DTECH

USB to LORA wireless serial portdata transmission transceiver manual

Please read the product manual carefully before using the product

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1. Product overview

This product is a multi-functional LORA wireless data transmission transceiver. This product is a multi-functional LORA wireless data transmission transceiver. It adopts LORA spread spectrum modulation method to transmit. It has high performance, high reliability, high stability and low power consumption. It provides high performance for complex environments such as on-site installation and wiring. Performance and low-cost solutions. LORA is a long-distance wireless communication solution. The most prominent feature is long-distance and low power consumption. It breaks through the coverage scenarios that need to be relayed before. This product uses the wireless 433MHz frequency band for wireless data transmission by default. Supported wireless frequency bands The range is 410MHz-441MHz, and the transmission distance is up to 3 kilometers. Compared with the GPRS and 4G solutions, LORA does not require a monthly subscription fee (free application frequency band), and is farther than WIFI and ZIGBEE. Therefore, LORA is more and more widely used in small data and long-distance industrial serial communication. LoRa is excellent in coverage and power consumption. The application scenarios in the Internet of Things are becoming more and more extensive. This product can also achieve one-to-one Data transmission is carried out in one-to-many or many-to-many modes without distinguishing the transmitter and receiver.

This product provides a standard signal interface, which can be directly used in the following application scenarios through the LORA wireless function.

①Wireless meter reading, such as: smart electricity meter, smart water meter,smart gas meter, heat meter, etc.；

②Slowly changing physical quantity (temperature, water pressure, PM2.5, electromagnetic sensor) ultra-low power consumption sensor；

③Wireless alarm (smoke detector, pyro-infrared);

④Remote I/O controller (lighting control, air conditioning control);

Industrial applications, industrial control machine tools, industrial automation instruments, remote irrigation equipment, access control, security control systems, highway platform scale data transmission, commercial cash registers and other equipment connections;

2. Product features:

(1) With fixed-point transmission, transparent transmission, air wake-up function, and internal automatic sub-packet transmission.

(2) Communication distance: The distance increases by 3-5 times. This is the most intuitive experience. The original 433MHz small wireless products can hardly cover the blind spots, and LORA can completely cover it. This is the ultimate solution forusers to encounter unreliable 433MHz communication.

(3) LORA demodulation technology can demodulate data correctly under noise, and the sensitivity can reach -148dBm.

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(4) Description of communication distance:

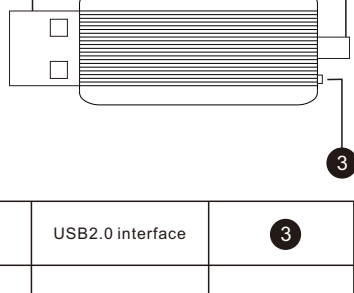| Test environment	Test distance	Product function description
Unobstructed communication	about 1Km	Local Communications
City roads travel in a straight line	about 800m	depending on the actual use environment
The city has buildings to block the environment	About 500m	depending on the actual use environment
In the building	about 5 floors of floor slabs are worn	depending on the actual use environment

3. Product technical parameters

Performance parameters	Working voltage	DC5V
	Working current	50mA@5V
	Environmental temperature	-20℃~85℃
	Environmental humidity	<80%RH
	Performance design	Super anti-electromagnetic interference design
Wireless communication	Transmission distance	1 km outside without shelter, indoors through about 5 floors.
	Frequency range	410MHz~441MHz
	wireless channels	115
	Receiving sensitivity	-140dbm
	Transmit power	20dbm
	Modulation method	Professional software modulation technology
	Antenna connection	External SMA male antenna; working frequency: 433MHz

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Wired communication	erial port parameters	Baud rate: 1200~115200bps; The default baud rate is 9600bps.
		Support data bits: 7, 8, 9, stop bits: 1, 1.5, 2, parity bits: Even, None, Odd
Form factor	interface	USB 2.0
	Power supply	DC5V powered by USB interface
	indicator light	data sending: yellow light; data receiving: green light;
Software support	System support	System support Supported operating system WindowsXP\Windows7\Windows8\Windows10 \Linux\Operating systems such as Mac OS.
	Configuration tool	DtechWifiConfig configuration tool is adopted, which can be easily configured in a few steps and can be used. (The configuration button length is pressed for 5 seconds to enter the configuration mode, and the factory setting can berestored by pressing the button for 5 seconds before powerup)

4. interface description

1	USB2.0 interface	3		configuration buttons
2	Antenna interface			

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5. product connection diagram

Wireless signal   Wireless signal

Desktop computer/ Notebook/ Android payment device

Desktop computer/ Notebook/ Android payment device

Note: The connection diagram is for reference only.

6.Product accessories

(1) Product 1

(2) Black glue stick antenna 1

(3) The product uses a scan code card 1

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Product Warranty Card

Customer Information

Model：	
Date of purchasel：	
User telephone：	
User address：	
Distributor：	
Agency address：	
User telephone：	Dealer stamp valid

Intenance Records

Repair times	Date	Fault	Treatment measures	Repair work NO.

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