RedWave

ID RED.PR80.FLY RFID HF Cloud Reader

RedWave Reader RFID HF MultiISO SmartFly Web Cloud Device with CPU & I/O, integrated antenna. Ethernet, WiFi, GSM/GPRS

Models:
ID RED.PR80.FLY-E. (P.N. 9916-550-10)
ID RED.PR80.FLY-W. (P.N. 9916-554-10
ID RED.PR80.FLY-M. (P.N. 9916-556-10)

Powered

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

Features

- Operating frequency: 13,56 MHz.
- Standard HF: read/write ISO15693, ISO14443-A/B & NFC.
- Host Interfaces: Lan Ethernet or WiFi or Mobile GSM/GPRS.
- CPU:16 Bit microcontroller 16Mips@32Mhz, 256K Flash, 16K Ram.
- Internal antenna for a wide range of applications.
- RF power 250 mW +/- 2 dB.
- Power consumption: max. 1,5 Watt.
- Dimension (HxWxD): 121.9 x 78.7 x 33 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).

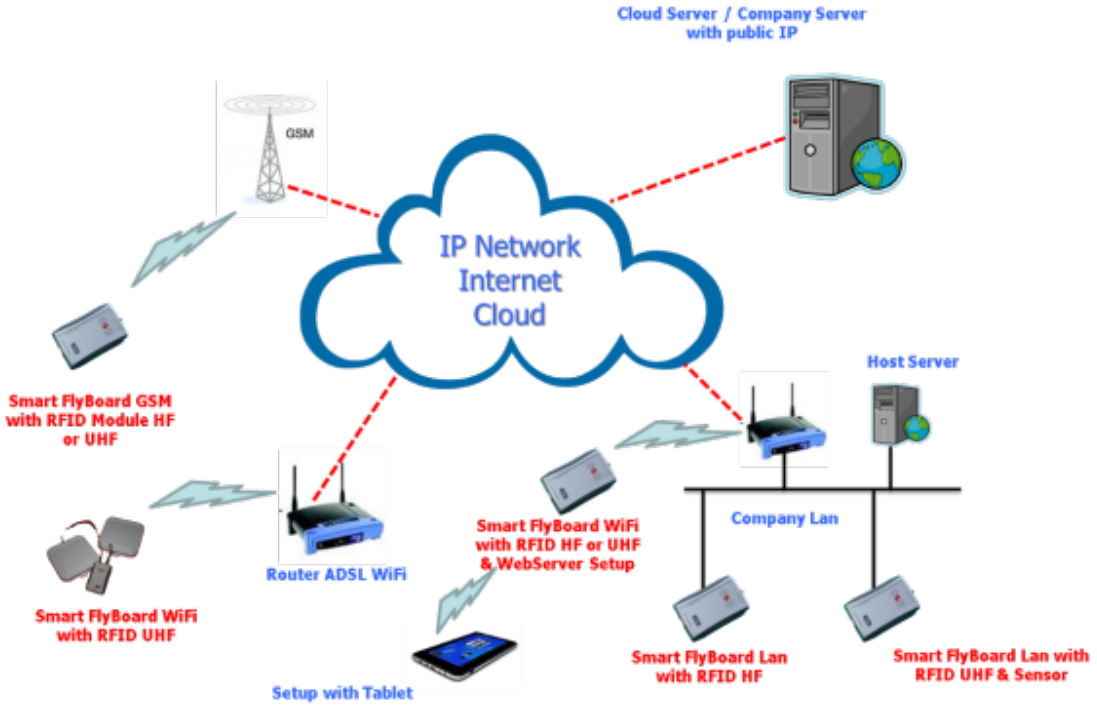
Benefits

- Elegant, small size, low cost & intelligent smart proximity HF Controller.
- Internal antenna for a wide range of applications.
- Easy Installation.
- Same protocol of all FEIG's controllers (HF & UHF)

Applications

- DeskTop and Mobile applications.
- Access Control, Autentication & Security, ePayment, eTicketing, Public Transport, Loyalty & Fidelity, POS Terminals and booking systems.
- Industrial short range applications.
- Track & Trace for goods (retail, fashion, etc..).
- Item level tagging. 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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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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RFID GLOBAL by SOFTWORK

Technical Data

RedWave RFID HF Cloud Reader - ID RED.PR80.FLY

	ID RED.PR80.FLY-E	ID RED.PR80.FLY-W	ID RED.PR80.FLY-M
Host Communication	Ethernet RJ45 (10/100).	Wireless Ethernet 802.11 b/g/n	Mobile (GSM/GPRS)
Housing	ABS-94HB		
Colour	Gray with Dark Gray Rubber Sides		
Dimensions (HxWxD)	121.9 x 78.7 x 33 mm.		
Protection class	IP 30		
Weight	About 150 g (without external antenna)		
Power supply	12 VDC (+/- 5 %) external power supply		
CPU	16 Bit Microchip PIC24FJ microcontroller 16Mips@32Mhz, 256K Flash, 16K Ram.		
Operating frequency	13,56 MHz.		
Air-interface Protocols	HF ISO 18000-3 - read/write ISO15693, ISO14443-A/B & NFC (ISO 18092) memory and processor cards		
Output Power	250 mW +/- 2 dB		
Antenna	Integrated		
Input/Output & Signal	4 x digital input, 3 x digital output, 1 x output relay 24V @ 1A 1 x Led bicolor & 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 SPI interface, 1 x I2C Interface.		
Power consumption	Typical: 400 mA - Max 2 Amp		
RFID Features	Anti-collision. Read Range: Up to 10 cm. (depending on tag & physical environment)		
Other Features	Real Time Clock/Calendar with battery. Slot for Micro SD memory card.		
Temperature range	Operation: -20° C up to 65° 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)		
Radio license	Europe EN 300 330 - USA FCC 47 CFR Part 15		
Compliance	EMC EN 301 489 - Safety EN 60950		

Authorized Dealer

About us

RFID Global by 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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