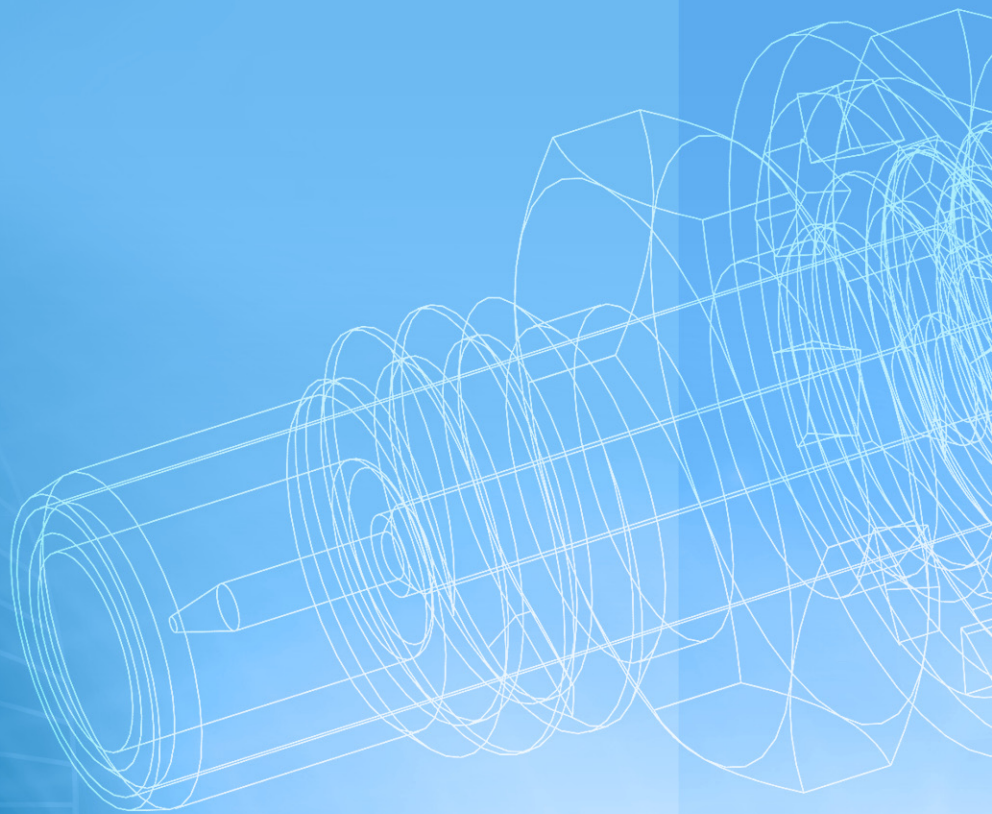


SMC



SMC Connectors

SMC Connectors

Description

The SMC name derives from SubMiniature C (the third subminiature design). The SMC design was developed in the 1960's. SMC has threaded coupling with 10-32 threads. Available in 50 Ω impedance, the SMC Series utilizes die cast components on non-critical areas to provide a low cost solution.

Features/Benefits

- Broadband performance with low reflection DC to 10 GHz.
- Conforms to the interface dimensions of MIL-STD-348.
- 10-32 screw-on (threaded) coupling mechanism allows performance to 10 GHz with low reflection.
- Right Angle connectors available in one piece construction.

Applications

- Antennas
- Automotive (GPS)
- Base Stations
- Cable Assemblies
- Instrumentation
- Video Systems
- Process Controls
- Radio Boards
- Telecom
- Test and Measurement

SMC Specifications

Electrical

Impedance	50 Ω
Frequency range	DC - 10 GHz
VSWR	1.25 + .04 f (GHz)
RF-leakage	55 dB minimum @ 2-3 GHz
Voltage rating (at sea level)	≥ 250 Vrms (depending on cable)
Contact resistance	center contact: ≤ 6 m Ω ≤ 1 m Ω ≤ 1 m Ω
Insulation resistance	5,000 M Ω minimum
Insertion loss maximum	0.25 dB max. @ 4 GHz (straight) 0.5 dB max. @ 4 GHz (right-angle)
Dielectric withstanding voltage	1,000 Vrms (at sea level)

Mechanical

Mating	Threaded coupling (MIL-STD-348)
Coupling nut retention force	35 lbs (156N) min.
Braid/Jacket cable affixment	Hex crimp
Center conductor cable affixment	Crimp
Durability (matings)	500 cycles minimum

Environmental

Temperature range	-65°C to +165°C
Thermal shock	MIL-STD-1344, method 1003, cond. A
Corrosion	MIL-STD-1344, method 1001, cond. B
Vibration	MIL-STD-1344, method 2005, cond. IV

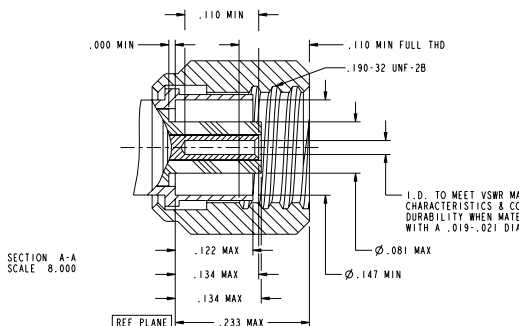
Material

Body and outer contacts	Brass or zinc alloy (ASTM-B86-71), gold or nickel plated
Male contact	Brass, gold plated
Female contact	Beryllium copper center, gold plated
Crimp ferrule	Copper or brass, nickel or gold plated
Insulator	PTFE

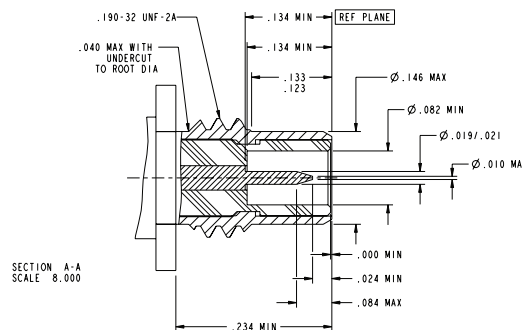
Military

MIL-C-39012	where applicable
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Plug



Jack



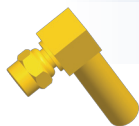
Cable Connectors

Straight Plugs



Cable Group	Part Number	Body	Plating		Termination	
			Contact		Body	Contact
B	903-284P-52S	Gold	Gold		Crimp	Solder
B	903-284P-52S1	Nickel	Gold		Crimp	Solder

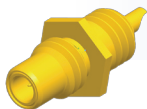
Angle Plugs



Cable Group	Part Number	Body	Plating		Termination	
			Contact		Body	Contact
B	903-288P-52A	Gold	Gold		Crimp	Solder
B2	903-362P-52A1	Nickel	Gold		Crimp	Solder

Receptacles

Straight Bulkhead Jacks

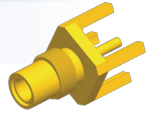


Part Number	Body	Plating		Description
		Contact		
903-408J-52R	Gold	Gold		Panel mount, 4-Hole

Printed Circuit Board Connectors

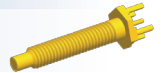
Straight Jacks

Part Number	Body	Plating	Contact	Terminal Type
903-420J-52P	Gold		Gold	Blunt Post



Straight Bulkhead Jacks

Part Number	Body	Plating	Contact	Terminal Type
903-421J-52P	Gold		Gold	Blunt Post



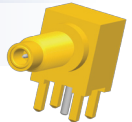
Angle Jacks

Part Number	Body	Plating	Contact	Terminal Type
903-378J-52A	Gold		Gold	Blunt Post



Angle Bulkhead Jacks

Part Number	Body	Plating	Contact	Terminal Type
903-419J-52A	Gold		Gold	Blunt Post



Accessories

SMB/SMC Accessories: Jam Nuts

Part Number	Description
903-10408-1	SMB/SMC Gold Plated Nut Hex, Bulk pack version



SMB/SMC Accessories: Lockwashers

Part Number	Description
903-10409-1	SMB/SMC Gold Plated Lockwasher, Bulk pack version



Cable Group Listing

Cable Group	Cable Type
A	RG-178, 196
B	RG-174, 188A, 316, Belden 7805
B1	RG-179, 187, Belden 9221
B2	RD-188/U, RD-316/U
B3	RD-179/U, AT&T 19224L2
C	RG-58, 58A, 58C, 141, 303, LMR195, Belden 7806A, 9907
C1	RG-55, 142, 223, 400
C2	LMR200, Belden 7807A
D	RG-58/U Plenum, Thinnnet, RG-122/U, Belden 88240, 89907
E	RG-59, 62, 140, 210, Belden 8241, 8263, 8279, 9209
E1	RG-59/U 20 AWG center conductor, Belden 1426A, 1505A, 9100, 9278
E2	RD-59/U, Belden 8281, 9141, 9231
E3	RG-59/U Quad Shield, Belden 1152A
F	RG-59/U Plenum, Belden 1560A, 9259, 82259, 89259, 88241
F1	RG-59/U Plenum 20 AWG center conductor, Belden 82108
G1	RG-6, 143, 212
G2	8X, LMR240, Belden 7808A, 9258
G3	LMR400, Belden 7810A, 8214, 9913
G4	RG-8, 8A, 9, 87A, 213, 214, 225, 393
G5	RD-6/U
H	RG-11
H1	Belden 1694A, 9248
H2	Belden 1859A, 7731, 8213, 9292
H3	RG-54A/U
I	AT&T 734A, Belden 1505A
I2	AT&T 735A, Belden 735A1
J	Quad 59 headend cable
K	LMR600
K2	Belden 1695A
K3	RG-122, 180, 195, Belden 1855, 1865A, 8218
L	.141 semi-rigid, RG-402/U
L2	.085, .086, .087 semi-rigid, RG-405/U
L3	.250 semi-rigid
L4	.047 semi-rigid, Belden 1674
M	1/2 inch annular corrugated
M1	1 1/4 inch annular corrugated
M2	1 5/8 inch annular corrugated
M3	7/8 inch annular corrugated
N	1/4 Helical
N1	3/8 Helical
N2	1/2 Helical
N3	7/8 inch SFC
P1	.81 mm OD micro-cable
P2	1.13 mm OD micro-cable, TCB-068
P3	1.32 mm OD micro-cable
P4	1.37 mm OD micro-cable