

DATASHEET

Antenna Pin

Model No:

BWCD-L6.5W2.0H2.0

Description:

Size: 6.5mmx2.0mmx2.0mm

RoHS & REACH Complaint



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-L6.5W2.0H2.0

Part Number Description

BW	Company	BAT WIRELESS
CD	Name	Antenna pin
-	Constant	Constant
L	Length	Length
6.5	Length	6.5mm
W	Width	Width
2.0	Width	2mm
H	Height	Height
2.0	Height	2.0mm

1. Description

Bat Wireless BWCD-L6.5W2.0H2.0 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
Electrical Characteristics			
Antenna Type	Antenna pin		
Frequency Range	0-6000	MHz	
Input Impedence	50	Ω	
Contact resistance	30	m Ω	
Insert Loss	0.15	dB(6GHz)	
Voltage rating	36	V	
Current rating	1.5	A	
Mechanical Characteristics			
Dimensions	6.5x 2.0 x 2.0	mm	
Durability	100±20	g	
Durability	10000	Times	
Mount way	SMD		
Color	Gold		
Material	Gold-Plated Brass		
Weight	0.09	g	
Environmental Characteristics			
Waterproof Rating	-		
ROHS Complaint	Yes		
Operating Temperature	-45~ +85	°C	
Storage Temperature	-45~ +85	°C	

3. Demensions

3.1 Actual Picture



3.2 Parts Drawing

PARTS DRAWING		ROHS Compliant								
				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±20g Durability: 10000 cycle min</p> <p>4. Electrical performance: Voltage rating: 30V DC MAX Current rating: 1.5A Impedance: <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	Gain	VSWR	PRODUCT NAME		
								Antenna Pin-BFCD-L6.5W2.0H2.0		
								UNIT	MM	
								PAGE	1 OF 1	
								SIZE	1:3	
								FORMMT	A4	
					Operating Temperature: -45°C ~ 85°C		Storage Temperature: -45°C ~ 85°C			
					GENERAL TOLERANCE					
					100-200 : ± 3.00					
					50-100 : ± 2.00					
					25-50 : ± 0.20					
					10-25 : ± 0.15					
					1-10 : ± 0.10					

4 . Test Equipment



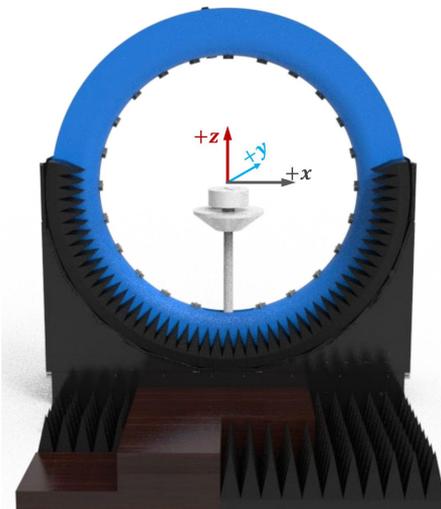
Keysight/E5071C Network Analyzer



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

Testing Capability

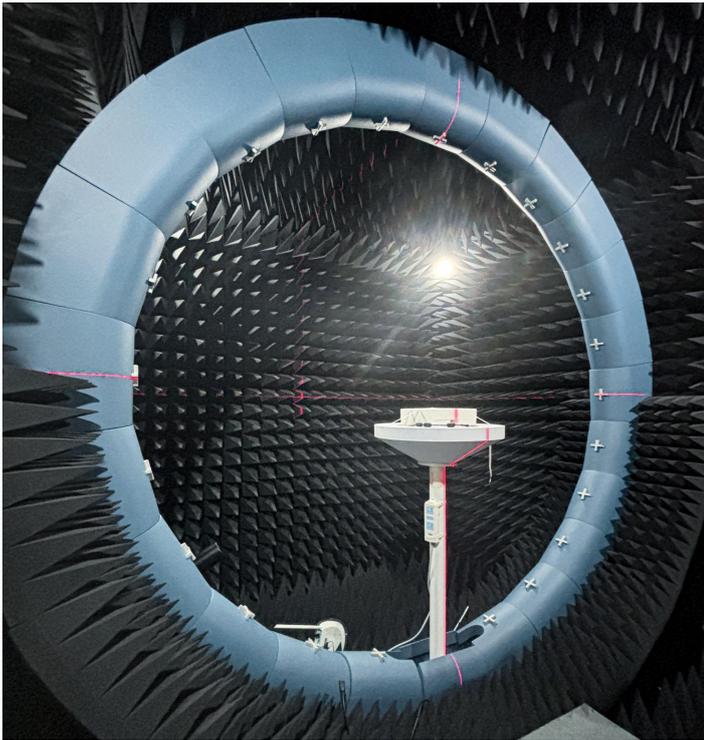
Description

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

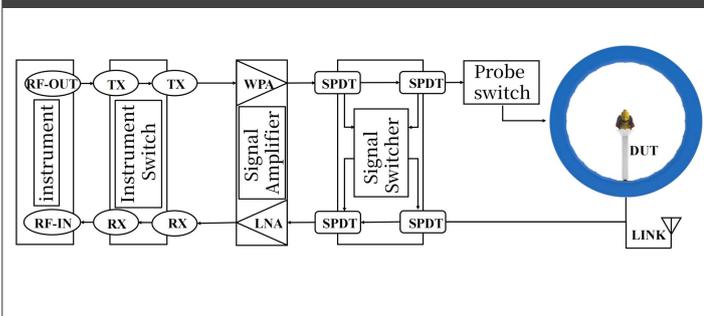
Passive measurement

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

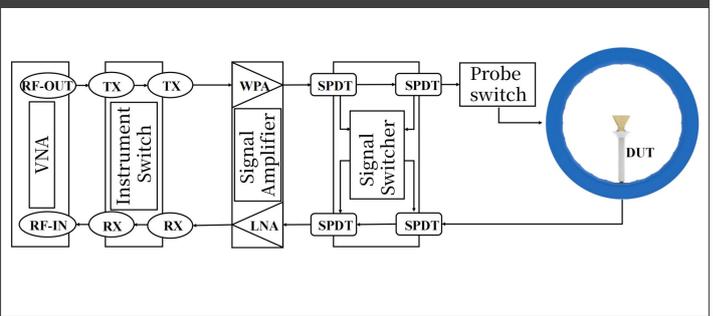


RF Link diaram of multi probe spherical near-field testing system

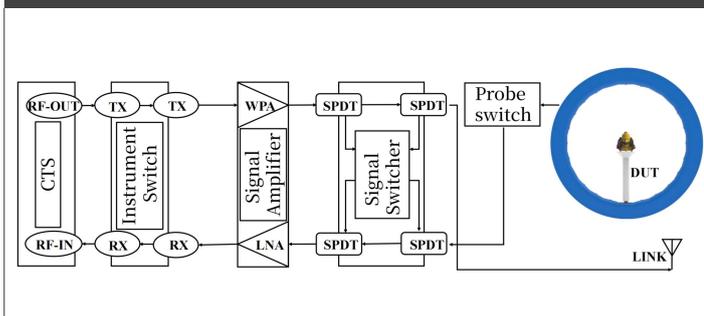
RF Link Overview



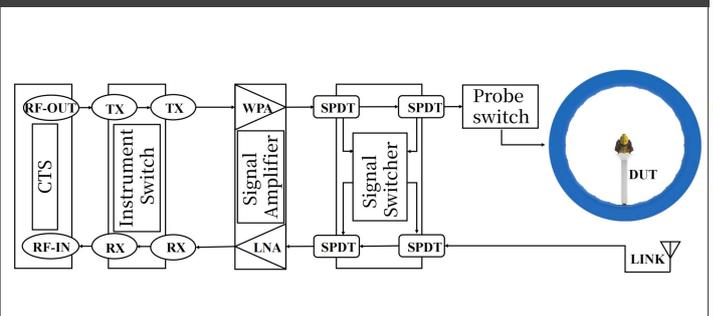
RF Link of Passivemeasurement



RF Link Overview



RF Link of Passivemeasurement





DECLARATION:

Legal Notice: In order to provide users with better service, Shenzhen Bat Wireless Technology Co., Ltd. (hereinafter referred to as ' Bat Wireless') will endeavour to present users with detailed and accurate product information in this manual. However, due to the time-sensitive nature of the content in this manual, Bat Wireless cannot guarantee the timeliness and applicability of this document at all times. Bat Wireless reserves the right to update the content of this manual without prior notice. To obtain the latest information, we kindly request users to regularly visit the Bat Wireless official website or contact Bat Wireless staff. Thank you for your understanding and support!

Copyright Notice: All content in this product manual (including text, charts, logos, and designs) is protected by copyright law and international copyright treaties. No entity or individual may reproduce, modify, distribute, or use any part or all of this manual in any form (including electronic, mechanical, photocopying, etc.) without prior written authorisation from our company. Infringers will be held legally liable. All rights reserved.

Trademark Notice: All product names and corporate logos of Bat Wireless mentioned in this manual are the lawful property of our company (including affiliated companies). Unauthorised use, reproduction, or imitation is strictly prohibited. Third-party trademarks referenced in this manual are the property of their respective owners, and their use is solely for illustrative purposes and does not imply any commercial affiliation or authorisation. Our company reserves all rights to pursue legal action against any infringement.

Disclaimer: The product information contained in this manual is for reference only. Actual product performance may vary depending on the usage environment and configuration differences. Our company makes no express or implied warranties regarding the accuracy, completeness, or applicability of the content of this manual and shall not be liable for any direct or indirect losses arising from the use or inability to use the content of this manual. Users should assess the applicability of the product and follow actual operating procedures. The final interpretation of this manual is reserved by our company.

Shenzhen Bat Wireless Technology Co.,Ltd

Office Add: Room 1301, 13th Floor, No. 8 Langhua Road, Xinshi Community, Dalang Street, Longhua District, Shenzhen

Email: marketing@batwireless.com

Tel: 0755-21031236

Documentation

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

Change Log
