

Standard COAXICOM SMB, SMC and CMS connectors are subminiature 50 Ω connectors that have widespread application in telecommunications, GPS, PC/LAN and military applications. The SMB series features Snap-On mating, while the SMC has a threaded coupling to provide higher reliability in vibration-prone environments. The CMS is similar to the SMB, but has no detent. Connectors for cable groups 22, 25 and 27 are available in crimp style only. CMS plugs will mate with SMB jacks.

Mini-SMB 75 Ω connectors as well as mating printed wiring board connectors are available for 75 Ω miniature cables such as RG179 and RG187. These connectors are the same size as standard 50 Ω connectors, and are interchangeable with them. To specify a 75 Ω SMB, add suffix "-75" to a 50 Ω part number.

CABLE GROUPS

22	RG55, 142, 223	27	RG58, 141
23	RG178, 196	29	RG188DS, 174DS, 316DS
24	RG174, 179, 187, 188, 316, LMR100, LMR100A	30	.141" Semi Rigid or Ultra-Flex (RG402)
25	RG180, 195, Essex 21-597	31	.085" Semi Rigid or Ultra-Flex (RG405)
26	RG178DS, 196DS, Microdot 250-3908		

MATERIALS

Body, male contacts, nuts	Brass per QQ-B-626 composition 22, half hard
Spring Contacts	Beryllium Copper per QQ-C-530, condition HT
Insulators	TFE per ASTM-D-1710
Lockwashers	Phosphor Bronze per QQ-B-750

FINISH

Center Contacts	Gold plated per MIL-PRF-39012, IAW MIL -G-45204
Other Parts	Plated to meet the corrosion requirements of MIL-PRF-39012.

MILITARY SPECIFICATIONS

MIL-PRF-39012, MIL-A-55339, MIL-C-83517 and MIL-STD-348 as applicable.
Available Plating: 1 - gold plated, 7 - nickel plated

ELECTRICAL

Impedance	50 Ω, 75 Ω (SMB Only)
Frequency Range	SMB: DC to 4 GHz; SMC: DC to 10 GHz
Insulation Resistance (min)	1,000 Megohms
Insertion Loss (max)	SMB: .30 dB @ 1.5 GHz SMC: .25 dB @ 4.0 GHz
VSWR	SMB: 1.25 + (.04 F[GHz]) SMC: 1.20 + (.04 F[GHz])
RF High Potential Withstanding Voltage	700 VRMS @ 5 MHz
RF Leakage	SMB: -55 dB min.; SMC: -60 dB min.
Contact Resistance	Center contact 2.5 milliohms

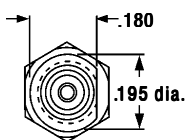
MECHANICAL

Engage/Disengage Force (max)	SMB: Longitudinal force 14 lbs. SMC: 16 inch-ounces torque						
Coupling Nut Retention Force	SMB: Not applicable SMC: 50 lbs. minimum axial force, 8 inch-lbs. minimum torque						
Coupling Proof Torque	SMB: Not applicable SMC: 100 inch-ounces max.						
Cable Retention Force	20 lbs. applied force (min.)						
Mating Characteristics (female only)	<table border="0"> <tr> <td>Oversize Pin:</td> <td>.0215 min. dia. .05 deep</td> </tr> <tr> <td>Insertion Force:</td> <td>2.5 lbs. max. with .021 min. dia. pin;</td> </tr> <tr> <td>Withdrawal Force:</td> <td>1 oz. min. with .019 max. dia. pin</td> </tr> </table>	Oversize Pin:	.0215 min. dia. .05 deep	Insertion Force:	2.5 lbs. max. with .021 min. dia. pin;	Withdrawal Force:	1 oz. min. with .019 max. dia. pin
Oversize Pin:	.0215 min. dia. .05 deep						
Insertion Force:	2.5 lbs. max. with .021 min. dia. pin;						
Withdrawal Force:	1 oz. min. with .019 max. dia. pin						
Connector Durability	500 insertion and withdrawal cycles min. 12 cycles per minute max.						

ENVIRONMENTAL

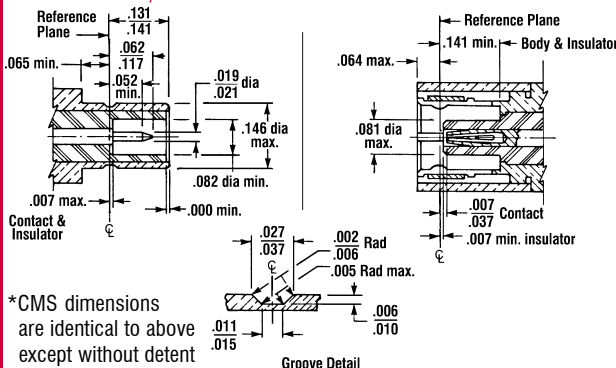
Temperature	-65°C to +165°C
Recommended Mating Torque	SMB: Not applicable SMC: 5 inch-pounds
Corrosion (salt spray)	MIL-STD-202, method 101, test condition B, 5% solution
Vibration, High Frequency	MIL-STD-202, method 204 SMB: Test condition B SMC: Test condition D
Shock	MIL-STD-202, method 213 SMB: Test condition B SMC: Test condition C
Corona Level	No breakdown at 190 VRMS and altitude 70,000 feet

RECOMMENDED MOUNTING HOLE SIZE



Max. Panel thickness = .093"

SMB/CMS* INTERFACE DIMENSIONS



SMC INTERFACE DIMENSIONS

