BAT WIRELESS

DATASHEET

Coaxial Cable

Model No:

BWNJ-TNCK-RG58L1000

Description:

N Male to TNC Female adapter cable

Features:

0-6000MHz

Structure:

Cable: RG58 x 1m
Connector: N Male to TNC Female

RoHS & REACH Complaint

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BWNJ-TNCK-RG58L1000

Part Number Description

BW	Company	BAT WIRELESS
NJ	Connector	N-J
-	Constant	Constant
TNCK	Connector	TNC-K
-	Constant	Constant
RG58	Cable	RG58
L	Long	Length
1000	Cable Length	1000mm

Selection Table

Connector	SMA	N	TNC	BNC	SMB	MCX	Customizable
Cable Type	RG174	RG178	RG316	RG58			Customizable
Cable Length	1000mm	1500mm	2000mm	2500mm	1000mm	1500mm	Customizable

1. Description

Bat Wireless BWNJ-TNCK-RG58L1000 is a high-performance RF coaxial adapter cable, typically operating in the 0-6 GHz frequency range. Designed specifically for wireless communication devices, it connects various interfaces and ensures stable, low-loss signal transmission. It is suitable for use in applications such as Wi-Fi modules, 4G/5G devices, GPS antennas, drones, and IoT terminals, resolving compatibility issues between different interfaces. It can connect to both N and TNC interfaces device ports. High-purity coaxial cable minimizes signal attenuation, and optimized processing and coaxial structure ensure low insertion loss.

Classic application scenarios:

Wireless communication modules: GPS/Beidou positioning terminals, 4G/5G modules, Wi-Fi/Bluetooth modules
Test and measurement equipment: RF test probe connection ports, spectrum analyzers, signal generator antenna ports
IoT terminals: Signal enhancement for smart homes, drones, and wearable 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.

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2. Specifications

Parameters	Typ.	Unites	Notes
Electrical Characteristics			
Product Type	Adapter Cable		
Frequency Range	0-6000	MHz	
Input Impendence	50	Ω	
Contact resistance	IC < 1,OC < 0.2	MΩ	
Insulation resistance	>5000	MΩ	
Insert Loss	0.5	dB(6GHz)	
RF leakage	1500	V	
Durability	500	Times	
ID of Plug / OD of Jack	-	mm	
DCVoltage	-	V	
Mechanical Characteristics			
Connector Type	N-J		
Connector Type	TNC-K		
Cable Type	RG58		
Cable Length	1000	mm	
Mount way	Screw-on		
Color	-		
Meterial	Copper		
Weight	-	g	
Environmental Characteristics			
Waterproof Rating	-		
ROHS Complaint	Yes		
Operating Temperature	-45~ +85	℃	
Storage Temperature	-45~ +85	℃	

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3. Specification

Parameters	Parameters	Typ.	Unites	Notes
Electrical Characteristics				
Inner Conductor	Material	Copper		
	Construction	1/0.8±0.05	mm	
	Nom.Dia	0.503	mm^2	
Insulation	Material	FEP		
	Average Thickness	1.05	mm	
	Nom.Dia	2.95±0.20	mm	
Outer Conductor	Material	Copper		
	Nom.Dia	0.08±0.003	mm	
	Nom.Dia	3.4±0.10	mm	
Jacket	Material	FEP		
	Nom.Dia	5.0±0.20	mm	
Mechanical Characteristics				
Impedanc	-	50±5	Pf/m	
Capacitance	-	100±10	Ω	
20℃ Max Attenuation	100 MHz	0.187	dB/m	
	400 MHz	0.378	dB/m	
	800 MHz	0.58	dB/m	
	1000 MHz	0.617	dB/m	
	1800 MHz	1.76	dB/m	
	2000 MHz	2.69	dB/m	
Structure Drawing				

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4 .   Demensions

4.1 Actual Picture

* Product images are for reference only

4.1 Parts Drawing

	PARTS DRAWING	ROHS Compliant		REV	PRODUCT NO.	DATE	NAME	DESCRIPTION
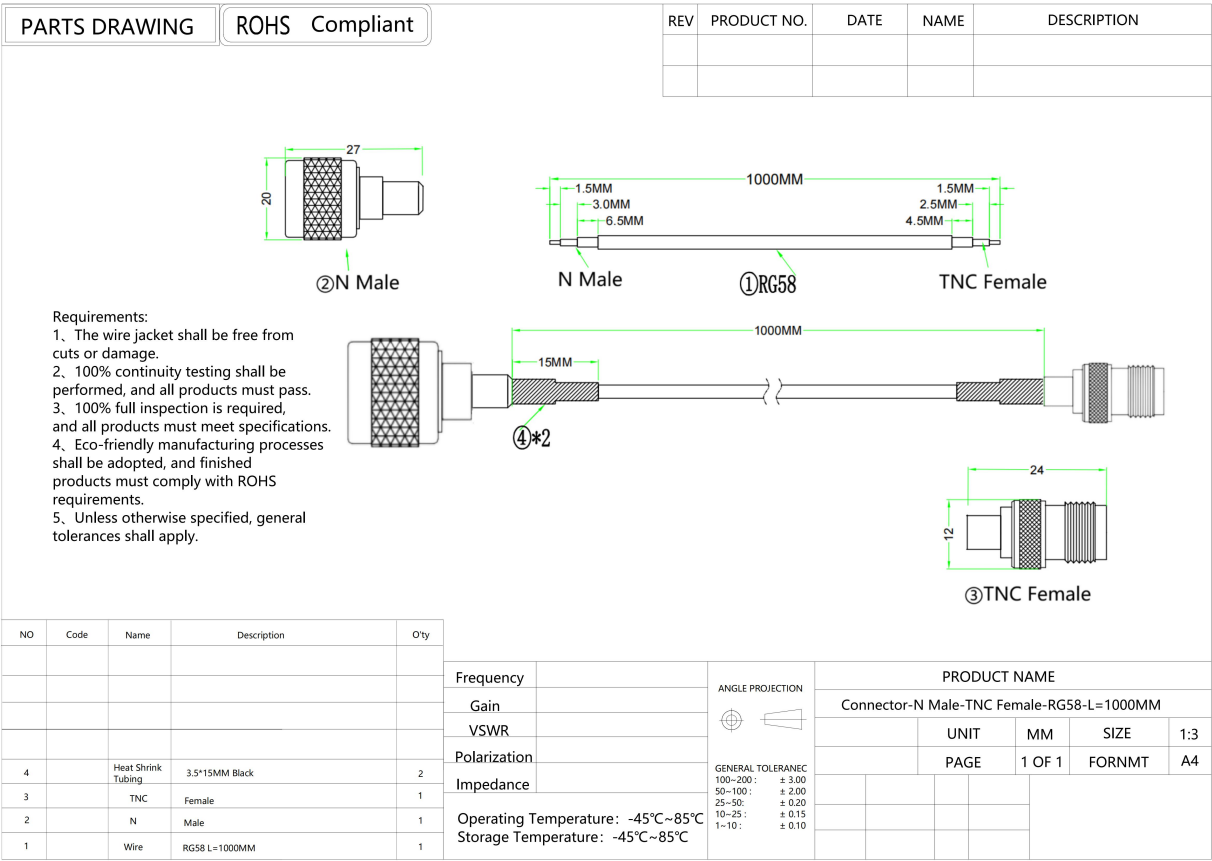
Requirements:
1、 The wire jacket shall be free from cuts or damage.
2、 100% continuity testing shall be performed, and all products must pass.
3、 100% full inspection is required, and all products must meet specifications.
4、 Eco-friendly manufacturing processes shall be adopted, and finished products must comply with ROHS requirements.
5、 Unless otherwise specified, general tolerances shall apply.

②N Male

N Male   ①RG58   TNC Female

1000MM
1.5MM 3.0MM 6.5MM   1.5MM 2.5MM 4.5MM

27 / 20

1000MM
15MM
④*2

24 / 12
③TNC Female

NO	Code	Name	Description	O'ty
4		Heat Shrink Tubing	3.5*15MM Black	2
3		TNC	Female	1
2		N	Male	1
1		Wire	RG58 L=1000MM	1

Frequency		ANGLE PROJECTION		PRODUCT NAME			
Gain				Connector-N Male-TNC Female-RG58-L=1000MM			
VSWR				UNIT	MM	SIZE	1:3
Polarization		GENERAL TOLERANEC		PAGE	1 OF 1	FORNMT	A4
Impedance		100~200 : ± 3.00 50~100 : ± 2.00 25~50: ± 0.20 10~25 : ± 0.15 1~10 : ± 0.10					

Operating Temperature：-45℃~85℃
Storage Temperature：-45℃~85℃
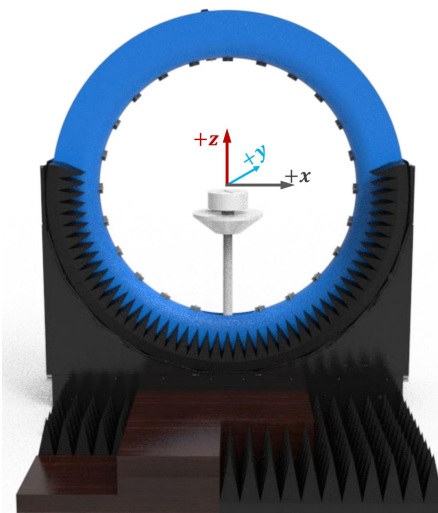
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5. Test Equipment

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 :	15º
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
Pasive measurement	**Test category :** Gain、Efficiency、2D pattern、3D pattern、Pattern roundness、Axial Ratio, ECC,Phase center,. etc **Polarization :** Circular polarization, linear polarization, elliptical polarization

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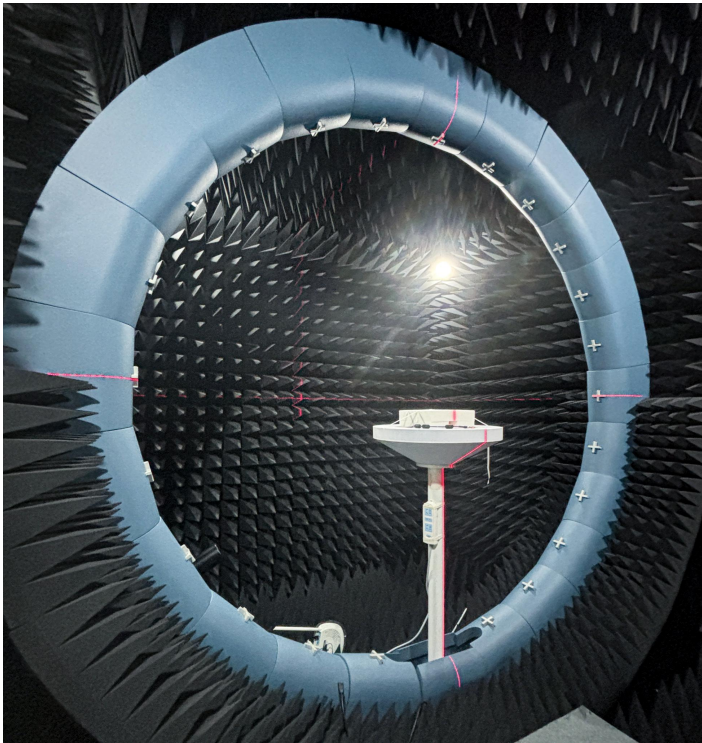
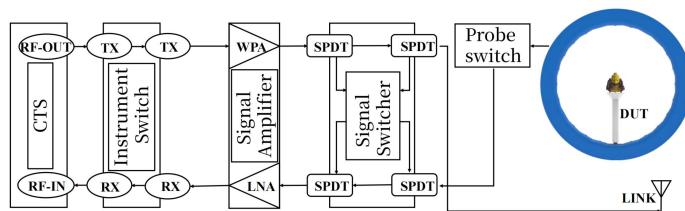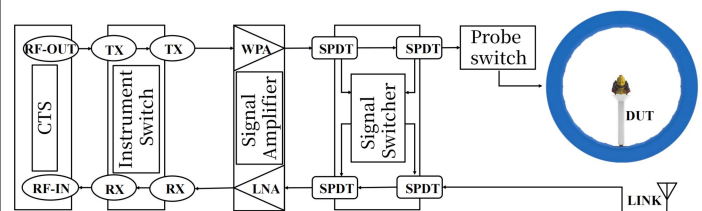## RF Link diaram of multi probe spherical near-field testing system

RF Link Overview
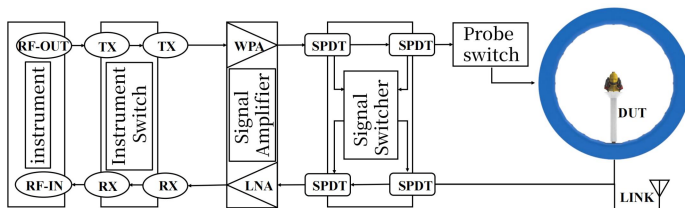
RF Link of Passivemeasurement
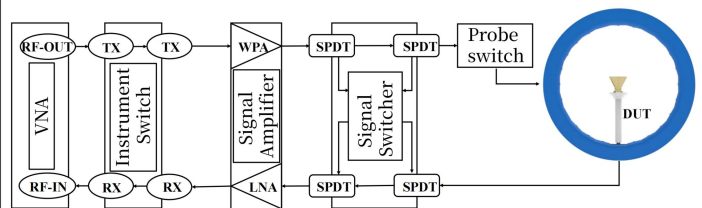
RF Link Overview

RF Link of Passivemeasurement

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