



SMA RF Coaxial Adapter Kit Specification

1. Product Overview

This is mixed-kit of SMA RF coaxial adapters with 50 Ω nominal impedance. Body material is gold-plated brass. This kit includes straight, right-angle 90-degree, T-type tee and bulkhead panel-mount adapters. It realizes mutual conversion between SMA-J (male) and SMA-K (female) interfaces. Widely used for WIFI modules, routers, radio data-transmit units and antenna inter-connection for 2.4 GHz / 5.8 GHz RF applications.

2. Product Specifications

Item	Parameter	Remarks
Product Name	SMA RF Coaxial Adapter Kit	
Nominal Impedance	50 Ω	Standard RF impedance
Material	Brass body with gold plating	Low RF loss, anti - oxidation
Interface Type	Standard SMA (SMA - J male / SMA - K NOT RP - SMA reversed female)	polarity
	Straight JJ, straight KK, JK	
	male - to - female90° right - angle	Covers most SMA
Kit Contents	adapters (J - K / K - J)T - type tee	inter - conversion
	adapter, bulkhead panel - mount, coupler	requirements
Frequency Range	DC - 6 GHz	For 2.4 G, 5 G, 5.8 G WIFI bands
VSWR	≤1.2 @ DC - 6 GHz	Low signal reflection
Contact Resistance	≤5 mΩ	
Insulation	≥1000 MΩ	

Item	Parameter	Remarks
Resistance		
Dielectric		
Withstand	500 V rms	
Voltage		
Operating	- 40 °C ~ +85 °C	
Temperature		
Coupling	SMA screw coupling (1/4 - 36 UNS	Hand - tighten only
Mechanism	thread)	
Protection	Indoor use only, non - waterproof	Not for outdoor rainy
Rating		exposure
Mechanical	± 0.2 mm	Subject to physical
Tolerance		sample

3. Material Properties

1. Housing: Gold-plated brass, excellent conductivity, anti-oxidation, low RF insertion loss.
2. Dielectric: PTFE, stable high-frequency dielectric performance.
3. Inner contact: Gold-plated copper. Mating cycles ≥ 500 times.
4. Limitation: Do not over-torque threads. Do not operate beyond 6 GHz. Not waterproof.

4. Installation Instructions

1. Align SMA thread and tighten by hand. **Do NOT use wrench for heavy torque**, which may damage inner pin or strip thread.
2. Inspect inner pin before assembly; bent inner pin will degrade VSWR and RF performance.
3. Minimize adapter quantity in RF chain; excessive adapters accumulate insertion loss.
4. Bulkhead version: Pass through chassis cut-out and fasten with lock-nut on panel.

5. T-tee adapter: Split one RF input signal into two RF output ports.

5. Application Scenarios

- Antenna conversion for WIFI-6 modules & wireless routers - 2.4 G / 5.8 G wireless data & video transmission modules - RF test instruments, signal generators - Industrial wireless & IoT radio-frequency devices - R&D laboratory test & debugging kits

6. Notes

1. These are standard SMA adapters, **NOT RP-SMA**. RP-SMA cannot mate directly.
 2. Max operating frequency 6 GHz. VSWR deteriorates above 6 GHz.
 3. Hand-tighten only. Over-torque with wrench will destroy inner conductor.
 4. Indoor-use only. Additional waterproof treatment required for outdoor deployment.
 5. Knocks or deformation on threads / inner pin degrade RF performance; avoid impact.
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2. Product Specifications Product Name: SMA RF Coaxial Adapter Kit Nominal Impedance: 50 Ω , Standard RF impedance Material: Brass body with gold plating, Low RF loss, anti-oxidation Interface Type: Standard SMA (SMA-J male / SMA-K female), NOT RP-SMA reversed polarity Kit Contents: Straight JJ, straight KK, JK male-to-female; 90° right-angle adapters (J-K / K-J); T-type tee adapter, bulkhead panel-mount, coupler. Covers most SMA inter-conversion requirements. Frequency Range: DC-6 GHz, For 2.4 G, 5 G, 5.8 G WIFI bands VSWR: ≤ 1.2 @ DC-6 GHz, Low signal reflection Contact Resistance: ≤ 5 m Ω Insulation Resistance: ≥ 1000 M Ω Dielectric Withstand Voltage: 500 V rms Operating Temperature: -40 °C ~ +85 °C Coupling Mechanism: SMA screw coupling (1/4-36 UNS thread), Hand-tighten only Protection Rating: Indoor use only, non-waterproof, Not for outdoor rainy exposure Mechanical Tolerance: ± 0.2 mm, Subject to physical sample
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