

# Radio module eXtra Long Range (XLR)

Includes:

- 1 eXtra Long Range radio module

**This product comes without antenna, remember to add our [dipole antenna](#) or [vehicle mount](#) antenna to the cart.**



More info about the product!



Radio module eXtra Long Range (XLR) has several different configurations to provide you with flexibility:

SKU	Variation Name
AS-XBEE-XLR-NA-SMA-01	North America
AS-XBEE-XLR-AU-SMA-01	Australia

Get a discounted bulk price on this product for orders of 50 units or more. Contact us at [info@ardusimple.com](mailto:info@ardusimple.com) to get a quote.

## Description

The eXtra Long Range version of our Radio Module. Based on Digi XBee PRO SX series, but on through hole format and with SMA connector. With a configuration optimized for sending RTK corrections over the air.

With this radio module you will be able to send RTK corrections [between 50 and 60 km](#) in both point-to-point and point-to-multipoint configurations. This distance will depend on the region of use, subject to local regulations.

Good to know:

- Compatible with all ArduSimple products, except simpleRTK2B Budget and simpleRTK2B Lite.
- The radio is sent pre-configured at 115'200bps and will connect automatically to other XLR/LR radios from the same region.
- If you have an LR kit already, just remove the LR radios, plug the XLR radios, and you are good to go!
- The radio is sent pre-configured at 100mW output power. Can be increased by user to 500mW, and up to 1W if mounted on a suitable XBee socket. [Contact us](#) if you have questions.
- The radio comes without antenna, remember to add our dipole antenna or vehicle mount antenna to the cart.

## Specifications

### Interfaces

- UART
- RS232 ([requires accessory](#))

### LR radio features

- Communications: Bi-directional Point-to-Point or Unidirectional Point-to-Multipoint (unlimited rovers)
- Antenna type: external passive
- Antenna connector (radio side): SMA female
- Frequency:
  - Europe: 863-870 MHz
  - North America: 902-907 + 915-927 MHz (configurable)
  - Australia: 915-927 MHz
  - New Zealand: 917-927 MHz
- Output power: 20 mW (13 dBm)
- Range in line of sight:
  - Urban: 2.5 km
  - Rural: 5 km
  - Rural with complete RF line of sight: 10 km
- Operating temperature Range: -40 to +85deg
- Documentation: RED, RoHS, FCC, IC, ACMA, RSM

### LR radio features

- Communications: Bi-directional Point-to-Point or Unidirectional Point-to-Multipoint (unlimited rovers)
- Antenna type: external passive
- Antenna connector (radio side): SMA female
- Frequency:
  - Europe: 863-870 MHz
  - North America: 902-907 + 915-927 MHz (configurable)
  - Australia: 915-927 MHz
  - New Zealand: 917-927 MHz
- Output power: 20 mW (13 dBm)
- Range in line of sight:
  - Urban: 2.5 km
  - Rural: 5 km
  - Rural with complete RF line of sight: 10 km
- Operating temperature Range: -40 to +85deg
- Documentation: RED, RoHS, FCC, IC, ACMA, RSM

## Image Gallery



## Pinout

TOP VIEW



Description	Name	#
3.0-3.6V with up to 1A peak	<b>VCC</b>	1
Data out VCC level	TX	2
Data in VCC level	RX	3
Reserved, do not connect	RES4	4
Reserved, do not connect	RES5	5
Reserved, do not connect	RES6	6
Reserved, do not connect	RES7	7
Reserved, do not connect	RES8	8
Reserved, do not connect	RES9	9
Must connect to GND	<b>GND</b>	10

#	Name	Description
20	RES20	Reserved, do not connect
19	RES19	Reserved, do not connect
18	RES18	Reserved, do not connect
17	RES17	Reserved, do not connect
16	RES16	Reserved, do not connect
15	RES15	Reserved, do not connect
14	RES14	Reserved, do not connect
13	RES13	Reserved, do not connect
12	RES12	Reserved, do not connect
11	RES11	Reserved, do not connect

## Documentation

User Guide <https://www.ardusimple.com/xbee-antenna-installation-guide/>

Download CAD models [https://www.ardusimple.com/wp-content/uploads/3D\\_CAD/XBeeLR.STEP](https://www.ardusimple.com/wp-content/uploads/3D_CAD/XBeeLR.STEP)

[https://www.ardusimple.com/wp-content/uploads/3D\\_CAD/XBeeLR.STEP](https://www.ardusimple.com/wp-content/uploads/3D_CAD/XBeeLR.STEP)

Radio module eXtra Long Range (XLR) includes free basic technical support. Contact [info@ardusimple.com](mailto:info@ardusimple.com) for more information.

Data and descriptions in this document are subject to change without notice. Product photos and pictures are for illustration purposes only and may differ from the real product appearance.