

# DATASHEET

## Antenna Pin

**Model No:**

BWCD-L4.0W2.0H1.0

**Description:**

Size: 4.0mmx2.0mmx1.0mm



RoHS & REACH Compliant

## CONTENTS

1.	Description	3
2.	Specifications	4
3.	Dimensions	5
3.1	Actual Picture	5
3.2	Parts Drawing	5
4.	Test Equipment	6-7

## BWCD-L4.0W2.0H1.0

### Part Number Description

BW	Company	BAT WIRELESS
CD	Name	Antenna pin
-	Constant	Constant
L	Length	Length
4.0	Length	4mm
W	Width	Width
2.0	Width	2mm
H	Height	Height
1.0	Height	1mm

## 1. Description

Bat Wireless BWCD-L4.0W2.0H1.0 antenna pin is a key component for antenna signal transmission in electronic devices. It is designed to ensure stable electrical connection and high-frequency signal transmission performance. Its spring structure

incorporates a precision spring, providing constant spring force and ensuring long-term, stable contact between the antenna and the PCB or module. Suitable for mobile devices, it maintains connection reliability even in vibration environments. Its low-loss design, optimized process, and coaxial structure ensure low insertion loss. Its high conductivity, high elasticity, wear resistance, and high-frequency performance make it an ideal choice for antenna connections in modern wireless devices, particularly for applications such as 5G and the Internet of Things, which require stringent signal stability.

Typical Applications:

Consumer Electronics: Smartphones, TWS Earphones, Smartwatches

Automotive Electronics: In-Vehicle T-Boxes, GPS Antenna Connections

Industrial Equipment: RFID Readers, Drone Communication Modules

IoT: NB-IoT/LoRa Modules, Smart Home 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

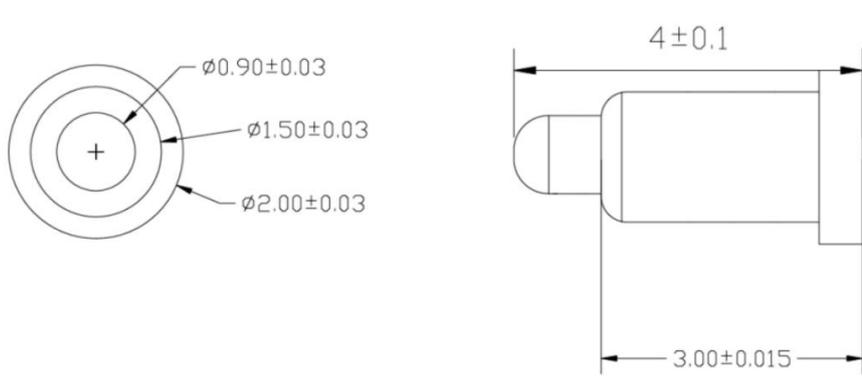
Parameters	Typ.	Unites	Notes
<b>Electrical Characteristics</b>			
Antenna Type	Antenna pin		
Frequency Range	0-6000	MHz	
Input Impedence	50	$\Omega$	
Contact resistance	30	m $\Omega$	
Insert Loss	0.15	dB(6GHz)	
Voltage rating	36	V	
Current rating	1.5	A	
<b>Mechanical Characteristics</b>			
Dimensions	4.0 x 2.0 x 1.0	mm	
Durability	75 $\pm$ 20	g	
Durability	10000	Times	
Mount way	SMD		
Color	Gold		
Material	Gold-Plated Brass		
Weight	0.09	g	
<b>Environmental Characteristics</b>			
Waterproof Rating	-		
ROHS Complaint	Yes		
Operating Temperature	-45~ +85	$^{\circ}$ C	
Storage Temperature	-45~ +85	$^{\circ}$ C	

### 3. Dimensions

#### 3.1 Actual Picture



#### 3.2 Parts Drawing

<b>PARTS DRAWING</b>		<b>ROHS Compliant</b>		REV	PRODUCT NO.	DATE	NAME	DESCRIPTION									
<p>1. Material: Contact: Brass Spring: Stainless steel wire plunger: Brass</p> <p>2. Plating Body: Min 1u" Gold plating over Plunger: Min 1u" Gold plating over</p> <p>3. Mechanical properties Elastic at working height 100g±15g Durability: 10000 cycle min</p> <p>4. Electrical performance: Voltage rating: 30V DC MAX Current rating: 1.5A Impedance: &lt;30mΩ:1.5A</p> <p>5. Unspecified tolerance ±0.03 mm</p> <p>6. All dimensions marked with "*" are tested.</p>																	
																	
NO	Code	Name	Description	Qty	Frequency	PRODUCT NAME											
					Gain	Antenna Pin-BFCD-L4.0W2.0H1.0											
					VSWR	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">UNIT</td> <td style="text-align: center;">MM</td> <td style="text-align: center;">SIZE</td> <td style="text-align: center;">1:3</td> </tr> <tr> <td style="text-align: center;">PAGE</td> <td style="text-align: center;">1 OF 1</td> <td style="text-align: center;">FORNMT</td> <td style="text-align: center;">A4</td> </tr> </table>				UNIT	MM	SIZE	1:3	PAGE	1 OF 1	FORNMT	A4
UNIT	MM	SIZE	1:3														
PAGE	1 OF 1	FORNMT	A4														
					Polarization												
					Impedance												
					Operating Temperature: -45°C -85°C												
					Storage Temperature: -45°C -85°C												
					ANGLE PROJECTION 												
					GENERAL TOLERANEC 100-200: ± 3.00 50-100: ± 2.00 25-50: ± 0.20 10-25: ± 0.15 1-10: ± 0.10												

## 4 . Test Equipment



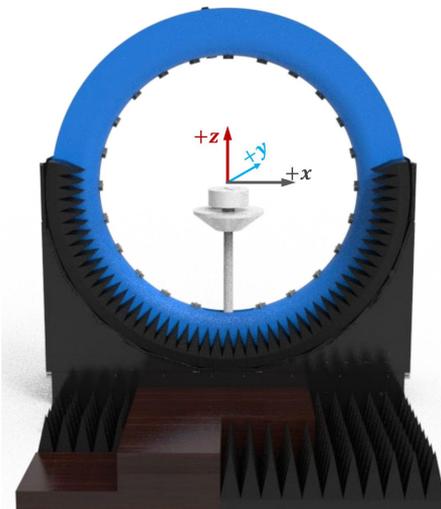
Keysight/E5071C Network Analyzer



R&amp;S/CMW500 Comprehensive tester



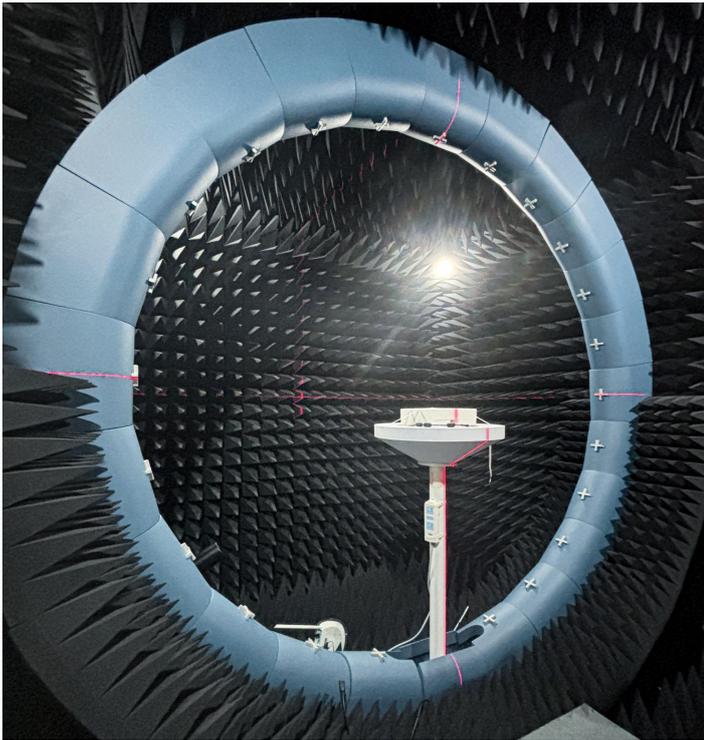
R&amp;S/SMBV100B Signal Source



### DT-3500 Datasheet / System Specifications

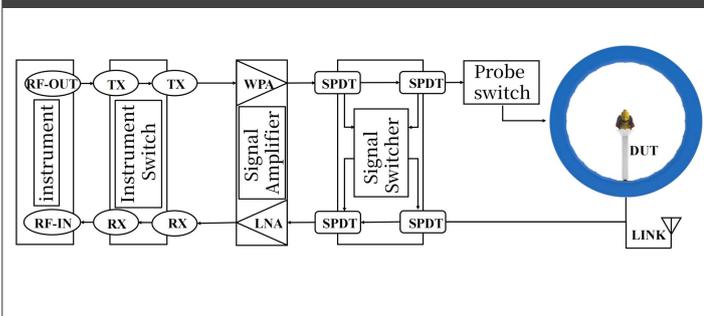
Specification:	Description
Test Frequency :	400MHz-8.5GHz
System Size :	L*W*H=4*3.5*3.5m
Number of Probes :	23 (Probe) + 1 (link)
Interval Angle :	15°
Sampling Diameter :	2200mm
Carring Capacity :	≤40kg

Testing Capability	Description
<b>Active measurement</b>	<b>Capability</b> : TRP、TIS、EIRP、EIS,. etc <b>Mode</b> : 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
<b>Passive measurement</b>	<b>Test category</b> : Gain、Efficiency、2D pattern、3D pattern、Pattern roundness、Axial Ratio、ECC,Phase center,. etc <b>Polarization</b> : Circular polarization, linear polarization, elliptical polarization

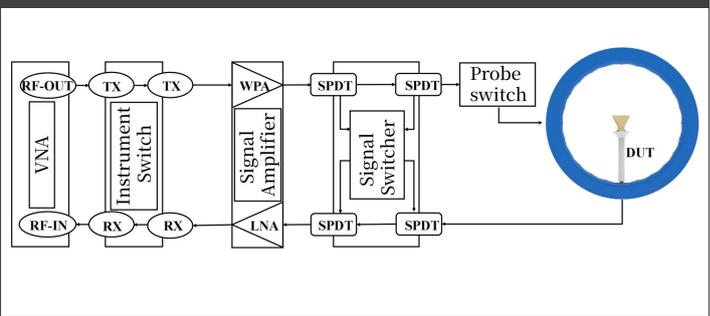


## RF Link diaram of multi probe spherical near-field testing system

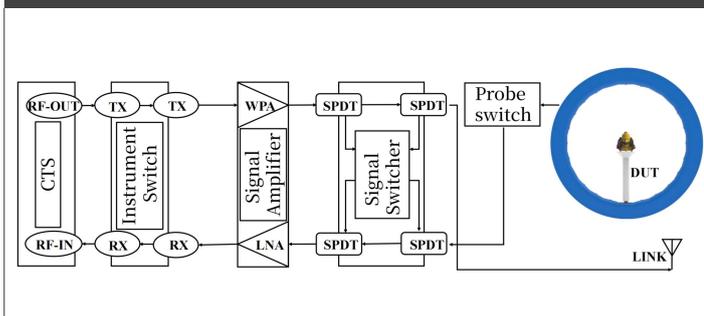
RF Link Overview



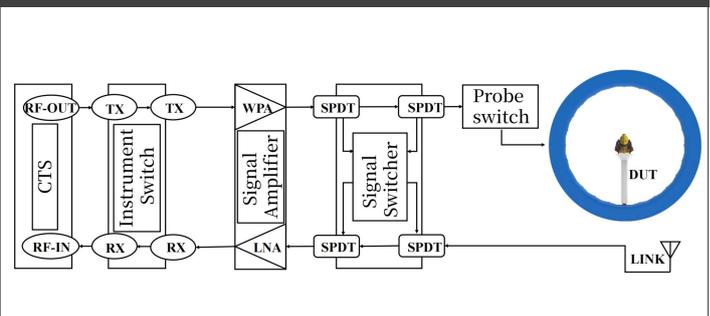
RF Link of Passivemeasurement



RF Link Overview



RF Link of Passivemeasurement





## DECLARATION:

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### Documentation

Version:	Aug-21-2025-A01
Date:	2025-08-21
Note:	First released
Author:	Carly / Lisa

### Change Log
