



IoT Application Specialist

Ebyte Internet of Things Application Expert







■ ABOUT EBYTE ABOUT US



Chengdu Ebyte Electronic Technology Co., Ltd., a high-tech enterprise integrating R&D, production and sales with a full industrial chain, specializes in IoT communication applications.

Our products span a wide range of communication devices, including LoRa, Wi-Fi, Bleteoth, ZigBee, 4G modules, NB-IoT, GNSS satellite positioning modules, CAN bus modules, digital transmission radios, serial port servers, industrial communication gateways, Profinet gateway module, remote switches, LoRaWAN, remote IO modules, 4G DTU, communication switching equipment, millimeter-wave radar modules, wireless audio modules, embedded industrial computing products, sersors, antenna, power and other communication devices.

Leveraging wireless data transmission and industrial IoT technologies, it has grown into a large-scale enterprise with robust R&D capabilities and core competitiveness in Southwest China, boasting too-tier national comprehensive strength.



CULTURE CULTURE



applications



Core Values

Integrity Innovation
Development Quality



Internationalized R&D Level Standardized Production



Quality Excellence Strive for Better



Settling Down Synchronizing Development HISTORY

■ DEVELOPMENT

1 2022/2024 Awarded



- Sichuan Province "SRDI "(Specialized, Refinement, Differential, Innovation) small and medium-sized Enterprise
- Chengdu Enterprise Technology Center Enterprise
- Chengdu Top 30 IOTE Gazelle Enterprises
- IOTE 2023 China Top 100 IOTE Enterprises
- Knowledge Product Advantage Demonstration Unit
- · Safety Production Standardization Level 3 Enterprise

2019/2021 Expansion



- Self-built SMT and finished product assembly workshop, new OEM/PCBA business segment
- Became a third-party design company of Texas Instruments(TI) and set up regional and municipal offices.
- · Relocated to new office with over 6000m2 of space

2017/2018 Leaps



- Obtained the national "high-tech enterprisecertification"
- Chengdu Internet of Things Industry Development Alliance executive chairman of the unit
- Rapid development of the company, the product line expanded to 10
- · Obtained more than a hundred patents for inventions

EBYTE HISTORY

2015/2016

Breakthrough

- Products through the MIC / NCC / FCC / CE / RoHS / CCC certification / ISO9001
- quality system certification, the establishment of a p erfect internal and external sales channels
- Rapidly increasing annual sales and achieving annual sales of over ten million dollars.



2013/2014

Organize

- Formation of an 8-person R&D team and a 16-person sales team
- · Launched RF module, LoRa module
- Digital radio and other series of product lines



2012

Establishment

- · EBYTE Electronic Technology Co., Ltd.
- Formal business registration and establishment





Wi-Fi/BLE /ZigBee LoRa

4G/GPRS/NB

Remote Control Switch Serial Server

Digital Transmission Remote I/O Radio

CAN Series Gateway

Wireless Module

I HONORS

- National High-tech Enterprise
- o Chengdu Enterprise Technology Center
- o Chengdu High-tech Gazelle Enterprise
- Safety Production Standardized Enterprise
- o Sichuan Province "SRDI" enterprise
- More than one national invention patent certificates
- Quality Management System Certification Enterprise
- o Chengdu Internet of Things Industry Development Alliance Executive Chairman Unit









"SRDI"



CE certification







Quality management

enterprises

enterprise

National invention patents

FCC certification

system certification

WORLDWIDE SALES

SOLD WORLDWIDE

Serving more than 50 countries and regions worldwide

EBYTE products have passed SRRC, FCC, CE, MIC, KC, NCC and other authoritative certificates, and are exported to more than 50 countries and regions around the world, obtaining a wide range of reputation; EBYTE R & D capability is at the international advanced level, and is committed to providing professional communication solutions for smart home, industrial control, energy saving and environmental protection, rail transportation, artificial intelligence, new energy and other industries.

World Exhibitors

EBYTE has been invited to participate in many global IOT exhibitions, such as CES in the US, Berlin Electronics Fair in Germany, etc. EBYTE LoRa, Bluetooth, ZigBee, Digital Radio, Serial Servers and other exhibitors' products have been recognized and trusted by customers all over the world.















cooperated with many large enterprises and organizations to launch a variety of industrial communication, IOT modules and wireless digital transmission radio communication equipment. The products have industrial grade quality, excellent performance and stable reliability, and have been recognized by domestic and foreign customers.























I Industrial quality **QUALITY**

With IOT communication technology as the core, EBYTE has cooperated with many large enterprises and organizations to launch a variety of industrial communication, IOT module and wireless digital radio communication equipment. The products have industrial grade quality, excellent performance and stable reliability, and have been recognized by domestic and foreign customers. Always keep in mind the expectations of customers, strict screening of components, strict monitoring of the production process, just to provide reliable performance, excellent quality products.



Preparation area



High speed mounter



Printing machine



Offline AOI



Reflow soldering



3D SPI



Mounter



Inline AOI

I SPI/SOC

SPI/SOC series module is based on Semtech, TI, Nordic, Silicon Labs, NXP, STMicroelectronics, AMICCOM, Telink Micro, Nanjing Zhongke Micro, PanQi Micro, Huapu Micro and other brands of solutions developed wireless hardware modules, factory firmware, the need for customers to use secondary development.

















· SPI

SPI class wireless RF module with built-in wireless RF chip, no firmware from the factory. customers need to use secondary development.

433/470/868/915MHz, 2,4GHz

Multiple modulation modes, domestic/imported programs

Communication example code, small size, low power consumption, SPI interface Long-distance communication, industrial standard design







·SOC

SOC class belongs to the wireless hardware module, built-in SOC chip, no firmware from the factory, need to be used by the customer's secondary development

433/470/868/915MHz, 2.4GHz

Multiple modulation modes, China-made solutions, imported solutions Communication example code, small size, low power consumption

Long-distance communication, industrial standard design





| Wireless Digital Transmission Module

The wireless data transmission module utilizes radio wave technology to transmit data wirelessly.











LoRa is a low-power wide area network (LPWAN) wireless communication technology developed by Semtech, which can realize low-power consumption and long-distance transmission. applications.

- ▶ 170/230/433/470/868/915MHz. 2.4GHz
- ► Spread spectrum anti-interference, relay networking
- ► Small size, remote configuration
- ► Ultra-low power consumption, long range







UART class wireless data transmission module is a serial port to wireless data communication module developed by EVERBIT with low power consumption and long distance transmission technology.

- ► 170/230/433/470/868/915MHz, 2.4GHz
- ► Full-duplex, high-speed continuous transmission, frequency hopping
- ▶ Transparent transmission, anti-interference, small size.
- ▶ Low power consumption, long distance

MESH self-organizing network



EBYTE MESH self-organizing network communication module series adopts LoRa and FSK modulation technology, supports wireless self-organizing network function, and is able to realize the data transmission application of MESH network.

- ► 433/470/868/915MHz. 2.4GHz
- ▶ Spread spectrum anti-jamming, decentralization, self-organizing
- ▶ Network self-healing, path optimization, 200-node networking capacity
- ► Small size, remote configuration

I BLE/WiFi/ZigBee

This series of wireless data transmission module supports Bluetooth, WiFi and ZigBee wireless communication protocols, which can realize networked data transmission function.



Bluetooth wireless transmission module, comes with Bluetooth firmware, supports BLE4.0, BLE4.2, BLE5.x and other protocols, easy and fast to use.

BLE5.x protocol, dual-mode, audio transmission

Master-slave, multi-master-multi-slave, low cost

Remote configuration, small size, low power consumption

Wake-on-serial, industrial standard design

WiFi | WiFi wireless transmission module, support IEEE 802.11 b/g/n/ax and other protocols, easy and fast to use.

2.4GHz/5GHz, dual-mode

TCP/UDP/MOTT/HTTP

Auto-connect, auto-reconnect

AliCloud, OneNet, BaiduCloud, TencentCloud

ZigBee wireless transmission module, support for ZigBee3.0 protocol.

ZigBee3.0 protocol, MESH self-assembling network Self-healing network, 200 device networking capacity

High security, ultra-low power consumption

Multiple network topologies, industrial-grade design

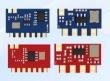
| GNSS/Wireless Audio/Millimeter-wave Radar/Ultra Differential

This series includes GNSS positioning module, wireless audio module, millimeter-wave radar module, and ultra differential module.









GNSS

GNSS positioning module, support BDS/GPS/ GLONASS/GALILEO/SBAS/QZSS satellite positioning

- Support BDS/GPS/GLONASS/GALILEO satellite positioning
- L1/L5, 1~25Hz positioning data update rate, PPS
- 1/1.5/2.5m positioning accuracy
- · A-GNSS, A-BDS, PPS
- Small size, low power consumption, industrial standard design

Wireless audio module

The wireless audio module can realize long distance audio transmission, which can be applied to walkie talkies, security alarm systems, intelligent voice systems and other application scenarios

- 470/900MHz, 2.4GHz, half-duplex/full-duplex
 Transmit/receive_unicast/broadcast/multicast
- communication
- Switchable channels, AT commands, long-distance intercom

Millimeter-wave radar module

The millimeter-wave radar module uses millimeter wave radar distance measurement technology and advanced proprietary radar signal processing technology to achieve accurate sensing of motion, micro-motion and standing human bodies

- 24GHz ISM band, 10m long range detection
- ±60° detection angle, 0.2m proximity sensing
- 0.15m high accuracy detection, visual configuration tool
- Configurable data refresh cycle, small size, industrial standard design

Superheterodyne

Superheterodyne module is a low-cost OOK/ASK modulated wireless receiver module developed by EVERBUILT, which is suitable for remote control of small household appliances, toys, access control systems, electric bicycles and other application scenarios.

- 315MHz/433MHz, OOK/ASK modulation
- 4 output ports for output functions such as tapping, flipping, interlocking, etc.
- Low-cost, low-power, long-distance communication
- · Small size, industrial standard design

| Serial Server/4G DTU

Realization of serial data to the cloud with the help of Ethernet or 4G transmission technology



4G DTU

The device that realizes data uploading to the cloud with the help of operator's base station, with two types of modules and digital transmission terminals, which can be matched with servers to realize the remote transmission of data.

- 4G Full Netcom
- TCP/UDP/MQTT/HTTP
- Ali Cloud, AWS, Baidu Cloud, Tencent Cloud
- Bidirectional heartbeat, disconnect reconnect

Serial server

Serial server is the whole process of converting RS485/ RS232/RS422 serial data into TCP/IP data and realizing serial data on the cloud.

- TCP/UDP/MQTT/HTTP ModBus Gateway
- POE, Isolated, AC, DC Multiple specifications available
- Auto Polling

Ethernet Module, Chip

Serial to Ethernet functionality integrated into small form factor module with multiple specifications available for easy integration.

- TCP/UDP/MQTT/HTTP ModBus Gateway
- Small form factor for easy integration
- Automatic Polling, Active Reporting

I Industrial Converter

Used for industrial RS485, RS232, USB, TTL, CAN, Profinet and other types of bus data conversion, the realization of various types of interface data mutual communication





DATA













Converts CAN bus data to TTL, RS485/RS232, RS422, USB, WiFi, Ethernet, and fiber optic forms for data transmission.

modes

software filtering

5 operating Hardware filtering, Electrical isolation. high protection





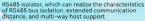




FTDI original imported chip

high protection electrical isolation

RS485 hub



multiple hosts many-to-many

Supports Many-to-one, Electrical isolation,

high protection

I Remote IO control

Remote acquisition and control of analog and switching signals via Ethernet, 4G, serial, wireless, etc.,



Remote switch

Remote control of equipment on and off through mobile APP/small program, remote acquisition of switching, analog signals, can realize group control, timing control and other logic



- Unlimited distance control for cellular phones
- Automated logic control
 Timing and countdown

Remote IO

Remote reading of AI, DI signals through Ethernet, 4G, WiFi, serial port and other signals, can also realize the output control of DO, AO signals.







Industrial signal transmission

Can be analog, switching signals through the wireless form of one-to-one, one-to-many transmission, transmission to the completion of the industrial signal will be output as is.

- · Analog and switching transmission
- One-to-one, one-to-many
- Signals are transmitted in both directions without interfering with each other.



| Wireless Digital Transmission Terminal

A terminal device that realizes wireless data transmission with the help of radio and digital signal processing technology.



Wireless Digital

Using wireless transmission technology to transmit serial signals such as RS485/232/TTL within a range of 70 kilometers

- ▶ Wireless transmission within a range of 70km
- ► Radio type approval
- ➤ Unlimited packet length, continuous transmission
- ▶ ModBus protocol adaptation

Wireless Gateway

In order to facilitate the wireless data transmission, you can match the gateway to realize the data transmission through Ethernet or 4G network, and realize the data on the cloud.

- ► TCP/UDP/MQTT/HTTP
- ► ModBus Gateway
- ▶ Auto-polling, proactive reporting
- ▶ Ethernet, 4G optional

APPAR STORY

LoRaWAN

LoRaWAN is a low-power wide-area network (WAN) communication protocol that can realize large-scale networking with the gateway, featuring low power consumption, long range, high capacity and low cost.

- ▶ Low power consumption, long range
- ▶ High capacity, concurrent
- ▶ Low cost, self-organizing



| Core boards and single boards









Core board

The core board integrates core components such as CPU, memory and storage. Cost-effective, select high-quality components, after rigorous testing, with good environmental adaptability and reliability, can be used in batch applications stable operation for a long time.

- ▶ Simplify development and maintenance, accelerate time-to-market
- Multiple packages including stamp hole I GA BTB etc.
- ▶ Support Linux and provide rich development SDK
- ▶ Technical support fast response



Single Board Computer

Embedded computer boards with compact dimensions. Can be quickly put into use in industrial scenes in bulk.

- ▶ Rich interfaces, wide range of applications
- ▶ Cost-effective, own factory ► Easy to use, easy to install
- ► Supports customization, fast and efficient





Accessories

Provides core board single board machine supporting touch screen. heat sink and other accessories, to facilitate the development and testing, to enhance the use of experience.

▶Easy to verify ▶ Compatible ▶Well documented



Thank you for watching