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# Datasheet

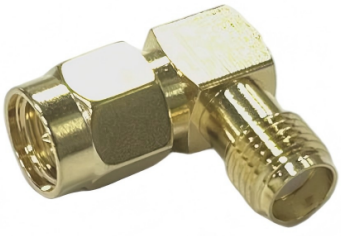
## SMA Antenna Connector

**Model No:**

BFSMA-JKW

**Description:**

SMA PCB-end Straight & Vertical Pin Connector



**Features：**

0-6000MHz

With Inner Thread and Inner Pin

PCB-end connection

Size:16.7mm x 15mm

**RoHS & REACH Complaint**

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# BFSMA-JKW

## Part Number Description

| | | |
|---|---|---|
| BF | Company | Bat Wireless |
| SMA | Name | SMA Type |
| J | Connector | J (Inner pin) |
| K | Type | K(Inner hole) |
| W | Feature | Angeled |

## 1. Description

Bat Wireless **BFSMA-JKW** is a common RF coaxial connector, typically operating within a frequency range of 0 to 6 GHz. It finds extensive application in high-frequency scenarios such as wireless communications, test equipment, and radar systems. Its core characteristics include high-frequency support, robust durability, and vertical mounting, making it suitable for PCB-mounted antennas or RF signal connections. Vertically soldered onto the PCB, the signal transmission direction is perpendicular to the board surface. This configuration is suitable for top-side connections to antennas or RF cables. Featuring a straight-head design, its simpler structure accommodates applications with less stringent space constraints. The interface type is an internal pin, designed for pairing with a female connector. Its low-loss design, optimised manufacturing processes, and coaxial structure ensure minimal insertion loss during signal transmission.

Classic Application Scenarios:

Wireless Communication Modules: GPS/BeiDou positioning terminals, 4G/5G modules, Wi-Fi/Bluetooth modules
Test and Measurement Equipment: Connection interfaces for RF test probes, spectrum analysers, antenna ports for signal generators
Consumer Electronics and Industrial Equipment: Walkie-talkies, RFID readers/writers, medical monitoring devices

Bat Wireless provides customized services to optimize your device, we have a mature R&D team that can respond quickly to meet your needs. If you have any requirements, please contact our sales and FAE.

## 2. Specification

| Parameters | Typ. | Unites | Notes |
|---|---|---|---|
| **Electrical Characteristics** | | | |
| Product Type | SMA Antenna Connector | | |
| Frequency Range | 0-6000 | MHz | |
| Input Impendence | 50 | Ω | |
| Contact resistance | IC<3，OC<2 | mΩ | |
| Insulation resistance | >5000 | MΩ | |
| Insert Loss | 0.15 | dB(6GHz) | |
| RF leakage | 1000 | V | |
| Durability | 500 | Cycles | |
| PLUG ID/JACK OD | - | mm | |
| DC Voltage | - | V | |
| **Mechanical Characteristics** | | | |
| Dimensions | 16.7 x 15 | mm | |
| Connector Type | J ( Inner Pin ) to K(Inner hole) | | |
| Cable Type | - | | |
| Cable Length | - | mm | |
| Mount way | Screw-on | | |
| Color | Gold | | |
| Meterial | Phosphor bronze plated with hard gold | | |
| Weight | 4.71 | g | |
| **Environmental Characteristics** | | | |
| Waterproof Rating | - | | |
| ROHS Complaint | YES | | |
| Operating Temperature | -45~ +85 | ℃ | |
| Storage Temperature | -45~ +85 | ℃ | |

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## 3. Product Picture

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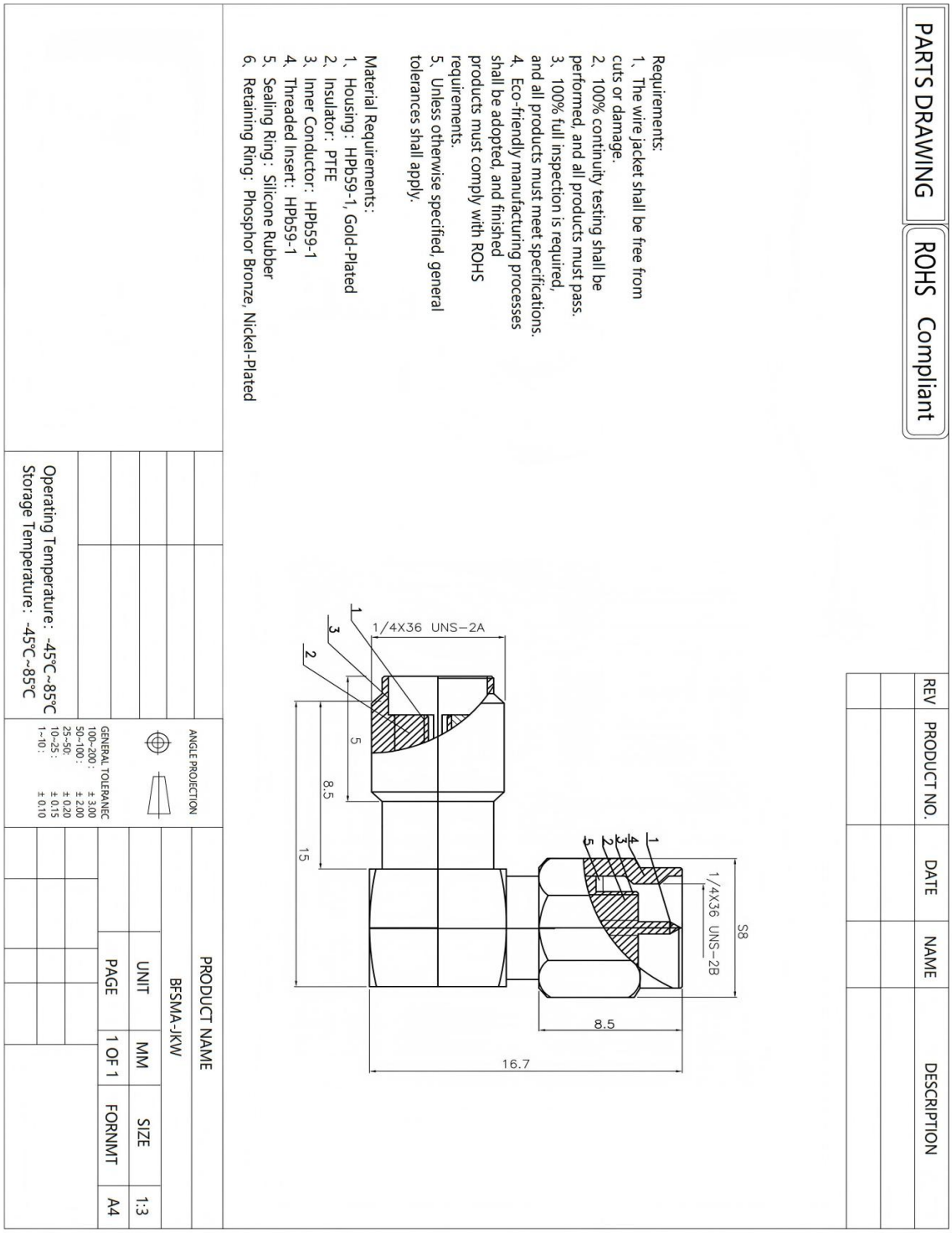
## 4. Mechanical Drawing



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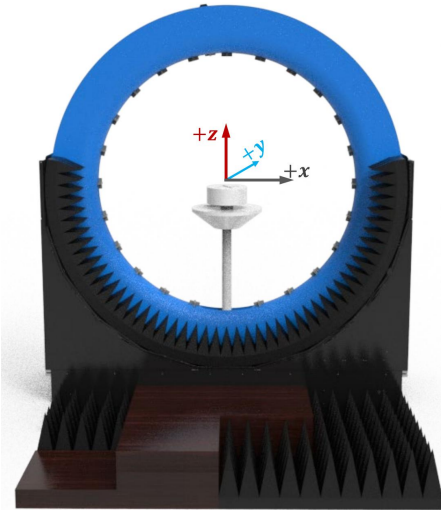
## 4 . Test Equipment

Keysight/E5071C Network Analyzer

R&S/CMW500 Comprehensive tester

R&S/SMBV100B Signal Source




| DT-3500 Datasheet / System Specifications | |
|---|---|
| **Specification:** | **Description** |
| Test Frequency : | 400MHz-8.5GHz |
| System Size : | L*W*H=4*3.5*3.5m |
| Number of Probes : | 23 (Probe) + 1 (link) |
| Interval Angle : | 15º |
| Sampling Diameter : | 2200mm |
| Carring Capacity : | ≦40kg |

| Testing Capability | Description |
|---|---|
| **Active measurement** | **Capability :** TRP、TIS、EIRP、EIS,. etc<br>**Mode :** 2G/3G/4G/5G、Wi-Fi b/g/n/a/ac/ax、BT、NB-IOT、Cat-M (eMTC)、GPS/BEIDOU/GLONASS、ZigBee、LoRa(Non-Signaling),.etc |
| **Pasive measurement** | **Test category :** Gain、Efficiency、2D pattern、3D pattern、Pattern roundness、Axial Ratio, ECC,Phase center,. etc<br>**Polarization :** Circular polarization, linear polarization, elliptical polarization |

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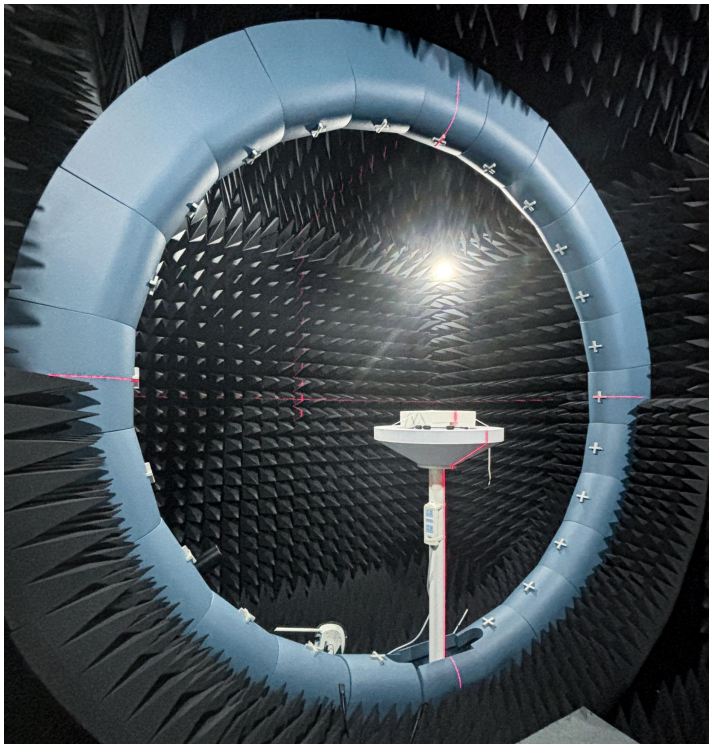
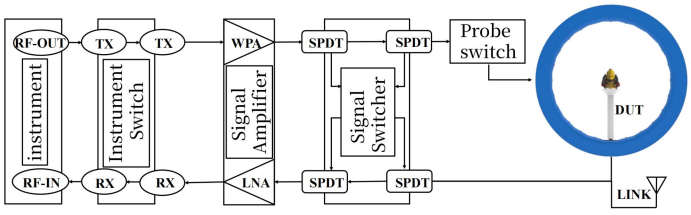
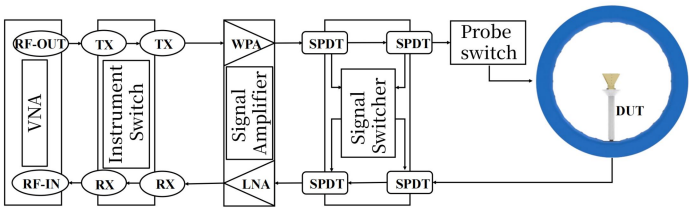


## RF Link diaram of multi probe spherical near-field testing system

### RF Link Overview




### RF Link of Passivemeasurement

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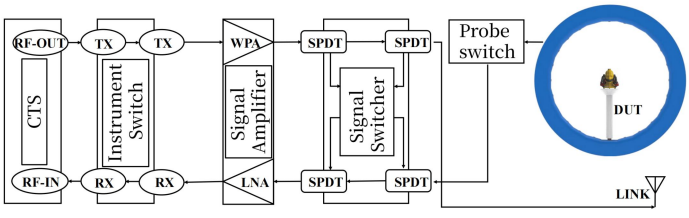
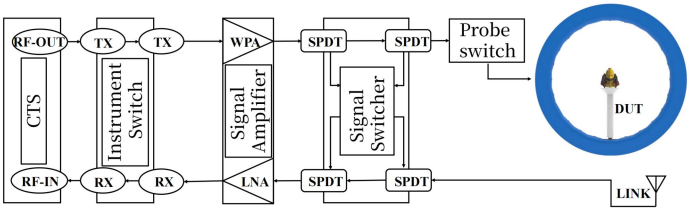



### RF Link of Passivemeasurement



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## Documentation

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|---|---|
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| Note: | First released |
| Author: | Carly |

## Change Log