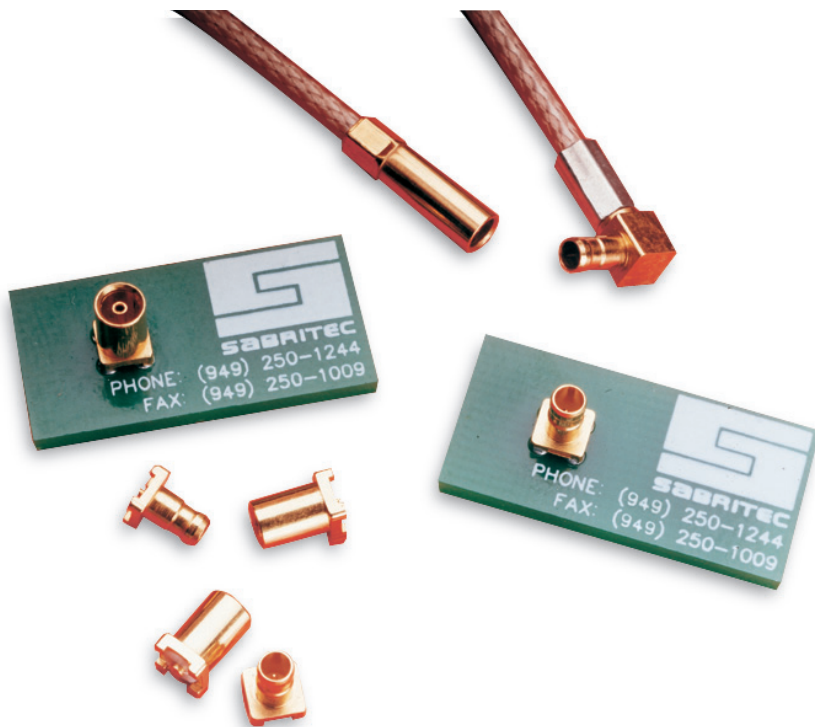


smiths connectors

SCX SERIES CONNECTORS



The SCX series offers the utmost savings in space utilization without compromising rugged mechanical performance and superior RF high frequency electrical performance. These connectors feature a .145" maximum overall diameter with a .375" overall length for the mated connector pair.

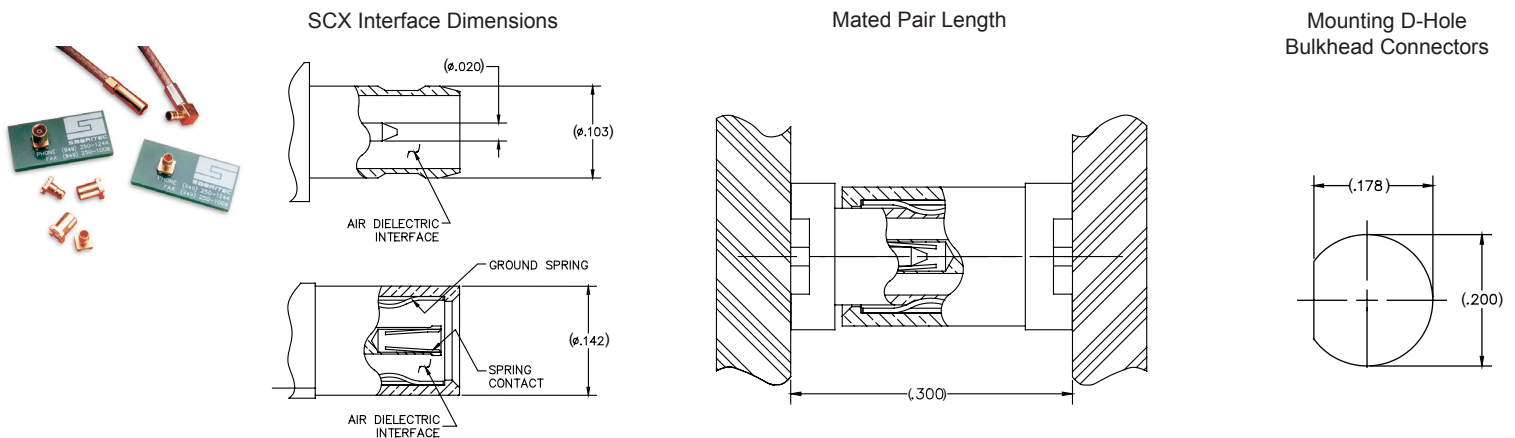
A revolutionary designed air dielectric interface is integrated into the SCX series resulting in exceptional RF performance with a 50 ohm characteristic impedance maintained throughout the mated connector pair. The result is an extremely small and rugged high frequency RF connector series with exceptionally low VSWR (1.25:1) from DC to 20 GHz. This connector series is ideal for low profile board to board stacking arrangements.

All configurations and styles are available including surface mount, end launch and compliant pin press-fit PCB mounting alternatives. The cable mount connectors are designed for a full crimp assembly with standard crimp tools or solder assembly termination.

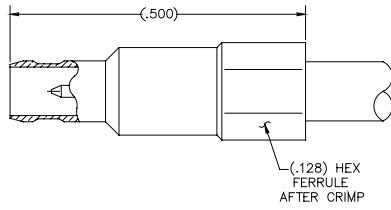
The SCX series is applicable for high frequency RF applications from DC to 20 GHz. The durable connector is gold plated with heat treated beryllium copper spring fingers allowing for a minimum of 1,000 mating cycles without any noted degradation of RF performance. The spring fingers allow for a rugged and reliable snap-on, detent locking interconnect mechanism. The low profile mated pair overall length of .375" significantly increases the number of mounting possibilities.

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS	
Temperature Rating	-65°C to +165°C
Corrosion	MIL-STD-202 Method 101, Test Condition B
Shock	MIL-STD-202 Method 213, Test Condition B
Vibration	MIL-STD-202 Method 204, Test Condition B
Thermal Shock	MIL-STD-202 Method 107, Test Condition B
Durability	1000 Mate/Unmate cycles min.
Mating/Unmate Force	1 lb. min.
Float Mount Constraints	0.10" full radial & 0.015 axial misalignment max.
ELECTRICAL SPECIFICATIONS	
Dielectric Withstanding Voltage	500 VDC @sea level with 70% relative humidity
Insulation Resistance	5000 mega-ohms min. @ 200 VDC
Contact Current Rating	2 Amps max.
Characteristic Impedance	50 Ohm constant airline impedance
RF HI Potential Withstanding Voltage	125 VRMS @ 5 MHz
Corona Level @ 70,000 ft.	Center contact to intermediate contact: 125 VAC
Permeability	2.0 max.
Frequency Range	DC to 20 GHz
VSWR	1.25:1 max. (mated pair)
MATERIAL & FINISHES	
Shell	Brass per ASTM B16, alloy UNS C36000 Gold plate per MIL-DTL-45204, Type II, Class 1
Center Contacts	Brass per ASTM B16, alloy UNS 36000 or BeCu per ASTM-B196, alloy UNS C17200, C17300 Gold plate per MIL-DTL-45204, Type II, Class 1
Ground Spring	BeCu per ASSTM-B194, alloy UNS C17200 Gold plate per MIL-DTL-45204, Type II, Class 1
Insulators	PTFE per ASTM D-1710

All specifications subject to change without notice.

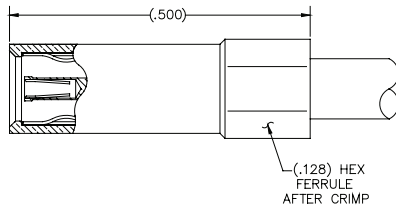


SCX CABLE PLUG



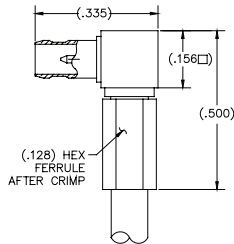
PART NUMBER	CABLE TYPE	CABLE
013220-2000	Flexible Coax	RG-316
013220-2001	Flexible Coax	RG-178
013220-2002	Semi-Rigid Coax	RG-405

SCX CABLE RECEPTACLE



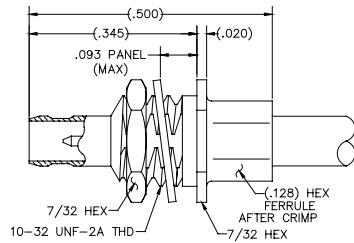
PART NUMBER	CABLE TYPE	CABLE
013120-2000	Flexible Coax	RG-316
013120-2001	Flexible Coax	RG-178
013120-2002	Semi-Rigid Coax	RG-405

SCX RIGHT ANGLE PLUG



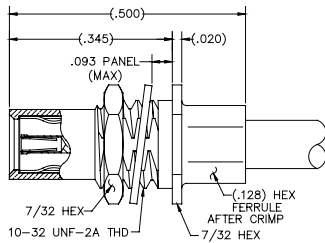
PART NUMBER	CABLE TYPE	CABLE
013220-1008	Flexible Coax	RG-316
013220-1009	Flexible Coax	RG-178
013220-1010	Semi-Rigid Coax	RG-405

SCX BULKHEAD MOUNT CABLE PLUG



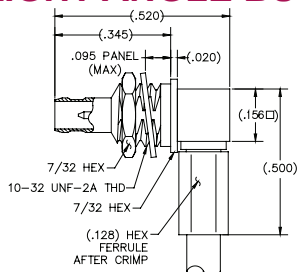
PART NUMBER	CABLE TYPE	CABLE
013220-5011	Flexible Coax	RG-316
013220-5012	Flexible Coax	RG-178
013220-5013	Semi-Rigid Coax	RG-405

SCX BULKHEAD MOUNT CABLE RECEPTACLE



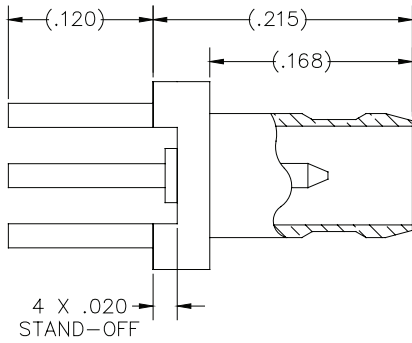
PART NUMBER	CABLE TYPE	CABLE
013120-5011	Flexible Coax	RG-316
013120-5012	Flexible Coax	RG-178
013120-5013	Semi-Rigid Coax	RG-405

SCX RIGHT ANGLE BULKHEAD MOUNT CABLE PLUG



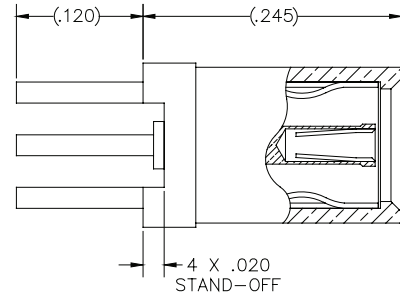
PART NUMBER	CABLE TYPE	CABLE
013212-1011	Flexible Coax	RG-316
013212-1012	Flexible Coax	RG-178
013212-1013	Semi-Rigid Coax	RG-405

▶ **STRAIGHT PCB PLUG**



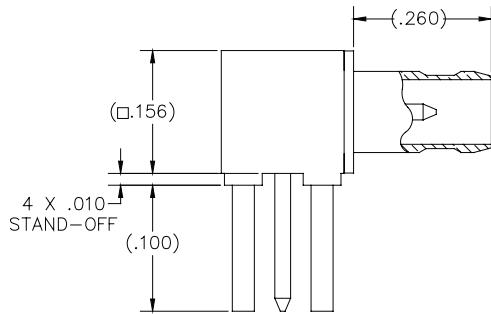
P/N 013200-2024

▶ **STRAIGHT PCB RECEPTACLE**



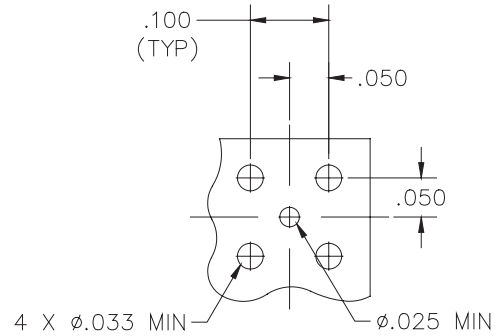
P/N 013100-2024

▶ **RIGHT ANGLE PCB PLUG**



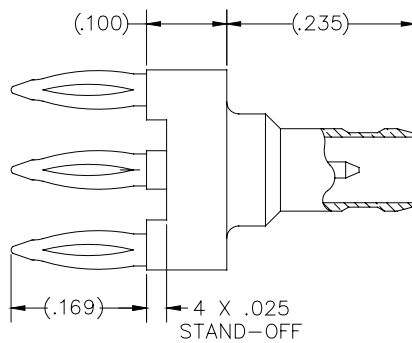
P/N 013200-1002

▶ **PCB MOUNTING DIMENSION**



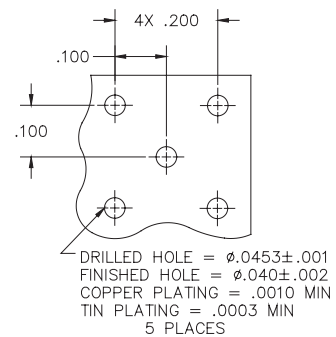
PCB Pattern for .100 Centers

▶ **COMPLIANT PIN PCB PLUG**



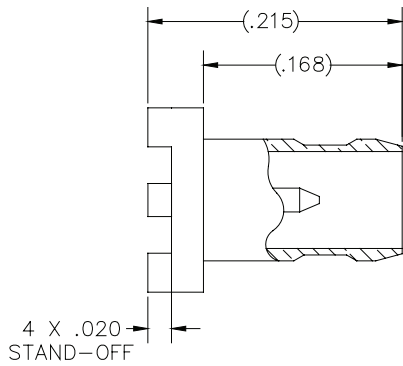
P/N 013200-2029

▶ **COMPLIANT PIN PCB MOUNTING DIMENSION**



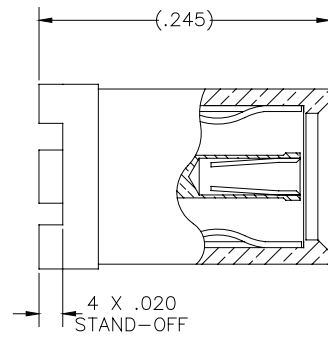
PCB Pattern for .200 Centers

▶ **SURFACE MOUNT PLUG**



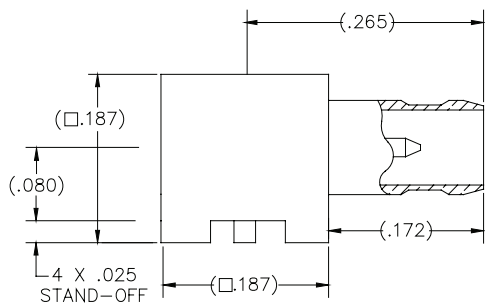
P/N 013200-2023

▶ **SURFACE MOUNT RECEPTACLE**



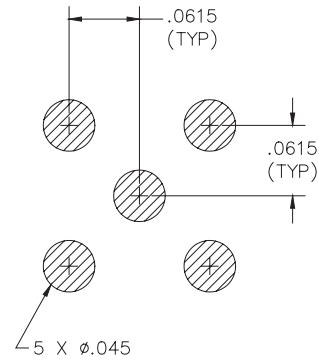
P/N 013100-2023

▶ **RIGHT ANGLE SURFACE MOUNT PLUG**

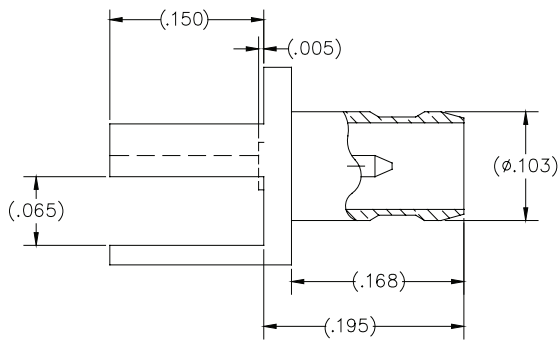


P/N 013200-1003

▶ **SURFACE MOUNT PCB LAYOUT**

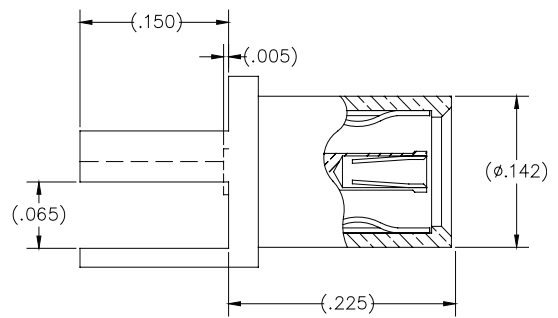


▶ **END LAUNCH SURFACE MOUNT PLUG**



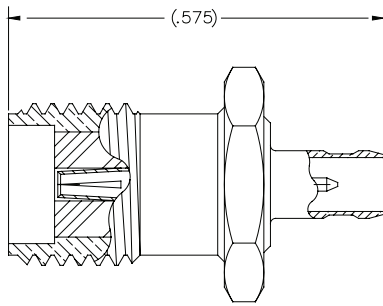
P/N 013200-2030

▶ **END LAUNCH SURFACE MOUNT RECEPTACLE**



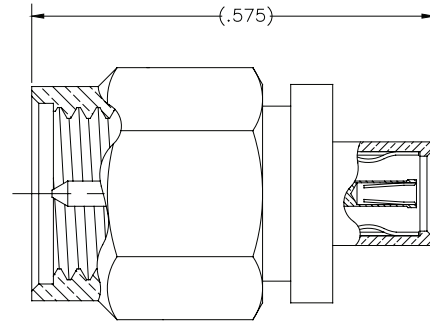
P/N 013100-2030

▶ **SCX PLUG TO SMA JACK ADAPTER**



P/N 013200-4010

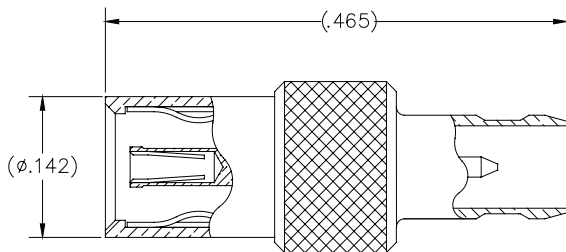
▶ **SCX RECEPTACLE TO SMA PLUG ADAPTER**



P/N 013100-4010

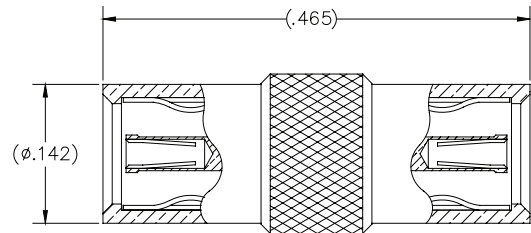
In-Series SCX Adapters

▶ **PLUG TO RECEPTACLE ADAPTER**



P/N 013100-4011

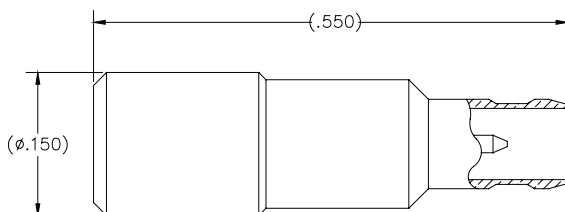
▶ **RECEPTACLE TO RECEPTACLE ADAPTER**



P/N 013200-4011

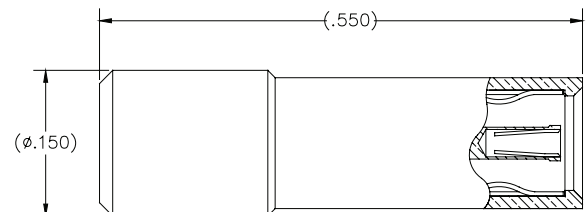
50 Ohm Load Terminators

▶ **50 OHM LOAD TERMINATION PLUG**



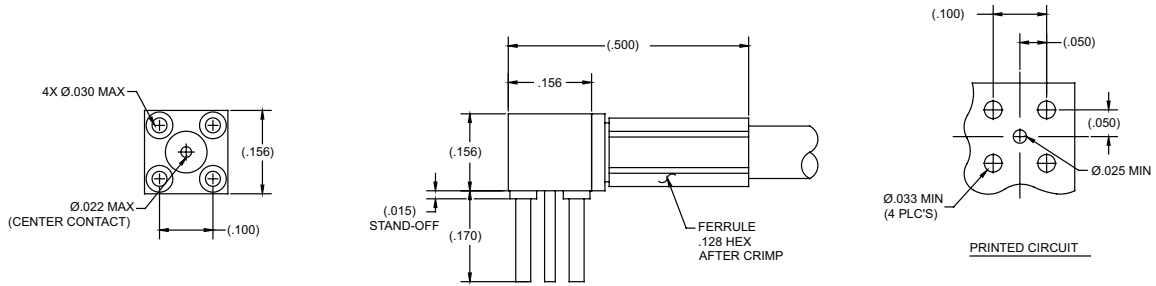
P/N 013200-2028

▶ **50 OHM LOAD TERMINATION RECEPTACLE**



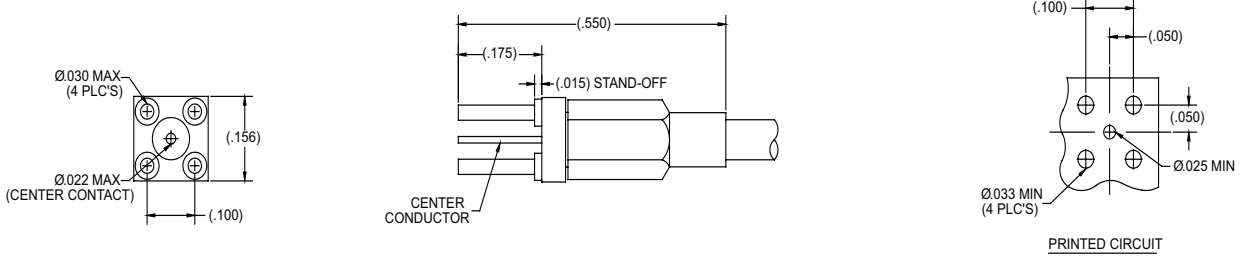
P/N 013100-2028

▶ RIGHT ANGLE PCB MOUNT TO CABLE



PART NUMBER	CABLE TYPE	CABLE
010012-1011	Flexible Coax	RG-178
010012-1012	Flexible Coax	RG-316

▶ STRAIGHT PCB MOUNT TO CABLE



PART NUMBER	CABLE TYPE	CABLE
010012-2010	Flexible Coax	RG-178
010012-2011	Flexible Coax	RG-316

HOW TO ORDER



1 ▶ CONNECTOR #1

2 ▶ CABLE GROUP

Semi-Rigid Coax

27 = SR.047

28 = SR.086

29 = .141.Flex

30 = .086 Flex

Flexible Coax

31 = RG-178

32 = RG-316

36 = RG-58

3 ▶ CONNECTOR #2 OL for Open Lead

4 ▶ CABLE LENGTH IN INCHES (XXX)



SEMI-RIGID COAX CABLES				
CABLE GROUP	CABLE DESIGNATION	IMPEDANCE (OHMS)	JACKET	INNER CONDUCTOR
27	SR.047	50	0.047"	0.0362"
28	SR.086	50	0.0865"	0.0201"



FLEXIBLE COAX CABLES				
CABLE GROUP	CABLE DESIGNATION	IMPEDANCE (OHMS)	JACKET	INNER CONDUCTOR
29	.141 Flex	50	0.160"	0.036"
30	.086 Flex	50	0.104"	0.020"
31	RG-178	50	0.071"	0.012"
32	RG-316	50	0.098"	0.0201"
33	RG-58	50	0.195"	0.0355"

SMITHS CONNECTORS GLOBAL SUPPORT

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