SMP-L Interconnect Series Featuring Secure-Lok™


INTRODUCTION

The introduction of push-on blindmateable connectors, such as the SMP, galvanized the RF/Microwave industry as their use enabled designers to increase package density. This created the ability to stack PC boards while also simplifying the assembly and test of these designs.

We have advanced the design of traditional SMP connectors even further with our line of SMP-L connectors. These connectors incorporate Secure-Lok™, a patented locking mechanism, into the standard SMP interface, which reinforces holding power, making them:

» Less susceptible to vibration and other environmental factors present in high-vibration, rugged applications

» A reliable alternative to threaded connectors

FEATURES

» Secure-Lok mechanism (US Patent No. 8579659)
» Frequency range: DC - 40 GHz
» Superior ruggedability and performance compared to standard push-on connectors
» Fully compatible with SMP standard product line

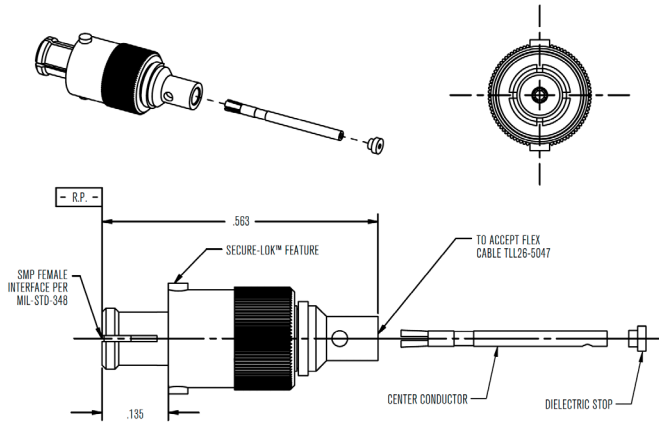Standard SMP Interface
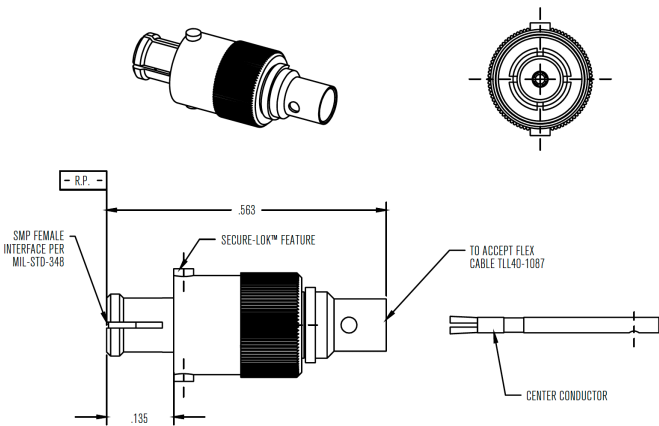
Locking Lugs
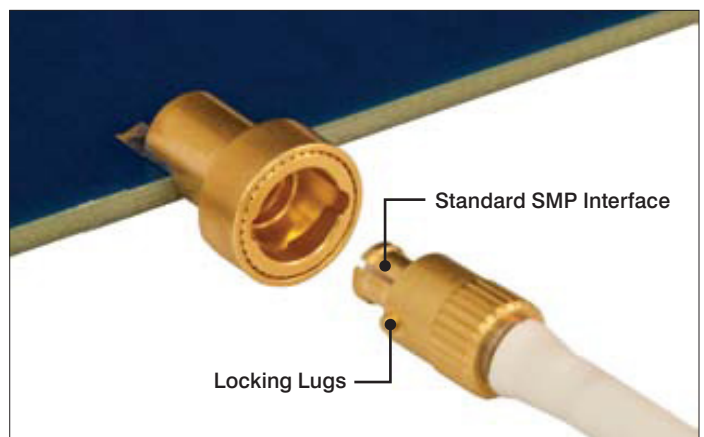
Secure-Lok Mechanism

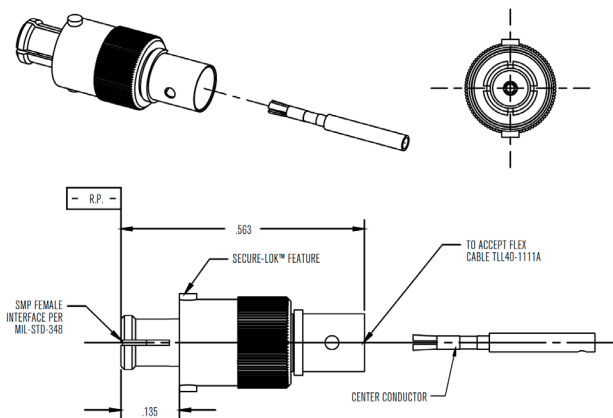# SMP-L Interconnect Series Featuring Secure-Lok™

CABLE CONNECTORS

SMP-L Female for 0.047" Flexible Cable/P657SL-1CC

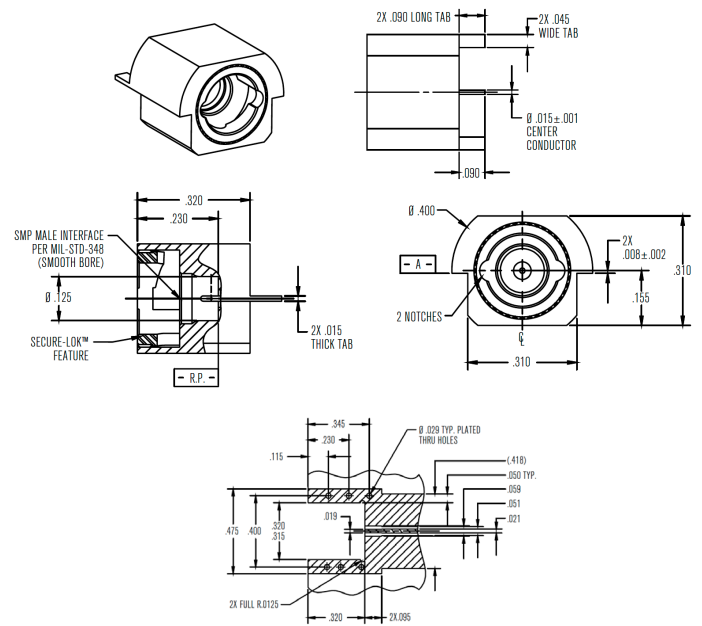### SMP-L Female for 0.085" Flexible Cable/P657SL-2CC

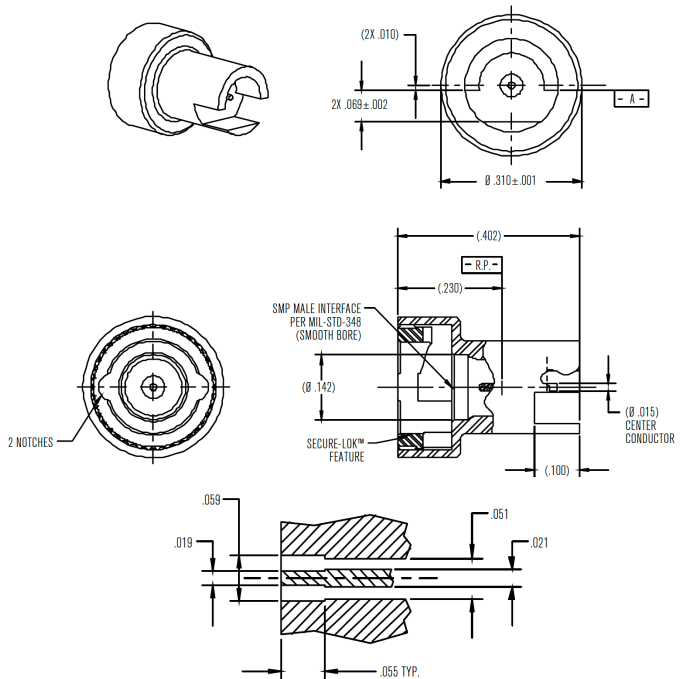### SMP-L Female for 0.1111" Flexible Cable/P657SL-3CC

PCB CONNECTORS

SMP-L Male Edge Mount Connector/P606SL-1CC

Recommended PCB Mounting Pattern

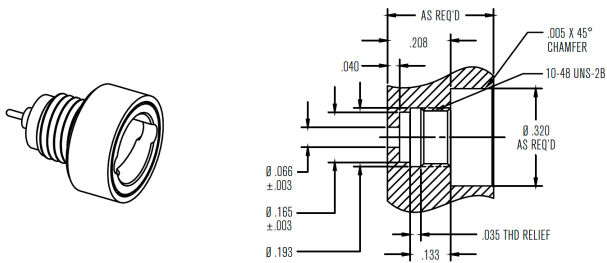### SMP-L Male Board Mount Connector/P698SL-1CC
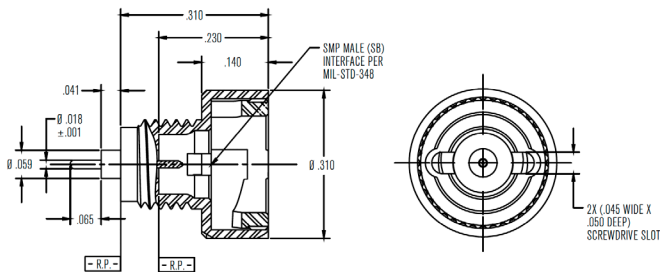
Recommended PCB Mounting Pattern

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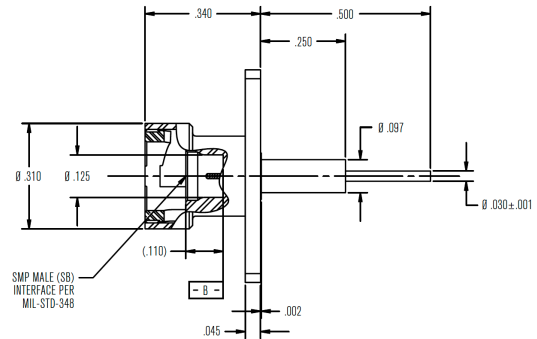
SHROUDS

SMP-L Male Thread-in Shroud/P674SL-1CCSF

Recommended PCB Mounting Pattern

SMP-L Press-in Shroud/P675SL-1

Recommended PCB Mounting Pattern

SMP-L Male 2-Hole Flange Mount Connector/P678SL-1CCSF
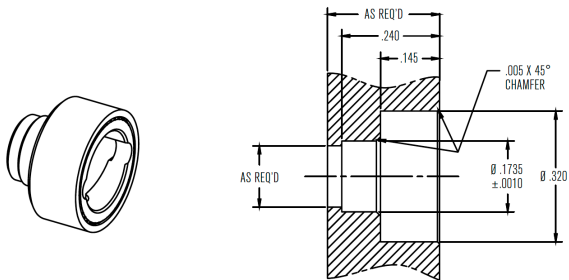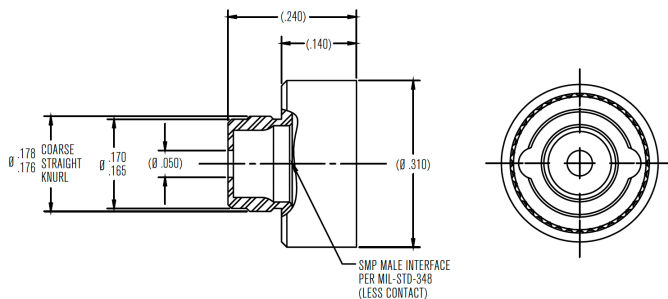
MATERIALS & FINISH

Metal	Specification
BeCu (Beryllium Copper)	ASTM B 196 and/or ASTM B 197
Brass	ASTM B 36, B121, B16, B16M
Stainless Steel	ASTM A484/A582 or A555/581
Iron-Nickel-Cobalt	ASTM F-15

Dielectric	Specification
Virgin PTFE Fluorocarbon	ASTM D 1710 and ASTM D 1457
Polyamide-imide	ASTM D5204 Group 2 Class 1
Glass	Corning 7070 or Equivalent

Finish	Specification
Gold (75u in. Typ.)	ASTM-B488 Type 1, Class 1.25
Nickel (100u in. Typ.)	SAE AMS-QQ-N-290
Passivation	ASTM A967

SMP-L Interconnect Series Featuring Secure-Lok™

SPECIFICATIONS

Parameter		Specification
Impedance		50 Ω
Frequency		DC - 40 GHz
VSWR		1.3:1 (DC-26 GHz) 1.5:1 (26-40 GHz)
Insertion Loss		.06 X √f GHz
DWV @ sea level		500 Vrms
Insulation Resistance		1000 MΩ min
RF High Pot. @ 5MHz:		325 Vrms
Corona Level @ 70,000'		190 Vrms
Inner Conductor Resistance		6.0 MΩ
RF Leakage		-80 dB (DC-3 GHz) -65 dB (3-18 GHz)
Force to Engage	Smooth Bore	1.5 lbs
Force to Disengage	Smooth Bore	1.0 lbs
Coupling Nut Retention Force		>100 lbs
Temperature range		-55 ºC to 165 ºC
Environmental	Thermal Shock	MIL-STD-202, Method 107, Cond. B
	Moisture Resistance	MIL-STD-202, Method 106, except step 7b
	Corrosion	MIL-STD-202. Method 101, Cond. B
	Vibration	MIL-STD-202, Method 204, Cond. D
	Shock	MIL-STD-202, Method 213, Cond. I

P698SL-1CC PC Board Connector

Available sleeve for simplified mating

1-L6L6-794-42XX Cable Assembly

ORDERING INFORMATION

Configuration	Part Number	Description
Cable Connectors	P657SL-1CC	SMP-L (female) for 0.047" (T LL26-5047) flexible cable
	P657SL-2CC	SMP-L (female) for 0.085" (T LL40-1087) flexible cable
	P657SL-3CC	SMP-L (female) for 0.1111" (T LL40-1111A) flexible cable
PC Board Connectors	MP602-1CC	SMP-L (male) edge mount connector
	MP602-2CC	SMP-L (male) board mount connector
Shrouds	P674SL-1CCSF	SMP-L (male) thread-in shroud
	P675SL-1	SMP-L press-in shroud
	P678SL-1CCSF	SMP-L (male) 2-hole flange mount connector

*SMP-L product line is compatible with standard SMP connectors. Refer to the SMP product line brochure for selection of Bullets, Field-replaceable connectors, Hermetic, and other configurations.

Cable Assemblies Part Number		Description
1-L6L6-047-42XX		SMP-L (female) to SMP-L (female) 0.047" flexible cable
1-L6L6-794-42XX	XX = Length in inches	SMP-L (female) to SMP-L (female) 0.085" flexible cable
1-L6L6-11A-42XX		SMP-L (female) to SMP-L (female) 0.1111" flexible cable

See our full line of RF/Microwave Connectors at:
CarlisleIT.com/products/connectors-accessories/rf-microwave-connectors

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