RedWave

RFID GLOBAL by SOFTWORK

ID RED.SGU102.FLY Slim UHF Cloud Gate

RedWave Slim Gate RFID UHF EPC SmartFly Web Cloud Device with CPU & I/O.
Gate Solution: pair of antennas.

Models:
ID RED.SGU102.FLY-E. (P.N. 9916-550-82)
ID RED.SGU102.FLY-W. (P.N. 9916-554-82)
ID RED.SGU102.FLY-M. (P.N. 9916-556-82)

Powered

OBID® OBID i-scan® **by** FEIG ELECTRONIC

Features

- Operating frequency: 860 to 960 MHz (software adjust).
- Standard: UHF - EPC Class 1 Gen 2 - ISO 18000-6C.
- Gate Solution: pair of antennas multiplexed.
- Host Interfaces: Lan Ehetrnet, WiFi or Mobile GSM/GPRS.
- RF power: 50-500 mW (software configurable).
- Power consumption: max. 2 W.
- Dimension (HxWxD): 1530 x 263 x 54/127 (top/base) mm.
- Reader modes: FEIG ISO Host Mode, Direct Lan Scan Mode, Lan/Internet Notification Mode (TCP).
- Web Cloud Device: Web Server for configuration via Internet browser.
- Standard Firmware feature: Tag on presence (3 output), Trigger wake-up based on 2 inputs.
- Real Time Clock/Calendar with battery. Slot for Micro SD memory card.
- Anti-collision.
- Firmware upgradable (Flash-EEPROM).

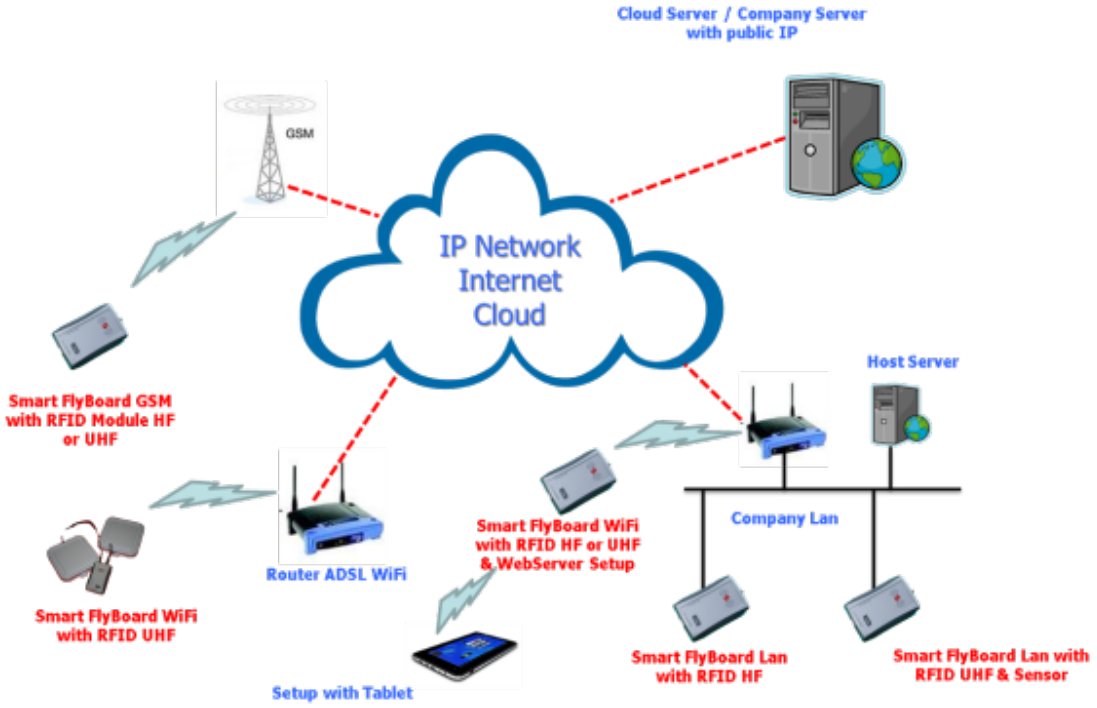
Benefits

- Elegant, small size & low cost Slim Gate UHF.
- Read Range up to 225 cm (depending on model, tag & physical environment).
- Easy Installation.
- Same protocol of all FEIG's controllers (HF & UHF)

Applications

- Access control.
- Track & Trace for goods (retail, fashion, etc..).
- Library and booking systems.
- Document management.
- And many other…

Scenarios of RFID Device based on the RFID RedWave Smart FlyBoard



All RFID Device based on the ***RFID RedWave Smart FlyBoard*** are available in 3 versions (Lan, WiFi, GSM/GPRS), specifically projected and produced for RFID OBID Controller HF & UHF of FEIG Electronic. The RFID RedWave Smart FlyBoard is equipped with CPU processor & I/O, so that it helps to create flexible RFID architecture, operating in both frequencies (HF and UHF), building them like “LEGO bricks” according to the specific needs of the RFID project.

External connector JP3 for I/O (RJ50 – 10 wire)

Lan Ethernet version

Wi-Fi & Mobile GPRS versions

PIN	Pin Name	Description
1	JP3-1	Digital Output 1.
2	JP3-2	Digital Input 1.
3	JP3-3	Digital Input 2.
4	JP3-4	Digital Input 3.
5	JP3-5	GND
6	JP3-6	Digital Input 4.
7	JP3-7	Digital Output 2.
8	JP3-8	Relay NO
9	JP3-9	Relay COM
10	JP3-10	Digital Output 3.

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Functionality

RedWave Slim Cloud Gate UHF - ID RED.SGU102.FLY

Standard Firmware

Standard firmware provided for Smart Flyboard provides:
- TCPI/IP interface for host connection
- Web interface for host configuration

The Smart Flyboard, with the standard firmware, extends the base functionality of the RFId reader connected adding the following functionalities:
- Further Inputs / Outputs
- New features (notification mode, dataset with time stamp, …)
- Internal Real Time Clock with battery to avoid loose of time information when the power is down.
- Web interface for configuration

TCPI/IP interface host application can send/receive:
Configuration command (power setting, active antennas, UHF sessions, …)
Standard transponder command (inventory command, read/write command, custom transponder command, …)
Custom configuration command
Custom notification transponders data

The OBID standard configuration and transponder commands are all the commands that internal connected reader supports. These commands support the standard FEIG Electronic protocol.
Custom and configuration commands are the extended commands provided by firmware and let you use the advanced settings for Smart Flyboard.

Custom Firmware

Standard firmware guarantees the fundamental general purpose functionality needed in a classic RFID system anyway, if standard firmware doesn't suit specific customer requirements, a custom firmware can be developed to support any specific needs.
Realizing a new firmware let the customer to redefine all the inputs and outputs channels, and provides following interface: SPI, I2C, UART, Digital Inputs/outputs, …
Customer specific firmware can also developed using the on board web server to provide a web based interface.

Smart Flyboard custom firmware can be realized by mean a free Open Source IDE called 'Open Picus Flyport'. The IDE let you easy develop custom application using c++ language based on Microchip C30 compiler.
Flyport high level libraries are provided to let you develop application also without knowing the hardware specific registers values of pic.
High level libraries let you simply handle:
- TCP channels
- UART connection
- I2C, SPI
- Digital Input output
- Analog input output
- ….

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Technical Data

RedWave Slim Cloud Gate UHF - ID RED.SGU102.FLY

	ID RED.SGU102.FLY-E	ID RED.SGU102.FLY-W	ID RED.SGU102.FLY-M
Host Communication	Ethernet RJ45 (10/100).	Wireless Ethernet 802.11 b/g/n	Mobile (GSM/GPRS)
Housing	Plastic ASA & Alluminium		
Colour	Gray (More colours available on request)		
Dimensions (HxWxD)	1530 x 263 x 54/127 (top/base) mm. (metal base not included).		
Protection class	IP 32		
Weight	Approx. 10 Kg (for each gate)		
Power supply	12 VDC +/- 10% @ 2500mA (included).		
CPU	16 Bit Microchip PIC24FJ microcontroller 16Mips@32Mhz, 256K Flash, 16K Ram.		
Operating frequency	860 to 960 MHz (software adjustable). UHF - EPC Class 1 Gen 2 - ISO 18000-6C.		
Output Power	From 50 to 500 mW (software adjustable).		
Input/Output & Signal	4 x digital input, 3 x digital output, 1 x output relay 24V @ 1A Optical Led Strip & internal buzzer.		
I/O Internal connectors	MiniUSB for Firmware upgrade & debug. 4 x digital input, 4 x digital output (only Ethernet version). 1 x buzzer, 1 x Led bicolor, 1 x SPI interface, 1 x I2C Interface.		
Power consumption	Typical: 400 mA - Max 2 Amp		
RFID Features	Anti-collision. Read Performance: 25 tags per second Read Range: Up to 180 cm. (depending on tag & physical environment)		
Other Features	Real Time Clock/Calendar with battery. Slot for Micro SD memory card.		
Antennas	2 x integrated multiplexed – Gain 4,0 dBic.		
Temperature range	Operation: -10° C up to 55° C - Storage: -20° C up to 85° C		
Standard Firmware & Reader modes	On board OBID FEIG management protocol. Protocol Modes: FEIG ISO Host Mode, direct Lan Scan Mode, Lan/Internet Notification Mode (TCP). Dataset with time stamp. Trigger wake-up (2 inputs), Tag on presence (3 Outputs). Possibility of custom applications (on request)		
Configuration mode	Low-level commands, Client Application or via On Board Web Server (Internet Browser)		
Options	Black Metal Base (P.N. 9916-860-90)		
Radio license	Europe EN 302 208 - USA FCC 47 CFR Part 15		
Compliance	EMC EN 301 489 - Safety EN 60950		

Authorized Dealer

About us

Softwork is Value Added Distributor (VAD) of RFID Technologies (physical layer), targeting resellers named Channel Partner.
The production of its own customized devices thanks to the R&D Dept., the experience gained in such field by a team of project managers and by a network of certified resellers guarantee Softwork RFID leadership all over Italy and in the different application areas.

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