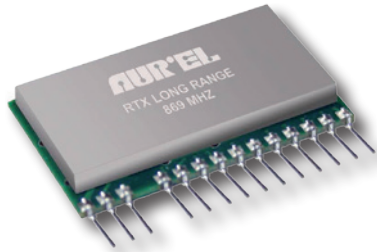


# LONG RANGE TRANSCEIVER FOR DISTANCE UP TO 3KM (LOS LINE OF SIGHT)



## FEATURES

- » Double transmission mode: DIRECT & PACKET
- » RS-232 signals store and forward operation
- » AT-commands for internal registers programming
- » HperTerminal compatible
- » Number of channels: 7 max.
- » Dimensions: 38.1×24×4.5 mm
- » **UART data rate: 2400, 4800, 9600 bps**
- » ERP: max. 500 mW
- » High sensitivity: -118 dBm with data rate 500 bps
- » Fixed supply voltage: 3.3V
- » Average range: 3 km

**AUREL S.p.A.**, our partner for RF Modules, presented 2 transceiver radio solutions in the 868~870 MHz band for long range data communication. The **RTX LONG RANGE** radio transceiver half-duplex, offers improved performance such as longer RF range up to 3 km and operates in the European license free 869.5 to 868.65 MHz band.

The high sensitivity level (-118 dBm) joined with its typical output power (500 mW) can assure a budget-link around 145 dBm. This improves the communication distance of 4~5 times better compared with a traditional 10 mW LPD device.

It operates in 2 different modes: DIRECT MODE with modulation and demodulation of proper data protocol or PACKET MODE, selectable via UART through AT commands, same as a radio-modem.

7 channels available, selectable depending on transmission speed. GFSK modulation. Blocking immunity performance are compliant with Class 1, optimum rejection to the disturbances in the adjacent channels.

## APPLICATIONS

- » Irrigation systems
- » Solar panel monitoring
- » Animal tracking, SCADA, Alarms, AMR etc.

## SPECIFICATIONS

PARAMETER	MIN.	TYP.	MAX.
<b>DC Levels</b>			
Supply voltage Pins 1, 15	2.7V	3.3V	3.6V
Current consumption (RX mode)		32 mA	
Current consumption (TX mode @+27 dBm)	420 mA	500 mA	550 mA
Current consumption (standby mode)		8 µA	10 µA
<b>RF TX</b>			
Frequency band/-deviation		869.4 ... 869.65 MHz ±3.5 kHz	
Emitted power (Direct Mode Pin 14=1)	25 dBm	27 dBm	29 dBm
Emitted power (Direct Mode Pin 14=0)	20 dBm	21 dBm	23 dBm
Emitted power(Packet Mode)	8 dBm		29 dBm
Modulation type		GFSK	
<b>RF RX</b>			
Sensitivity, Direct Mode	-115 dBm	-116 dBm	-120 dBm
IF Band		12 kHz	
RF Band		600 kHz	
<b>Performance</b>			
UART data rate	2400 bps	4800 bps	9600 bps
Standard distance		3000 m	
Operating temperature range		-20°C ... +70°C	
Dimensions (L×B×H)		38.1×24×4.5 mm	