

DATASHEET

FAKRA Antenna Connector

Model No:

BWFAK-JE-ZB

Description:

FAKRA straight plate end Z-type connector

Features :

0-4000MHz

Board-End male connector

Size: 17.2mmx11mmx9.4mm

RoHS & REACH Complaint



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BWFAK-JE-ZB

Part Number Description

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

1. Description

Bat Wireless BWFAK-JE-ZB is a RF coaxial connector primarily used for wireless communications in vehicles, such as Bluetooth, GPS navigation, and Wi-Fi. This Z-type straight connector is commonly used for AM/FM radios and other radio communications. It is black and typically operates in the 0-6 GHz frequency range. Its unique shape and construction ensure proper connection and signal transmission. It features a quick-connect design for easy installation and maintenance. The connector features a male connector with a center pin that mates with a female connector. Its low-loss design, optimized process, and coaxial construction ensure low insertion loss.

Typical Applications:

In-vehicle multimedia systems: AM/FM radio antennas, satellite radios

In-vehicle communications and navigation: 3G/4G LTE in-vehicle communication modules, telematics

Industrial and test equipment: Industrial and test equipment

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

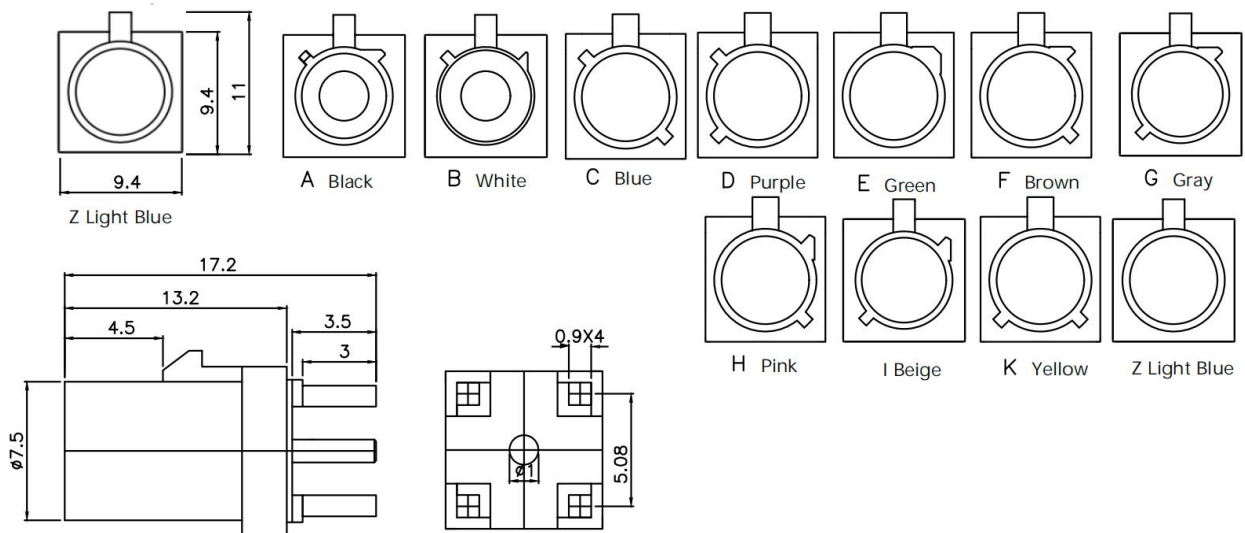
Parameters	Typ.	Unites	Notes
Electrical Characteristics			
Antenna Type	FAKRA Antenna Connector		
Frequency Range	0-4000	MHz	
Input Impedence	50	Ω	
Contact resistance	IC ≤ 6 , OC ≤ 1	m Ω	
Insulation resistance	1000	M Ω	
Insert Loss	0.15	dB(6GHz)	
RF leakage	1000	V	
Durability	500	Times	
PLUG / JACK	-	mm	
DC Voltage	-	V	
Mechanical Characteristics			
Dimensions	17.2 x 11 x 9.4	mm	
Connector Type	Male		
Cable Type	-		
Cable Length	-	mm	
Mount way	Plug-in snap-on type		
Color	Aqua blue		
Material	PA66 + 20%GF		
Weight	1.77	g	
Environmental Characteristics			
Waterproof Rating	-		
ROHS Complaint	Yes		
Operating Temperature	-45~ +85	$^{\circ}\text{C}$	
Storage Temperature	-45~ +85	$^{\circ}\text{C}$	

3 . Dimensions

3.1 Actual Picture



3.2 Parts Drawing



Product Specifications		Electrical Characteristics			Material and Planting			
		No	Test Items	Technical Specifications	No	Test Items	Material	Planting
BWFAK-JE-ZB		1	Characteristic Impedance	50Ω	1	Housing	PA66+20%GF	
		2	Frequency	0~4GHz	2	Shell	Brass	Nickel Plating
		3	Working Voltage	335V max	3	Insulator	PTFE	
		4	Insulation Resistance	≥1000MΩ	4	Pin	Phosphor Bronze	Gold Plating
		5	Contact Resistance	Inner Conductor≤6mΩ Outer Conductor≤1mΩ	5			
		6	Mechanical Durability	500	6			
		7	Withstanding Voltage	1000Vrms (Minimum at Sea Level)	7			

4 . Test Equipment



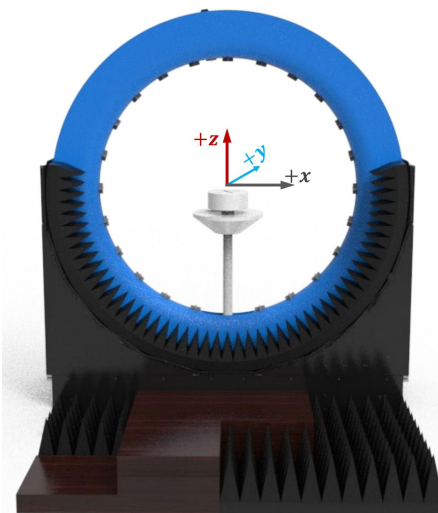
Keysight/E5071C Network Analyzer



R&S/CMW500 Comprehensive tester



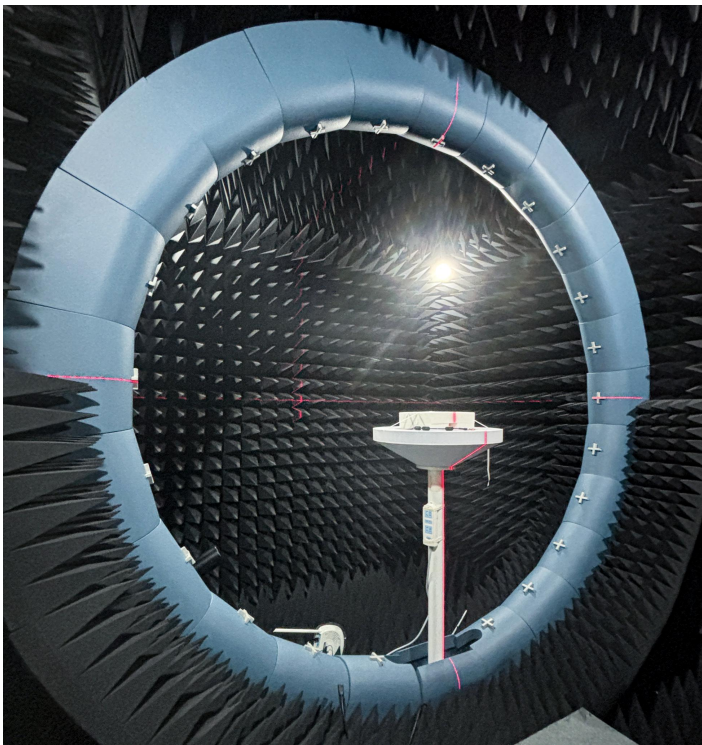
R&S/SMBV100B Signal Source



DT-3500 Datasheet / System Specifications

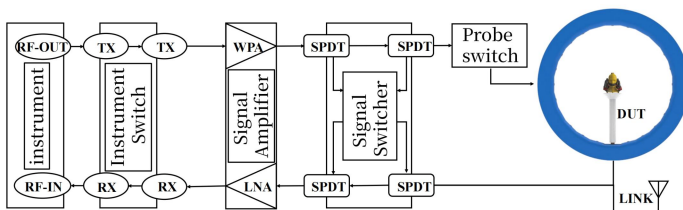
Specification:	Description
Test Frequency :	400MHz-8.5GHz
System Size :	L*W*H=4*3.5*3.5m
Number of Probes :	23 (Probe) + 1 (link)
Interval Angle :	15°
Sampling Diameter :	2200mm
Carring Capacity :	≤40 kg

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

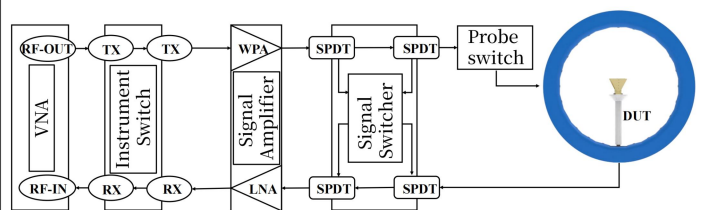


RF Link diagram of multi probe spherical near-field testing system

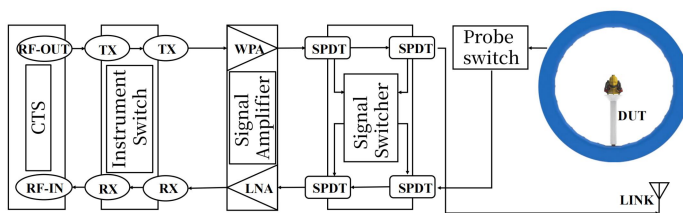
RF Link Overview



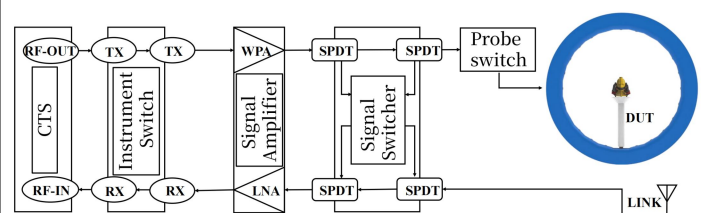
RF Link of Passivemeasurement



RF Link Overview



RF Link of Passivemeasurement





DECLARATION:

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