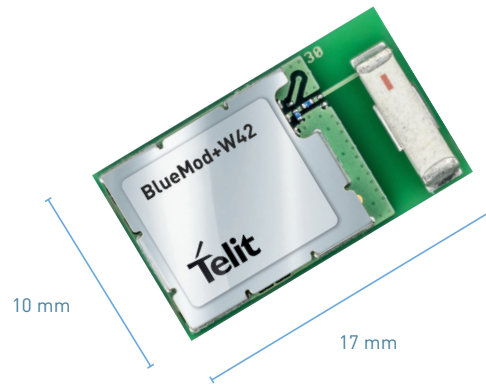


# BlueMod+W42

**Wirepas 2.4GHz Module**



## Product Description

BlueMod+W42 is the first Telit Bluetooth module embedded with Wirepas connectivity technology, an automated multi-hop, wide-area mesh network. This combination is ideally suited for large-scale industrial and infrastructure IoT applications such as smart meters and smart cities.

BlueMod+W42 provides a highly scalable, reliable wireless connectivity for IoT devices operating in the 2.4GHz ISM frequency band.

It is an automatic, self-configuring, self-healing (loop) and low power re-configurable network.

Mesh connectivity is fully de-centralised - all decisions regarding the most efficient use of spectrum are made locally by the networked devices, all nodes are able to route, multiple gateway can be considered in the same Network.

The local decision-making ensures that the devices always operates in a predictable manner, independent of the network size or the devices' locations within the network.

Example applications are:

- Electricity, water, gas meters
- Logistics, asset tracking
- Indoor/outdoor lighting
- Environmental sensing, preventive maintenance
- Smart building application

## Key Features

- Simplicity - Devices are the network!
- Unlimited Network Scale and Coverage
- Fully automatic - Zero configuration
- Spectrum use: Adaptive frequency and power
- Self-healing network (Loop network topology)
- Secured connections
- Over-the-air update
- Industrial temperature

## Family Concept

The BlueMod+W42 is pin to pin compatible with Bluetooth Low energy modules, BlueMod+S42 (BLE4.2) and the BlueMod+S50 (BLE5).

### AVAILABLE FOR

- [EMEA](#)
- [North America](#)
- [APAC](#)
- [Australia](#)

### Combine your BLE module with

Cellular modules



GNSS modules



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### Complete, Ready to Use Access to the Internet of Things



## BlueMod+W42

### Features and Benefits

Multi-gateway with load balancing:

- Extend system capacity easily

All devices can route:

- Every device is a potential connection point to the network

De-centralized operation

- All decisions are made locally
- Functionality is independent of network size

Synchronized TDMA + FDMA

- Efficient spectrum usage
- High device density

Multi-hop communication

- Extend coverage easily

Self-healing network

Built-in positioning capabilities

### Environmental

- 48 LGA pads
- Length x Width x Height: 10 x 17 x 2.5mm  
890 Form Factor
- Temperature Range: -40 to +85°C
- Antenna: Integrated Ceramic antenna  
(1.8dBi)

### Peripherals

- UART: default 115, 200 bps.
- I2C, SPI, PWM, ADC

### Approvals

- Red certification

### Electrical & Sensitivity

Power supply: 1.8v to 3.6v

RF Power & Sensitivity:

- TX power: up to 5 dBm
- Receiver Sensitivity: -94 dBm

Power Consumption:

- Average consumptions: 10µA
- Shutdown: typ 1 µA

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