

2.92mm (K Band) Jack PCB Mount Receptacle, Surface Mount

Part Number: KJ-05-BK-01-Au

PRODUCT OVERVIEW

The KJ-05-BK-01-Au is a 50 Ω 2.92mm (K Band) jack receptacle specified from DC to 40 GHz. It provides a straight coaxial interface for a PCB RF connection, combining a threaded mating port with the surface-mount configuration identified in the engineering drawing.

The 1/4-36 UNS-2A external thread supports screw-on mating engagement. A 6.00 mm square body and 12.50 mm overall length define the space required around the connector. Four body posts and a central PCB contact provide the mechanical and signal interface shown in the recommended board layout.

The assembly uses a gold-finished brass body, a gold-finished beryllium copper (BeCu) contact and a PEEK insulator. Its 1.61 g weight and specified -65 °C to +165 °C temperature range support component selection for compact microwave modules and board-level RF test hardware.

For implementation, review the connector geometry together with the PCB stack-up, transmission-line transition and assembly process. The reference PCB pattern may require adaptation to the board design; the complete mounted RF path should be verified over the intended operating band.

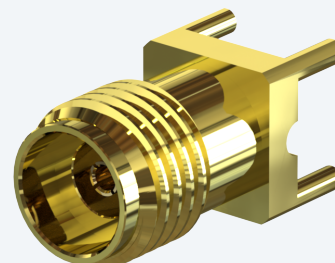
PRODUCT SPECIFICATIONS

Attributes	Details
Part Number	KJ-05-BK-01-Au
Series	2.92mm (K Band)
Gender	Jack
Orientation	Straight
Mounting	PCB; surface mount
Weight	1.61 g

ELECTRICAL SPECIFICATIONS

Attributes	Details
Impedance	50 Ω
Frequency range	DC to 40 GHz
Working voltage	250 Vrms
Dielectric withstanding voltage	1,000 Vrms
Insulation resistance	5,000 M Ω

Drawing ratings; test conditions and min./typ./max. qualifiers are not specified.



Key Technical:

- Impedance: 50 Ω
- Frequency: DC to 40 GHz
- Gender: Jack; straight orientation
- Coupling: 1/4-36 UNS-2A thread
- PCB receptacle; surface mount
- Temperature: -65 °C to +165 °C

Features:

- Four body posts help locate the connector during PCB assembly
- Compact square body suits space-constrained board layouts
- Gold-finished brass body and BeCu contact
- PEEK insulator supports the center contact
- Dimensioned reference PCB pattern aids layout planning

Applications:

- Microwave test and measurement boards
- Laboratory RF evaluation fixtures
- SATCOM RF module development
- Compact high-frequency PCB interfaces

Application examples; select against the part ratings and validate the complete PCB assembly.

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: KJ-05-BK-01-Au

Mechanical, materials & environmental specifications

Part Number: KJ-05-BK-01-Au

MECHANICAL & MOUNTING SPECIFICATIONS

Attributes	Details
Overall length	12.50 mm
Body size (square)	6.00 mm
Thread shown on drawing	1/4-36 UNS-2A
Body posts	4 × Ø1.00 mm; 2.90 mm projection
PCB contact diameter	Ø0.40 mm
Recommended PCB holes	4 × Ø1.20 mm on 5.08 mm square pattern
Reference central feature	Ø0.55 mm; see PCB layout
General drawing tolerances	±0.15 mm; angles ±3.0°

The recommended PCB pattern is a reference. Adapt it to the assembly process, board type and electrical or mechanical requirements.

MATERIALS & FINISHES - COMPLETE DRAWING BOM

Item	Component	Material	Finish	Qty
1	Body	Brass	Gold	1
2	Contact Pin	BeCu	Gold	1
3	Insulator	PEEK	--	1

ENVIRONMENTAL & COMPLIANCE INFORMATION

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

ORDERING INFORMATION

Part Number	Description
KJ-05-BK-01-Au	2.92mm (K Band) Jack PCB Mount Receptacle, Surface Mount

ENGINEERING CONSIDERATIONS

Confirm VSWR / return loss and insertion loss with the intended PCB transition; mating torque and durability; soldering conditions; contact resistance; plating thickness and supporting compliance documents. These items should be evaluated for the intended application; they are not additional product ratings.

JAW-DROPPER INNOVATIVE CHANNEL CO., LTD.

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

antenna-connector.com

inquiry@antenna-connector.com

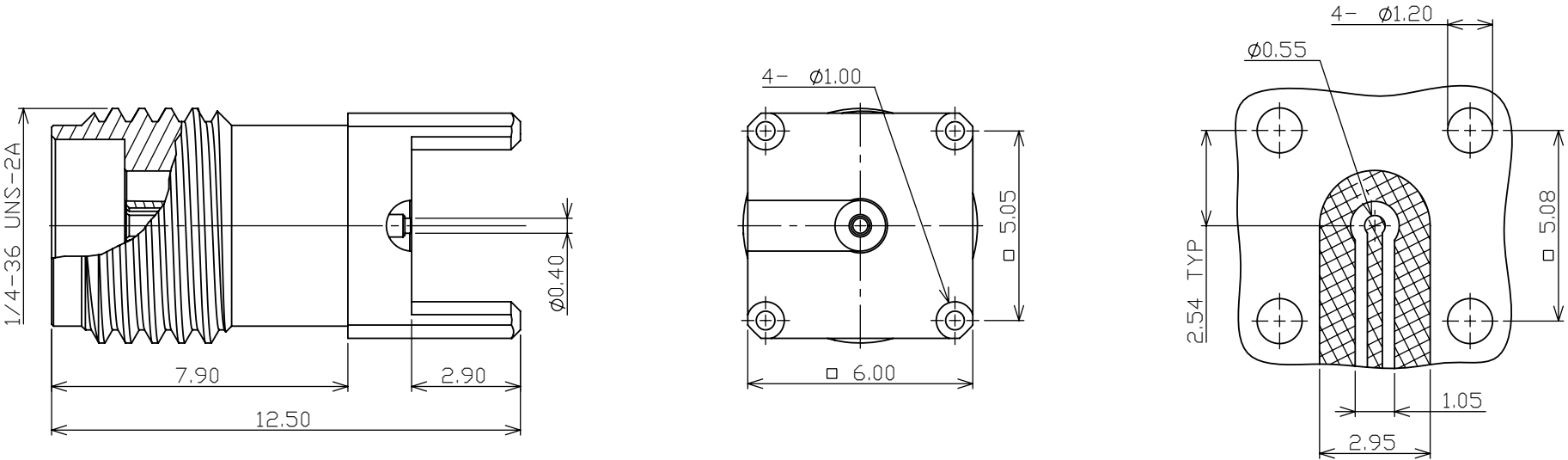
TEL +886-6 5121611 | FAX +886-6 202 9394

View product page: KJ-05-BK-01-Au

NO	DESCRIPTION	MATERIAL	FINISH	QTY
1	Body	Brass	Gold	1
2	Contact Pin	BeCu	Gold	1
3	Insulator	PEEK	--	1

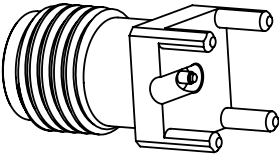
Specification

Impedance : 50 Ohm
Frequency Range : DC to 40 GHz
Working Voltage : 250 Vrms
Dielectric Withstanding Voltage : 1,000 Vrms
Insulation Resistance : 5,000 M-Ohm
Temperature Rating : -65° C to 165° C



RMD PCB Layout

NOTE: THIS PATTERN IS FOR REFERENCE ONLY.
PATTERN MAY VARY DEPENDING ON ASSEMBLY
PROCESS, BOARD TYPE, OR SPECIFIC ELECTRICAL OR
MECHANICAL REQUIREMENTS.



DESCRIPTION	RoHS COMPLIANT		UNIT	mm	JAW Dropper Innovation Channel Co.,Ltd. ITEM NO KJ-05-BK-01-Au
	SCALE	6:1	COMMON TOLERANCE	±0.15	
	DATE	2026/02/10		±3.0°	
	DESIGNED			ANGLES	
	CHECKER		WEIGHT:	1.61 g	
	APPROVED				