

RED.FlyBoard - RedWave Smart FlyBoard for RFID OBID Controller HF & UHF with CPU & I/O Ethernet, WiFi, GSM/GPRS



OEM Developer Smart Board (Lan, WiFi, GSM/GPRS) for RFID OBID Controller HF & UHF with CPU processor & I/O. Compatible with



by



Build your own combination like «Lego» bricks, in HF & UHF

36 combinations RFID & Host Communication, ready to use:

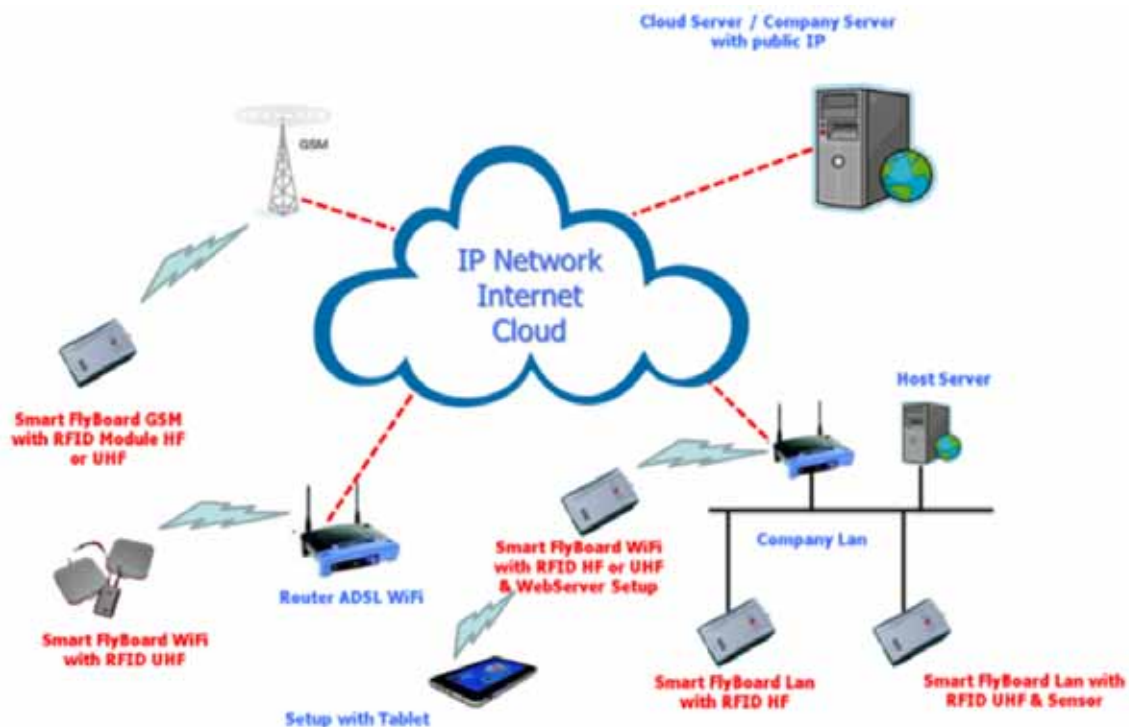
- Sales corner, temporary store & retail.
- Social network – FaceBook Like Machine
- Internet of Things
- Remote RFID controller with sensor
- Stand-alone solutions (smart parking, remote smart shelf, etc.)
- Industrial & process management with I/O
- Building automation

Everywhere smart device at competitive price is requested!

- **Smart Board:** CPU 16 Bit Processor 16Mips@32Mhz, 256K Flash, 16K Ram.
- **3 version of Smart Board:** Lan (10/100 Base-T Ethernet) – WiFi (802.11 b/g/n) - GSM/GPRS.
- **3 possible TTL OEM OBID controller:** HF (CPR.M02.VP/AB - CPR40.0x-CD/UCD), UHF (ISC.MU02.02-CU)
- **9 possible RS232 OBID controller:** HF [CPR40.30-A - CPR02.10-AD - ISC.PR(M)101-A - ISC.MR(M)102-A - ISC.MR(M)200-A] - UHF [ISC.MRMU102-A - ISC.MRU200-x - ISC.MRU200i-x]
- **Input/Output on external RJ45:** 4 x digital input, 3 x digital output, 1 x output relé
- **Internal I/O & interface:** 4 x digital input (only Lan Board), 4 x digital output (only Lan Board), 1 x buzzer, 1 x Led 3-color.
- **Internal BUS:** 1 x SPI interface (Serial Peripheral Interface), 1 x I2C Interface.
- **Other Features:** Real Time Clock/Calendar with battery. Slot for Micro SD memory card.
- **Configuration mode:** low-level commands, client application and via on-board Web Server.
- **On Board Firmware:** on board OBID FEIG management protocol, possibility of custom applications.
- **Protocol Modes:** FEIG ISO Host Mode, Direct Lan Scan Mode, Lan/Internet Notification Mode (TCP).
- **Other Standard Firmware feature:** Tag on presence (3 output), Trigger wake-up based on 2 inputs.
- **MiniUSB** for Firmware upgrade & debug.
- **Phisical Data:** dimension (wxhxd) 77,5 x 122,4 x 33,5 mm – weight approx.. 150 g.



- **Solution ready to work:** thanks to our preloaded standard firmware and the 3 available FlyBoard versions, many OBID HF / UHF devices can be directly connected (including power), both module (TTL) and RS232. In this case the FEIG standard commands are transferred to the RFID controller, while I/O commands are developed by the Smart FlyBoard.
- **Customized Firmware Development:** C language & Open IDE allow to create “vertical” solutions with intelligence on board and connections to host server via internet (cloud). All this means new products / solutions with quick time-to-market also for limited quantities.
- **Communications feature:** HTTP customizable webserver (any browser becomes the user interface), TCP/UDP (Send/recieve data over internet), FTP Client (save data to a remote FTP server), SMTP (Smart FlyBoard can send an email), SNTP (Get Date/Time from the Internet)
- **Control your device from anywhere** - Web Server on Board for configuration and management of the board and the RFID controller.
- **Real Time Clock/Calendar with battery:** date and time can be transmitted to the host with the data of the read tag.
- **Micro SD memory card:** mass memory for data collection log and/or sensor data.
- **4 x digital Input:** photocells detection, push botton, etc. – Trigger RFID wake-up.
- **3 x digital Output:** led, buzzer, device activations, etc.
- **1 x Output relé:** activation of door, barrier, turnstile, indicator etc.
- **Bus SPI & I2C:** sensor (temperature, umidity, motion, etc.), OLED display, etc.
- **Remapping of I/O:** other TTL device (barcode, RFID, etc.), analog I/O, etc



RED.FlyBoard-E

RedWave Smart FlyBoard Ethernet for RFID OBID Controller HF & UHF with CPU & I/O. (P.N. 9916-550-00)



RED.FlyBoard-W

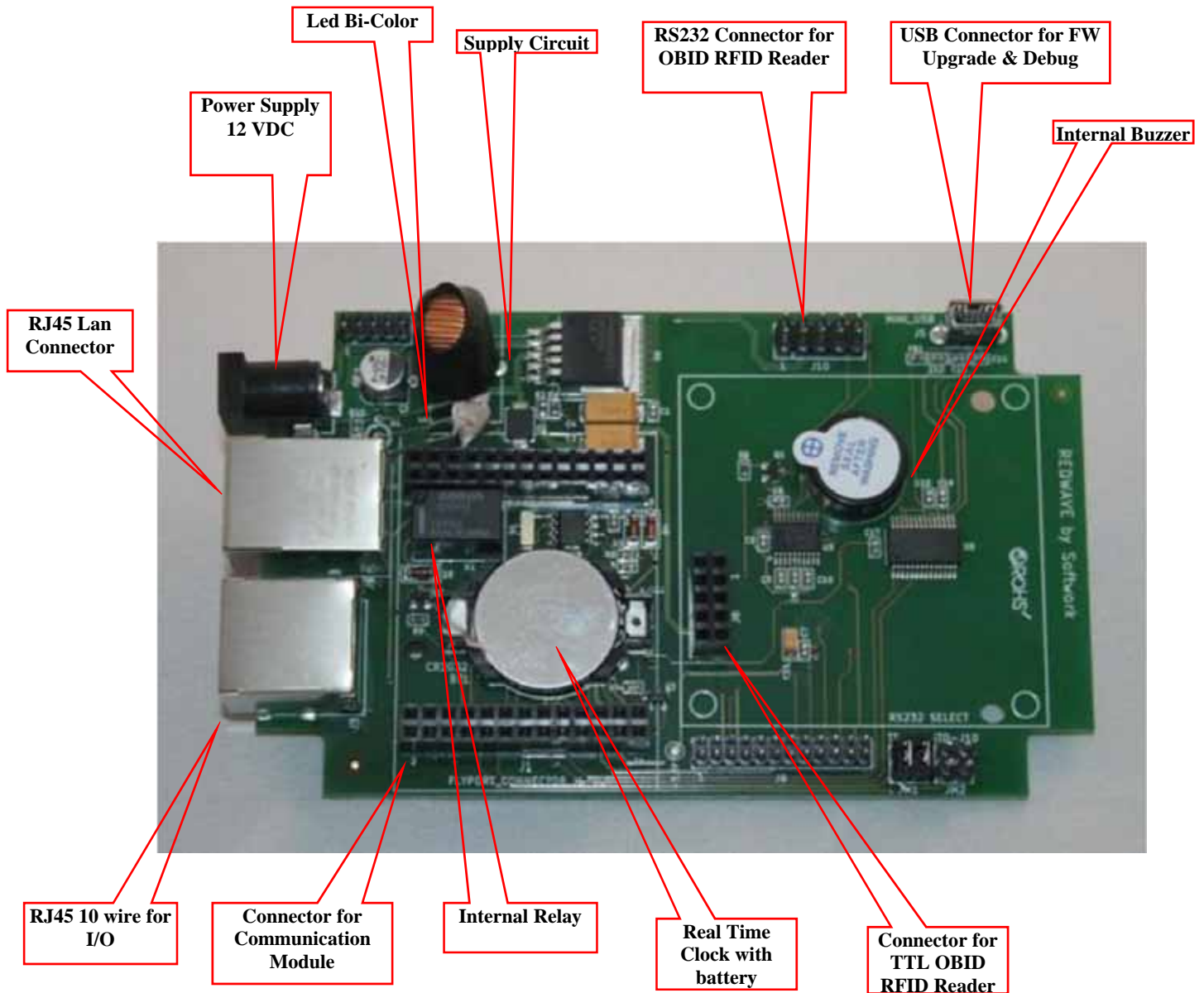
RedWave Smart FlyBoard WiFi for RFID OBID Controller Hf & UHF with CPU & I/O. (P.N. 9916-554-00)



RED.FlyBoard-M

RedWave Smart FlyBoard Mobile (GSM/GPRS) for RFID OBID Controller Hf & UHF with CPU & I/O. (P.N. 9916-556-00)





Technical Data

RedWave Smart FlyBoard - RED.FlyBoard

	RED.FlyBoard-E	RED.FlyBoard-W	RED.FlyBoard-W
Housing	OEM Version (no box).		
Dimensions (HxWxD)	77,46 mm x 122,4 mm x 33,53 mm (PCB board)		
Protection class	None		
Weight	approx. 150 g.		
Supply Voltage	12 VDC +/- 10% @ 2500mA (not included)		
CPU	16 Bit Microchip PIC24FJ microcontroller 16Mips@32Mhz, 256K Flash, 16K Ram.		
Host Communication	10/100 Base-T Ethernet RJ45	Wi-Fi 802.11 b/g/n.	GSM/GPRS with uFL antenna connector (antenna not included).
External connectors	Power connector RJ45 (8 Pin) Lan RJ50 (10 Pin) IO Signal	Power connector RJ50 (10 Pin) IO Signal	Power connector RJ50 (10 Pin) IO Signal
I/O on external RJ50 connector	4 x digital input, 3 x digital output, 1 x output relay 24V @ 1A		
I/O Internal connectors	MiniUSB for Firmware upgrade & debug. 4 x digital input, 4 x digital output (only RED.FlyBoard-E version). 1 x buzzer, 1 x Led bicolor, 1 x SPI interface, 1 x I2C Interface.		
Signal	1 x buzzer, 1 x Led bicolor		
Other Features	Real Time Clock/Calendar with battery. Slot for Micro SD memory card.		
Operating frequency	HF (13,56 MHz) or UHF (860 to 960 MHz) – depend by OBID Reader		
Interface for OBID RFID FEIG controller	HF & UHF: internal TTL (5V) or RS232 (12V) with supply voltage.		
Power Consumption without reader	approx. 180 mA	approx. 150mA	approx 180mA max 2 Amp
Temperature range	Operation: -10° C up to 55° C - Storage: -20° C up to 65° C		
Standard Firmware	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		

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.