

# DATASHEET

## FAKRA Antenna Connector

**Model No:**

BWFAK-JE-FB

**Description:**

FAKRA straight plate end F-type connector

**Features :**

0-4000MHz

Board-End male connector

Size: 17.2mmx11mmx9.4mm

**RoHS & REACH Complaint**



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## BWFAK-JE-FB

### Part Number Description

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

## 1. Description

Bat Wireless BWFAK-JE-FB is a RF coaxial connector primarily used for wireless communications in vehicles, such as Bluetooth, GPS navigation, and Wi-Fi. This A-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

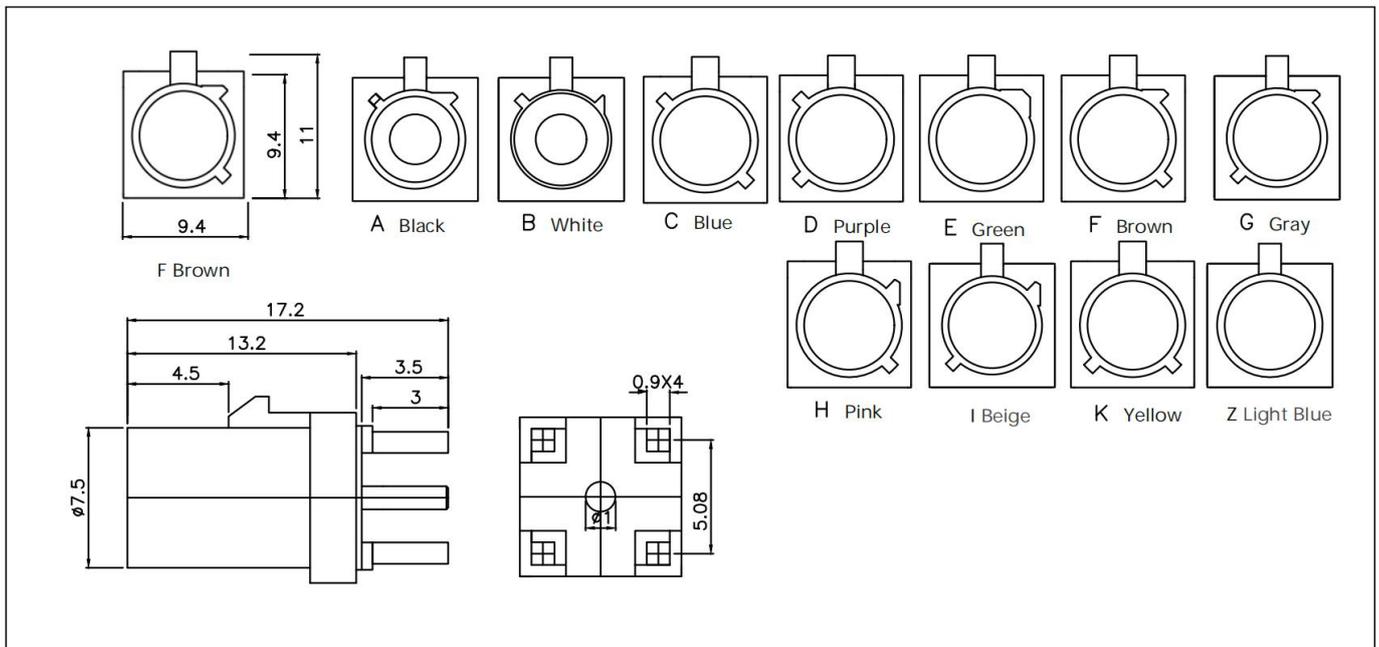
Parameters	Typ.	Unites	Notes
<b>Electrical Characteristics</b>			
Antenna Type	FAKRA Antenna Connector		
Frequency Range	0-4000	MHz	
Input Impedence	50	$\Omega$	
Contact resistance	IC $\leq$ 6, OC $\leq$ 1	m $\Omega$	
Insulation resistance	1000	M $\Omega$	
Insert Loss	0.15	dB(6GHz)	
RF leakage	1000	V	
Durability	500	Times	
PLUG / JACK	-	mm	
DC Voltage	-	V	
<b>Mechanical Characteristics</b>			
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	Brown		
Material	PA66 + 20%GF		
Weight	1.77	g	
<b>Environmental Characteristics</b>			
Waterproof Rating	-		
ROHS Complaint	Yes		
Operating Temperature	-45~ +85	$^{\circ}$ C	
Storage Temperature	-45~ +85	$^{\circ}$ C	

### 3. Demensions

#### 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
BFFAK-JE-FB	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≤6mU Outer Conductor≤1mU	5			
	6	Mechanical Durability	500	6			
	7	Withstanding Voltage	1000Vrms (Minimum at Sea Level)	7			

## 4 . Test Equipment



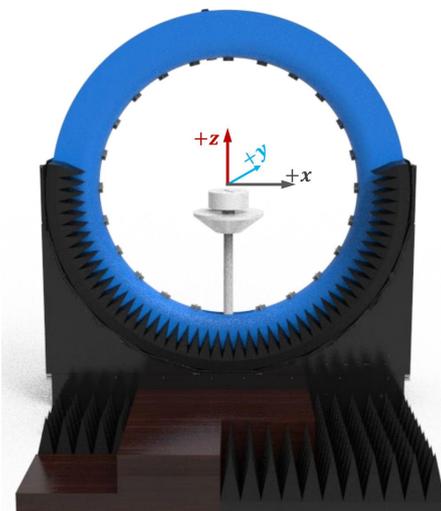
Keysight/E5071C Network Analyzer



R&amp;S/CMW500 Comprehensive tester



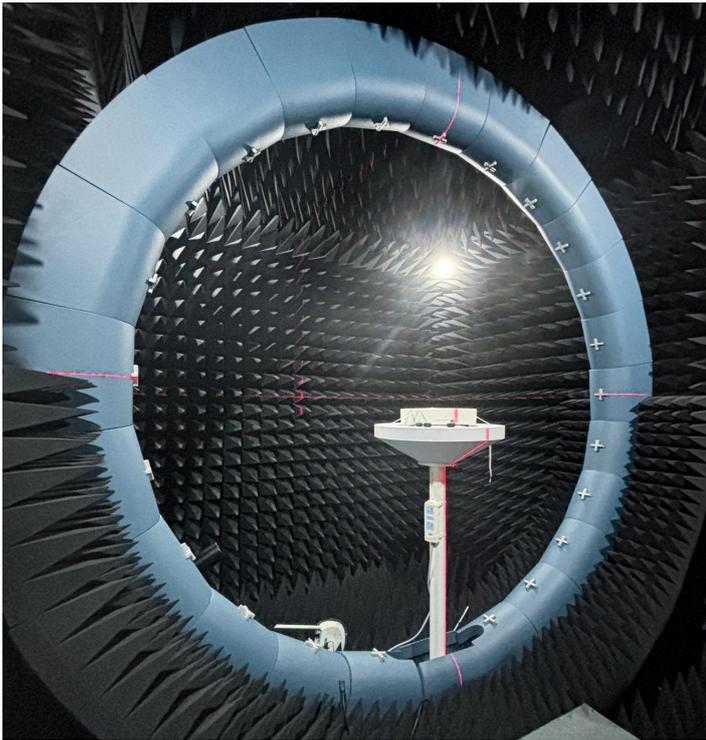
R&amp;S/SMBV100B Signal Source



### DT-3500 Datasheet / System Specifications

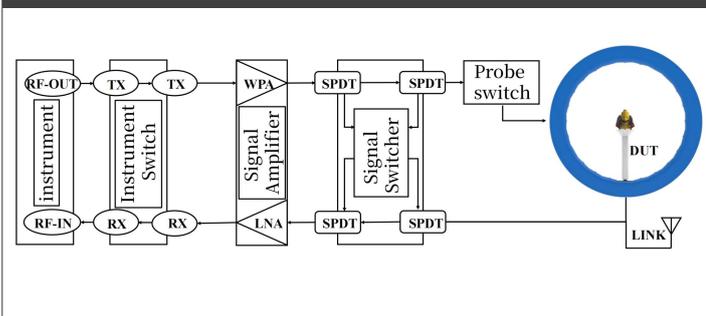
Specification:	Description
Test Frequency :	400MHz-8.5GHz
System Size :	L*W*H=4*3.5*3.5m
Number of Probes :	23 (Probe) + 1 (link)
Interval Angle :	15°
Sampling Diameter :	2200mm
Carring Capacity :	≤40kg

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

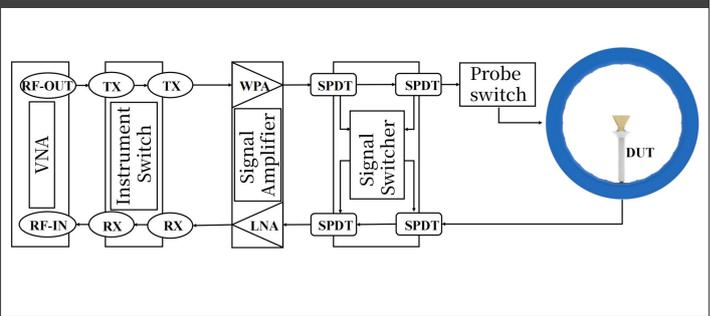


## RF Link diaram of multi probe spherical near-field testing system

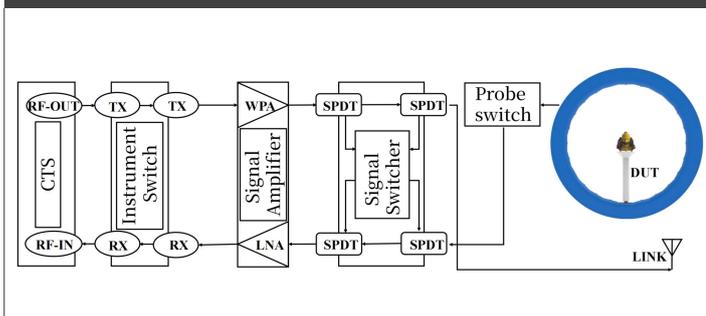
RF Link Overview



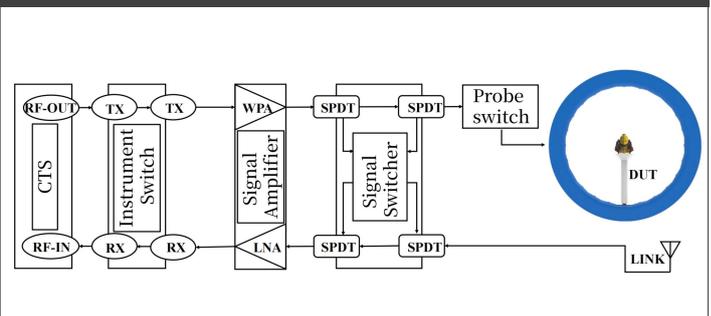
RF Link of Passivemeasurement



RF Link Overview



RF Link of Passivemeasurement





## DECLARATION:

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### Change Log
