



MRG-W01

WiFi Radio Gateway

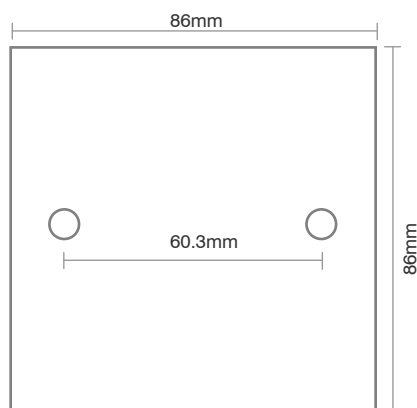
Main IDRANet



© IDRATEK LTD
w: www.idratek.com

The information in this document is provided for guidance only. IDRATEK Ltd reserve the right to make any necessary changes, without notice, in order to improve the quality of their products.

The MRG-W01 module provides a WiFi radio gateway to the main Cortex connected IDRANet network. It allows radio connectivity to other remote network segments via complimentary BRG-W01 bridging modules, and/or direct connectivity to singular WiFi based IDRATEK modules. The IDRANet protocol is translated across the radio connections (IDRANet Over The Air – IOTA), such that modules on remote networks can be operated by Cortex as if they are on the main network. Also Reflex functions are able to traverse the radio connections. An IOTA over MQTT feature is also available, which allows communication via an MQTT broker to remote modules or subnets and also for 3rd party integrations. Note: IDRANet Audio connectivity is not implemented at this time. The module can also act as a micro router such that radio bridging can be implemented without any other router involved. However this is limited to 4 connections so mainly of value if bridging one or two network segments rather than multiple singular modules.



Radio

- WiFi IEEE 802.11 b/g/n 2412 - 2484MHz (2.4GHz band) FCC/CE
- Sensitivity: up to -90dBm
- Transmit power: up to 16dBm nom.
- WEP/WPA-PSK/WPA2-PSK
- Station and Access Point operating modes (note: currently TKIP only in AP mode)

Communications & Functional

- IOTA-WiFi (IDRANet Over The Air) UDP protocol for direct integration into IDRATEK Cortex managed systems
- IOTA via MQTT allows wider and 3rd party spanning integrations
- All above can be individually enabled or disabled
- Can operate as Access Point serving up to 4 connections
- Station mode allows conventional connection to 3rd party router
- On board Web server user interface (configuration direct to module via standard browsers)
- Over the Air firmware updates (requires connection to internet)
- WiFi, IDRANet and power status indicator LEDs

Electrical

- Operating voltage 12-15V DC (Derived from IDRANet)
- Current consumption 30mA avg.

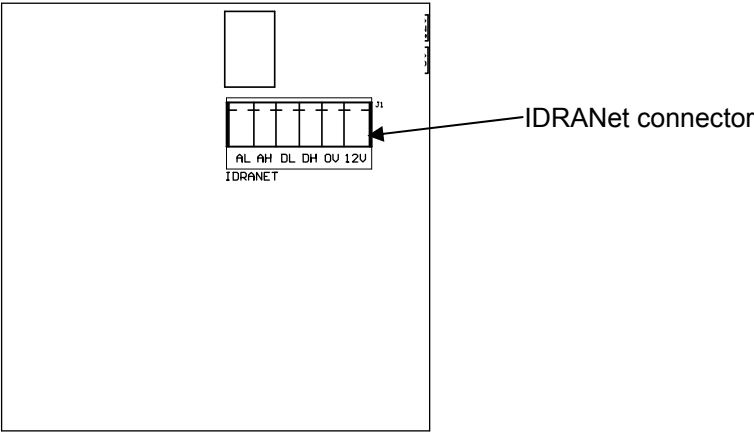
Environmental

- Operating temperature -10°C to +40°C
- Operating humidity 5% to 85% (non-condensing)

Mechanical

- Designed to fit UK standard 35mm deep electrical pattress
- 60.3mm fixing centres using standard M3.5 screws

Module Connections



Example connectivity

