LoRaData Series

Low Speed Long Distance Data Transmission Station / Module

Loradata series low-speed long-distance data transmission radio / m odule is designed for low-speed and long-distance transmission applications. The product adopts Lora spread spectrum technology, variable spread spectrum factor to improve the system capacity of the whole network. Using efficient cyclic interleaving error correction coding. It has good anti-interference ability and penetration ability, can cover a radius of 10-50/1-10 kilometers, and can easily build a city-level IoT network.

LoRaData series low-speed and long-distance digital radio/module provides multiple channel options, various parameters such as serial port baud rate, module transmit power, module air rate, etc. can be modified through AT commands.LoRaData series low-speed and long-distance data transmission radio/module can transparently transmit user data. Users do not need to write complicated settings and transmission programs, allowing users to focus on the realization of system functions and avoid tedious register operations.

Performance characteristics

- Using the latest LoRa technology, farther than traditional digital radio, more powerful performance
- Using military-grade LoRa modulation technology, with data encryption, sub-packet length can be set
- Large single package, single package supports up to 240 bytes, adapted to Modbus protocol
- Supports data transmission rate of 300 to 62500bps
- Support communication key function, effectively prevent data from being intercepted
- It can realize multi-level relay networking, effectively expand the communication distance, and realize ultra-long-distance communication
- Using temperature compensation circuit, frequency stability is better than ±1.5PPM
- Operating temperature range: -40℃～ +85℃
- Lightweight, easy to install, good heat dissipation, perfect shielding design, good electromagnetic compatibility, strong anti-interference ability

Application

- ➢ Wireless sensor
- ➢ Vehicle management
- ➢ Security and alarm
- ➢ Intelligent outdoor lighting
- ➢ Wireless meter reading
- ➢ Automatic data acquisition
- ➢ Industrial remote control and telemetry
- ➢ Cold chain data monitoring
- ➢ Mine oil control equipment
- ➢ Remote control of field data

LoRaData module: 125-1000 MW (1-10 km)
4.05x0.37x2.5cm

LoRaData Enclosed:1-25 W (1-50 km)
16.9x3.4x11cm

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Technical specifications of low speed long distance data transmission radio/module

Transmit-Receive	
Operating Frequency Range	230/433/868/915MHz
Modulation Mode	LORA
Channel	1-20 operating channels available
Transmitting Power	1-25w (Enclosed) / 125-1000mw (module)
Receiving Sensitivity	-136dBm@300bps
Air Transmission Rate	300-9600bps
Transmission Distance	10-50 / 1-10 km, open land
Interface	
Communication Interface	232, 485, 422, Ethernet(Enclosed)/UART、TTL(module)
Radio Frequency Interface	TNC(Enclosed)/Stamp hole(module)
Baud Rate	1200-115200bps
Data Bits	8-bit
Stop Bit	1-bit, 2-bit optional
Check Bit	No parity, even parity, odd parity
Cache Space	1000bytes
Power Supply	
Vcc Power Input Voltage	9-17Vdc (Enclosed) / 3.3-5.5Vdc(module)
Emission Current	5A (Enclosed @ 12V) / 295mA (module @ 5V)
Receiving Current	80mA (Enclosed) / 30mA (module)
Dormant Current	8uA (module)
Operating Environment	
Operating Temperature	-40℃ - 85℃
Operating Humidity	10% ~ 90% (non condensing)
Physical Size	
Encapsulation	The patch type
Size	16.9x3.4x11cm (Enclosed) /4.05x0.37x2.5cm (module)