



# Datasheet

## SMB Antenna Connector

**Model No:**

BWSMB-JE

**Description:**

SMB PCB-end Straight & Vertical Pin Connector

**Features :**

0-6000MHz

With Internal Pin

PCB-end connection

Size:11.5mm x 6mm x 6mm

RoHS & REACH Complaint



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## BWSMB-JE

### Part Number Description

|     |           |                     |
|-----|-----------|---------------------|
| BW  | Company   | Bat Wireless        |
| SMB | Name      | SMB Type            |
| J   | Connector | J (Internal pin )   |
| E   | Type      | Board-End Connector |

## 1. Description

Bat Wireless **BWSMB-JE** is a common RF coaxial connector with a typical frequency range of 0 to 6 GHz. It is widely used in high-frequency applications such as wireless communications, test equipment, and radar systems. Its core features include high-frequency support and rugged durability, making it suitable for PCB-mounted antennas or RF signal connections. transmission direction perpendicular to the PCB. Designed for top-side connections to antennas or RF cables, its angled structure simplifies installation and accommodates applications with limited space. Featuring an internal pin interface, it pairs with female connectors. Its low-loss design, optimized 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                  | SMB Antenna Connector                 |                    |       |
| Frequency Range               | 0-6000                                | MHz                |       |
| Input Impedence               | 50                                    | $\Omega$           |       |
| Contact resistance            | IC<3 , OC<2                           | m $\Omega$         |       |
| Insulation resistance         | >5000                                 | M $\Omega$         |       |
| Insert Loss                   | 0.15                                  | dB(6GHz)           |       |
| RF leakage                    | 1000                                  | V                  |       |
| Durability                    | 500                                   | Cycles             |       |
| PLUG ID/JACK OD               | -                                     | mm                 |       |
| DC Voltage                    | -                                     | V                  |       |
| Mechanical Characteristics    |                                       |                    |       |
| Dimensions                    | 11.5 x 6 x 6                          | mm                 |       |
| Connector Type                | J(Internal pin)                       |                    |       |
| Cable Type                    | -                                     |                    |       |
| Cable Length                  | -                                     | mm                 |       |
| Mount way                     | Interlocking Snap                     |                    |       |
| Color                         | Gold                                  |                    |       |
| Material                      | Phosphor bronze plated with hard gold |                    |       |
| Weight                        | 0.84                                  | g                  |       |
| Environmental Characteristics |                                       |                    |       |
| Waterproof Rating             | -                                     |                    |       |
| ROHS Complaint                | YES                                   |                    |       |
| Operating Temperature         | -45~ +85                              | $^{\circ}\text{C}$ |       |
| Storage Temperature           | -45~ +85                              | $^{\circ}\text{C}$ |       |

3. Product Picture





## 4 . Test Equipment



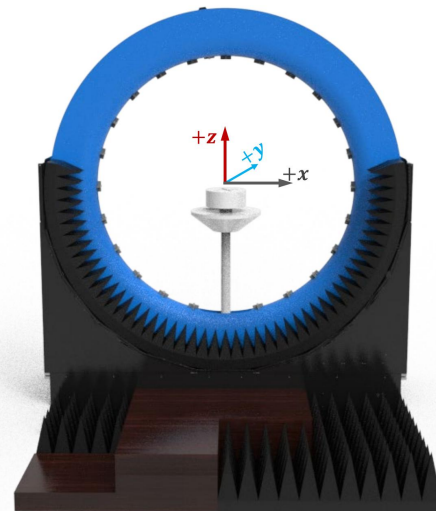
Keysight/E5071C Network Analyzer



R&amp;S/CMW500 Comprehensive tester



R&amp;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 :    | 15°                   |
| Sampling Diameter : | 2200mm                |
| Carring Capacity :  | ≤40 kg                |

### Testing Capability

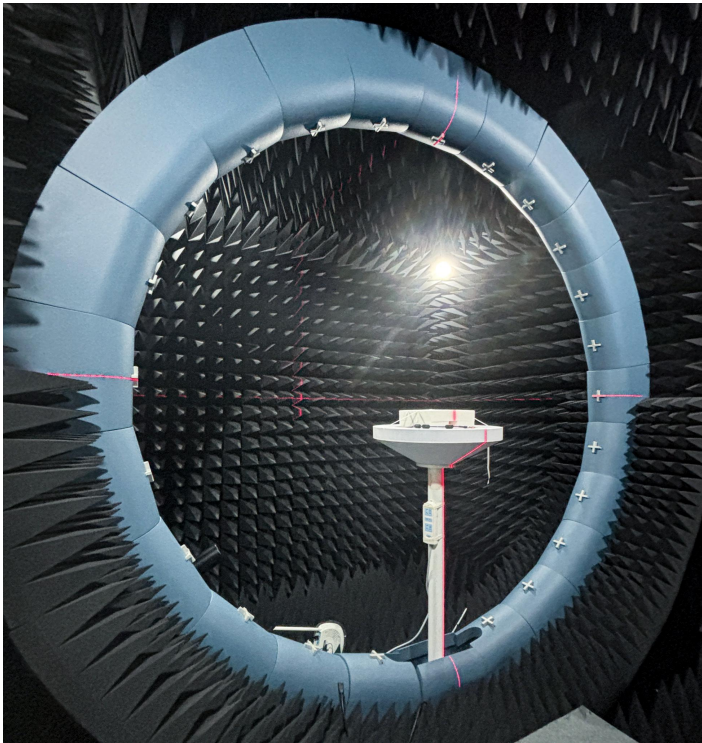
### Description

#### Active measurement

**Capability** : TRP、TIS、EIRP、EIS,. etc  
**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

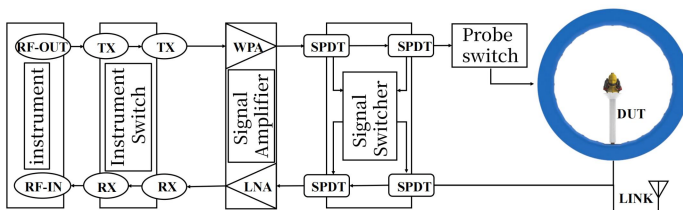
#### Passive measurement

**Test category** : Gain、Efficiency、2D pattern、3D pattern、Pattern roundness、Axial Ratio、ECC,Phase center,. etc  
**Polarization** : Circular polarization, linear polarization, elliptical polarization

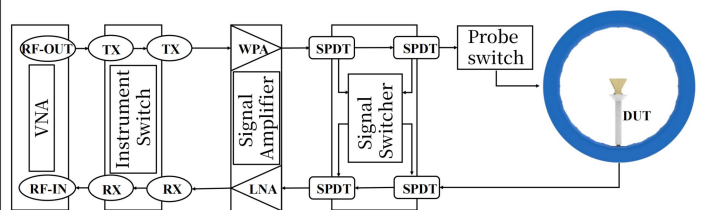


## RF Link diagram of multi probe spherical near-field testing system

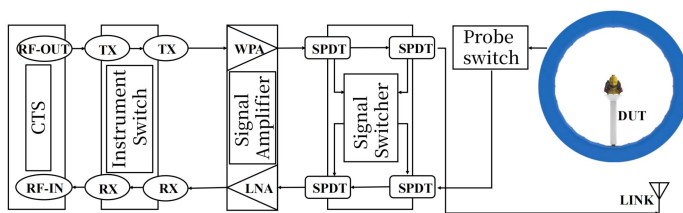
### RF Link Overview



### RF Link of Passivemeasurement



### RF Link Overview



### RF Link of Passivemeasurement





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