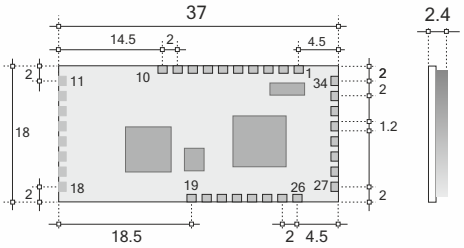
# LoRa™ transceiver

**HIGH POWER**

## XTR-8LR100

P.N. 650201364G

### DIMENSIONS




### PIN-OUT

| | | |
|---|---|---|
| 1) GND | 13) GND RF | 25) IN2(NI) |
| 2) GND | 14) ANTENNA | 26) IN1(NI) |
| 3) GND | 15) GND RF | 27) GND |
| 4) AN0(NI) | 16) GND RF | 28) SET_C |
| 5) AN1(NI) | 17) GND RF | 29) SET_B |
| 6) AN2(NI) | 18) GND RF | 30) SET_A |
| 7) GND | 19) RTS | 31) GND |
| 8) RESET | 20) CTS | 32) OUT2(NI) |
| 9) RESERVED | 21) RX_UART | 33) OUT1(NI) |
| 10) +Vcc | 22) TX_UART | 34) GND |
| 11) GND RF | 23) IN4(NI) | |
| 12) GND RF | 24) IN3(NI) | |

NI: not implemented

## DESCRIZIONE

Ricetrasmettitore half-duplex per comunicazioni a lunga distanza con tecnica di modulazione **LoRa™**, in grado di garantire caratteristiche di elevata immunità alle interferenze e ridotti consumi energetici.

Operante nella banda europea 869.40÷869.65 MHz (100mW) e 868.0 ÷ 868,6 MHz (25mW), assicura Link- budget > 156dB.

XTR-8LR100 è un radio-modem con interfaccia utente UART, con implementata una tecnica di indirizzamento dei pacchetti che permette comunicazioni punto multi-punto e pay-load max. di 248 byte.

## DESCRIPTION

Half-Duplex transceiver for long distance communication with **LoRa™** modulation, able to ensure high immunity level against the interferences and a reduced energy consumption.

Working into European bandwidth 869.4 ÷ 869.65 MHz (100mW) and 868.0 ÷ 868,6 MHz (25mW) with link budget > 156 dBm.

XTR-8LR100 is a radio modem with UART interface with an implemented data packet addressing technique that allows a point-multipoint communication and 248 byte of max. payload.

## TECHNICAL SPECIFICATION

Ta = 25 °C

| CARATTERISTICHE | CHARACTERISTICS | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|
| Tensione di alimentazione | Power supply | 2.4 | 3 | 3.6 | Vdc |
| Corrente assorbita (Stand-by) | Supply Current (Stand-by) | | | 1 | µA |
| Corrente assorbita (RX mode) | Supply Current (RX mode) | | 17 | | mA |
| Corrente assorbita (TX mode @ 20 dbm) | Supply Current (TX mode @ 20 dbm) | | 115 | | mA |
| Corrente assorbita (TX mode @ 10 dbm) | Supply Current (TX mode @ 10 dbm) | | 35 | | mA |
| Tipo di Modulazione | Modulation type | | LoRa™ | | |
| Sensibilità RX (BW 62.5KHz-SF10-CCR 4/6) | RX sensitivity (BW 62.5KHz-SF10-CCR 4/6) | | -136 | | dBm |
| Portata esterna | Outdoor range | | | 20 | Km |
| Banda di frequenza | Frequency band | 869.4 | | 869.65 | MHz |
| Canalizzazione | Chanellization | 20.8 | | 125 | KHz |
| Temperatura di lavoro | Operating temperature range | -20 | | +70 | °C |

15.10.2016 - Rev A

**AUREL S.p.A. • Via Foro dei Tigli, 4 • 47015 Modigliana (FC) Italy • Ph. +39 0546 94 11 24 • F. +39 0546 94 16 60 | www.aurelwireless.com • rfcomm@aurel.it**

This information may be subject to revision without notice. AUREL makes no warranty and assumes no liability in connection with any use of this information.

Information subject to change without notice