



Datasheet

MCX Antenna Connector

Model No:

BWMCX-KWE

Description:

MCX PCB-end Angled & Vertical Pin Connector

Features :

0-6000MHz

With inner hole

PCB-end connection

DIP type

Size:9.6mm x 8.5mm x 6mm

RoHS & REACH Complaint

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BWMCX-KWE

Part Number Description

BW	Company	Bat Wireless
MCX	Name	MCX
K	Connector	K (Inner hole)
W	Type	Angled
E	Feature	PCB-End Connector

1. Description

Bat Wireless BWMCX-KWE 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 angled 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.

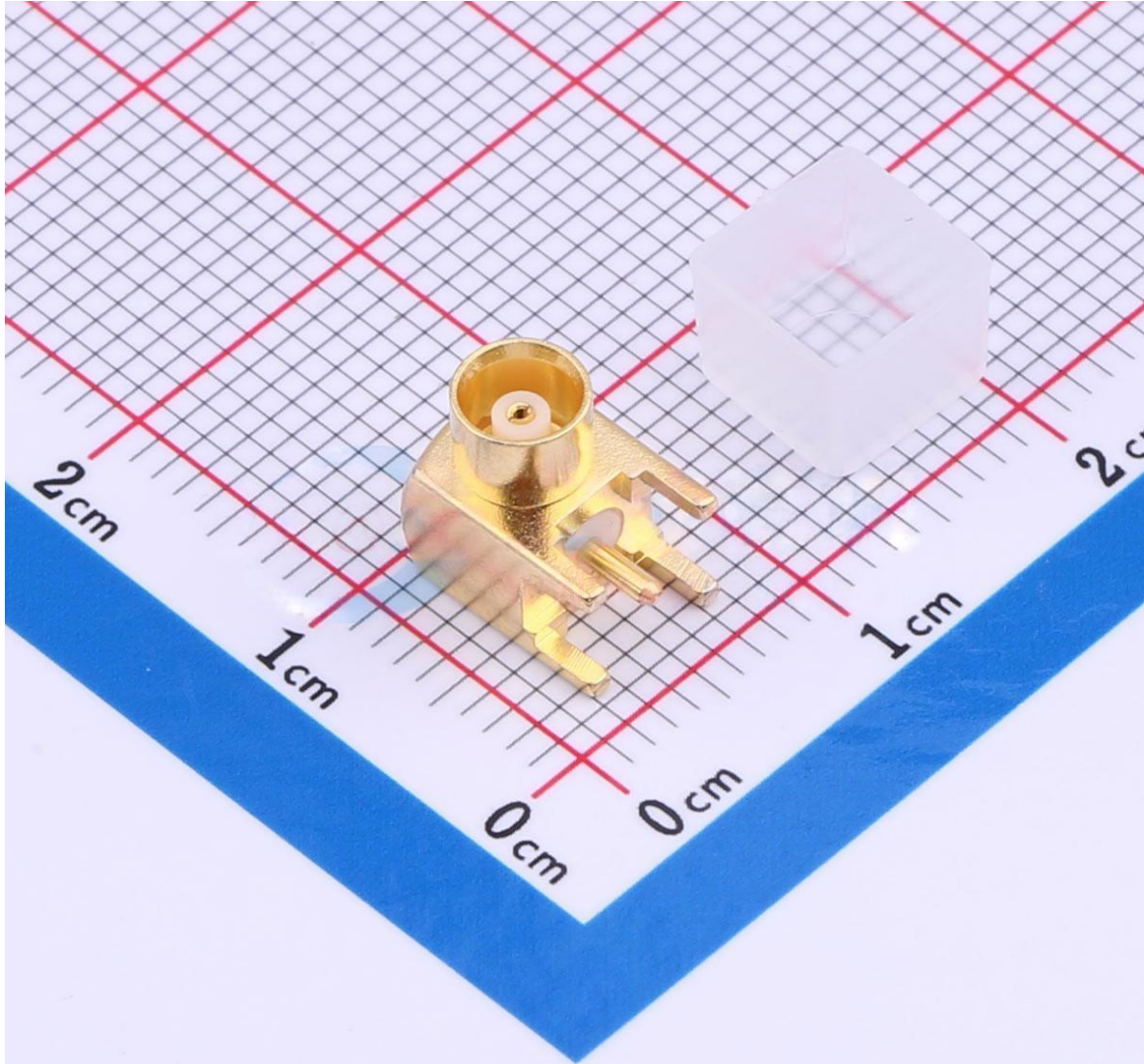


2. Specification

Parameters	Typ.	Unites	Notes
Electrical Characteristics			
Product Type	MCX 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	9.6 x 8.5 x 6	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	5.7	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. Product Picture



* Product images are for reference only



4. Mechanical Drawing

PARTS DRAWING		ROHS Compliant							
REV	PRODUCT NO.	DATE	NAME	DESCRIPTION					

4 . Test Equipment



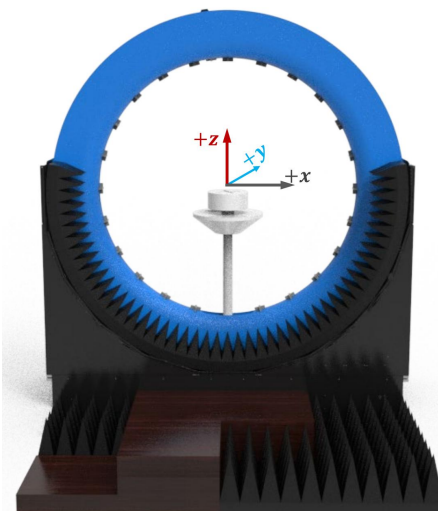
Keysight/E5071C Network Analyzer



R&S/CMW500 Comprehensive tester



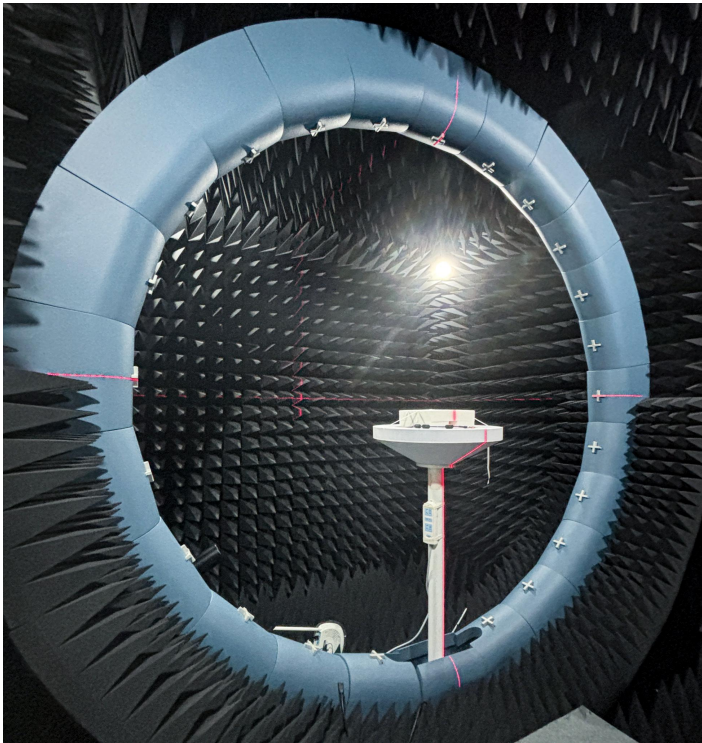
R&S/SMBV100B Signal Source



DT-3500 Datasheet / System Specifications

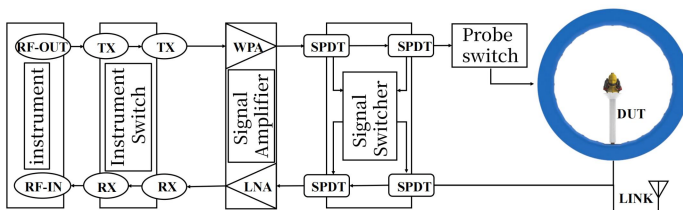
Specification:	Description
Test Frequency :	400MHz-8.5GHz
System Size :	L*W*H=4*3.5*3.5m
Number of Probes :	23 (Probe) + 1 (link)
Interval Angle :	15°
Sampling Diameter :	2200mm
Carring Capacity :	≤40kg

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

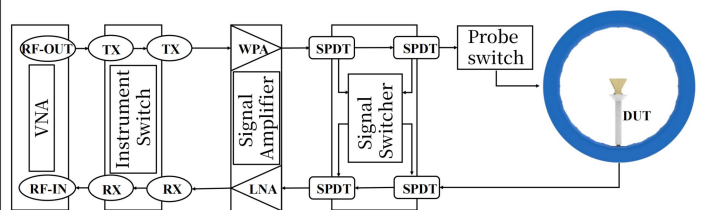


RF Link diagram of multi probe spherical near-field testing system

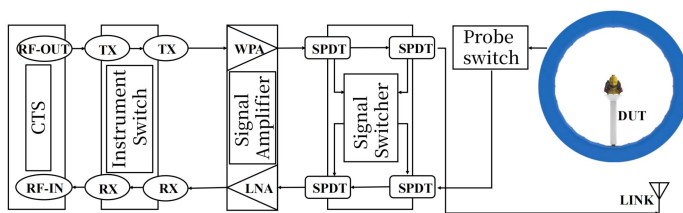
RF Link Overview



RF Link of Passivemeasurement



RF Link Overview



RF Link of Passivemeasurement





DECLARATION:

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Documentation

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