



Browan

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Gateway & Sensor series products

Communications Inc.

Gateway Series

Browan's LoRa Gateway product range comprises of advanced, carrier-grade outdoor micro gateway, indoor Pico gateway and Femto gateway, whose capabilities enable exceptional performance, range, and capacity with more efficient use of the ISM spectrum. Not only does Browan's LoRa Gateways deliver high-quality connectivity and coverage for unprecedented user experience, but they enable LoRa network operator to secure their investment and minimize the OPEX and CAPEX.

Features and Benefits

- Complying with latest LoRaWAN standard and regional parameters
- Built-in basic station or packet forward mode
- Fully interworking with Network Servers
- Optimized software with upgradable features for future-proof networking
- Ability to support 3G/4G for wireless backhaul connectivity
- Self-connecting wired, and wireless backhaul
- Beyond-the-standard spectral efficiency and link budgets
- Fast scale out/up and simplified deployment



Indoor Femto Gateway

Model: WLRGFM-100
LoRaWAN: LoRaWAN 1.0.3
LoRa Channels: 8
Band: US915/EU868/AS923/CN470/IN865/AU915
Size: 11.6 x 9.1 x 2.7 cm
Power Supply: DC 5V/2A via mini-USB port
Ingress Protection: IP30
Operating Temperature: -10 ~ 55°C
Interfaces: 1 LAN RJ45 10/100Mbps
1 USB-A 2.0
4 LED indicators
1 2.4G WiFi (11n)
1 Built-in WiFi antenna
1 Built-in LoRa antenna
1 Switchable SMA connector
Features: Downlink LBT
Packet forward mode
Built-in LoRa network server
Basic station mode



MerryloT Hub

Model: WLRRTES-106
LoRaWAN: LoRaWAN 1.0.3
LoRa Channels: Up to 8 concurrent channels
Band: US915/EU868/AS923/IN865/AU915
Size: 11.6 x 9.1 x 2.7 cm
Power Supply: DC 5V/2A via Micro-USB port
Ingress Protection: Indoor use
Operating Temperature: 0 ~ 50°C
Interfaces: 1 LAN 10/100Mbps
1 Micro-USB for power input
4 LED indicators
1 Reset Button
Features: Built-in 2.4G 802.11b/g/n Wireless LAN
Various Internet connection: Ethernet, WiFi(Wireless bridge)
Support LoRaWAN 1.0.3 packet forwarder and Basic Station mode (switched through local WEB GUI)
WiFi Configuration through local WEB GUI
Web UI for LoRa and network configuration
Support Listen Before Talk for downlink
Support F/W upgrade through Browan OTA
Internal antennas for LoRa and WiFi connection



MerryloT Hotspot V1

Model: L0001
LoRaWAN: LoRaWAN 1.0.3
LoRa Channels: 8
Band: US915/EU868/AS923/AU915/IN865
Size: 14 x 11 x 2 cm
Power Supply: DC 12V/1 ~ 1.5A
Ingress Protection: IP42
Operating Temperature: -10 ~ 40°C
Interfaces: 1 RJ45 1Gbps
1 USB-A 2.0
1 DC jack
4 LED indicators
1 Bluetooth Pairing Button
1 Debug UART console
1 TF card slot
1 Built-in WiFi antenna
1 Built-in BLE 5.2 antenna
Features: Easy Helium network setup
Plug and Play
Earn Crypto by efficiently mining HNT, the Helium cryptocurrency
Supports multi mining services: Mysterium, Honeygain, Pawns and Traffmonetizer

MiniHub Pro



Model: WLRRTES-102
LoRaWAN: LoRaWAN 1.0.3
LoRa Channels: 8
Band: US915/EU868/AS923/AU915/IN865
Size: 8 x 9 x 4 cm
Power Supply: 100 ~ 240VAC
Ingress Protection: IP30
Operating Temperature: 0 ~ 40°C
Interfaces: 1 USB type-C
 1 2.4G WiFi (11n)
 1 LED indicator
 1 Setup button
 1 Reset button
 1 Built-in WiFi antenna
 1 Built-in LoRa antenna
Features: Downlink LBT
 Packet forward mode
 Changeable power plug
 ESP32-D0WD by Espressif Systems
 Optional support AWS FreeOTAs



Outdoor Micro Gateway

Model: WAPS-232N
LoRaWAN: LoRaWAN 1.0.3
LoRa Channels: 8/16
Band: US915/EU868/AS923/CN470/AU915/IN865
Size: 23 x 20 x 6.8 cm
Power Supply: DC 55V/0.6A via PoE adapter
 (Microsemi PD-9001GR 802.11at)
Ingress Protection: IP67
Operating Temperature: -20 ~ 60°C
 (optional for -40 ~ 60°C)
Interfaces: 1 LAN RJ45 10/100Mbps
 2 LoRa antenna connectors
 1 GPS antenna connector
 1 3G/4G antenna (optional)
 1 SIM card slot (optional)
Features: Downlink LBT
 Packet forward mode
 Built-in LoRa network server
 Basic station mode

Pico Next Indoor Gateway



Model: L0006/L0007
LoRaWAN: LoRaWAN 1.0.3
LoRa Channels: 8
Band: US915/EU868/AS923/CN470/AU915/IN865
Size: 12 x 13.6 x 3.5 cm
Power Supply: DC 12V/1.5A-Power Adaptor
 DC 10 ~ 30V 3-Pin Connector
 Passive PoE 10 ~ 30V
Ingress Protection: IP30
Operating Temperature: -10 ~ 55°C
Interfaces: 1 WAN RJ45 10/100Mbps
 (w/ passive PoE capability)
 1 Reset button
 1 SIM card slot (2FF)
 1 DC jack in
 4 LED indicators
 1 LoRa antenna connector
 1 GPS antenna connector
 1 3G/4G antenna connector
 1 WiFi 2.4GHz antenna connector
Features: Downlink LBT
 Packet forward mode
 Spectral scan
 Basic station mode
 Local firmware upgrade



Outdoor Micro Gateway V2

Model: L0011
LoRaWAN: LoRaWAN 1.0.3
LoRa Channels: 8/16
Band: US915/EU868/AS923/CN470/AU915/IN865
Size: 27 x 19 x 8.5 cm
Power Supply: DC 55V/0.6A via PoE adapter
 (Microsemi PD-9001GR 802.11at)
 DC 12-18V DC JACK
Ingress Protection: IP67
Operating Temperature: -40 ~ 60°C
Interfaces: 1 LAN RJ45 10/100/1000Mbps
 2 LoRa antenna connectors
 1 GPS antenna connector (optional)
 1 3G/4G antenna connector (optional)
 1 Dual-SIM Card slot (2FF, optional)
 1 Reset button
 1 Debug port
 1 DC Jack
Features: Downlink LBT
 Packet forward mode
 Basic station mode
 Built-in LoRa network server

MerryIoT Edge AI Gateway



Model: L0009
LoRaWAN: LoRaWAN 1.0.3
LoRa Channels: Up to 8 concurrent channels
Band: US915/EU868
Size: 18 x 12.8 x 3.3 cm
Power Supply: DC Jack with wide range 9 ~ 36V
Ingress Protection: Indoor use
Operating Temperature: -20 ~ 60°C
Interfaces: 4GbE RJ45
 2 USB 3.0 (Type A)
 4 Gigabit LAN
 1 HDMI/DP
 1 RS-232
Features: FCC certification
 Intel® Atom™ E3950, Dual Core, 2M Cache, 1.8GHz
 Onboard 4GB DDR3L Memory, 64GB SSD Storage
 TPM 2.0 onboard IC
 OS SUPPORT: Windows 10 IoT (64-bit)/
 Windows 7 (32/64-bit)/Linux
 Support Listen Before Talk for downlink (optional)
 Support Helium Network
 Support background scan
 Support OTA and USB firmware upgrade

Sensor Series



Browan develops and markets a best-in-class portfolio of LoRa sensors, in terms of quality and reliability, sustainability and competitiveness, for vertical applications in smart office, smart city and the Internet of Things.

Features and Benefits

- Complying with latest LoRaWAN standard and regional parameters
- Integrated cutting-edge sensing solution and algorithm
- Flexible to connect legacy interfaces such as RS-485, 4-20mA or analog signals
- Configurable uplink time, detection period and threshold via downlink commands
- Optimized battery operation lifetime



Healthy Home Sensor (IAQ)

Model: TBHV110
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 50 x 20 x 50 mm
Sensor: Temperature & relative humidity sensor
Indoor air quality
Power Supply: 3.6V 1/2 AA Li-SOCI2 1200mAh battery
Ingress Protection: IP40
Operating Temperature: 0 ~ 50°C
Features: Fast response time
Direct indoor air quality (IAQ) index output



Temperature & Humidity Sensor

Model: TBHH100
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 50 x 20 x 50 mm
Sensor: Temperature & relative humidity sensor
Power Supply: 3.6V 1/2 AA Li-SOCI2 1200mAh battery
Ingress Protection: IP40
Operating Temperature: 0 ~ 50°C
Features: Temperature Accuracy: +/- 2°C
Humidity Accuracy: +/- 5%



Motion Sensor (PIR)

Model: TBMS100
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 50 x 20 x 50 mm
Sensor: Dual Passive Infrared detectors and Fresnel Lens
Power Supply: 3.6V 1/2 AA Li-SOCI2 1200mAh battery
Ingress Protection: IP50
Operating Temperature: 0 ~ 50°C
Features: Detection angle: 123°H x 93°V
Detection range: Max 7M



Ambient Light Sensor

Model: TBAM100
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 50 x 20 x 50 mm
Sensor: Optical sensor LTR-308ALS-WA16
Power Supply: 3.6V 1/2 AA Li-SOCI2 1200mAh battery
Ingress Protection: IP40
Operating Temperature: 0 ~ 50°C
Features: Wide dynamic range: 0.01 to 39K lux
20 bits measurement resolution



Sound Level Sensor

Model: TBSL100
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 50 x 20 x 50 mm
Sensor: MEMS microphone
Power Supply: 3.6V 1/2 AA Li-SOCI2 1200mAh battery
Ingress Protection: IP40
Operating Temperature: 0 ~ 50°C
Features: Measuring range: 40-100dB (A)
Frequency response: 100-10,000 Hz



Door & Window Sensor

Model: TBDW100
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 50 x 20 x 50 mm
Sensor: Hall-effect sensor
Power Supply: 3.6V 1/2 AA Li-SOCl2 1200mAh battery
Ingress Protection: IP50
Operating Temperature: 0 - 50°C
Features: Detection range: 1 cm
Configurable parameters via downlink



MerryloT Motion Detection

Model: MS10
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868
Size: 70 x 25 x 70 mm
Sensor: Dual Passive Infrared detectors and Fresnel Lens
Temperature & relative humidity sensor
Power Supply: 1.5V AA Alkaline battery (*2)
Ingress Protection: IP40
Operating Temperature: 0 - 50°C
Features: Detection angle: 123°H x 93°V
Detection range: Max 7M
Coverage test by pressing test button

Water Leak Sensor

Model: TBWL100
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 50 x 20 x 50 mm
Sensor: Combined with temperature, humidity, and water leak detection functions
Power Supply: 3.6V 1/2 AA Li-SOCl2 1200mAh battery
Ingress Protection: IP50
Operating Temperature: 0 - 50°C
Features: Detachable probe with micro USB connector



MerryloT Open/Close

Model: DW10
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868
Size: 90 x 28 x 40 mm
Sensor: Hall-Effect sensor
Temperature & relative humidity sensor
3-axis linear accelerometer
Buzzer
Power Supply: 3.6V 1/2AA Li-SOCl2 battery (*2)
Ingress Protection: IP40
Operating Temperature: 0 - 50°C
Features: Detection range: 1 cm
Built-in 3-axis accelerometer to detect any shock, vibration of abnormal movement
Coverage test by pressing test button

Object Locator

Model: TBOL100
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 50 x 13 x 50 mm
Sensor: GNSS module
3D MEMs accelerometer
Push button
Power Supply: 4.2V Lipo 540mAh rechargeable battery
Ingress Protection: IP64
Operating Temperature: 0 - 50°C
Features: Geo fencing
Motion/movement detection
Low battery alert



MerryloT Leak Detection

Model: WL10
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868
Size: 70 x 26.5 x 70 mm
Sensor: Water sensing probes
Temperature & relative humidity sensor
Buzzer
Power Supply: 1.5V AA Alkaline battery (*2)
Ingress Protection: IP67
Operating Temperature: 0 - 50°C
Features: Both water dripping and flood detection
Coverage test by pressing test button

Industrial Tracker

Model: TBIT100
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868/AS923
Size: 107 x 52 x 27 mm
Sensor: GNSS module
3D MEMs accelerometer
Hall effect sensor
Power Supply: 3.6V 1/2 AA Li-SOCl2 1200mAh battery (*2)
Ingress Protection: IP66
Operating Temperature: -20 - 70°C
Features: Activation by magnet
Geo fencing
Motion/movement detection



MerryloT Air Quality CO2

Model: CD10
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868
Size: 90 x 30 x 70 mm
Sensor: Innovated CO2 sensor
Temperature & relative humidity sensor
Buzzer
Power Supply: 3.6V AA Li-SOCl2 battery (*2)
Ingress Protection: IP40
Operating Temperature: 0 - 50°C
Features: Measurement range: 400 ppm - 10000 ppm
Accuracy: ±(30 ppm + 3%)
CO2 value LED indicators, activated by waving hand
Coverage test by pressing test button

Beverage Grade CO2 Tank Sensor

Model: L0010
LoRaWAN: LoRaWAN 1.0.3, Class A, OTAA
Band: US915/EU868
Size: 171 x 57 x 99 mm
Sensor: Hall linear sensor → For tank level readings
Hall effect sensor → For configuring/setup purposes
Power Supply: 3.6V type D Lithium battery
Ingress Protection: IP66
Operating Temperature: -30 - 55°C
Features: Activate Bluetooth for configuration via a magnet
Tank level monitoring
Wi-Fi scanning for positioning





About Browan

BROWAN COMMUNICATIONS is a professional wireless equipment company founded in 2002. The company is one of the Gemtek Group's companies that is focusing in leveraging the wireless technology Know-How accumulated over the years to address the emerging businesses of the Internet of Things.

BROWAN, focuses in the integration of wireless technology such as WiFi, BLE, LTE and LoRa to customize products for different multitude of customers in the vertical applications of IoT. Headquartered in Taiwan, BROWAN's innovative solutions combine proven, mature carrier/enterprise application integration technologies that are constructed upon a service-oriented and event-driven architecture.

BROWAN value proposition is to serve the IoT market from customized design services, consultative engineering and the commercialization of the products, to support our customers in applying our products to their IoT business plan and resulting to a sustainable and successful IoT network services.

IoT - Internet of Things

BROWAN Communications, as a Gemtek Group's Company, builds on the pioneering foundation of Gemtek's LPWAN venture and extensive wireless communication technology Know-How accumulated over the years, continue to provide state-of-the-art IoT end-to-end solutions and valued-added services to customers. BROWAN is unequivocally devoted to helping the world realize the vast potentials of an IoT world by offering competitive, comprehensive and compatible IoT products.

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