



SPECIALTY  
STABILIZATION  
EFFICIENT



13 Years Dedicated to IoT Field

# IoT Application Specialist

Ebyte Internet of Things Application Expert

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Chengdu Ebyte Electronic Technology Co.,Ltd.

## 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, Bluetooth, 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, sensors, 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 top-tier national comprehensive strength.



## CORPORATE CULTURE



### Corporate Vision

Become an expert in IoT applications



### Core Values

Integrity Innovation  
Development Quality



### Development Strategy

Internationalized R&D Level  
Standardized Production



### Quality Commitment

Quality Excellence  
Strive for Better



### Commitment to Employees

Settling Down  
Synchronizing

## DEVELOPMENT HISTORY

### 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 6000m<sup>2</sup> of space

### 2017/2018 Leaps



- Obtained the national "high-tech enterprise certification"
- 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 perfect 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



## PRODUCT SYSTEM

LoRa/LoRaWAN

Serial Server

Digital Radio

Wireless Module

Remote Control Switch

Power Supply/Antenna

Audio Module

Millimeter-wave radar

Profinet gateway module



**EBYTE**

Internet of Things Application Expert

# One-stop IoT application service

Comprehensively covering research and development, production and sales, it possesses a complete IoT industrial chain.



commercial manufacture



Smart Wearables



smart home



wireless device



long-range control



supervisory system



intelligent agriculture

4G 4G/NB-IOT/GNSS

Bluetooth

ZigBee

Wi-Fi

CAN Series

Remote I/O

Communication Conversion Devices

Industrial Communication Gateway

Embedded Industrial Computing Products

Wi-Fi/BLE /ZigBee

- Mesh Self-Grouping
- Industrial Wi-Fi Module
- Bluetooth Module

LoRa

- LoRa Grouping
- LoRa Wireless Module
- LoRaWAN Node

4G/GPRS/NB

- 4G LTE Digital Transmission Module
- GSM/GPRS/GPS
- NB Wireless Digital Transmission Module

Remote Control Switch

- 4G Mobile Phone Remote Control Switch
- Wireless Remote Control Switch
- 4G Smart Socket

Serial Server

- Wi-Fi Serial Server
- Industrial Serial Servers
- Star Self-assembling Serial Servers

Digital Transmission Radio

- High Speed Connectivity
- ZigBee DTU
- LoRa Spread Spectrum Series

Remote I/O

- Analog Wireless Digital Transmission Radio
- Ethernet Switching I/O Controller
- GPRS Network I/O Controller

CAN Series

- CAN to Serial
- CAN to Ethernet
- CAN Debugger

Gateway

- Edge Computing Gateway
- Wireless Gateway
- LoRaWAN Gateway

Wireless Module

- SPI RF Module
- SoC System on Chip
- UART Serial Module

## HONORS QUALIFICATIONS

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



Utility model patents



National high-tech enterprises



"SRDI" enterprise



National invention patents



CE certification



FCC certification



RoHS certification



Quality management 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.



**IFA** Global  
Markets

Electronica Berlin, Germany

**SEMICON**  
SINGAPORE

Electronica Singapore

**CES**  
Consumer Electronics Show

Electronica CES, USA

**Convergence**  
India Expo  
Electronic Communication

Electronica India

**HKTDCC**

Hong Kong Electronics Fair  
(Autumn Edition)



COOPERATION



DEVELOPMENT



WIN-WIN

# I COOPERATIVE PARTNER BUSINESS

With IOT communication technology as the core, EBYTE has 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.



## 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



Printing machine



Reflow soldering



Mounter



High speed mounter



Offline AOI



3D SPI



Inline AOI

■ CUSTOMER SERVICE

# CUSTOMER-CENTRIC AND DEMAND-ORIENTED



## Project Verification

- Technical feasibility assessment
- Provide objective basis for project establishment
- Resource matching and potential risk analysis



## Needs Assessment

- Ensure accurate matching and high cost performance
- Adopting industry practices and multi-faceted assessment methods
- Customized solutions and product selection recommendations



## Technical Support

- Help you quickly eliminate obstacles
- Provide 7x24 hours professional technical support
- Solve technical problems in development, debugging and selection



## Antenna matching

- Provide professional antenna performance analysis
- Antenna matching and collaborative debugging services
- Optimize communication quality and signal stability



## Power supply matching

- Provide collaborative debugging support
- Recommend a suitable power supply solution
- Ensure the power supply system is stable, efficient and reliable



## Product Testing

- Help you fully verify product quality
- Provide test suites, plans and implementation support
- Multi-dimensional testing: functionality, performance, and reliability

## 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

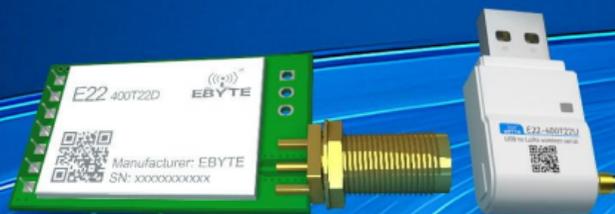
Communication example code, small size, low power consumption

Long-distance communication, industrial standard design



## Wireless Digital Transmission Module

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



### LoRa



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



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

## 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.



**BLE** | 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/MQTT/HTTP
- Auto-connect, auto-reconnect
- AliCloud, OneNet, BaiduCloud, TencentCloud

**ZigBee** | 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

## I 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

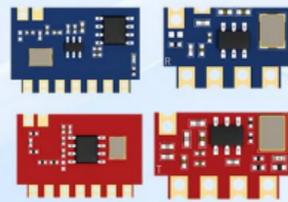
- 470/900MHz, 2.4GHz, half-duplex/full-duplex
- Transmit/receive, unicast/broadcast/multicast communication
- Switchable channels, AT commands, long-distance intercom



### 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
- $\pm 60^\circ$  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 CONVERSION

RS485 RS232 USB TTL CAN PROFINET



### CAN



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

5 operating modes

Hardware filtering, software filtering

Electrical isolation, high protection

### USB to serial port



Used to convert USB bus to single or multiple TTL RS485/RS232/RS422 and other serial buses

12M high speed

FTDI original imported chip

high protection electrical isolation

### RS485 hub



RS485 isolator, which can realize the characteristics of RS485 bus isolation, extended communication distance, and multi-way host support

Supports multiple hosts

Many-to-one, many-to-many

Electrical isolation, high protection

## Remote IO control

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

## 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.

- Ethernet and serial interaction
- Standard ModBus protocol
- Flexible expansion of IO points



## 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 Transmission Radio

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



### 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

Provide users with efficient, mature, stable and professional embedded computer products and services



### 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, LGA, 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.

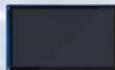
- ▶ Rich interfaces, wide range of applications
- ▶ Cost-effective, own factory
- ▶ Easy to use, easy to install
- ▶ Supports customization, fast and efficient



### 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**