

DATASHEET

FAKRA Antenna Connector

Model No:

BWFAK-JWE-FB

Description:

FAKRA PCB-end angled F-type connector

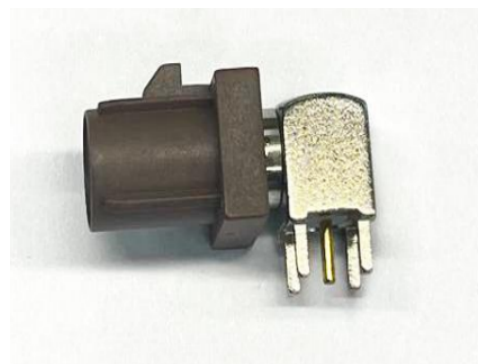
Features :

0-6000MHz

PCB-End male connector

Size: 22.6mmx11.3mmx9.3mm

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



BWFAK-JWE-FB

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
F	Type	F-Type
B	Structural Type	Semi-Covered

1. Description

Bat Wireless BWFAK-JWE-FB is a RF coaxial connector primarily employed in vehicle wireless communications, such as in-car Bluetooth, GPS navigation, and wireless networks. The F-type angled connector is typically employed for in-vehicle TV and mobile communications, featuring a brown colouration with a frequency range generally spanning 0 to 6 GHz. Its distinctive form and structure ensure proper connection and signal transmission. Incorporating a quick-release design facilitates installation and maintenance. The interface type is male, featuring a centre-pin terminal for pairing with a female connector. Its low-loss design, optimised manufacturing processes, and coaxial structure guarantee minimal insertion loss during signal transmission.

Typical Applications:

Satellite Radio for Vehicles: Satellite Digital Audio Broadcasting

In-Vehicle Television: Digital Television Signal Reception

Vehicle-to-Everything (V2X) and Mobile Communications: 4G/5G In-Vehicle Communications

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.

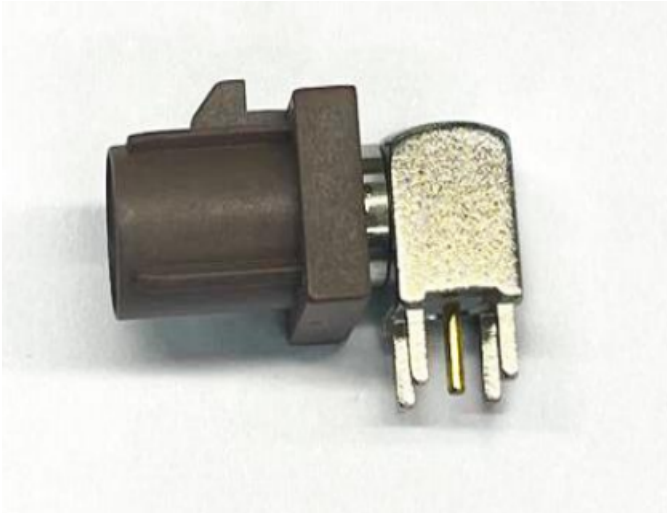
2. Specification

Parameters	Typ.	Unites	Notes
Electrical Characteristics			
Antenna Type	FAKRA Antenna Connector		
Frequency Range	0-6000	MHz	
Input Impendence	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	Brown		
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

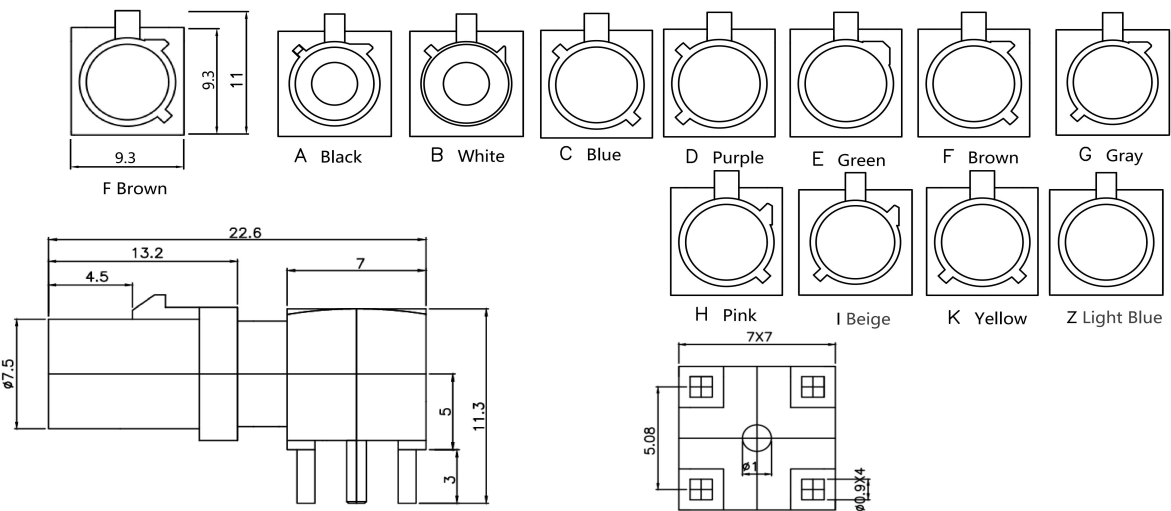
3 . Dimensions

3.1 Actual Picture



* Product images are for reference only

3.2 Parts Drawing



Product Specifications	Electrical Characteristics			Material and Planting			
	No	Test Items	Technical Specifications	No	Test Items	Material	Planting
BFFAK-JWE-FB	1	Characteristic Impedance	50Ω	1	Housing	PA66+20%GF	
	2	Frequency	0~6GHz	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



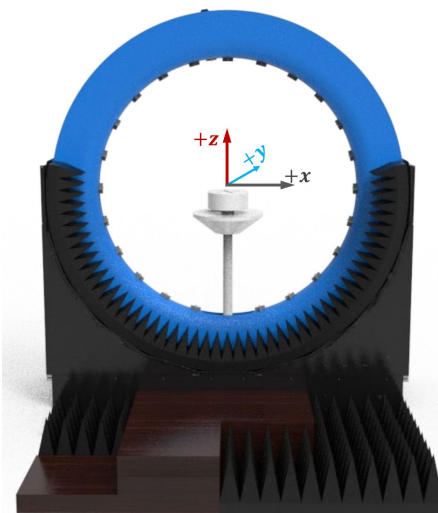
Keysight/E5071C Network Analyzer



R&S/CMW500 Comprehensive tester



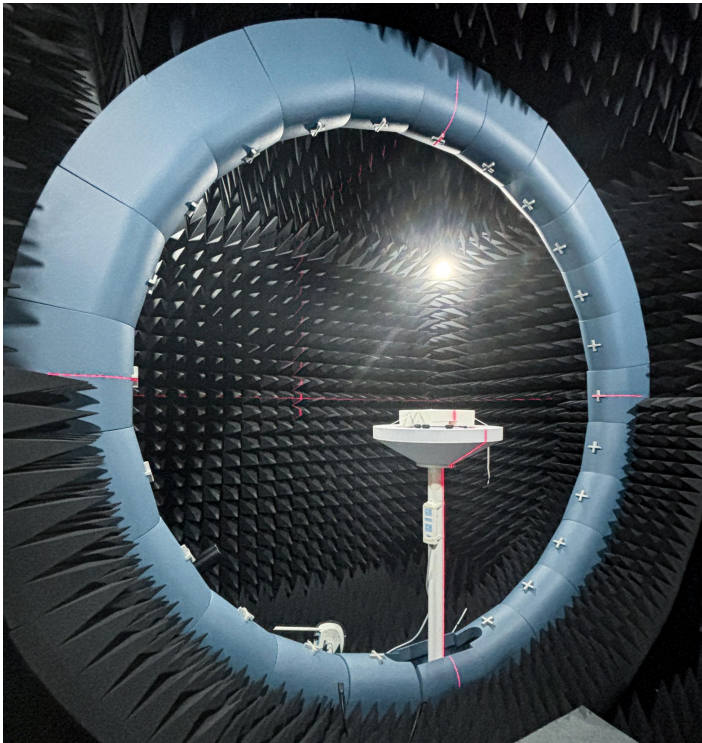
R&S/SMBV100B Signal Source



DT-3500 Datasheet / System Specifications

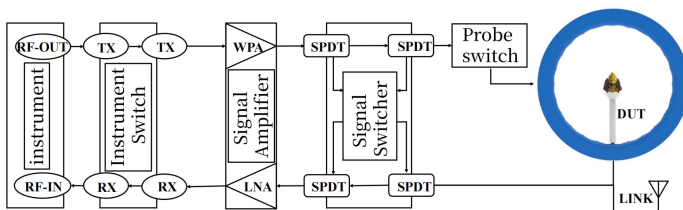
Specification:	Description
Test Frequency :	400MHz-8.5GHz
System Size :	L*W*H=4*3.5*3.5m
Number of Probes :	23 (Probe) + 1 (link)
Interval Angle :	15°
Sampling Diameter :	2200mm
Carring Capacity :	≤40kg

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

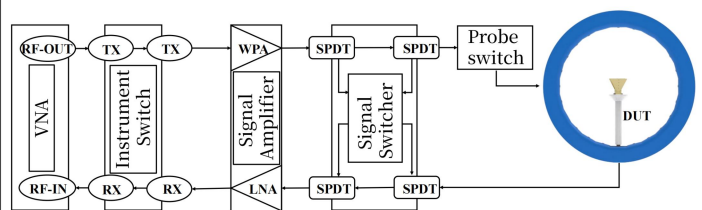


RF Link diaram of multi probe spherical near-field testing system

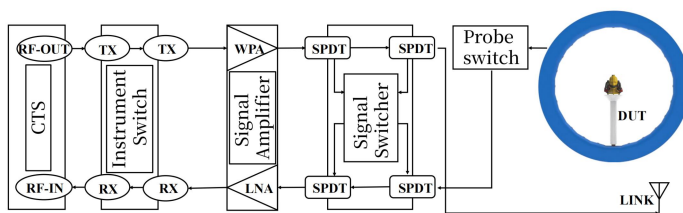
RF Link Overview



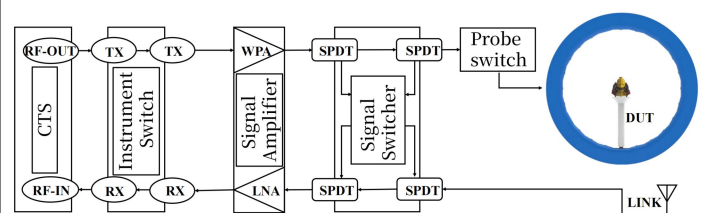
RF Link of Passivemeasurement



RF Link Overview



RF Link of Passivemeasurement





DECLARATION:

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