

**SMB Connectors**

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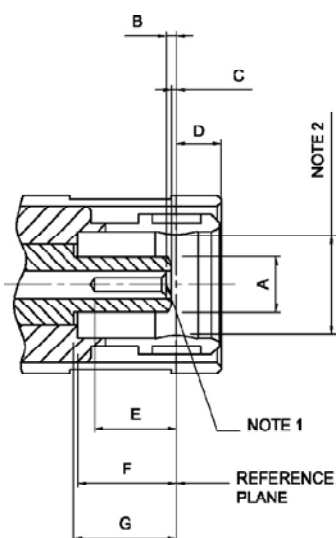


SMB connectors are semi-precision, subminiature devices that provide repeatable electrical performance from DC to 4 GHz. The SMB family of connectors provides a means of quick connect and disconnect through a snap-on type coupling. This makes them useful in areas that are inaccessible to normal mating action. 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 SMC connectors but is generally used at a lower frequency. LTI SMB connectors are designed to conform to MIL-C-39012 specifications.

Its smaller physical size and snap-on coupling make the SMB an ideal general purpose connector where packaging density, ease of mating/unmating and economy are prerequisites. Typical applications for SMB connectors are telecommunications, test equipment, instrumentation and GPS.

Interface Mating Dimensions

PLUG



Letter	Minimum	Maximum
A	2.00	2.06
B	0.18	0.94
C	0.18	-
D	-	1.62
E	2.97	-
F	3.58	-
G	3.58	-

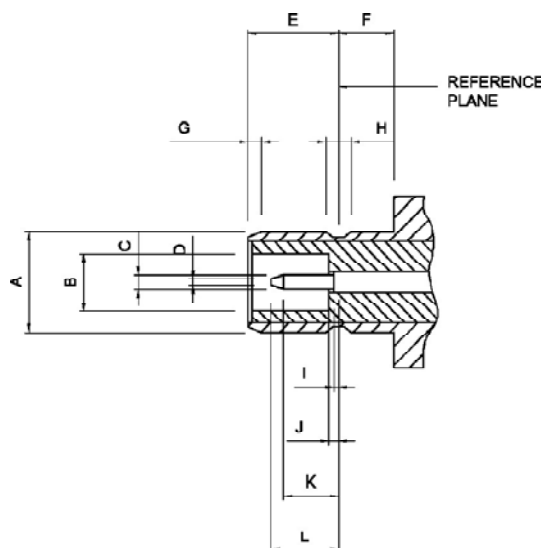
DIMENSIONS ARE IN MILLIMETERS

NOTE 1: I.D. to meet VSWR and contact resistance when mated with .48/.53mm dia. pin.
NOTE 2: Must meet the force to engage and disengage when mated with mating part.

JACK

Letter	Minimum	Maximum
A	3.66	3.71
B	2.08	2.16
C	0.48	0.53
D	-	0.25
E	3.33	3.58
F	2.03	-
G	0.00	-
H	0.69	0.94
I	-	0.18
J	-	0.18
K	1.32	-
L	-	2.97

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

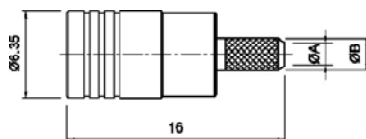
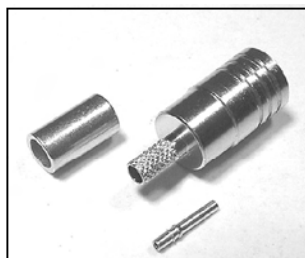
	<i>Material</i>	<i>Plating</i>
Connector Body	Brass per QQ-B-626	Gold/Nickel
Center Contact	Brass per QQ-B-626	Gold
	Beryllium Copper per QQ-C-530	Gold
Insulator	Teflon	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper per WW-T-799	Same as body

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-SBSM11GT-XXX	RG-316,174,188;Q1,D316	A: 1.6	B: 2.35
LTI-SBSM11GT-XXX	RG-178,196	A: 1.0	B: 1.7
LTI-7SBSM11GT-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 3f or more info.
Nickel plated parts (LTI-SBSM11NT-XXX) available. Call for min order reqs.

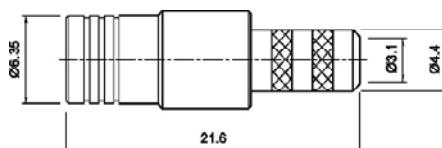
ASSEMBLY INST.: Page 176
Recommended Stripping DIMs:
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Straight Crimp Plug

Part Number	Cable Type
LTI-SBSM11GT-XXX	RG-58,141,142,223,400

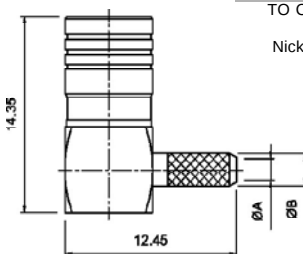
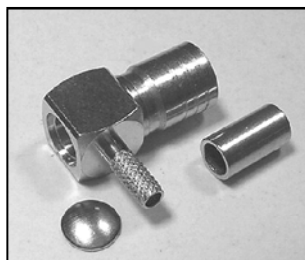
TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is. See Part Numbering Chart on page 3f or more info.

Nickel plated parts (LTI-SBSM11NT-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	Dimension	
LTI-SBLM11GT-XXX	RG-316,174,188;Q1,D316	A: 1.6	B: 2.35
LTI-SBLM11GT-XXX	RG-178,196	A: 1.0	B: 1.7
LTI-7SBLM11GT-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 3f or more info.
Nickel plated parts (LTI-SBLM11NT-XXX) available. Call for min order reqs.

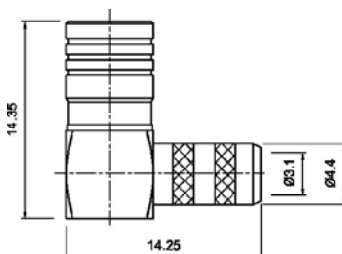
ASSEMBLY INST.: Page 177
Recommended Stripping DIMs:
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Right Angle Crimp Plug

Part Number	Cable Type
LTI-SBLM11GT-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 3f or more info.

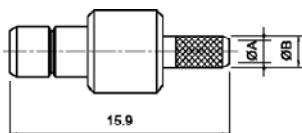
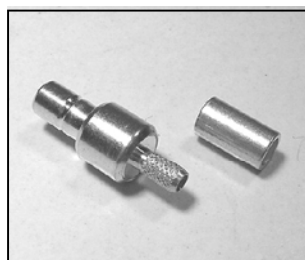
Nickel plated parts (LTI-SBLM11NT-XXX) available. Call for min order reqs.



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Straight Crimp Jack

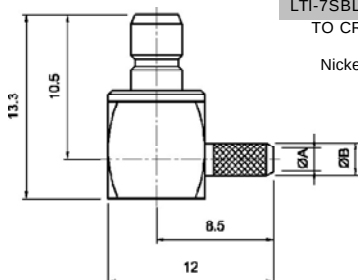
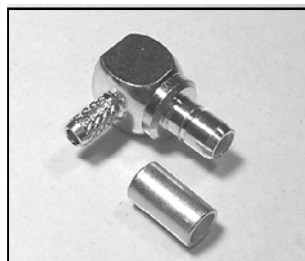


Part Number	Cable Type	Dimension	
LTI-SBSF11GT-XXX	RG-316,174,188;Q1,D316	A: 1.6	B: 2.35
LTI-SBSF11GT-XXX	RG-178,196	A: 1.0	B: 1.7
LTI-7SBSF11GT-179	RG-179 (75 ohm)	A: 1.6	B: 2.35

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-SBSF11NT-XXX) available. Call for min order reqs.

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Recommended Stripping DIMS:
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Right Angle Crimp Jack

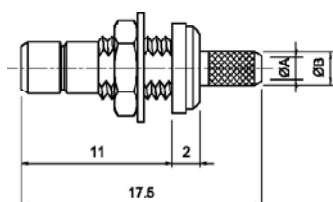
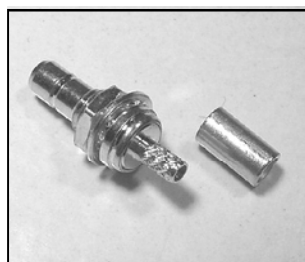


Part Number	Cable Type	Dimension	
LTI-SBLF11GT-XXX	RG-316,174,188;Q1,D316	A: 1.6	B: 2.35
LTI-SBLF11GT-XXX	RG-178,196	A: 1.0	B: 1.7
LTI-7SBLF11GT-179	RG-179 (75 ohm)	A: 1.6	B: 2.35

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-SBLF11NT-XXX) available. Call for min order reqs.

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Recommended Stripping DIMS:
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Straight Bulkhead Crimp Jack

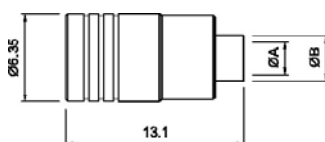


Part Number	Cable Type	M.H.	Dimensions	
LTI-SBSF13RGT-XXX	RG-316,174,188;Q1,D316	4	A: 1.6	B: 2.35
LTI-SBSF13RGT-XXX	RG-178,196	4	A: 1.0	B: 1.7
LTI-7SBSF13RGT-179	RG-179 (75 ohm)	4	A: 1.6	B: 2.35

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-SBSF13RNT-XXX) available. Call for min order reqs.

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Recommended Stripping DIMS:
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Solder Plug for Semi-Rigid Cable



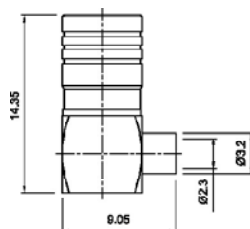
Part Number	Cable Type	Dimension	
LTI-SBSM31GT-086	Semi-Rigid .086	A: 2.3	B: 3.2
LTI-SBSM31GT-141	Semi-Rigid .141	A: 3.65	B: 4.8

Nickel plated parts (LTI-SBSM31NT-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

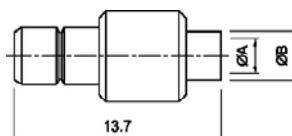


Part Number	Cable Type	Dimension	
LTI-SBLM31GT-086	Semi-Rigid .086	A: 2.3	B: 3.2
LTI-SBLM31GT-141	Semi-Rigid .141	A: 3.65	B: 4.8

Nickel plated parts (LTI-SBLM31NT-XXX) available. Call for min order reqs.

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Recommended Stripping DIMs:
Page 173, Line 4

SolderJack for Semi-Rigid Cable

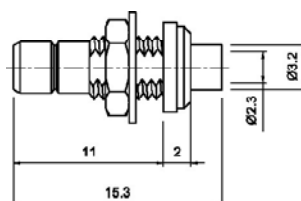


Part Number	Cable Type	Dimension	
LTI-SBSF31GT-086	Semi-Rigid .086	A: 2.3	B: 3.2
LTI-SBSF31GT-141	Semi-Rigid .141	A: 3.65	B: 4.8

Nickel plated parts (LTI-SBSF31NT-XXX) available. Call for min order reqs.

ASSEMBLY INST.: Page 180
Recommended Stripping DIMs:
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Bulkhead Solder Jack for Semi-Rigid Cable

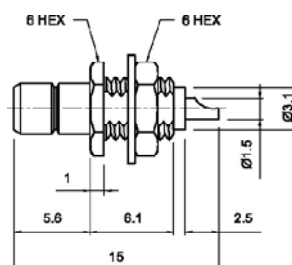


Part Number	Cable Type	M.H.	Dimensions	
LTI-SBSF33RGT-086	Semi-Rigid .086	4	A: 2.3	B: 3.2
LTI-SBSF33RGT-141	Semi-Rigid .141	4	A: 3.65	B: 4.8

Nickel plated parts (LTI-SBSF33RNT-XXX) available. Call for min order reqs.

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Recommended Stripping DIMs:
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Front Mount Bulkhead Jack with Solder Cup



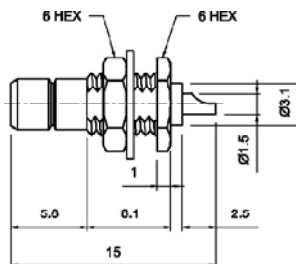
Part Number	M.H.
LTI-SBSF43GT	4
LTI-7SBSF43GT (75 ohm)	4

Nickel plated parts (LTI-SBSF43NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174



Rear Mount Bulkhead Jack with Solder Cup

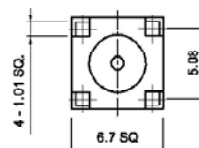
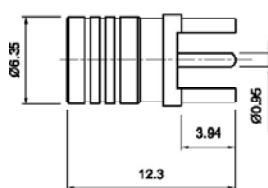
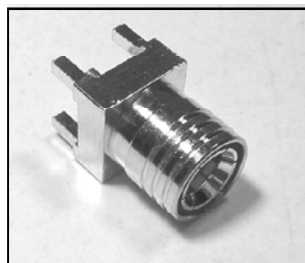


Part Number	M.H.
LTI-SBSF43RGT	4
LTI-7SBSF43RGT (75 ohm)	4

Nickel plated parts (LTI-SBSF43RNT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

Vertical PCB Thru Hole Plug

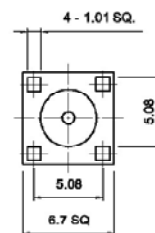
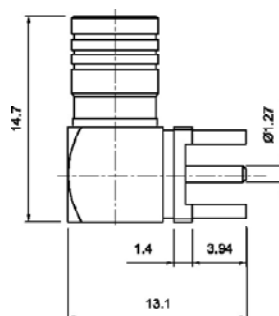
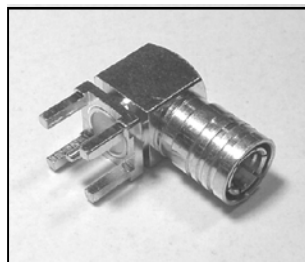


Part Number	M.H.
LTI-SBSM54GT	23
LTI-7SBSM54GT (75 ohm)	23

Nickel plated parts (LTI-SBSM54NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

Right Angle PCB Thru Hole Plug

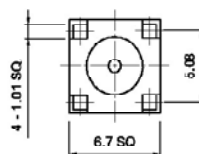
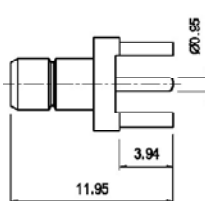
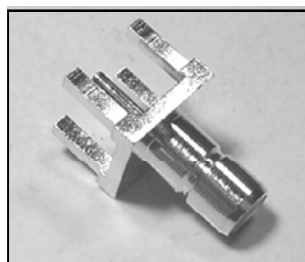


Part Number	M.H.
LTI-SBLM54GT	23
LTI-7SBLM54GT (75 ohm)	23

Nickel plated parts (LTI-SBLM54NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

Vertical PCB Thru Hole Jack



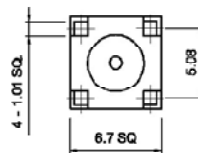
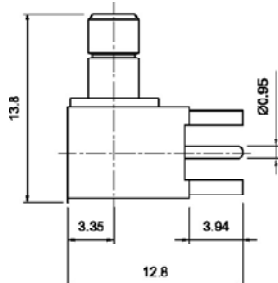
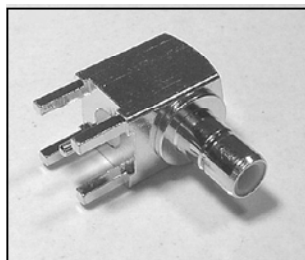
Part Number	M.H.
LTI-SBSF54GT	23
LTI-7SBSF54GT (75 ohm)	23

Nickel plated parts (LTI-SBSF54NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174



Right Angle PCB Thru Hole Jack

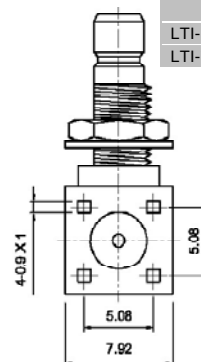
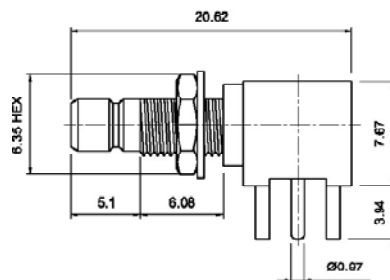
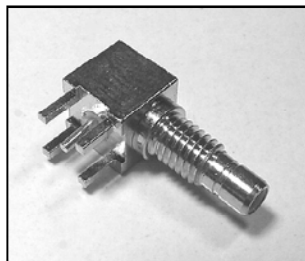


Part Number	M.H.
LTI-SBLF54GT	23
LTI-7SBLF54GT (75 ohm)	23

Nickel plated parts (LTI-SBLF54NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

Right Angle Bulkhead PCB Thru Hole Jack

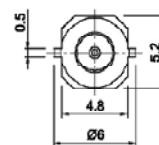
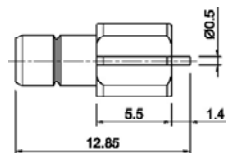


Part Number	M.H.
LTI-SBLF543GT	23
LTI-7SBLF543GT (75 ohm)	23

Nickel plated parts (LTI-SBLF543NT) available. Call for min order reqs.

MOUNTING HOLE (M.H.): Page 174

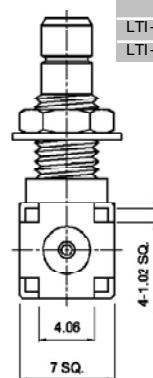
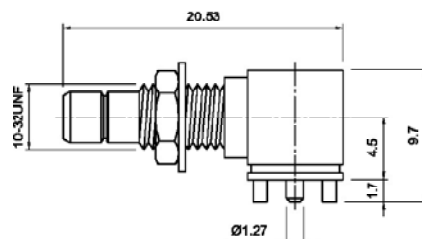
Edge Card Surface Mount Jack



Part Number	M.H.
LTI-SBSF96GT	23
LTI-7SBSF96GT (75 ohm)	23

Nickel plated parts (LTI-SBSF96NT) available. Call for min order reqs.

Right Angle Surface Mount Jack



Part Number	M.H.
LTI-SBLF663GT	23
LTI-7SBLF663GT (75 ohm)	23

Nickel plated parts (LTI-SBLF663NT) available. Call for min order reqs.

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