

# ARF868 ULR & LR Radio modems

## Highlights

- Range up to 20km
- 19 channels @27dBm
- +500 channels @14dBm
- Immediately usable
- RF data rates from 2.4 to 57.6kbps
- RS232/RS485 serial port or USB
- Autobaud function



**ARF868s** are new generation of radio modems that can be used to transmit bidirectional Half-Duplex wireless data for up to 20km.

These 500mW products are available in two versions:

- **ARF868 ULR** (Ultra Long Range) with a range of up to 20km.
- **ARF868 LR** (Long Range) with a range of up to 7km.

Operating on the 863-870 MHz frequencies, these modems are **certified and can be used without a licence**.

In order to ensure simple and fast implementation, ARF868s are equipped with a unique DB9 connector incorporating automatic type (RS232/RS485) and data rate (Autobaud) recognition. An optional Serial-USB bridge is also available.

In order to permit their use for applications over very long distances or in harsh environment, **ARF868s are offering a repeater function\***.

ARF868s also propose a «Legacy» mode ensuring «air» compatibility with all the radio modems in the Adeunis RF's «X»3-PRO range.

The small sized casing, which is also light and robust, is equipped with a DIN-Rail fixing so that it can immediately be integrated into an industrial environment.

For difficult environments requiring increased protection for modems, **IP53 and IP67 options** are available.

Certified, modems in the ARF868 range **comply with the 2010 edition of the European RTTE directive EN300-220**.

## Performances ARF868 ULR

Range: up to 20km  
Sensitivity: -120dBm (BER10-3)

## Performances ARF868 LR

Range: up to 7km  
Sensitivity: -112dBm (BER10-3)

## Common specifications

Power: 500mW  
Radiated RF power: 27dBm  
Frequencies: 863-870MHz

RF data rates: from 2.4 to 57.6kbps  
Number of channels: @27dBm / 2.4kbps: 19  
Number of channels: @14dBm / 2.4kbps: +500

## Hardware

Serial transmission rate: 1.2 to 115.2kbps  
Serial ports: RS232 - RS485 - USB optional  
Flow control: None or RTS/CTS

## Consumption & needs

Power supply range: 4.5 to 36Vdc

## Firmware

Transparent mode  
Repeater mode  
ARF X3-PRO «legacy» mode  
«Autobaud» function

## General information

Dimensions: 135 x 75 x 35mm  
Weight: 155g  
Temperature range: -30°C to +70°C  
Standards: EN300-220 V2010 / EN301-489 / EN60950

## Références

- **ARF7940AA** ARF868 ULTRA LONG RANGE 500MW RADIO MODEM INTERNAL ANTENNA (**ARF7940BA** for TNC version)
- **ARF7941AA** ARF868 LONG RANGE 500MW RADIO MODEM INTERNAL ANTENNA (**ARF7941BA** for TNC version)

\* to be released

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