

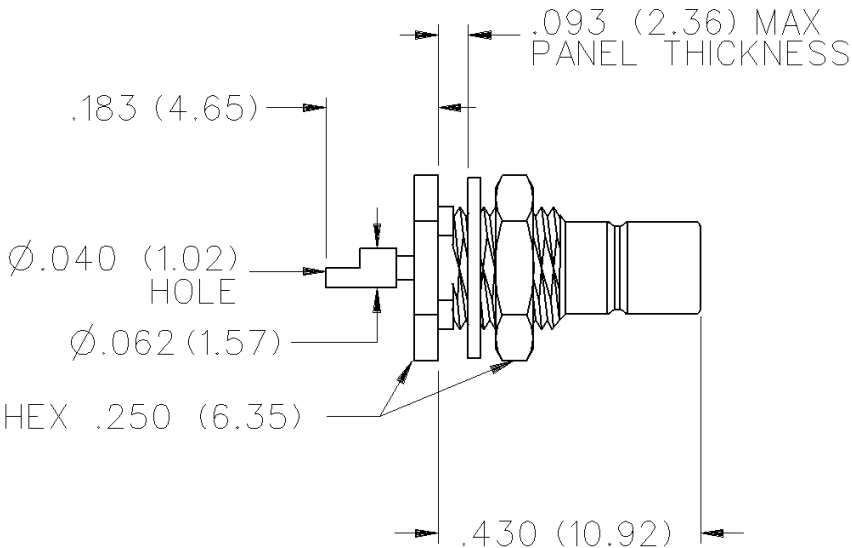
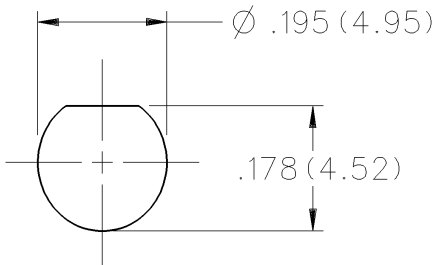
50 Ohm SMB

Rear Mount Bulkhead Jack Receptacle



GOLD PLATED	NICKEL PLATED
131-3701-401	131-3701-406

Mounting hole layout



SMB - 50 Ohm Connectors

Specifications



INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

ELECTRICAL RATINGS

Impedance: 50 ohms

Frequency Range: Connectors 0-4 GHz
Dummy loads 0-1 GHz

VSWR: (f = GHz)

	Straight Cabled	Right Angle Cabled
RG-178 cable	1.30 + .04f	1.45 + .06f
RG-316, RG-58, and .086 semi-rigid cable	1.25 + .04f	1.35 + .04f
Adapters	1.20 + .04f	

Uncabled receptacles, dummy loads N/A

Working Voltage: (Vrms maximum)[†]

Connectors for Cable Type	Sea Level	70K Feet
RG-178	250	60

RG-316, RG-58, .086 semi-rigid uncabled receptacles, adapters	335	85
Dummy loads		N/A

Dielectric Withstanding Voltage: (VRMS minimum at sea level)[†]

Connectors for RG-178	750
Connectors for RG-316, RG-58, .086 semi-rigid, uncabled receptacles, adapters	1000
Dummy loads	N/A

Corona Level: (Volts minimum at 70,000 feet)[†]

Connectors for RG-178	185
Connectors for RG-316, RG-58, .086 semi-rigid	250
Uncabled receptacles, adapters, dummy loads	N/A

Insertion Loss: (dB maximum, tested at 1.5 GHz)

Straight cable connectors	0.30 dB
Right angle cable connectors	0.60 dB
Uncabled receptacles, adapters and dummy loads	N/A

Insulation Resistance: 1000 megohms minimum

Contact Resistance: (milliohms maximum) Initial After Environmental

Center contact (straight cabled connectors and uncabled receptacles)	6.0	8.0
---	-----	-----

Center contact (right angle cabled connectors and adapters)	12.0	16.0
--	------	------

Outer contact (gold plated connectors)	1.0	1.5
--	-----	-----

Outer contact (nickel plated connectors)	2.5	3.5
--	-----	-----

Braid to body (gold plated connectors)	1.0	N/A
--	-----	-----

Braid to body (nickel plated connectors)	2.5	N/A
--	-----	-----

RF Leakage: (dB minimum tested at 2.5 GHz)

Cable connectors	-55 dB
Uncabled receptacles, adapters and dummy loads	N/A

RF High Potential Withstanding Voltage: (Vrms minimum, tested at 4 and 7 MHz)[†]

Connectors for RG-178	500
Connectors for RG-316, RG-58	700
Uncabled receptacles and adapters	600
Dummy loads	N/A

Power Rating (Dummy Load): 0.5 watt @ +25°C, derated to 0.25 watt @ +125° C

MECHANICAL RATINGS

Engagement Design: MIL-C-39012, Series SMB

Engagement/Disengagement Force: 2 pounds min to 14 pounds maximum axial force

Contact Retention: 4 lbs. min axial force (captivated contacts)

1 inch-ounce min torque (uncabled receptacles)

Cable Retention: Axial Force* (pounds) Torque (in-oz)

Connectors for RG-178	10	N/A
-----------------------	----	-----

Connectors for RG-316	20	N/A
-----------------------	----	-----

Connectors for RG-58	40	16
----------------------	----	----

Connectors for .086 semi-rigid	30	16
--------------------------------	----	----

* or cable breaking strength whichever is less.

Durability: 500 cycles minimum

ENVIRONMENTAL RATINGS

(Meets or exceeds the applicable paragraph of MIL-C-39012)

Temperature Range: Connectors - 65°C to + 165°C
Dummy loads - 65°C to + 125°C

Thermal Shock: MIL-STD-202, Method 107, Condition B (N/A dummy loads)

Corrosion: MIL-STD-202, Method 101, Condition B (N/A dummy loads)

Shock: MIL-STD-202, Method 213, Condition B (N/A dummy loads)

Vibration: MIL-STD-202, Method 204, Condition B (N/A dummy loads)

MATERIAL SPECIFICATIONS

Bodies: Brass per QQ-B-626 or zinc per ASTM B86-71, gold plated** per MIL-G-45204 .00001 min or nickel plated per QQ-N-290

Contacts: Male - brass per QQ-B-626, gold plated per MIL-G-45204 .00003" min.

Female - beryllium copper per QQ-C-530, gold plated per MIL-G-45204 .00003" min.

Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457 OR Teflon PFA 340

Expansion Caps: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

Crimp Sleeves: Copper per WW-T-799, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

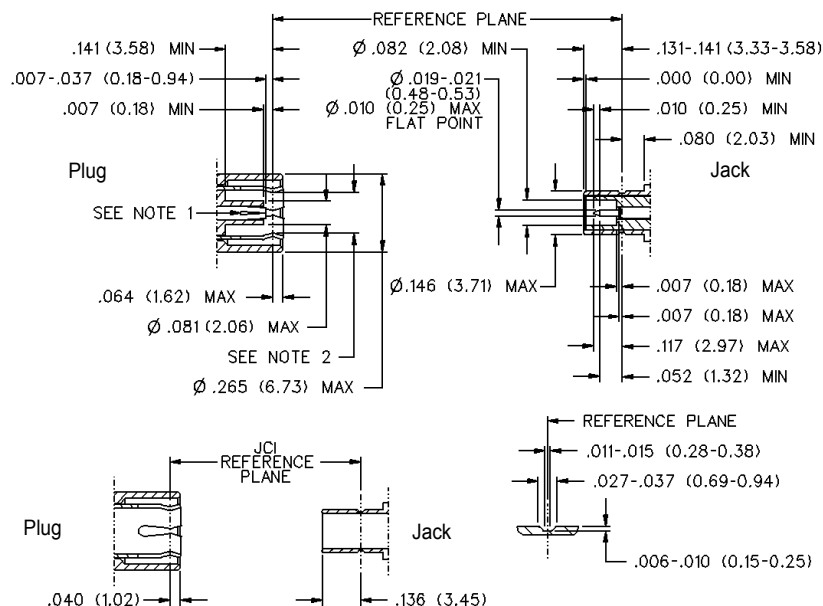
Mounting Hardware: Brass (nuts) per QQ-B-626 or phosphor bronze (lockwashers) QQ-B-750, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

Cover Rings: Phosphor Bronze per QQ-B-750, gold plated per MIL-G-45204 .00001 min. or nickel plated per QQ-N-290.

[†]Avoid user injury due to misapplication. See safety advisory definitions inside front cover.

** All gold plated parts include a .00005" min. nickel underplate barrier layer.

MATING ENGAGEMENT FOR SMB SERIES PER MIL-C-39012



Notes

1. ID of contact to meet VSWR mating characteristics and connector durability when mated with a dia .019 / 0.53 male contact.
2. Must meet the force to engage and disengage when mated with mating part.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Cinch Connectivity Solutions:](#)

[131-3701-406](#)