

710-series, Celebes

IoT Wireless Gateway with GPIO



Ordering Information

Product Code	Definition
F2M710-WLP1S-2P	710-series with 2.5 dBi antennas and PoE adapter included in shipment
F2M710-WLP1S-2	710-series with 2.5 dBi antennas included in shipment

Product Overview

Free2move's 710-series is a high performance Industrial IoT gateway ideal for managing wireless and wired intelligent sensor and actor networks.

Designed for operational simplicity to lower total cost of ownership, apart from scaleable IoT and sensor networks, it enables RFID and Bluetooth communications. The 710 series supports operations in either Masternode/Fog or Cloud mode with open interfaces such as Web, MQTT, Modbus and BACnet.

The 710 series is suitable for both indoor and outdoor deployment. It provides rich I/O options and built-in reference sensors.

Product Features

- Gateway for wireless and wired sensors and actuators.
- Dual Nordic Semiconductor nRF52, with built-in 32-bit ARM® Cortex™-M4F CPU.
- Multi-technology software stack support: FRAP and Bluetooth Smart.
- Masternode/Fog and Cloud solution support.
- Long range (101 dB link-budget) with up to 100 metres Line of Sight (LoS) range.
- High sensor density management (100s of devices per second).
- Built-in web server for local login, storage and application execution.
- RS-485 serial interface.
- 4 isolated digital in/out.
- On-board sensor reference.
- Suitable for both outdoor and indoor use.
- Open Linux OS.



Product Specifications

Radio

Frequencies	2.40 – 2.485 GHz, GFSK
Output Power	Max 2.5 mW, 4 dBm EIRP
Range	< 100 m LoS
Acquisition rate	100 packets / sec
Radio mode	Beacon mode, Listening mode or Bluetooth mode
Ports	2 ×SMA antenna ports

Device System

Supported air protocols	FRAP, Bluetooth Smart
Operating system	Linux
Host Interface	Ethernet LAN
Security	- Seclusion code (FRAP) - Multi-level access codes (FRAP & Bluetooth) - AES128 (FRAP & Bluetooth) - LE Secure Connections (Bluetooth)

Standards & Certification

CE	Certified
EMC safety	EN 60 950-1 / IEC 60 950-1
EMC immunity	EN 61 000-4
EMC emission	ETSI EN 300 328, ETSI EN 301 489-17
Manufacturing	ISO 9001, ISO 14001, RoHS, REACH

Power

Principal power	PoE 802.3 af/at compliant power
Optional power	9 – 30 V
Power consumption	2.8 – 3 W
Current consumption	Max 450 mA

Sensors, User interface and I/O

GPIO	2 × isolated inputs, 2 × isolated outputs, connections for individual external references, RS-485
Light Indicators	4 used for Power, Event, Alert and LAN traffic
On-board sensors	Temperature, Humidity, Barometric pressure/Altitude

Physical

Size/Weight	180 × 150 × 61 / 570 g
Enclosure	IP66, ASA+PC (UL94 V-O)
Operating temperature	- 20°C to 70°C

