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 Specifications

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.

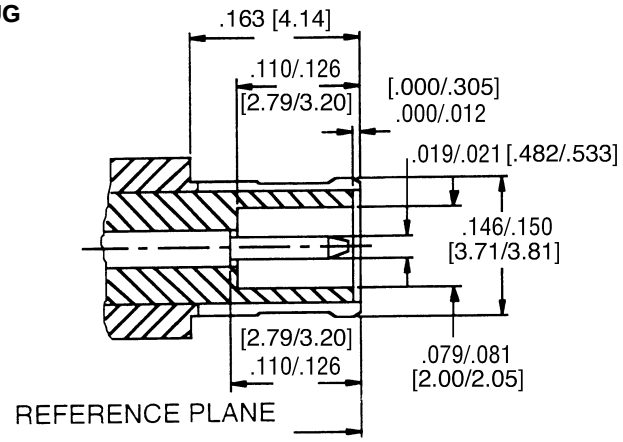
MATERIAL

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 Finish	Seamless copper tubing alloy Nickel or Gold

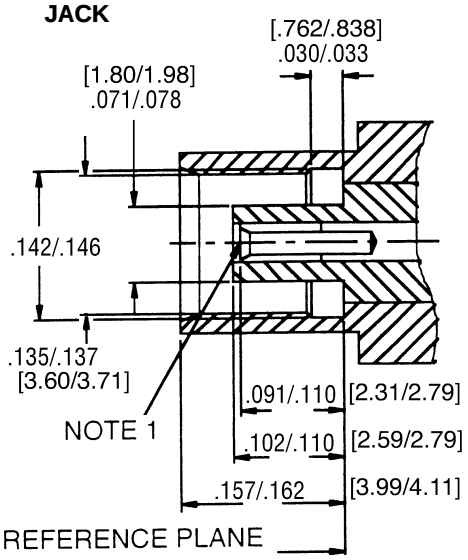
ENVIRONMENTAL

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

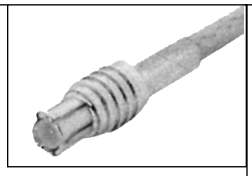


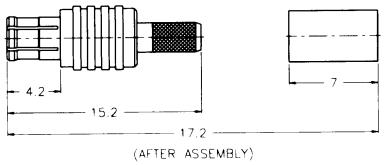
NOTE:

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

50 Ohm Crimp Attachments for Flexible Cable

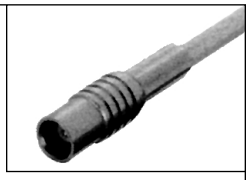
Fig. 1

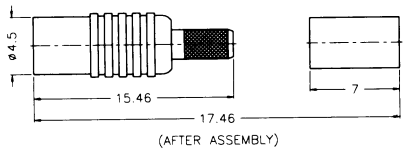




MCX Crimp Plug, Crimp
919-101P-51SX
Gold Plated for RG-174, 188, 316
919-101P-51S1X
Nickel Plated for RG-174, 188, 316
919-121P-51SX
Gold Plated for RG-178-196
919-130P-51SX
Gold Plated for RD-316

Fig. 2



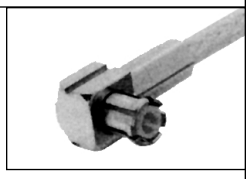


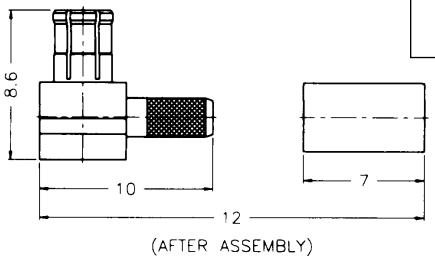
MCX Crimp Jack, Crimp
919-107J-51SX
Gold Plated for RG-174, 188, 316
919-107J-51S1X
Nickel Plated for RG-174, 188, 316
919-131J-51SX
Gold Plated for RG-178, 196

Fig. 3

MCX Straight Bulkhead Jack
919-129J-51SX
Gold Plated for RD 316
919-128J-51SX
Gold Plated for RG-174, 188, 316

Fig. 4





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

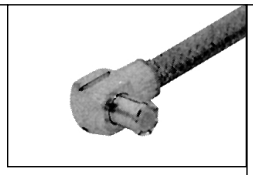
MCX

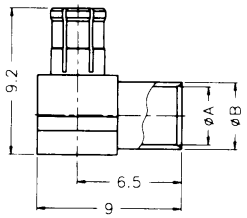
50 OHM MCX CABLE CONNECTORS

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

50 Ohm For Semi-Rigid Cable and PCB

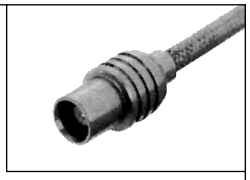
Fig. 1

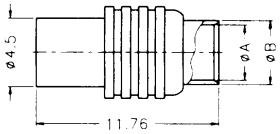




MCX Angle Plug, Solder to Body
919-102P-51AX
for .085 S/R (2.2mm)
919-103P-51AX
for .141 S/R (3.6mm)

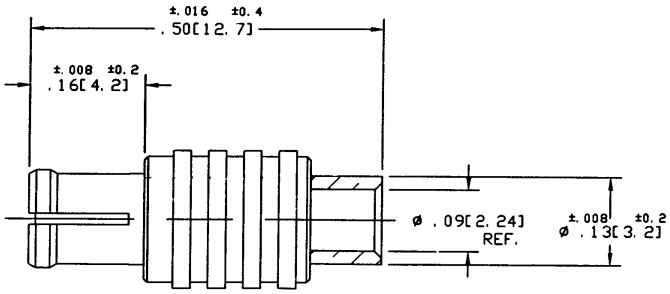
Fig. 2





MCX Jack, Solder to Body
919-114J-51SX
for .085 S/R (2.2mm)

Fig. 3



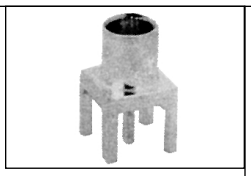
MCX Plug Solder to Body
919-120P-51SX
for .085 S/R 2.2mm

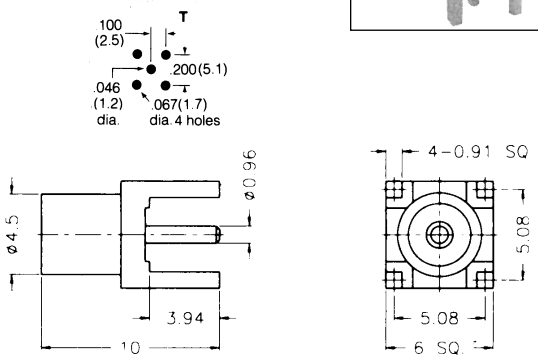
50 OHM MCX SEMI-RIGID CABLE CONNECTORS

Cable RG-/U	Cable Attachment		CAI	Plt.	Ins.	Construction Notes	Amphenol Number	Fig.
	Outer	Inner						
.085 Semi-Rigid	Solder	Solder	C76	P11	D1	Gold Plated	**919-102P-51AX**	1
.085 Semi-Rigid	Solder	Solder	C75	P11	D1	Gold Plated	**919-114J-51SX**	2
.085 Semi-Rigid	Solder	Solder	C75	P11	D1	Gold Plated	**919-120P-51SX**	3
.141 Semi-Rigid	Solder	Solder	C76	P11	D1	Gold Plated	**919-103P-51AX**	1

50 Ohm PCB and Surface Mount

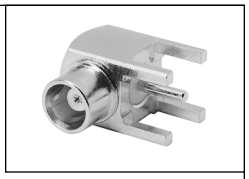
Fig. 1





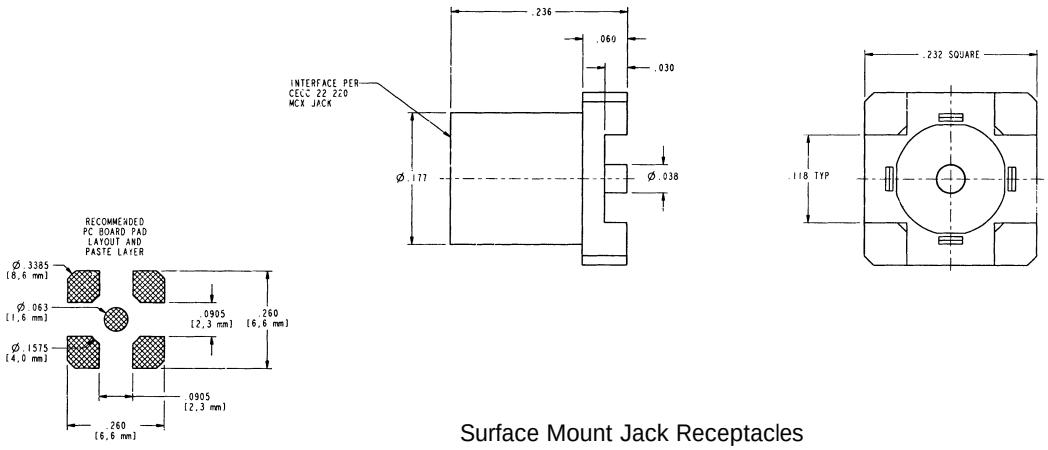
MCX Printed Circuit Receptacle
Blunt Post Terminal, Four Legs
919-109J-51PX
.155 (3.9mm) Legs
Gold Plated

Fig. 2



MCX PCB Right Angle Receptacle
Blunt Post Terminal, Four Legs
919-119J-51AX
.155 (3.9mm) legs
Gold plated

Fig. 3



Surface Mount Jack Receptacles
919-118J-51P
Gold Plated

50 OHM MCX PCB RECEPTACLES

Description	Terminal Type	Plt.	Ins.	MTG Hole	Construction Notes	Amphenol Numbers	Fig.
PCB Panel Jack Receptacles	Blunt Post	P11	D1	T	Stand Off Pads	919-109J-51PX	1
PCB Panel Jack Receptacles	Blunt Post	P11	D1	T	Stand Off Pads	919-119J-51AX	2

50 OHM MCX SURFACE MOUNT

Description	Terminal Type	Plt.	Ins.	MTG Hole	Construction Notes	Amphenol Numbers	Fig.
Surface Mount Jack Receptacles	Blunt Post	P11	D1	—	Surface Mount	919-118J-51P	3

75 Ohm Specifications

ELECTRICAL

Impedance	75 ohms
Frequency range	0-6 GHz
Voltage rating	170 Volts
Dielectric withstanding voltage	500 Volts
VSWR	1.06@ 2.5 GHz (straight) 1.08 @ 2.5GHz (rt. angle)
Contact resistance	Center contact: 5 milliohms; Outer contact: 2.5 milliohms;
Insulation resistance	10,000 megohms min.
Insertion loss:	0.10 dB @ 1 GHz

MECHANICAL

Mating	75 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.

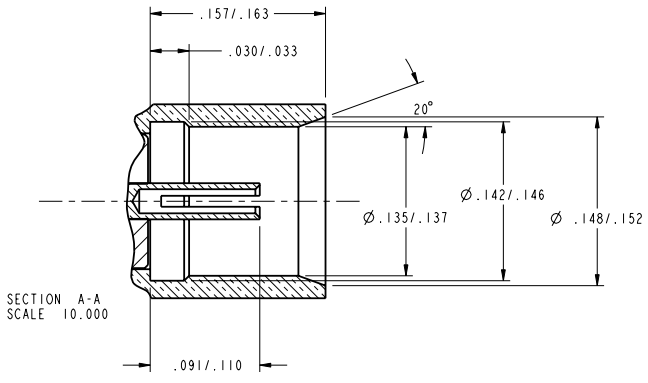
MATERIAL

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 Finish	Seamless copper tubing alloy Nickel or Gold

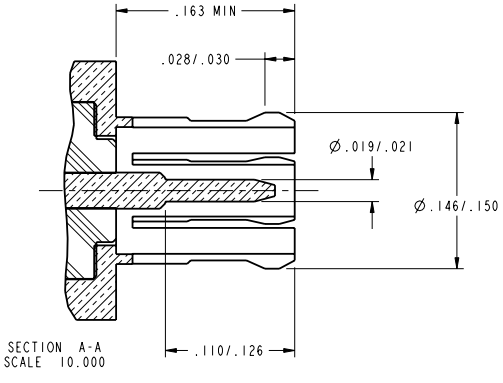
ENVIRONMENTAL

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

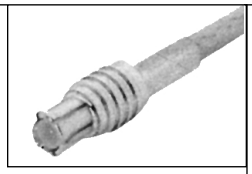


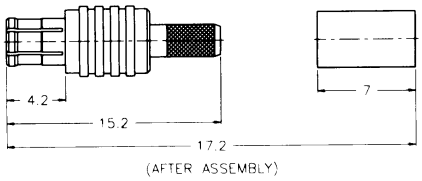
NOTE:

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

75 Ohm Crimp Attachments for Flexible Cable

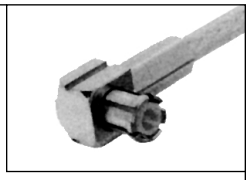
Fig. 1

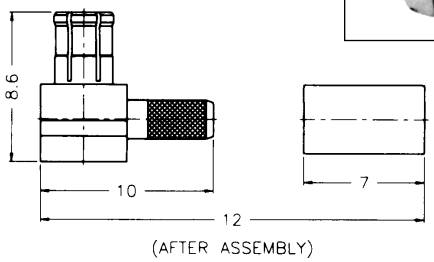




MCX Crimp Plug, Crimp
919-137P-71SX
Gold Plated for RG-179
919-137P-71S2X
Gold Plated for RD-179

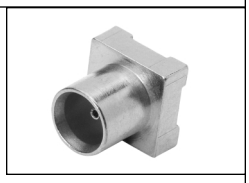
Fig. 2

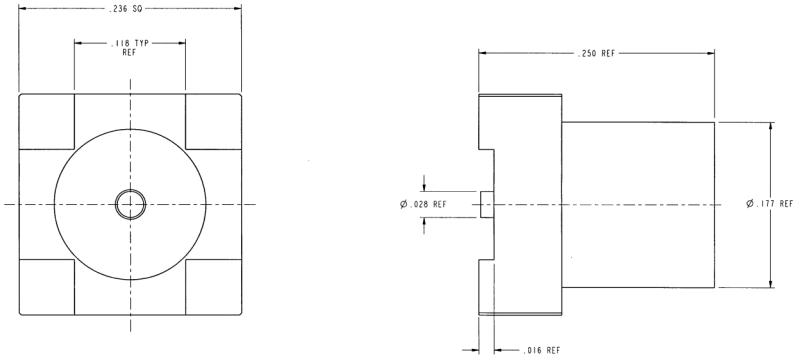




MCX Angle Plug, Crimp
919-136P-71AX
Gold Plated for RG-179
919-136P-71A2X
Gold Plated for RD-179

Fig. 3





MCX Straight Surface Mount
919-132J-71P
Gold Plated

75 OHM MCX CABLE CONNECTORS

Cable RG-/U	Cable Attachment		CAI	Plt.	Ins.	Construction Notes	Amphenol Number	Fig.
	Outer	Inner						
RG-179	Crimp	Solder	C74	P11	D1	Gold Plated	919-137P-71SX	1
RD-179	Crimp	Solder	C74	P11	D1	Gold Plated	919-137P-71S2X	1
RG-179	Crimp	Solder	C77	P11	D1	Gold Plated	919-136P-71AX	2
RD-179	Crimp	Solder	C77	P11	D1	Gold Plated	919-136P-71A2X	2

75 OHM SURFACE MOUNT CONNECTOR

	Cable Attachment		CAI.	Ins.	Construction Notes	Amphenol Number	Fig.
	Outer	Inner					
	Crimp	Solder	C74	D1	Gold Plated	919-132J-71P	3

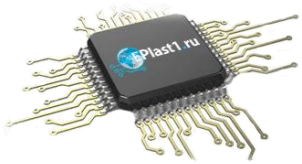
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.