

## 1. Introduction

Thank you for purchasing this WiFi to MQTT LPRS eRIC gateway. The purpose of this device is to relay data collected via eRIC powered radio devices to your cloud service via WiFi to an MQTT broker. Before beginning installation, please ensure the following are in place:

- A. An MQTT broker (LPRS can offer for a low subscription cost – please contact us to discuss if required).
- B. A power socket.
- C. A local WiFi network to connect to.
- D. This gateway will only parse data preceded & closed by curly brackets; other data will be ignored.
  - { = Start character.
  - } = End character.Example data string:      {Yoursensordevicepayloadinheretoamaxiumof178bytes}

## 2. Provisioning

- 2.1 Power up the gateway by plugging in the power supplies USB cable.  
**Please note:** For security reasons, the gateway allows settings to be changed for 5 mins after each power up.
- 2.2 Using your PC, smartphone or tablet, find & select “Orbit” in your devices’ WiFi settings.
- 2.3 In your devices’ web browser type the address **10.123.45.1** or **lprsgateway.com** to open the Orbit gateway internal configuration webpage dashboard.
- 2.4 Navigate to the “MQTT Settings” tab & click “View” to display any pre-stored MQTT settings.
- 2.5 Using the orange column on the left enter your MQTT brokers credentials in the Hostname, Port Number, Topic & Client ID fields (if you don’t have a Topic & Client ID just enter any text).  
**Please note:** After entering each of the MQTT credentials, click each “Apply” button to save. If each “Apply” isn’t clicked the settings will not be saved.
- 2.6 Once all your credentials have been successfully entered and applied, click the “Save” button. Clicking the “View” button will display the newly saved credentials.
- 2.7 Next select the “Orbit Station Configuration” tab to select the WiFi network you wish the gateway to connect to. Ensure any network specific security types are set including the security key and/or password of the WiFi network. Save these settings by selecting “Add”.
- 2.8 Orbit will now restart & be automatically assigned an IP address by your WiFi network (usually beginning with 192.168...).
- 2.9 Reconnect your PC, smartphone or tablet to the same WiFi network the Orbit gateway is now connected to and enter in any web browser “lprsgateway.com” or the IP address assigned by your WiFi network, to display the gateways internal configuration webpage.
- 2.10 To complete the setup restart the Orbit gateway by powering off then on (please wait 10 seconds before powering back on).

### 3. Default LoRa Settings

To send data from sensors to the gateway, please ensure the following credentials are matched in your device:

Group ID:	2222
RF channel:	2
Frequency:	869.85MHz
Bandwidth:	250kHz (B1)
Spreading Factor:	10 (s4)

### 4. Diagnostics

The LED's on the Orbit gateway provide a quick glance into the operation of the device.

There are 3 banks of 4 x LED's to show:

S = **Status** LED's, will blink when connected to WiFi & MQTT broker.

R = **Receive** Each Orbit gateway can be supplied with 1-4 eRIC modules. Each LED represents 1 receiving eRIC. LED's will blink each time data is received.

T = **Transmit** Each Orbit gateway can be supplied with 1-4 eRIC modules. Each LED represents 1 transmitting eRIC. LED's will blink each time data is received.

### 5. Technical Support

Thank you again for purchasing this gateway and for making LPRS part of your IoT solution.

We hope you enjoy using your new gateway, if you have any questions, need technical support or have any suggestions please contact us directly via the below.

Kind Regards

The LPRS Team



Low Power Radio Solutions Ltd.

Tel: +44 (0)1993 709418

Two Rivers Industrial Estate

Fax: +44 (0)1993 708575

Station Lane, Witney

Web: <http://www.lprs.co.uk>

Oxon, OX28 4BH

Email: [info@lprs.co.uk](mailto:info@lprs.co.uk)

England

Technical: [technical@lprs.co.uk](mailto:technical@lprs.co.uk)