Finish	Nickel or Gold

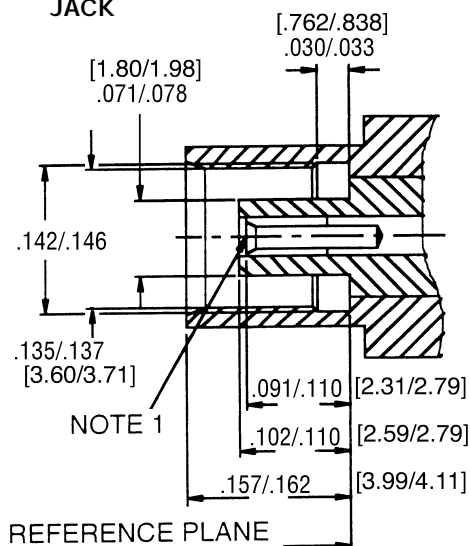
ENVIRONMENTAL

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

PLUG



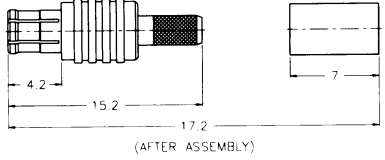
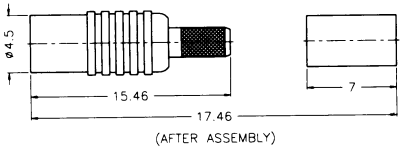
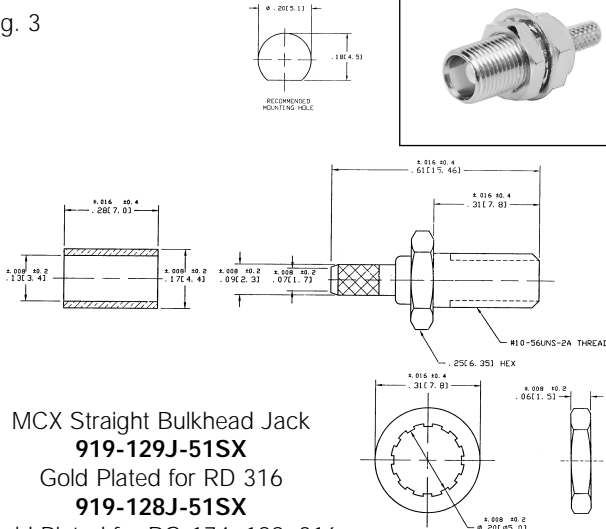
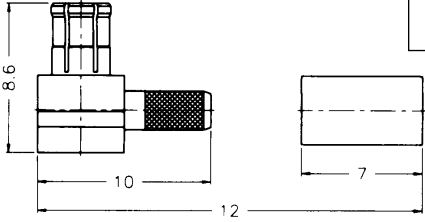
JACK



NOTE:

1. I.D. to meet VSWR and contact resistance when mated with .48/.53mm diameter pin

MCX 50 Ohm Crimp Attachments for Flexible Cable

<p>Fig. 1</p>  <p>MCX Crimp Plug, Crimp 919-101P-51SX Gold Plated for RG-174, 188, 316 919-101P-51S1X Nickel Plated for RG-174, 188, 316 919-121P-51SX Gold Plated for RG-178-196 919-130P-51SX Gold Plated for RD-316</p>	<p>Fig. 2</p>  <p>MCX Crimp Jack, Crimp 919-107J-51SX Gold Plated for RG-174, 188, 316 919-107J-51S1X Nickel Plated for RG-174, 188, 316 919-131J-51SX Gold Plated for RG-178, 196</p>
<p>Fig. 3</p>  <p>MCX Straight Bulkhead Jack 919-129J-51SX Gold Plated for RD 316 919-128J-51SX Gold Plated for RG-174, 188, 316</p>	<p>Fig. 4</p>  <p>MCX Angle Plug, Crimp 919-104P-51AX Gold Plated for RG-174, 188, 316 919-104P-51A1X Nickel Plated for RG-174, 188, 316 919-122P-51AX Nickel Plated for RG-178-196</p>

MCX

50 OHM MCX CABLE CONNECTORS

Cable RG-/U	Cable Attachment		CAI	Plt.	Ins.	Construction Notes	Amphenol Number	Fig.
	Outer	Inner						
RG-174, 188, 316	Crimp	Solder	C74	P11	D1	Gold Plated	919-101P-51SX	1
RG-174, 188, 316	Crimp	Solder	C74	P11	D1	Nickel Plated	919-101P-51S1X	1
RG-174, 188, 316	Crimp	Solder	C74	P11	D1	Gold Plated	919-107J-51SX	2
RG-174, 188, 316	Crimp	Solder	C74	P11	D1	Nickel Plated	919-107J-51S1X	2
RD-174, 188, 316	Crimp	Solder	C77	P11	D1	Gold Plated	919-128J-51SX	3
RG-174, 188, 316	Crimp	Solder	C77	P11	D1	Gold Plated	919-104P-51AX	4
RG-174, 188, 316	Crimp	Solder	C77	P11	D1	Nickel Plated	919-104P-51A1X	4
RG-178, 196	Crimp	Solder	C74	P11	D1	Gold Plated	919-121P-51SX	1
RG-178, 196	Crimp	Solder	C74	P11	D1	Gold Plated	919-131J-51SX	2
RG-178, 196	Crimp	Solder	C77	P11	D1	Gold Plated	919-122P-51AX	4
RD-316	Crimp	Solder	C77	P11	D1	Gold Plated	919-129J-51SX	3
RD-316	Crimp	Solder	C74	P11	D1	Gold Plated	919-130P-51SX	1