More information?
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Product Introduction

LoRaWAN Gateway

DFR1093-868/DFR1093-915

This gateway acts as the core of LoRaWAN networks, seamlessly collecting and forwarding data from node devices. Its integrated SIoT eliminates cloud dependency, ensuring enhanced security, ultra-low latency, and complete data control. Deploy anywhere as a powerful edge computing hub without sacrificing cloud compatibility.

Key Features

Integrated SIoT Local Server
Built-in SIoT local server simplifies and streamlines application development, allowing you to start right away without additional server setup.

Built-in Data Parser
Enables real-time, user-friendly data visualization, sparing you the hassle of handling raw, unprocessed data.

New Scan-to-Join Mode
Nodes automatically register and join the network, eliminating complex configuration and making deployment easier than ever.

Multiple Networking Options
With onboard Ethernet and WiFi, it adapts to various application scenarios and networking conditions.

Application Level

For direct installation & deployment.

Product Introduction

LoRaWAN Control Terminal

DFR1120-868/DFR1120-915

DFRobot LoRaWAN Control Terminal integrates multiple data interfaces and relay output interfaces, enabling the quick connection of traditional sensors to the LoRaWAN network for long-distance data transmission and control. It is ideal for applications such as outdoor weather stations, automated irrigation systems, automatic water storage systems, greenhouse monitoring, beehive monitoring, and fishpond water quality monitoring.

Key Features

Standard LoRaWAN Protocol Support
Long communication range, up to 5 KM in open areas.

Rich Interface Options
Supports analog, digital, and ModBus RS485 sensor connections, as well as relay outputs.

Customizable Control Rules
Supports automated control in offline mode with preset configurations.

Application Level

For direct installation & deployment.

Product Introduction

Gravity: LoRaWAN Node

DFR1115-868/DFR1115-915

This product is a data transparent transmission module designed based on LoRaWAN technology. It connects to the main controller via I2C or UART interfaces, enabling long-range wireless data communication between local devices and gateway devices or cloud platforms.

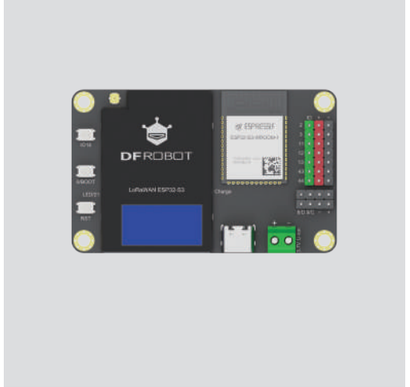
Key Features

Compatible with 3.3V and 5V logic levels.
Uses Gravity PH2.0-4P interface, plug-and-play.
Supports both UART and I2C communication protocols.

Supports both standard LoRaWAN protocol and LoRa communication modes.
Compatible with a variety of main controllers, including Arduino, ESP32, Raspberry Pi, and more.

Application Level

For node development and deployment in dedicated, customized scenarios.



Product Introduction

LoRaWAN ESP32-S3 Development Board

DFR1195

This product integrates the LoRaWAN protocol with the ESP32-S3 chip, providing a robust platform for wireless data transmission over long distances. The development board is equipped with an onboard color display, making it ideal for real-time monitoring and debugging.

Key Features

LoRaWAN Protocol Integration
Supports long-range, low-power communication for IoT applications.

ESP32-S3 Chip
A powerful chip for efficient processing and seamless integration with other devices.

Color Display
Onboard color display for user-friendly interface and real-time data visualization.

Versatile Application
Ideal for development and deployment in custom LoRaWAN networks, suitable for engineers working on network debugging, deployment, and functionality testing.

Application Level

For LoRaWAN network deployment, debugging, and functionality verification.

LoRaWAN Gateway

SKU: DFR1093-868/DFR1093-915

Specification

Power Supply: 5V / 7-12V
Frequency Band: EU868MHz/US915MHz
RF Chip: SX1302
Transmit Power: 22dBm
Ethernet: 100Mbps
Wi-Fi: IEEE 802.11 b/g/n, 2.4GHz AP Mode, STA Mode
Clock Backup Power Supply: Super Capacitor
Number of Channels: 8 Channels
Transmission Mode: Half Duplex
CPU Frequency: 1.3GHz
RAM: 512MB DDR4
Flash: 8G eMMC

LoRaWAN Control Terminal

SKU: DFR1120-868/DFR1120-915

Specification

Power Supply: 12 - 24V
Frequency Band: EU868MHz/US915MHz
RF Chip: SX1262
Transmit Power: 22dBm
Interface: RS485*1 / Analog Input*1 / Digital Input*1 / Relay Output*1
Wireless Protocol: Standard LoRaWAN Protocol
Working Mode: OTAA/ABP Class C/ClassA

Gravity: LoRaWAN Node

SKU: DFR1115-868/DFR1115-915

Specification

Power Supply: DC 3.3V ~ 5V
Communication Interfaces: I2C / UART
Programming Platforms: Arduino IDE, Mind+
RF Chip: SX1262
Frequency Band: 868MHz/915MHz
Transmit Power: 22dBm
Receiver Sensitivity: -148dBm
Wireless Protocol: Standard LoRaWAN Protocol/LoRa

LoRaWAN ESP32-S3 Development Board

SKU: DFR1195

Specification

Power Supply: 3.7V/5V
MCU: ESP32-S3
Bluetooth: Bluetooth 5.0
Wi-Fi: IEEE 802.11 b/g/n, 2.4GHz
RF Chip: SX1262
Frequency Band: 868MHz/915MHz
Display: 0.96-inch Color Display(Resolution 160*80)
ESP32 Expansion Port: 9
Wireless Protocol: Standard LoRaWAN Protocol/LoRa
Working Mode: OTAA/ABP ClassC/ClassA
Programming Platform: ArduinoIDE

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Scan to join Discord

DFROBOT
DRIVE THE FUTURE

DFRobot LoRaWAN Series

On-device Data Server,
Local Application,
Local Data

up to 5-km communication distance in open-air regions
Based on LoRaWAN Protocol

Control Terminal

Industrial-grade Sensors	Actuators
Air/Water/Soil	Bump/Motor/Valve

DEPLOYMENT

Development Board | Node Module

Modules	Controllers
Sensor/Actuator/Display	Arduino/ESP-32/STM32

TESTING & DEVELOPMENT

Smart Homes | Smart Ecosystems | Smart Agriculture | Smart Buildings