

SMC Jack (Male Pin) R/A PCB Mount Receptacle, B/H Rear Mount

Part Number: SMCJ-06AL-BT-01-Au

PRODUCT OVERVIEW

The SMCJ-06AL-BT-01-Au is an SMC Jack (Male Pin) receptacle for RF connections from DC to 4 GHz. The 50 Ω design combines a subminiature threaded mating interface with a right-angle PCB connection and bulkhead rear mounting, providing a compact way to connect a circuit board to an RF port at an equipment panel.

The right-angle geometry routes the mating connection perpendicular to the PCB contact pin. This arrangement is useful when the circuit board sits behind a front or rear panel and the RF connection must be accessible from outside the enclosure. A 7.00 mm square body, 20.15 mm overall length and 11.45 mm overall height provide defined dimensions for board and enclosure planning.

The threaded SMC interface uses screw-on mating engagement. The assembly includes a nut and teeth washer for the panel mounting arrangement, with a maximum panel thickness of 2.80 mm. The drawing provides both the PCB hole pattern and the D-shaped panel opening so that the electrical connection and mechanical mounting can be designed together.

Gold-finished brass bodies and a gold-finished brass contact pin are combined with PTFE insulators. The specified temperature range is -65 °C to +165 °C, and the assembly weighs 4.28 g. These details support component selection for compact RF instruments, communication equipment and board-mounted RF modules. Use the 2D drawing and Data Sheet to review the mating interface, installation dimensions and electrical ratings for your design.

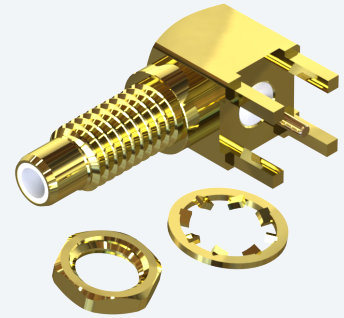
PRODUCT SPECIFICATIONS

Attributes	Details
Part Number	SMCJ-06AL-BT-01-Au
Series	SMC
Gender	Jack (Male Pin)
Orientation	Right angle (R/A)
Mounting	PCB; bulkhead rear mount (B/H)
Weight	4.28 g

ELECTRICAL SPECIFICATIONS

Attributes	Details
Impedance	50 Ω
Frequency range	DC to 4 GHz
Working voltage	335 Vrms
Dielectric withstanding voltage	1,000 Vrms
Insulation resistance	1,000 M Ω

Source drawing values; min./typ./max. qualifiers and test conditions are not specified.



Product rendering

Key Technical:

- 50 Ω ; DC to 4 GHz
- Gender: Jack (Male Pin)
- #10-32 UNF-2A thread
- Right-angle PCB; bulkhead rear mount
- -65 °C to +165 °C; 4.28 g

Features:

- Compact square body suits confined board layouts
- Nut and teeth washer provided for panel installation
- Gold-finished brass bodies and contact pin
- PTFE insulators support the contact path
- PCB pattern and panel cutout aid board-to-enclosure planning

Applications:

- Wireless / base-station RF modules
- RF test instruments and fixtures
- 50 Ω video / broadcast RF subsystems
- GPS / telemetry development and test
- Compact PCB RF and microwave modules

Select against this part's 50 Ω , DC-4 GHz ratings and system qualification requirements.

JAW-DROPPER INNOVATIVE CHANNEL CO., LTD.

JAW-DROPPER Specialist RF Coaxial Connectors/Adapter • RF Cable Assembly

antenna-connector.com

inquiry@antenna-connector.com

TEL +886-6 5121611 | FAX +886-6 202 9394

View product page: SMCJ-06AL-BT-01-Au

Mechanical, materials & environmental specifications

Part Number: SMCJ-06AL-BT-01-Au

MECHANICAL & MOUNTING SPECIFICATIONS

Attributes	Details
Overall length / height	20.15 mm / 11.45 mm
Body size (square)	7.00 mm
Maximum panel thickness	2.80 mm
Thread shown on drawing	#10-32 UNF-2A
PCB mounting holes	5.08 mm square pattern; 4 × Ø1.70 mm holes
PCB center hole / contact pin	Ø1.20 mm / Ø0.96 mm
Panel mounting hole	Ø5.00 mm; flat 4.50 mm
General drawing tolerances	±0.15 mm; angles ±3.0°

MATERIALS & FINISHES - COMPLETE DRAWING BOM

Item	Component	Material	Finish	Qty
1	Nut	Brass	Gold	1
2	Teeth washer	Brass	Gold	1
3	Body	Brass	Gold	1
4	Insulator	PTFE	--	1
5	Contact pin	Brass	Gold	1
6	Body	Brass	Gold	1
7	Insulator	PTFE	--	1

ENVIRONMENTAL & COMPLIANCE INFORMATION

Attributes	Details
Temperature rating	-65 °C to +165 °C
RoHS	(see product page for current document)

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Ordering & engineering considerations

Part Number: SMCJ-06AL-BT-01-Au

ORDERING INFORMATION

Part number	Description
SMCJ-06AL-BT-01-Au	SMC Jack (Male Pin) R/A PCB Mount Receptacle, B/H Rear Mount

ENGINEERING CONSIDERATIONS

Evaluate the following items for the intended assembly and system. They are not additional product ratings.

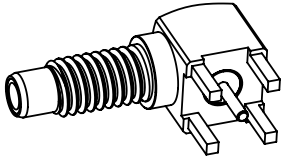
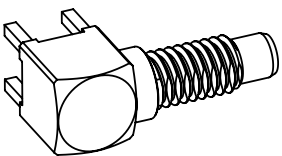
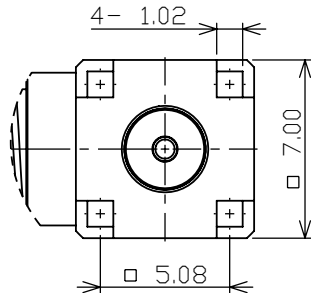
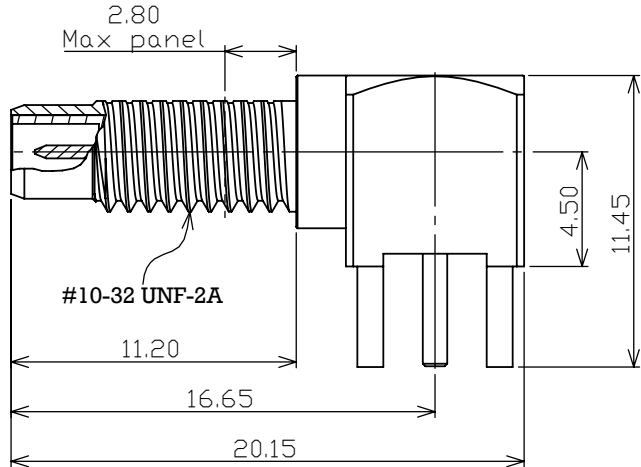
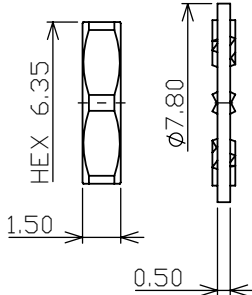
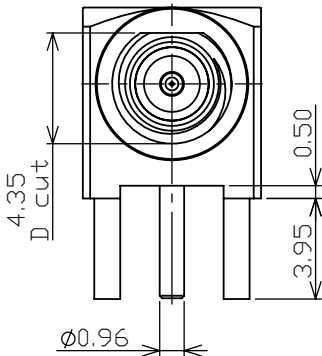
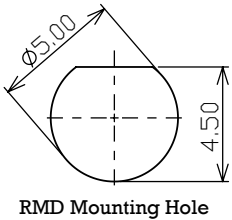
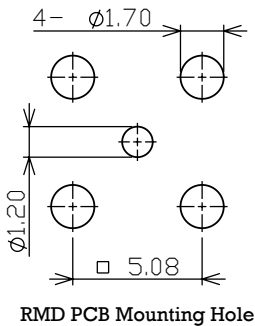
Data group	Information to supply or confirm
RF performance	VSWR / return loss; insertion loss with frequency and test setup; RF leakage / shielding if applicable.
Electrical qualification	Inner / outer contact resistance; voltage test duration and method; insulation test voltage and acceptance limits.
Mechanical qualification	Mating cycles; mating and mounting torque; contact retention; interface standard and PCB assembly conditions.
Materials & environment	Material grades; plating thickness / underplate; IP rating if claimed; vibration, shock, humidity and corrosion tests if applicable.

Confirm application-specific test requirements and supporting compliance documents with our engineering team.

NO	DESCRIPTION	MATERIAL	FINISH	QTY
1	Nut	Brass	Gold	1
2	Teeth Washer	Brass	Gold	1
3	Body	Brass	Gold	1
4	Insulator	PTFE	--	1
5	Contact Pin	Brass	Gold	1
6	Body	Brass	Gold	1
7	Insulator	PTFE	--	1

Specification

Impedance : 50 Ohm
Frequency Range : DC to 4 GHz
Working Voltage :335 Vrms
Dielectric Withstanding Voltage : 1,000 Vrms
Insulation Resistance : 1,000 M-Ohm
Temperature Rating : -65° C to 165° C



SMC Jack (Male Pin) R/A
PCB Mount Receptacle,
B/H Rear Mount

RoHS COMPLIANT

DESCRIPTION	SCALE	3.5:1
	DATE	2025/02/19
	DESIGNED	
	CHECKER	
	APPROVED	

UNIT	mm
COMMON TOLERANCE	±0.15
ANGLES	±3.0°
WEIGHT:	4.28 g

JAW Dropper
Innovation Channel Co.,Ltd.

ITEM NO
SMCJ-06AL-BT-01-Au