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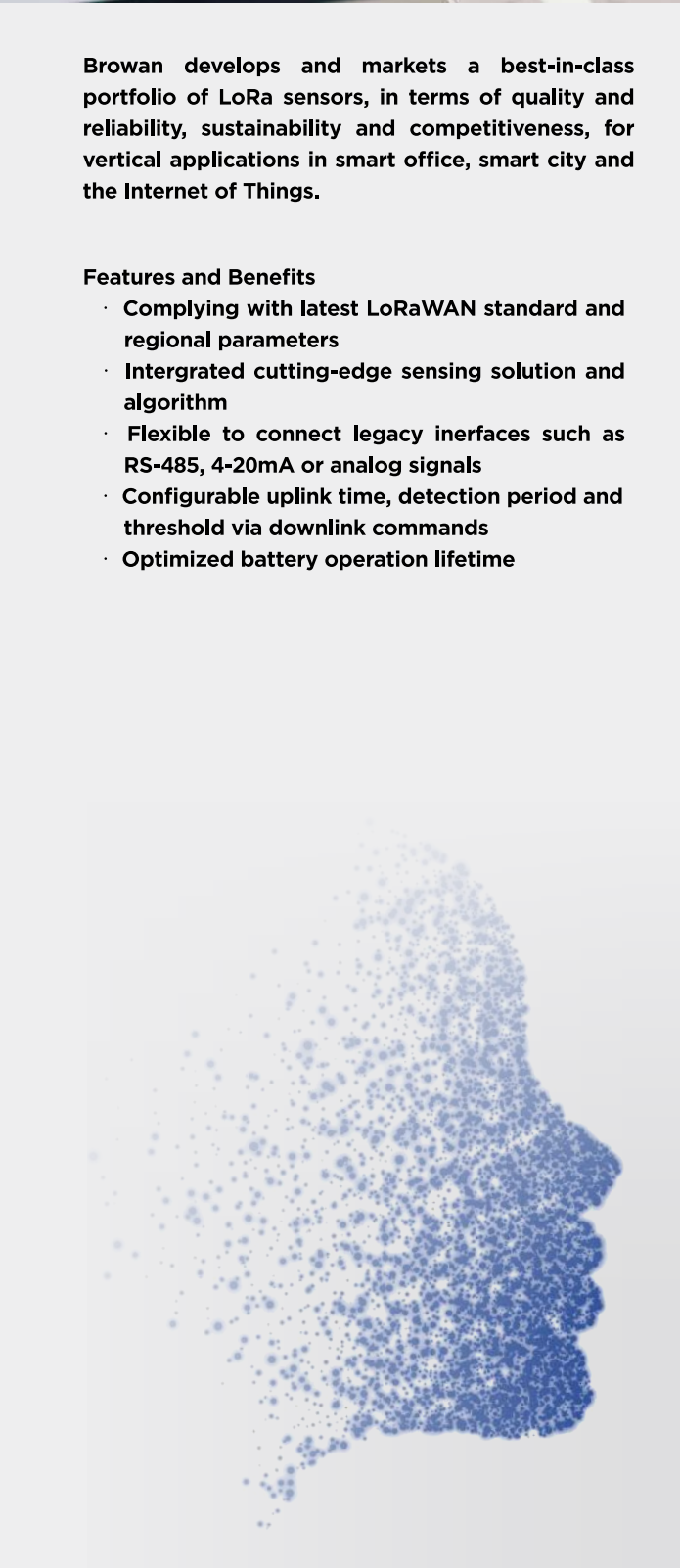
Brown develops and markets a best-in-class portfolio of LoRa sensors, in terms of quality and reliability, sustainability and competitiveness, for vertical applications in smart office, smart city and the Internet of Things.

Features and Benefits
· Complying with latest LoRaWAN standard and regional parameters
· Intergrated cutting-edge sensing solution and algorithm
· Flexible to connect legacy inerfaces 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•SOCl2 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•SOCl2 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•SOCl2 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•SOCl2 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•SOCl2 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

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

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

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

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

MerryIoT 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

MerryIoT 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

MerryIoT 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

MerryIoT 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

BROWAN

Browan
Communications Inc.

www.browan.com
Gateway & Sensor series products

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 connecor
Features: Downlink LBT
　　　　　Packet forward mode
　　　　　Built-in LoRa network server
　　　　　Basic station mode

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
　　　　　Changealbe power plug
　　　　　ESP32-DOWD byEspressif 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

Indoor Femto Lite V2

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

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 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 Bulit-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

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

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.