

User Manual

FCC ID: 2AR08AI-101-LEA

Product Name:LoRaDTU

Model Name:AI-101-LEA

Manufacture : Appropolis Inc

LoRa Data Transfer Unit



APPROPOLIS

Version History:

S/N	Revision Log	Manual Ver.	Hardware Ver.	Author	Date
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2	Renewed product pictures	V1.1	AI-101	Joshua	2018/08/06

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1 Installation

The AI-101 must be installed properly to get full feature. Please install the device with the guiding of engineers who are approved by our company.

1.1 Announcements

- Please do not install the device with the power.
- The antenna should not be surrounded or covered by metal
- In order to get the maximum effect, please keep the antenna perpendicular to the horizontal plane

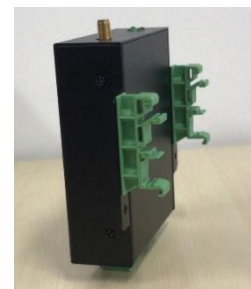
1.2 DTU Installation

The PCBA of the AI-101 is packaged in a metal case and can be used independently. There are holes on both sides for installation. The dimension of product can be seen above.

You have two installation methods, using screw or 3M tape.

1.2.1 Using Screw

If you need to install the device on rails inside the electrical box, you can use the PCB mounting bracket. First attach the bracket onto the rail of the electrical box, and then screw the DTU to the bracket. Then connect the power cable, data cable and antenna to complete the installation.



1.2.2 Using 3M Tape

You can also using 3M tape to fix the DTU on the wall or other surface. Then connect the power cable, data cable and antenna to complete the installation.



1.3 Antenna Installation

The antenna is Reverse polarity Thread, Please rotate the antenna male onto the AI-101 and antenna must be placed perpendicular to the ground to



Figure 1 Antenna



Figure 2 Antenna with extension wire

ensure the best communication status.

1.4 Data Line Connecting



Figure 3 wires

Remove the industrial terminals on the DTU and loosen each hole with a screwdriver. The definition of each wire port is shown in the previous section. As show below, the three-wire terminal is the device power interface, and the four-wire is the RS485 data interface.

2 Setting

Connecting the PC and DTU with USB to RS485 converter and a power supply for the power.

Opening the Serial Port Utility,

1. Click the start key
2. select the port of the USB
3. Check the Auto Feed Line.
4. Check the Loop
5. Input the text line, for example: 1234567890
6. Click open

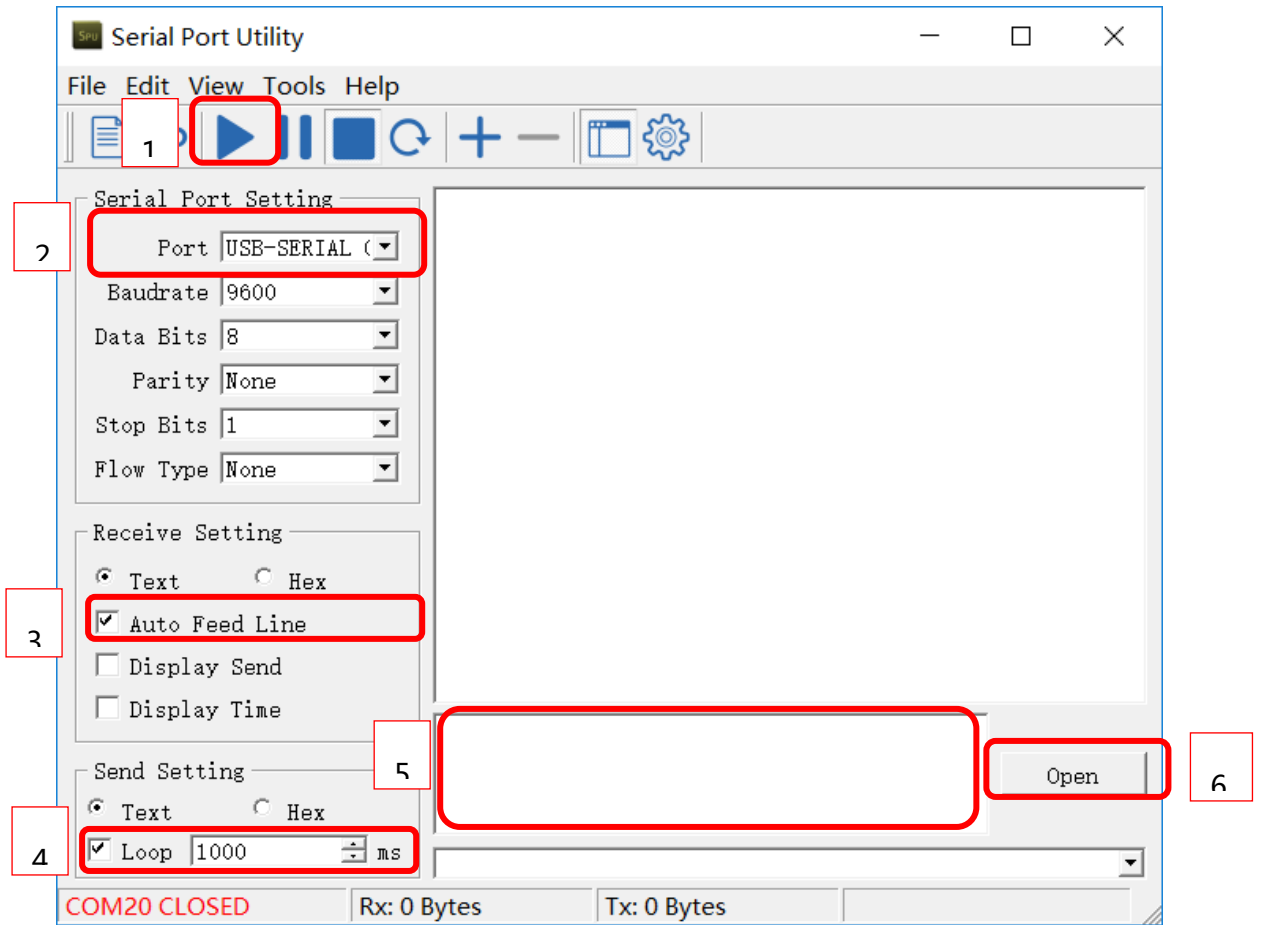


Figure 5 Send signals



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FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.