



Datasheet

MMCX Antenna Connector

Model No:

BWMMCX-KEF

Description:

MMCX PCB-end Straight & Vertical Pin Connector

Features :

0-6000MHz

With inner hole

PCB-end connection

SMD Patch type

Size:7.5mm x 4.5mm x 3.5mm

RoHS & REACH Complaint

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BWMMCX-KEF

Part Number Description

BW	Company	Bat Wireless
MMCX	Name	MMCX
K	Connector	K
E	Type	PCB-End Connector
F	Feature	--

1. Description

Bat Wireless BWMMCX-KEF is a compact RF coaxial connector with a typical frequency range of 0 to 6 GHz. It finds extensive application in high-frequency domains such as communications, network equipment, and test instrumentation. Lightweight and space-saving, its dimensions are more compact than SMA or SMB connectors, making it suitable for high-density installation scenarios. Featuring a straight-through design, it allows antennas or cables to run parallel to the PCB board, conserving vertical space. The interface type is female, designed for pairing with male connectors. Its low-loss design, optimised manufacturing processes, and coaxial structure ensure minimal insertion loss during signal transmission.

Classic Application Scenarios:

Wireless Communication Modules: GPS/BeiDou positioning terminals, 4G/5G modules, Wi-Fi/Bluetooth modules

Test and Measurement Equipment: Connection interfaces for RF test probes, spectrum analysers, antenna ports for signal generators

Consumer Electronics and Industrial Equipment: Walkie-talkies, RFID readers/writers, medical monitoring 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			
Product Type	MMCX Antenna Connector		
Frequency Range	0-6000	MHz	
Input Impedence	50	Ω	
Contact resistance	20	m Ω	
Insulation resistance	500	M Ω	
Insert Loss	0.15	dB(6GHz)	
RF leakage	200	V	
Durability	500	Cycles	
PLUG ID/JACK OD	-	mm	
DC Voltage	-	V	
Mechanical Characteristics			
Dimensions	7.5 x 4.5 x 3.5	mm	
Connector Type	K (Inner hole)		
Cable Type	-		
Cable Length	-	mm	
Mount way	Plug-in		
Color	Gold		
Material	Phosphor bronze plated with hard gold		
Weight	0.39	g	
Environmental Characteristics			
Waterproof Rating	-		
ROHS Complaint	YES		
Operating Temperature	-45~ +85	°C	
Storage Temperature	-45~ +85	°C	

*Note: The above data is for reference only

3. Product Picture



* Product images are for reference only

4. Mechanical Drawing

PARTS DRAWING

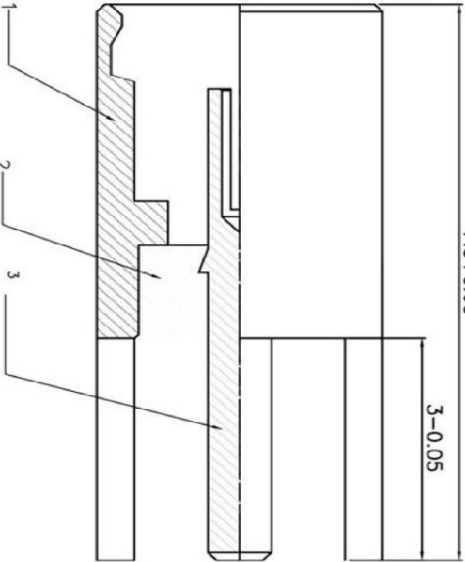
ROHS Compliant

REV	PRODUCT NO.	DATE	NAME	DESCRIPTION

1

2

3



0.6+0.05

0.35

3.5±0.03

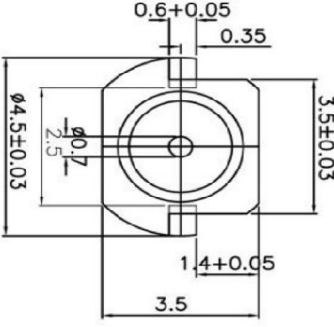
1.4+0.05

3.5

φ0.7

2.5

4.5±0.03



Requirements:

1. The wire jacket shall be free from cuts or damage.
2. 100% continuity testing shall be performed, and all products must pass.
3. 100% full inspection is required, and all products must meet specifications.
4. Eco-friendly manufacturing processes shall be adopted, and finished products must comply with ROHS requirements.
5. Unless otherwise specified, general tolerances shall apply.

NO	Code	Name	Description	Qty
3		Socket	Phosphor Bronze	
2		insulator	PTE	1
1		Shell	HP59-1 (Brass)	1

Frequency

0-6000MHz

Impedance

50Ω

Operating Temperature: -45℃~85℃

Storage Temperature: -45℃~85℃

公差

ANGLE PROJECTION

GENERAL TOLERANCE

公差	100-300	30-100	25-30	10-25	1-10
± 3.00	± 2.00	± 0.20	± 0.15	± 0.1	

PRODUCT NAME

BFMCKX-KEF

UNIT

M M

SIZE

1 OF 1

FORMAT

A4

July-2-2025-A01

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4 . Test Equipment



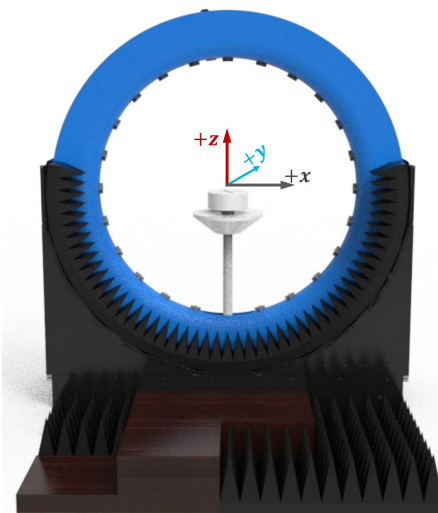
Keysight/E5071C Network Analyzer



R&S/CMW500 Comprehensive tester



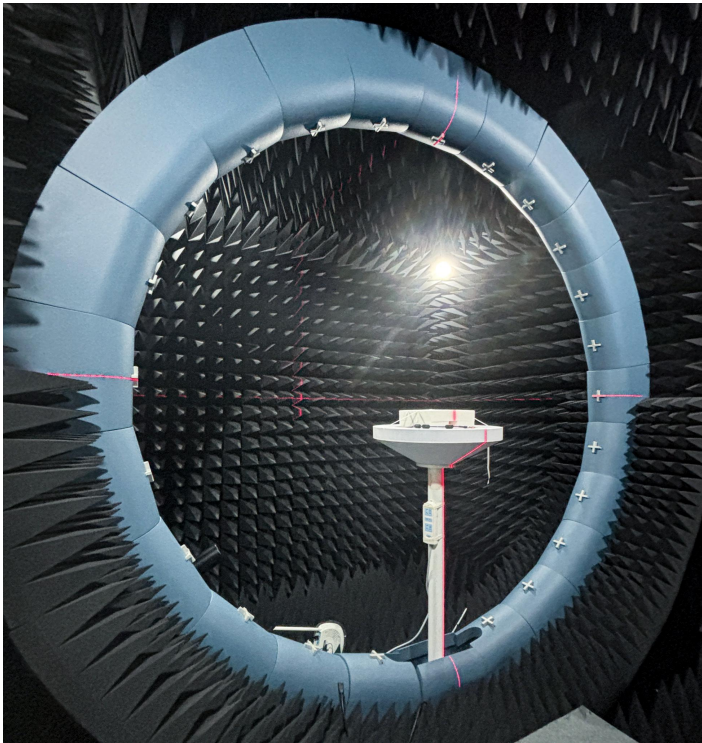
R&S/SMBV100B Signal Source



DT-3500 Datasheet / System Specifications

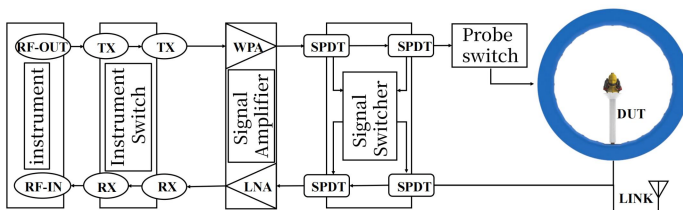
Specification:	Description
Test Frequency :	400MHz-8.5GHz
System Size :	L*W*H=4*3.5*3.5m
Number of Probes :	23 (Probe) + 1 (link)
Interval Angle :	15°
Sampling Diameter :	2200mm
Carring Capacity :	≤40 kg

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

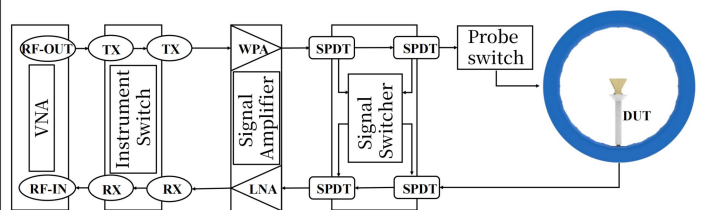


RF Link diagram of multi probe spherical near-field testing system

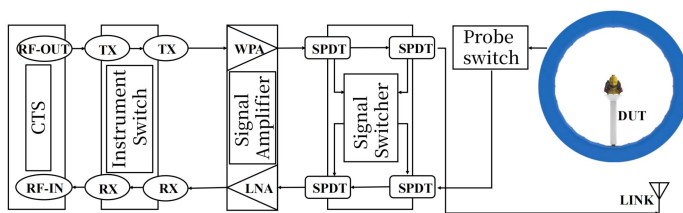
RF Link Overview



RF Link of Passivemeasurement



RF Link Overview



RF Link of Passivemeasurement





DECLARATION:

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Documentation

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Change Log
