

**SMC Connectors**

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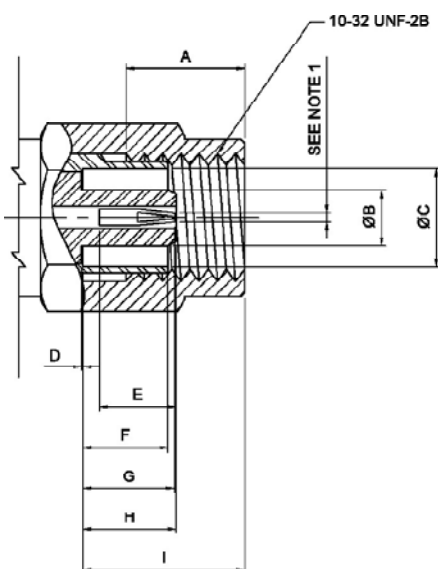


SMC connectors are semi-precision, subminiature devices that provide repeatable electrical performance from DC to 10 GHz. The SMC family of connectors fill subminiature requirements, while providing a semi-permanent connection with their screw on mating mechanism. They are best suited for use with cables in the range of .070" to .120" diameters, such as RG 178, RG 174 and RG 316. The plugs have female contacts while the jacks have male contacts. The series is similar in size to SMB connectors. LTI SMC connectors are designed to conform to MIL-C-39012 specifications.

Typical applications for SMC connectors are telecommunications, test equipment, instrumentation and GPS.

Interface Mating Dimensions

PLUG



Letter	Minimum	Maximum
A	2.79	-
B	-	2.06
C	3.37	3.81
D	0.00	-
E	2.79	-
F	-	3.10
G	-	3.40
H	-	3.40
I	-	5.92

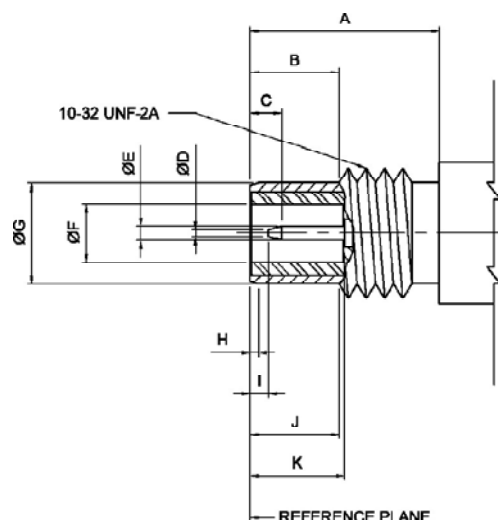
DIMENSIONS ARE IN MILLIMETERS

IOTE 1: I.D. to meet VSWR and contact resistance when mated with .508 ±.025mm diameter pin.

JACK

Letter	Minimum	Maximum
A	5.94	-
B	3.12	3.38
C	-	2.13
D	-	0.25
E	0.48	0.53
F	2.08	-
G	-	3.71
H	0.00	0.30
I	0.61	-
J	3.40	3.66
K	3.40	-

DIMENSIONS ARE IN MILLIMETERS





ELECTRICAL RATINGS

Impedance	50 ohm	
Frequency Range	DC to 4 GHz	
	<i>RG-174,188,316</i>	<i>RG-178,196</i>
Dielectric Withstanding Voltage (at sea level, in V rms, 50 Hz)	1000	750
Working Voltage (at sea level, in V rms, 50 Hz)	335 max	250 max
Insulation Resistance	1000 MΩ min	
RF Leakage	-55 dB max @ 2.5 GHz	
Insertion Loss	<i>Straight</i>	<i>Right Angle</i>
	.3 dB max @ 1.5 GHz	.6 dB max @ 1.5 GHz
Contact Resistance	<i>Center Contact</i>	<i>Outer Contact</i>
	5 mΩ max	1 mΩ max

MECHANICAL RATINGS

Mating	Snap-on coupling	
Durability	500 matings max	
Coupling Nut Retention Force	36 lbs min	
Contact Captivation	4 lbs min	
Cable Retention	<i>RG-174, 188, 316</i>	<i>RG-178, 196</i>
	20 lbs min	6 lbs min

ENVIRONMENTAL RATINGS

Temperature Range	-65°C to + 165°C
Thermal Shock	MIL-STD-202, Method 1017, Condition A
Vibration	MIL-STD-202, Method 204, Condition D
Corrosion	MIL-STD-202, Method 101, Condition B
Temperature Cycling	MIL-STD-1344, Method 1003, Condition A

MATERIALS

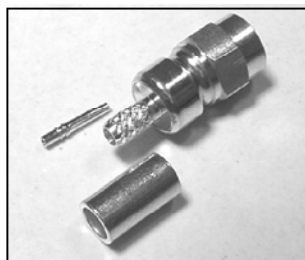
	<i>Material</i>	<i>Plating</i>
Connector Body	Brass per QQ-B-626	Gold/Nickel
Center Contact	Brass per QQ-B-626	Gold
	Beryllium Copper per QQ-C-530	Gold
Insulator	Teflon	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper per WW-T-799	Same as body

VSWR

Cable Type	Frequency Range			
	1 GHz	3 GHz	4 GHz	
RG-55, 142, 223, 400	1.15	1.35	1.35	Typical VSWR for SMC straight connectors
RG-58	1.15	1.35	1.35	
RG-174, 188, 316	1.15	1.35	1.35	
RG-178, 196	1.15	1.35	1.35	
Semi-rigid .086"	1.15	1.35	1.35	
RG-55,142,223,400	1.15	1.3	1.3	Typical VSWR for SMC right angle connectors
RG-58	1.15	1.3	1.3	
RG-174, 188, 316	1.15	1.3	1.3	
RG-178, 196	1.15	1.3	1.3	
Semi-rigid .086"	1.15	1.3	1.3	
Semi-rigid .141"	1.15	1.3	1.3	



Straight Crimp Plug

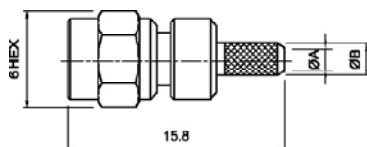


Part Number	Cable Type	Dimension	
LTI-SCSM11GT-XXX	RG-316,174,188;Q1,D316	A: 1.6	B: 2.35
LTI-SCSM11GT-XXX	RG-178,196	A: 1.0	B: 1.7
LTI-7SCSM11GT-179	RG-179 (75 ohm)	A: 1.6	B: 2.35

TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is.

See Part Numbering Chart on page 3 for more info.

Nickel plated parts (LTI-SCSM11NT-XXX) available. Call for min order reqs.



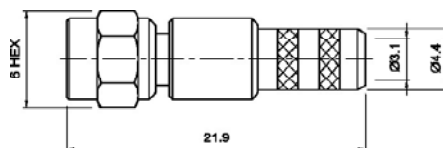
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Recommended Stripping DIMs:
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Straight Crimp Plug

Part Number	Cable Type
LTI-SCSM11GT-XXX	RG-58,141,142,223,400

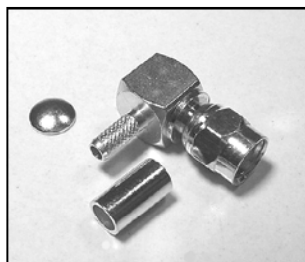
TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is. See Part Numbering Chart on page 3 for more info.

Nickel plated parts (LTI-SCSM11NT-XXX) available. Call for min order reqs.



ASSEMBLY INST.: Page 176
Recommended Stripping DIMs:
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Right Angle Crimp Plug

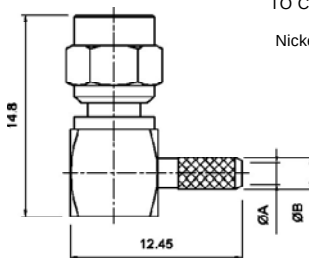


Part Number	Cable Type	Dimension	
LTI-SCLM11GT-XXX	RG-316,174,188;Q1,D316	A: 1.6	B: 2.35
LTI-SCLM11GT-XXX	RG-178,196	A: 1.0	B: 1.7
LTI-7SCLM11GT-179	RG-179 (75 ohm)	A: 1.6	B: 2.35

TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is.

See Part Numbering Chart on page 3 for more info.

Nickel plated parts (LTI-SCLM11NT-XXX) available. Call for min order reqs.



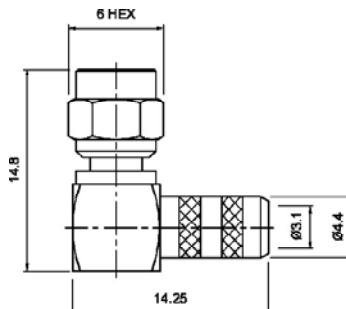
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Recommended Stripping DIMs:
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Right Angle Crimp Plug

Part Number	Cable Type
LTI-SCLM11GT-XXX	RG-58,141,142,223,400

TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is. See Part Numbering Chart on page 3 for more info.

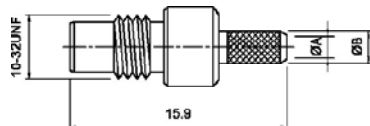
Nickel plated parts (LTI-SCLM11NT-XXX) available. Call for min order reqs.



ASSEMBLY INST.: Page 177
Recommended Stripping DIMs:
Page 172, Line 12



Straight Crimp Jack

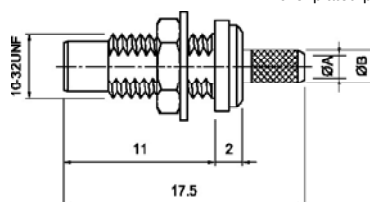


Part Number	Cable Type	Dimension	
LTI-SCSF11GT-XXX	RG-316,174,188;Q1,D316	A: 1.6	B: 2.35
LTI-SCSF11GT-XXX	RG-178,196	A: 1.0	B: 1.7
LTI-7SCSF11GT-179	RG-179 (75 ohm)	A: 1.6	B: 2.35

TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is.
See Part Numbering Chart on page 3 for more info.
Nickel plated parts (LTI-SCSF11NT-XXX) available. Call for min order reqs.

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Recommended Stripping DIMS:
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Straight Bulkhead Crimp Jack



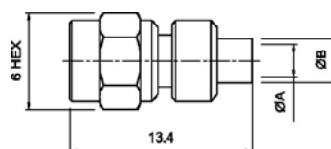
Part Number	Cable Type	M.H.	Dimensions	
LTI-SCSF13RGT-XXX	RG-316,174,188;Q1,D316	4	A: 1.6	B: 2.35
LTI-SCSF13RGT-XXX	RG-178,196	4	A: 1.0	B: 1.7
LTI-7SCSF13RGT-179	RG-179 (75 ohm)	4	A: 1.6	B: 2.35

TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is. See Part Numbering Chart on page 3 for more info.

Nickel plated parts (LTI-SCSF13RNT-XXX) available. Call for min order reqs.

ASSEMBLY INST.: Page 176
Recommended Stripping DIMS:
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Solder Plug for Semi-Rigid Cable

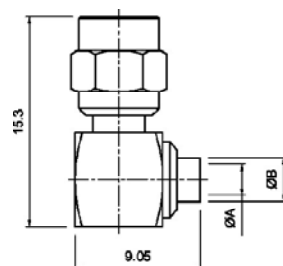


Part Number	Cable Type	Dimension	
LTI-SCSM31GT-086	Semi-Rigid .086	A: 2.3	B: 3.2
LTI-SCSM31GT-141	Semi-Rigid .141	A: 3.65	B: 4.8

Nickel plated parts (LTI-SCSM31N T-XXX) available. Call for min order reqs.

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Recommended Stripping DIMS:
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Right Angle Solder Plug for Semi-Rigid Cable



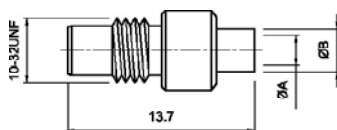
Part Number	Cable Type	Dimension	
LTI-SCLM31GT-086	Semi-Rigid .086	A: 2.3	B: 3.2
LTI-SCLM31GT-141	Semi-Rigid .141	A: 3.65	B: 4.8

Nickel plated parts (LTI-SCLM31N T-XXX) available. Call for min order reqs.

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Recommended Stripping DIMS:
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SolderJack for Semi-Rigid Cable

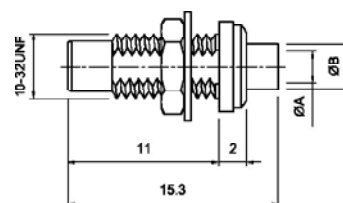


Part Number	Cable Type	Dimension	
LTI-SCSF31GT-086	Semi-Rigid .086	A: 2.3	B: 3.2
LTI-SCSF31GT-141	Semi-Rigid .141	A: 3.65	B: 4.8

Nickel plated parts (LTI-SCSF31NT-XXX) available. Call for min order reqs.

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Recommended Stripping DIMs:
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Bulkhead Solder Jack for Semi-Rigid Cable

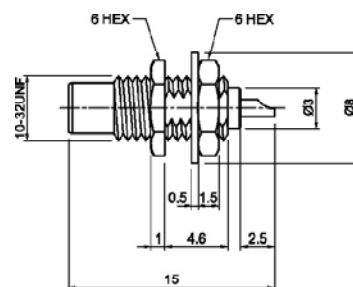


Part Number	Cable Type	M.H.	Dimensions	
LTI-SCSF33RGT-086	Semi-Rigid .086	4	A: 2.3	B: 3.2
LTI-SCSF33RGT-141	Semi-Rigid .141	4	A: 3.65	B: 4.8

Nickel plated parts (LTI-SCSF33RNT-XXX) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174
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Front Mount Bulkhead Jack with Solder Cup

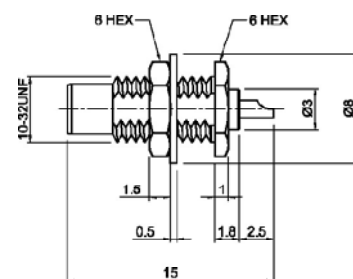


Part Number	M.H.
LTI-SCSF43GT	4
LTI-7SCSF43GT (75 ohm)	4

Nickel plated parts (LTI-SCSF43NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

Rear Mount Bulkhead Jack with Solder Cup



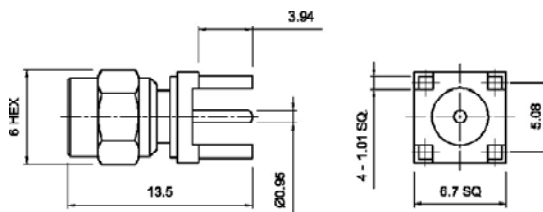
Part Number	M.H.
LTI-SCSF43RGT	4
LTI-7SCSF43RGT (75 ohm)	4

Nickel plated parts (LTI-SCSF43RNT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174



Vertical Thru Hole Plug

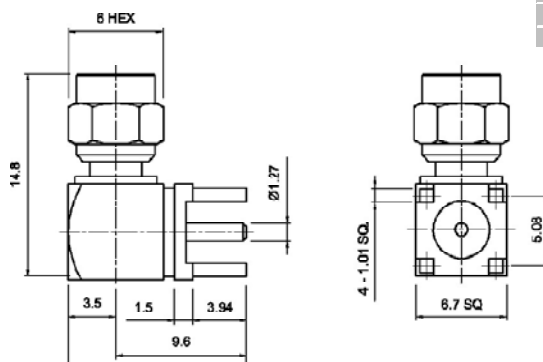


Part Number	M.H.
LTI-SCSM54GT	22
LTI-7SCSM54GT (75 ohm)	22

Nickel plated parts (LTI-SCSM54NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

Right Angle Thru Hole Plug

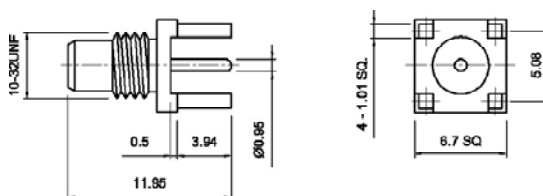
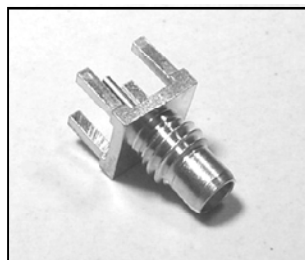


Part Number	M.H.
LTI-SCLM54GT	22
LTI-7SCLM54GT (75 ohm)	22

Nickel plated parts (LTI-SCLM54NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

Vertical Thru Hole Jack

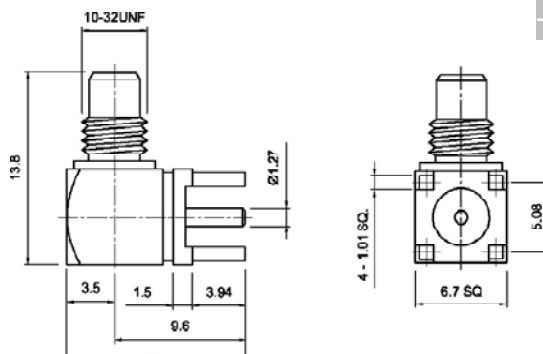
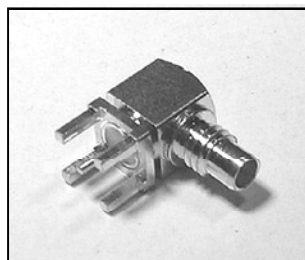


Part Number	M.H.
LTI-SCSF54GT	22
LTI-7SCSF54GT (75 ohm)	22

Nickel plated parts (LTI-SCSF54NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

Right Angle Thru Hole Jack



Part Number	M.H.
LTI-SCLF54GT	22
LTI-7SCLF54GT (75 ohm)	22

Nickel plated parts (LTI-SCLF54NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174