



ITT

Interconnect Solutions
Cannon, VEAM, BIW



Ensuring soldier safety

in the harshest environments for

20 years and over

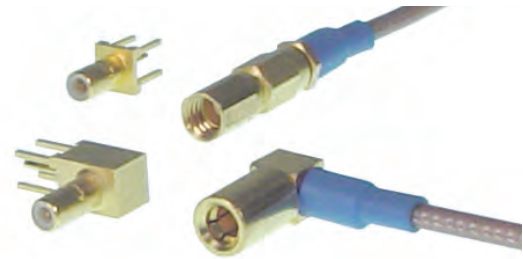
500,000 SINCGARS radios



Engineered for life

This range of 50 ohm microminiature radio frequency connectors is suitable for both military and commercial equipment operating at frequencies up to 4 GHz (SSMB) and 12.4 GHz (SSMC). They provide a choice of Snap-on (SSMB) or Screw-on (SSMC) and are available for a wide range of flexible cables.

SSMC connectors are used where a positive mechanical engagement is required and where space permits the use of torque wrenches. SSMB connectors are quick disconnect versions of the SSMC and are used in applications where limited space prohibits the use of torque wrenches or when components or modules must be quickly changed to keep down time to a minimum.

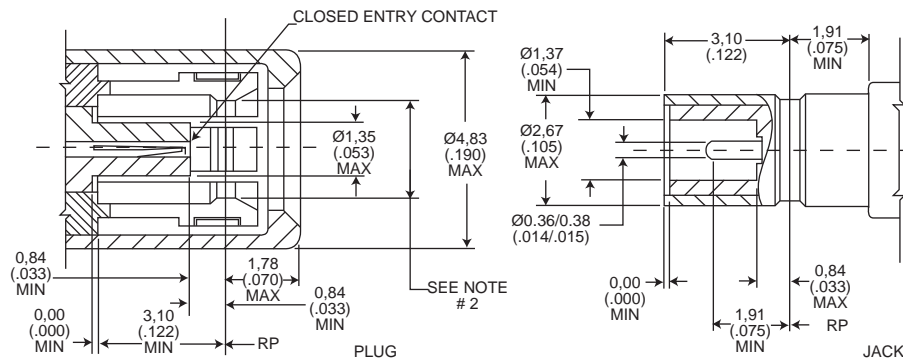


Key Features

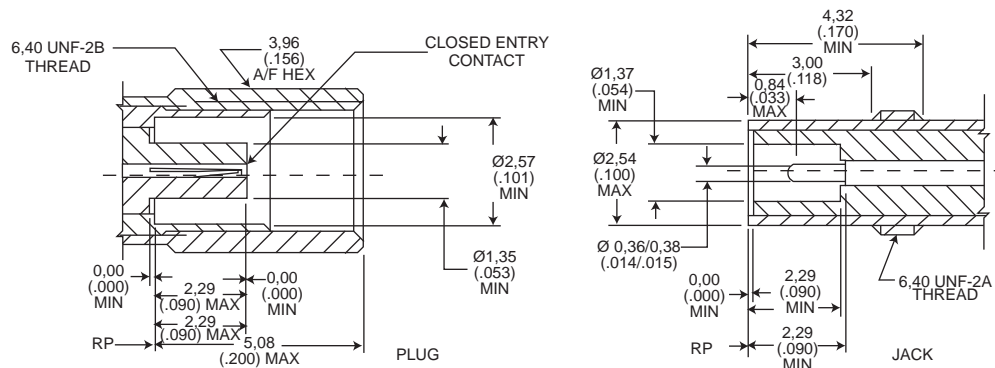
- Small size
- Low mass
- Close packing density
- Used in airborne applications

Mating Interface

SSMB (SNAP-ON)



SSMC (SCREW-ON)



NOTES

1) Inside diameter of female contact to meet VSWR, mating characteristics and connector durability, when mated with a 0,36 - 0,38 (.014 - .015) diameter male contact.

2) Must meet the force to engage and disengage when mated with its mating part.

Specifications

ELECTRICAL	Impedance	50Ω				
	Frequency Range	SSMB = 0 to 4.0 GHz. SSMC = 0 to 12.4 GHz				
	Voltage Rating	At Sea Level = 250 Vrms. at 21km (70k feet) = 60 Vrms				
	Insulation Resistance	1000 MΩ minimum				
	Contact resistance	Center Contact = 4.0 m Ω maximum initial. 6.0 m Ω maximum after environment Outer Contact = 1.0 m Ω maximum initial. 1.5 m Ω maximum after environment Braid to Body = 1.0 m Ω maximum				
	Contact Current Rating	1.0 A dc maximum				
	Insertion Loss	0.30 dB maximum @ 1.5 GHz				
	RF Leakage	SSMB = -40 dB minimum @ 2 - 3 GHz SSMC = -50 dB minimum @ 2 - 3 GHz				
	Voltage Standing Wave Ratio (VSWR) To 12.4 GHz or 80% of upper cut-off frequency of the cable, whichever is lower. Applicable to 50Ω cables only.(F = GHz)	Connector Configuration				
			SSMB		SSMC	
	Cable group	Straight	Right Angle	Straight	Right Angle	
	RG178/U, 196/U	1.25 + .02F	1.25 + .03F	1.20 + .02F	1.20 + .03F	
	RG188/U, 316/U	1.30 + .02F	1.30 + .03F	1.25 + .03F	1.30 + .02F	
MECHANICAL	Engagement Forces	SSMB: Initial = 26.7 N (6 lbs.) max. engagement and 8.9 N(2 lbs.) minimum disengagement. After 500 matings = 26.7 N (6 lbs.) max. engagement and 4.4 N (1 lb.) min. disengagement. SSMC: 0.11 Nm (16 in. oz.) torque max.				
	Mating Torque	SSMB: N/A SSMC: 0.2 Nm to 0.23 Nm (28 - 32 in.oz)				
	Locknut Torque	0.28 Nm to 0.35 Nm (40 - 50 in. oz)				
	Coupling Nut Retention	SSMB: N/A SSMC: 111 N (25 lbs.) minimum				
	Materials	Body, Body Components: Brass, half hard. Male and Female Contacts: Beryllium Copper. Insulators: PTFE. Lockwashers: Phosphor Bronze. Crimp Ferrule: Annealed copper alloy.				
ENVIRONMENTAL	Finish/Plating	Center Contacts: Gold plated. Other Metal Parts: Gold or nickel plated to meet the finish and corrosion requirements of MIL-C-39012				
	Temperature Rating	-65° C to 165° C				
	Corrosion (salt spray)	MIL-STD-202, Method 101, test condition B, 5% salt solution				
	Vibration, High Frequency	MIL-STD-202, Method 204, SSMB: test condition B (15 G's). SSMC: test condition D (20 G's)				
	Shock	MIL-STD-202, Method 213, SSMB: test condition B, 75 G's @ 6 milliseconds, 1/2 sine. SSMC: test condition C, 100 G's @ 6 milliseconds, 1/2 sine.				
	Thermal Shock	MIL-STD-202, Method 107, test condition B, except high temperature shall be 85° C. High temperature shall be 200°C for connectors using 200°C cables.				
GENERAL	Connector Durability	500 matings minimum				
	Contact Captivation	8,9 N (2 lbs.) minimum axial force.				
	Cable Retention	When properly assembled to the compatible single braided coaxial cable, the retention is equal to the breaking strength of the cable.				

Body plating options

The following part number suffices can be specified for SSMB and SSMC connectors.

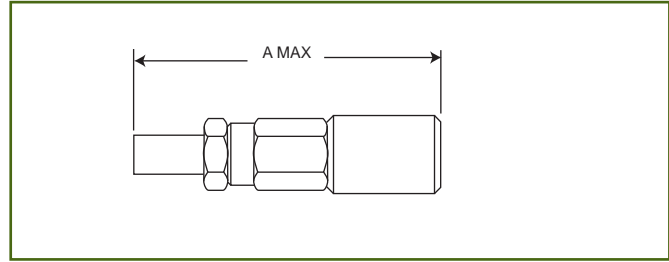
...220 gold body

...910 nickel body

PLUGS, JACKS AND RECEPTACLES

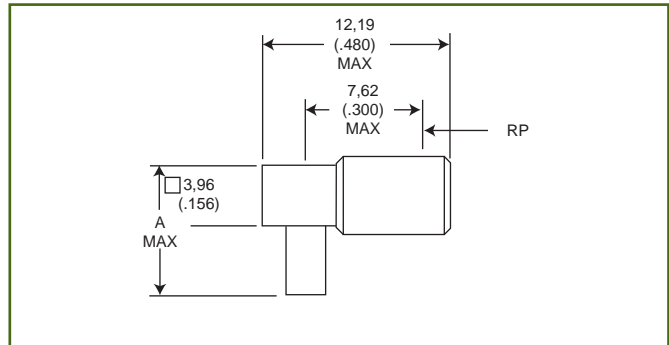
Straight Plug

Part Number	Cable Numbers	A
051 - 424 - 3188220	RG174/U, 316/U	20,01 (.790)
A51 - 424 - 3196220	RG178/U, 196/U	19,33 (.761)



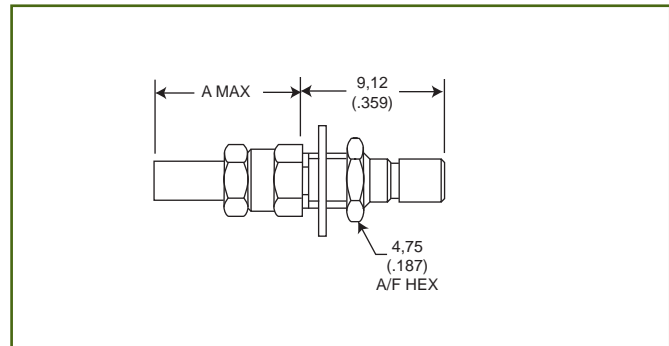
Right Angle Plug

Part Number	Cable Numbers	A
A51 - 428 - 3188220	RG174/U, 316/U	9,55 (.376)
A51 - 428 - 3196220	RG178/U, 196/U	9,55 (.376)
A51 - 428 - 3875220	RD316	10,16 (.400)



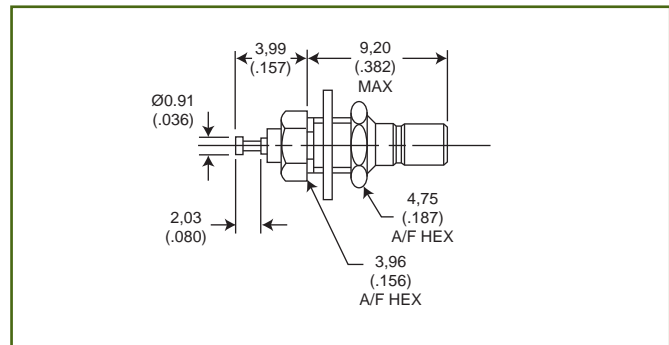
Bulkhead Jack

Part Number	Cable Numbers	A
051 - 427 - 3188220	RG174/U, 316/U	9,93 (.391)
A51 - 427 - 3196220	RG178/U, 196/U	10,41 (.410)



**Bulkhead Receptacle - Rear Mount
Mounting Nut Outside Panel**

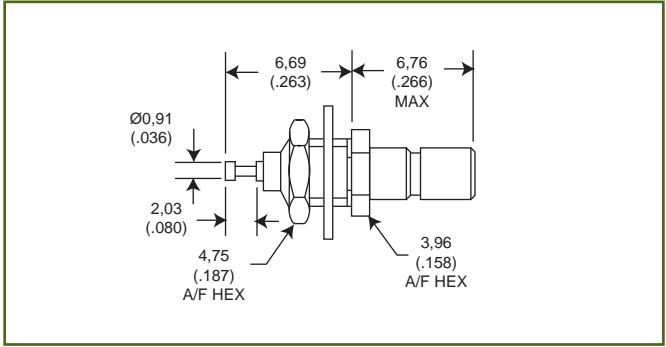
Part Number
051 - 443 - 0000220



BULKHEAD AND PRINTED CIRCUIT RECEPTACLES

Bulkhead Receptacle - Front Mount
Mount Nut Inside Panel

Part Number
051 - 445 - 0000220

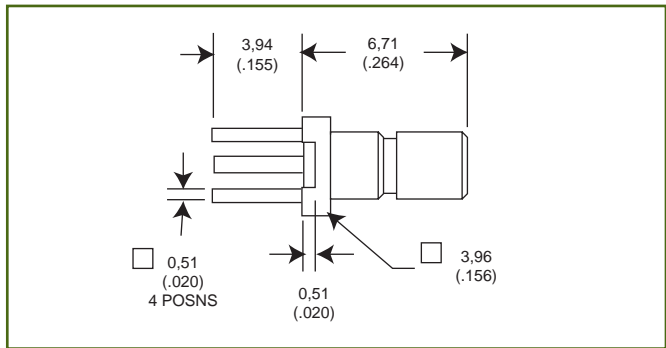


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RF

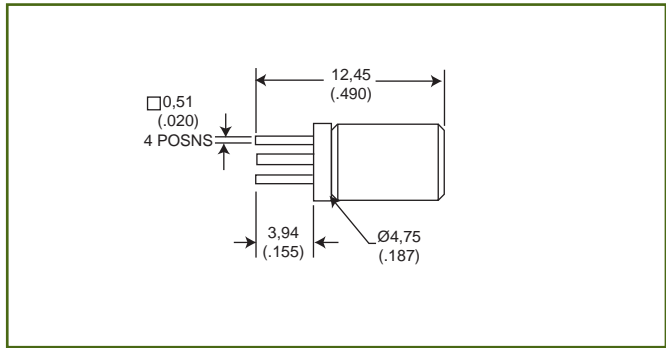
Printed Circuit Receptacle - Straight Jack

Part Number
A51 - 451 - 0000220



Printed Circuit Receptacle - Straight Plug

Part Number
051 - 452 - 0000220



Printed Circuit Receptacle - Right Angle Jack

Part Number
A51 - 453 - 0000220

