

DATASHEET

FAKRA Antenna Connector

Model No:

BWFAK-JWE-ZB

Description:

FAKRA PCB-end angled Z-type connector

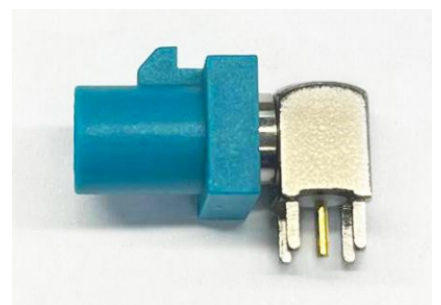
Features :

0-6000MHz

PCB-End male connector

Size: 22.6mmx11.3mmx9.3mm

RoHS & REACH Complaint



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BWFAK-JWE-ZB

Part Number Description

BW	Company	BAT WIRELESS
FAK	Name	FAKRA Connector
-	Constant	Constant
J	Connector	Jack / Male
W	Feature	Angled
E	Type	PCB-End Connector
-	Constant	Constant
Z	Type	Z-Type
B	Structural Type	Semi-Covered

1. Description

Bat Wireless BWFAK-JWE-ZB is a RF coaxial connector primarily employed for vehicle wireless communications, such as in-car Bluetooth, GPS navigation, and wireless networking. The Z-type angled connector features a light blue colouration, with a typical frequency range of 0–6 GHz. Its distinctive form and construction ensure proper connection and signal transmission. Featuring a quick-connect design, it facilitates installation and maintenance. The interface type is male, with a centre-pin in terminal, designed for pairing with a female connector. Its low-loss design, optimised manufacturing process, and coaxial structure ensure minimal insertion loss during signal transmission.

Typical Applications:

In-vehicle navigation system: GPS/GLONASS/Galileo/BeiDou antenna

In-vehicle entertainment system: Connection for Digital Audio Broadcasting (DAB) antenna, delivering premium audio-visual experience

In-vehicle communication system: Communication modules including WiFi and LTE

Remote sensing and control system: Tyre Pressure Monitoring System (TPMS), remote start system

Driver assistance system: Distance control radar, rear-view camera

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.

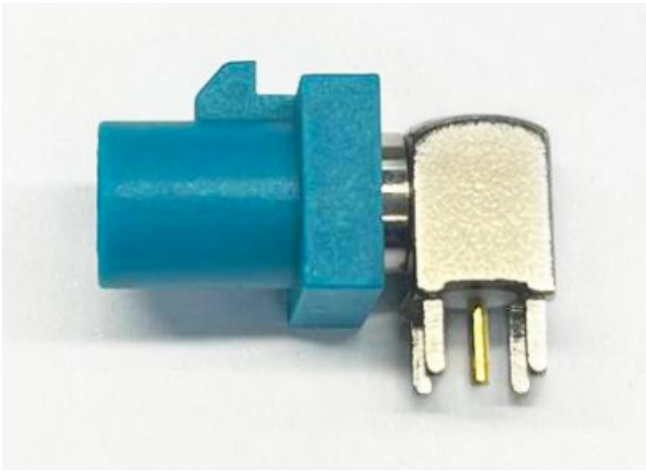
2. Specification

Parameters	Typ.	Unites	Notes
Electrical Characteristics			
Antenna Type	FAKRA Antenna Connector		
Frequency Range	0-6000	MHz	
Input Impedence	50	Ω	
Contact resistance	IC ≤ 6 , OC ≤ 1	m Ω	
Insulation resistance	1000	M Ω	
Insert Loss	0.15	dB(6GHz)	
RF leakage	1000	V	
Durability	500	Cycles	
PLUG / JACK	-	mm	
DC Voltage	-	V	
Mechanical Characteristics			
Dimensions	22.6 x 11.3 x 9.3	mm	
Connector Type	Male		
Cable Type	-		
Cable Length	-	mm	
Mount way	Plug-in snap-on type		
Color	Light blue		
Material	PA66 + 20%GF		
Weight	5	g	
Environmental Characteristics			
Waterproof Rating	-		
ROHS Complaint	Yes		
Operating Temperature	-45~ +85	$^{\circ}\text{C}$	
Storage Temperature	-45~ +85	$^{\circ}\text{C}$	

*Note: The above data is for reference only

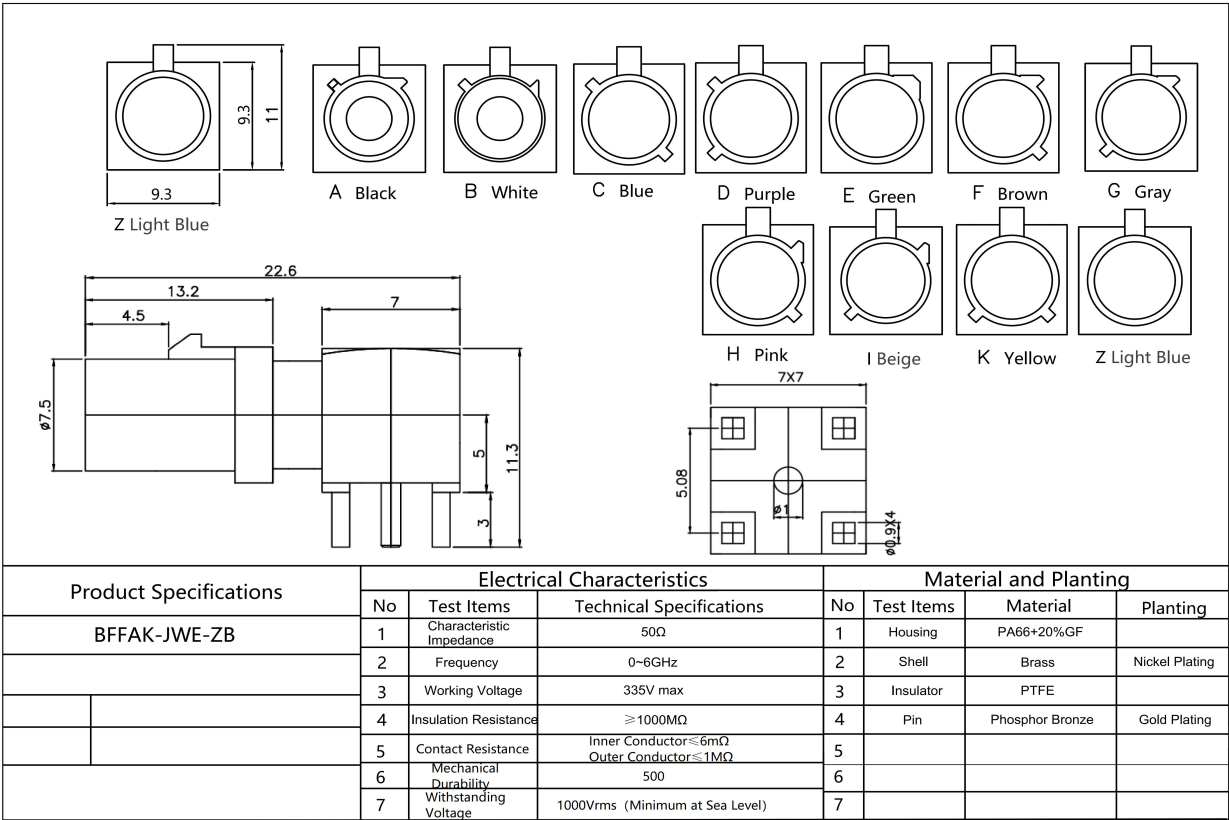
3 . Dimensions

3.1 Actual Picture



* Product images are for reference only

3.2 Parts Drawing



4 . Test Equipment



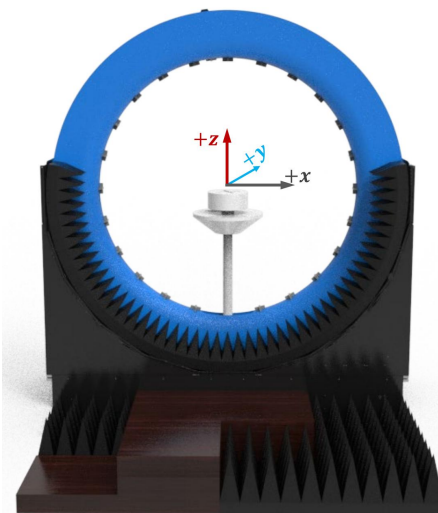
Keysight/E5071C Network Analyzer



R&S/CMW500 Comprehensive tester



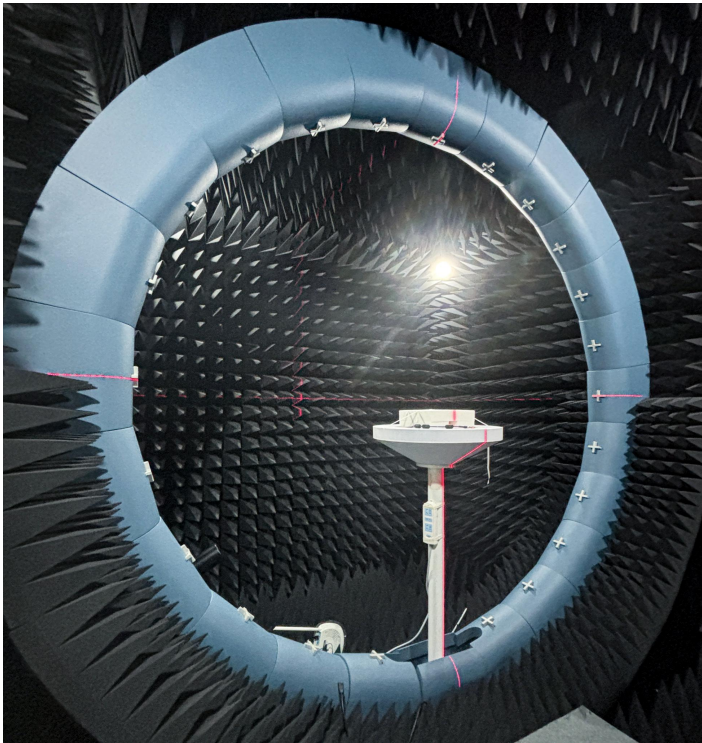
R&S/SMBV100B Signal Source



DT-3500 Datasheet / System Specifications

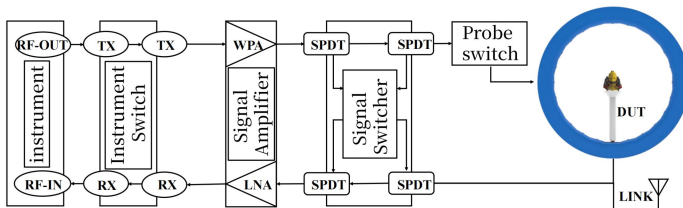
Specification:	Description
Test Frequency :	400MHz-8.5GHz
System Size :	L*W*H=4*3.5*3.5m
Number of Probes :	23 (Probe) + 1 (link)
Interval Angle :	15°
Sampling Diameter :	2200mm
Carring Capacity :	≤40kg

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

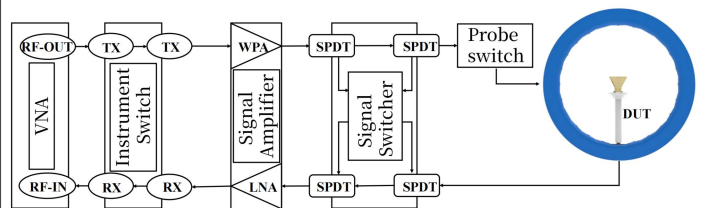


RF Link diagram of multi probe spherical near-field testing system

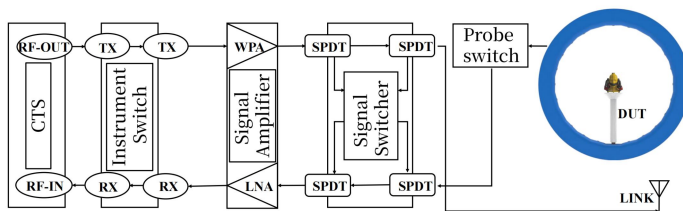
RF Link Overview



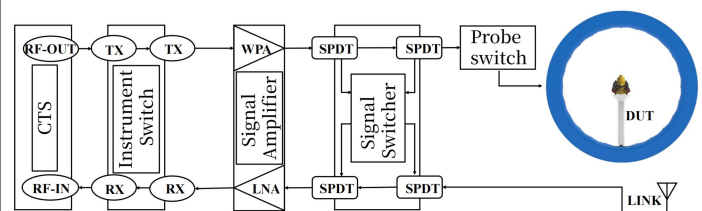
RF Link of Passivemeasurement



RF Link Overview



RF Link of Passivemeasurement





DECLARATION:

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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

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