SMB
Connectors

❖ SMB Coaxial Connectors - SMB Subminiature Coaxial Connectors

Subminiature coaxial connector is a connector that is manufactured by
SMB type (subminiation type B) as regulated by MIL-C-39012.

It is a 50 ohm snap-on system easily connected and dismantled in limited spaces.

Standards

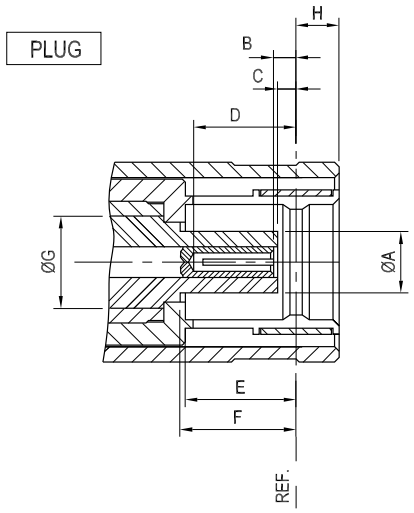
▷ MIL-C-39012

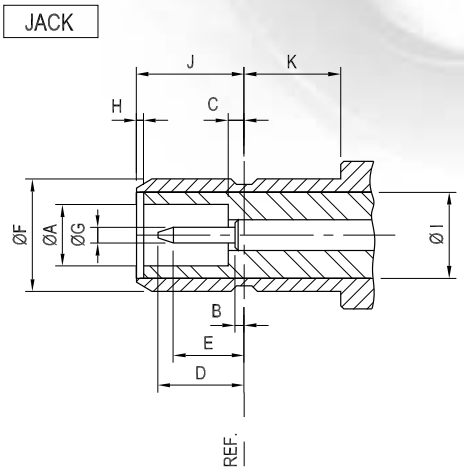
SMB Connectors

❖ Characteristics

Requirement	MIL-C-39012 Paragraph	Specification
ELECTRICAL DATA		
Impedance		50Ω
Frequency range		DC to 4GHz
Contact current		DC 1.5A max.
Voltage rating		250V rms
Contact resistance	3-16	Center contacts : 3.0 mΩ
		Outer contacts : 0.5 mΩ
Insulation resistance	3-11	1000MΩmin
Insertion loss	3-27	0.6dB max.
V.S.W.R	3-14	Straight 1.3+0.04f(GHz)
		Right angle 1.4+0.06f(GHz)
RF leakage	3-26	-55dBm min. between 2~3GHz
MECHANICAL DATA		
Engagement force		max. 63N
Mating torque		Not applicable
Life	3-15	500 matings.
Contact captivation	3-25	max. 15N
ENVIRONMENTAL DATA		
Temperature range		-65℃~+125℃
Corrosion resistance	3-13	MIL-STD-202, Method 101, Condition B.
Moisture resistance	3-21	MIL-STD-202, Method 106.
Thermal shock	3-20	MIL-STD-202, Method 107, Condition B.
Vibration	3-18	MIL-STD-202, Method 204, Condition D.
MATERIALS		
Bodies and Male contacts		Brass
Female contacts		Beryllium copper
Insulators		PTFE Teflon
PLATINGS		
Bodies		Gold plated
Center contacts		Gold plated

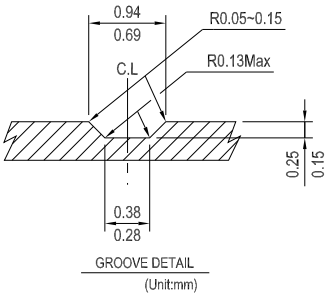
❖ Interface Dimensions





INTERFACE DIMENSIONS in mm/inch

	PLUG		JACK	
	Min.	Max.	Min.	Max.
A	—	2.06/.081	2.08/.082	—
B	0.18/.007	0.94/.037	—	0.18/.007
C	0.18/.007	—	—	0.18/.007
D	2.97/.117	—	—	2.97/.117
E	3.58/.141	—	1.32/.052	—
F	3.58/.141	—	3.66/.144	3.71/.146
G	3.05/.120nom.		0.48/.019	0.53/.021
H	—	1.63/.064	0.00/.000	—
I	—	—	3.05/.120nom.	
J	—	—	3.33/.131	3.58/.141
K	—	—	1.65/.065	—



Applicable standards

▷MIL-C-39012

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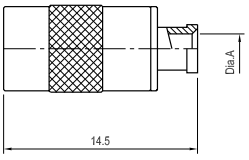
❖ Semi-Rigid Cables

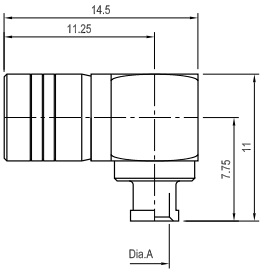
Straight Plug

for cable solder

Part number	1P-101
Cable group	U85
Dim. A	2.25(.089)

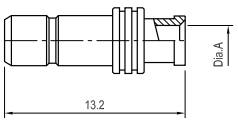
Right angle Plug

for cable solder

Part number	1P-301
Cable group	U85
Dim. A	2.25(.089)

Straight Jack

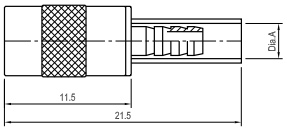



for cable solder

Part number	1P-201
Cable group	U85
Dim. A	2.25(.089)

❖ Flexible Cables

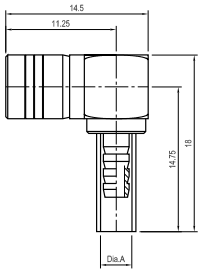
Straight Plug



for cable crimp

Part number	1P-111	1P-112
Cable group	316	178
Dim. A	3.2(.089)	2.2(.086)

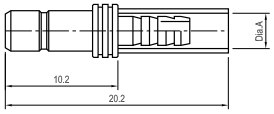
Right angle Plug



for cable crimp

Part number	1P-311	1P-312
Cable group	316	178
Dim. A	3.2(.089)	2.2(.086)

Straight Jack



for cable crimp

Part number	1P-211	1P-212
Cable group	316	178
Dim. A	3.2(.089)	2.2(.086)

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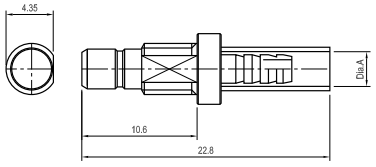
❖ PCB Connectors

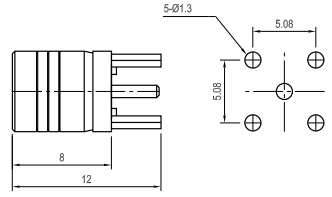
Bulkhead Jack



for cable crimp

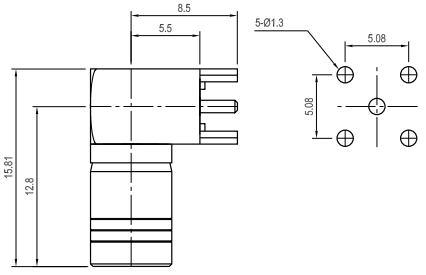
Part number	1P-411	1P-412
Cable group	316	178
Dim. A	3.2(.089)	2.2(.086)

Straight PCB Plug



Part number	1P-501
Cable group	PCB Plug

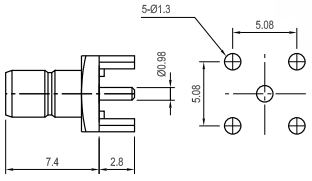
Right Angle PCB Plug



Part number	1P-701
Cable group	PCB L-Plug

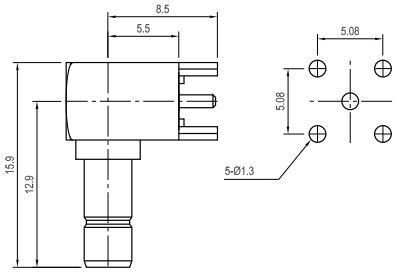
❖ PCB Connectors

Straight PCB Jack



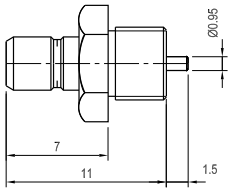
Part number	1P-502
Cable group	PCB Jack

Right Angle PCB Jack



Part number	1P-702
Cable group	PCB L-Jack

Bulkhead Receptacle Jack



Coaxial End

Part number	1P-602
Cable group	Receptacle

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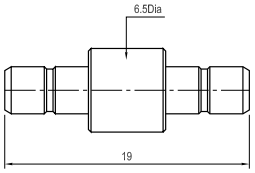
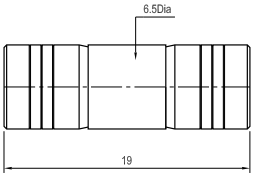
❖ Adaptors -50Ω

Plug to Plug



Part number	1P-801
Cable group	Adaptors

Jack to Jack



Part number	1P-802
Cable group	Adaptors