

Overview

The **OXILR/A** is a receiver used with control unit fitted on systems for the automation of gates, garage doors and road barriers.

When a bidirectional transmitter transmits a command, the receiver recognizes and it transmits the confirmation that the command has been executed. On the bidirectional transmitter, the confirmation is indicated by the vibration and the color of the LED.

The OXILR/A's directly powered from the control unit at 5V.

Description of the product

The circuit consists of:

- A microcontroller U1 (R5F100AGASP) that implements the application functions and communication protocols. The internal oscillation clock is set to 32 MHz. It's directly powered from the control unit at 5V.
- A transceiver U3 (SX1276) that handles the radio channels with LORA modulation (915MHz band). An external 32MHz oscillator is used to generate the incoming clock signals. Matching components and filter are used between antenna and transceiver. The aerial supplied is connected to the J1 terminal.
- A linear LDO regulator Q1 (AZ1117E) to supply the transceiver at 3.3V.
- A bi-color LED to inform the user of the programming status; LED changes colour to indicate the currently selected function.
- A push button to manage the memorization/deletion of transmitters and select functions.
- An electrically erasable PROM U2 (24LC64MSOP) in which to memorize transmitters
- The board is connected to the control unit by inserting the connector J1 ("SM" type) in the relative control unit connector.
- Max nominal RF power: 8.4dBm
- Antenna: whip 170mm
- Peak gain whip antenna: 0dBd
- Tune-up tolerance: -1.5dB / +0.5dB
- According to KDB 353028 D1, antenna are consider for:
 - c) Professional installation
 - i) in the instruction: "This device must be professionally installed"
 - ii) use only the antenna associated to the product. This is specified in the instruction
 - iii) professional installation
 - 1) Only for professional installer
 - 2) Product sold only to authorized installer
 - 3) Nice sold only for professional installer
 - 4) Nice organize the training to professional installer to use correctly the product