Manuals+ — User Manuals Simplified.

ELPRO Technologies 415U-Ex-Cx Wireless Mesh Modem and Gateway Installation Guide

Contents

ELPRO Technologies 415U-Ex-Cx Wireless Mesh Modem and Gateway
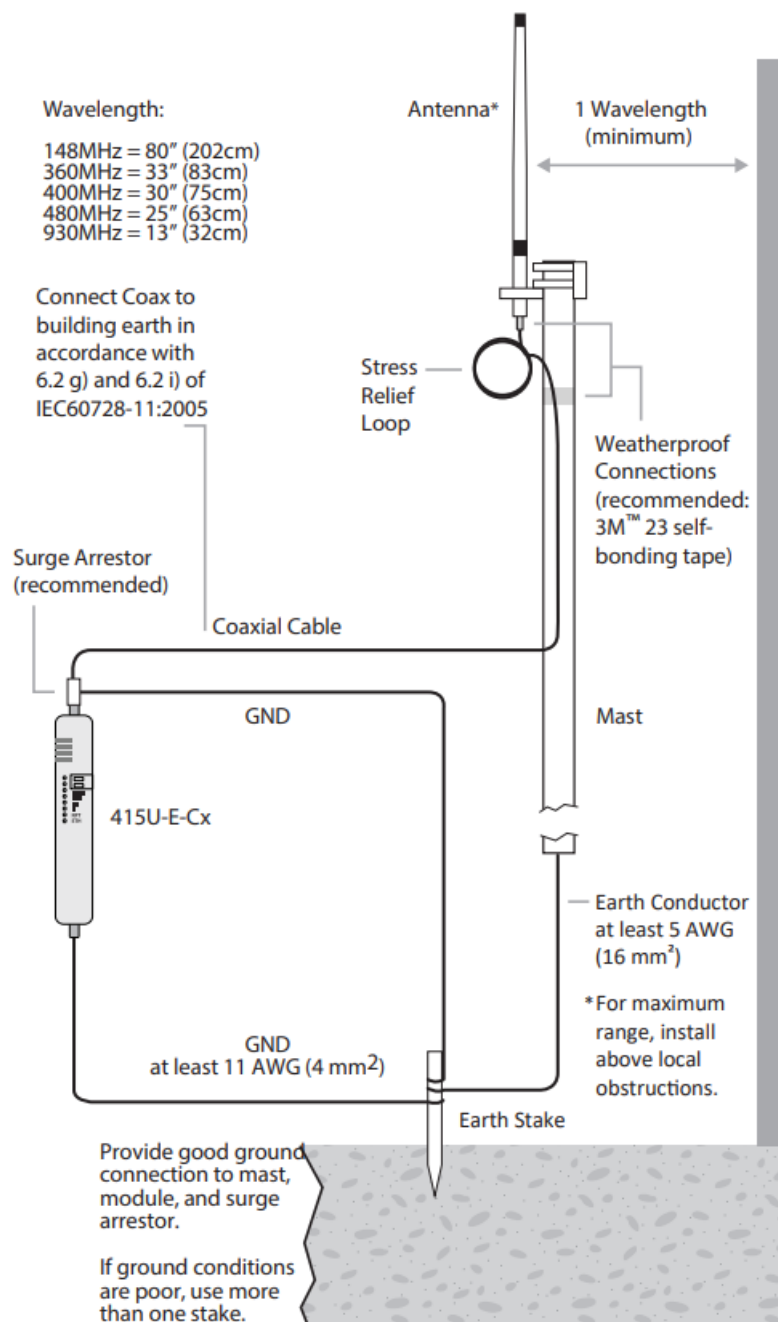
Models

- 415U-E-C1 – 148 to 174MHz
- 415U-E-C3 – 360 to 400MHz
- 415U-E-C4 – 480 to 480MHz
- 415U-E-C5 – 470 to 520MHz
- 415U-E-C9 – 928 to 960MHz

Antenna installation

When selecting an antenna, consider radio proximity.
Use Figure 1 as a guide for installing an antenna and attaching it to the 415U-E-Cx.
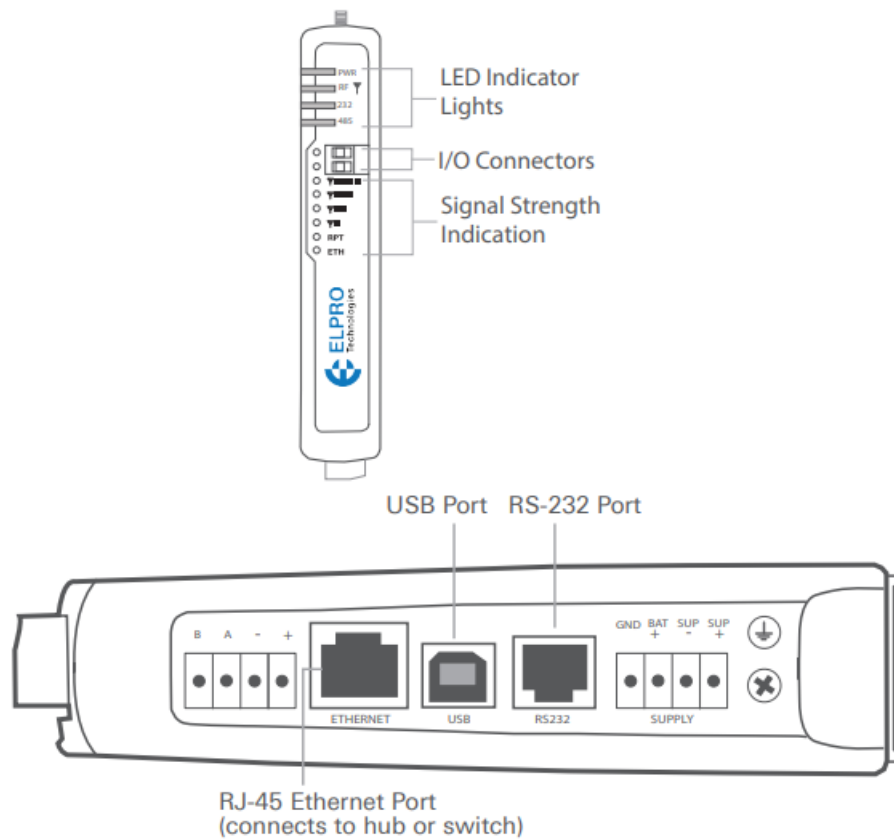**Figure 1. Antenna installation**

Wavelength:

148MHz = 80" (202cm)
360MHz = 33" (83cm)
400MHz = 30" (75cm)
480MHz = 25" (63cm)
930MHz = 13" (32cm)

Connect Coax to building earth in accordance with 6.2 g) and 6.2 i) of IEC60728-11:2005

Surge Arrestor (recommended)

Coaxial Cable

GND

415U-E-Cx

GND
at least 11 AWG (4 mm^2)

Provide good ground connection to mast, module, and surge arrestor.

If ground conditions are poor, use more than one stake.

Antenna*

1 Wavelength (minimum)

Stress Relief Loop

Weatherproof Connections (recommended: 3M™ 23 self-bonding tape)

Mast

Earth Conductor at least 5 AWG (16 mm^2)

*For maximum range, install above local obstructions.

Earth Stake

Connecting to the module for configuration

- Download and install configuration application "CConfig" from ELPRO website **www.elpro.com.au**
- Connect to PC using supplied USB cable
- Connect to the device at 192.168.111.1
- The PC will be automatically assigned an IP address via DHCP
- **Username:** user
- **Password:** user

NOTE

All connections must be SELV <50 Vac and <60 Vdc.
The following illustrations show the ports on the 415U-E-Cx.

LED Indicator Lights

I/O Connectors

Signal Strength Indication

USB Port   RS-232 Port

RJ-45 Ethernet Port
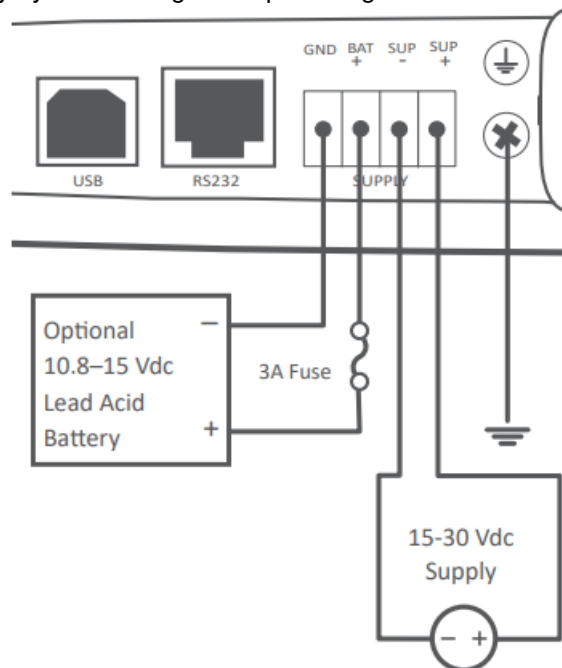(connects to hub or switch)

Power supply wiring

The ground (GND) and "SUP –" terminals are connected internally to the ground terminal and to the module enclosure.
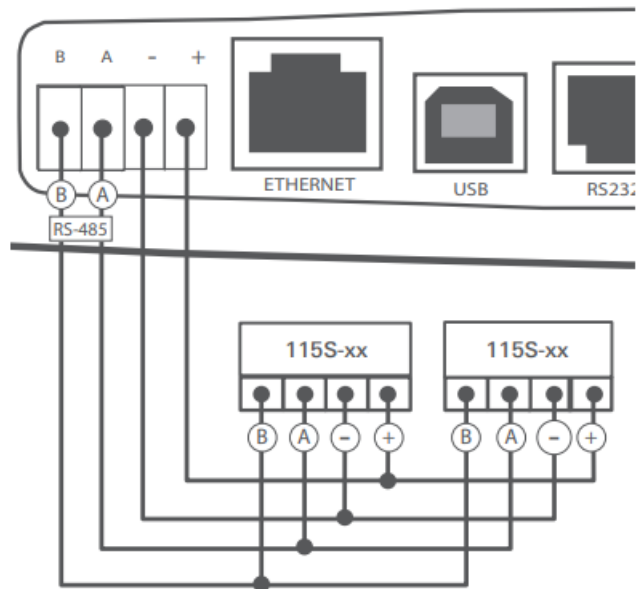Connect the screw terminal on the end plate to ground for surge protection.
Refer to user manual for RF duty cycle derating when powering the module from SUP+ and SUP- terminals.

Optional
10.8–15 Vdc
Lead Acid
Battery

3A Fuse

15-30 Vdc
Supply

Expansion I/O power and RS-485 serial connection
An on-board RS-485 terminating resistor provides line termination for long runs.
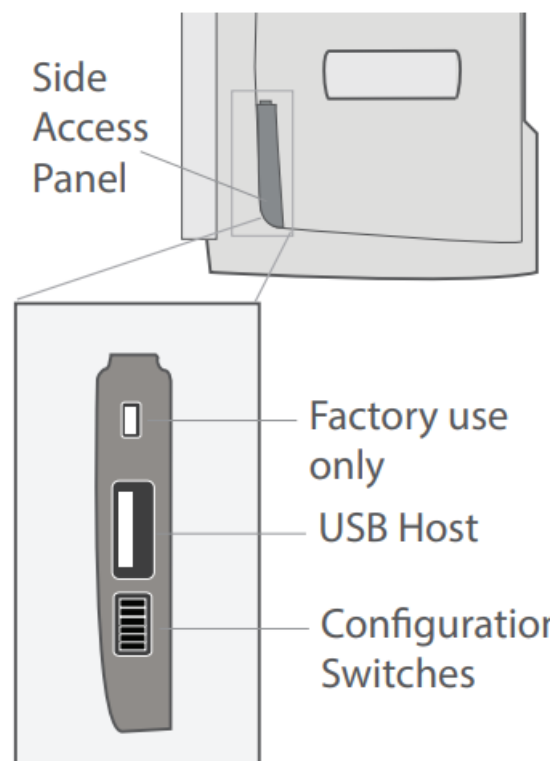Enable terminating resistors at far end of the RS-485 cable.

Configuration switches

Use the DIP switches in the side access panel to select default configuration settings.
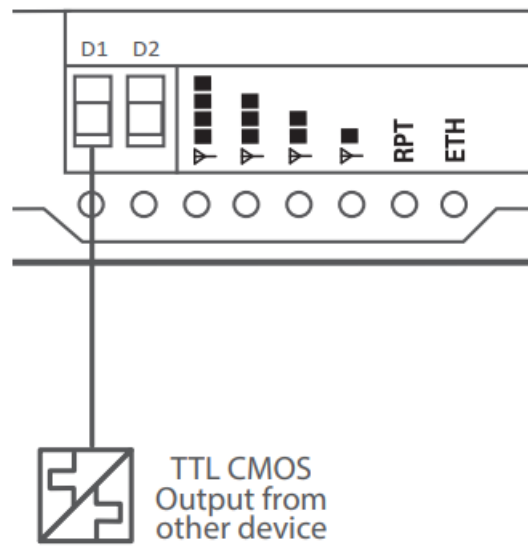
DIP DESCRIPTION

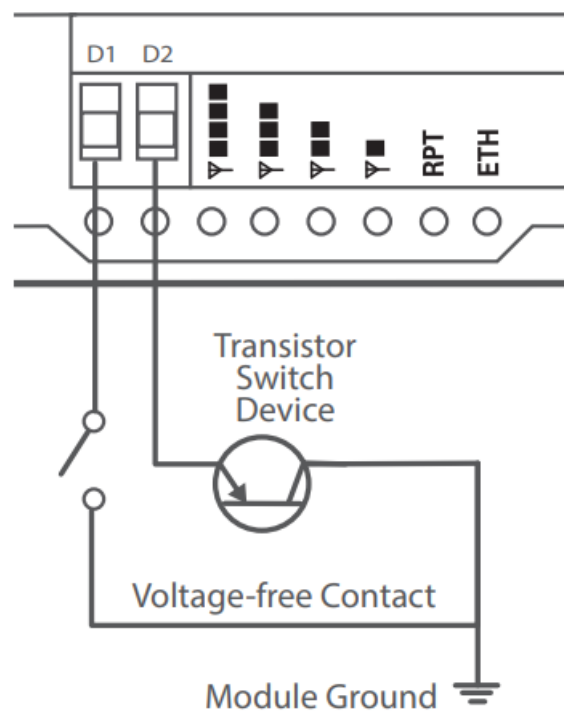1. Unused
2. Enables default configuration

Input and output connections

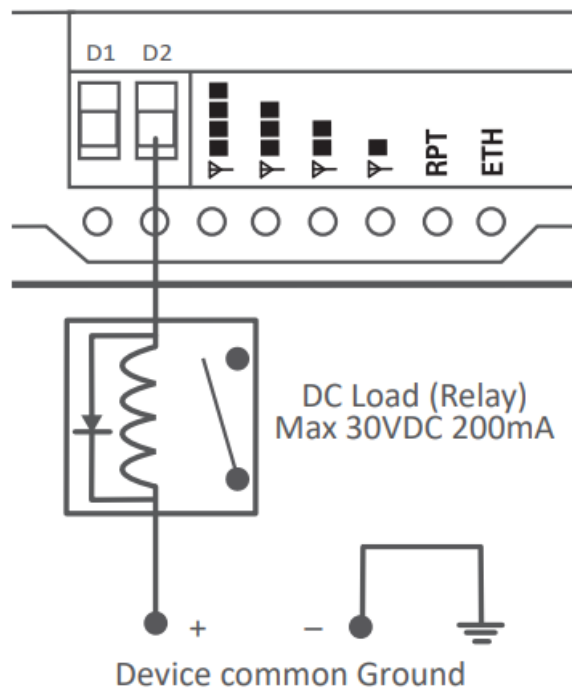The digital input/output channels can be wired as inputs or outputs.

High speed pulsed input

TTL CMOS
Output from
other device

Digital input

Transistor
Switch
Device

Voltage-free Contact

Module Ground

Digital output

Device common Ground

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Documents / Resources

ELPRO Technologies 415U-Ex-Cx Wireless Mesh Modem and Gateway [pdf] Installation Guide
415U-Ex-Cx Wireless Mesh Modem and Gateway, 415U-Ex-Cx, Wireless Mesh Modem and Gateway, Gateway, Wireless Mesh Modem, Mesh Modem, Modem

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