

## EVA-221X LoRaWAN 3-Phase Current Meter

### Startup Manual

#### Overview

Thank you for purchasing the EVA-221X LoRaWAN 3-Phase Current Meter. This quick start guide is intended to help you deploy your new sensor. The guide contains basic information on the power and application wiring. Should you require additional instructions, please refer to the user manual.

#### Input Power Requirement

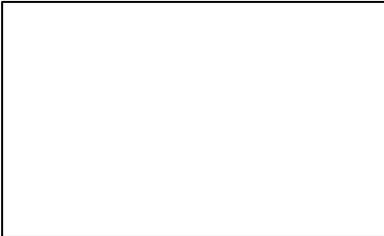
EVA-221X is designed for 2 3.6V AA Lithium Batteries

#### Packaging List

- 1 x EVA-221X Sensor
- 1 x Quick start manual

#### Quick Start

1. EVA-221X runs OTAA mode, please have the AppKEY, AppEUI and DeviceEUI in the QR-Code below.



2. Default EVA-221X frequency plan definitions below for reference

#### Uplink Frequency plan:

Common Name	Uplink Frequency Plan(MHz)
US915	903.9, 904.1, 904.3, 904.5, 904.7, 904.9, 905.1, 905.3 904.6(@BW500)
EU868	868.1, 868.3, 868.5, 867.1 867.3, 867.5, 867.7, 867.9 868.8(@FSK)
AU915	915.2, 915.4, 915.6, 915.8, 916.0, 916.2, 916.4, 916.6 915.9(@BW500)
AS923	923.2, 923.4

#### Downlink Frequency plan:

Common Name	Downlink Frequency Plan(MHz)
US915	923.3, 923.9, 924.5, 925.1, 925.7, 926.3, 926.9, 927.5(RX1) 923.3(RX2)
EU868	868.1, 868.3, 868.5, 867.1 867.3, 867.5, 867.7, 867.9 (RX1) 869.525 – SF12BW125 (RX2)
AU915	923.3, 923.9, 924.5, 925.1, 925.7, 926.3, 926.9, 927.5(RX1) 923.3(RX2)
AS923	923.2, 923.4 (RX1) 923.2 – SF10BW125(RX2)

3. Open the front cover and install 2 3.6V AA lithium batteries on battery holder.



For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

For technical support and service:

<https://www.advantech.com/support/>

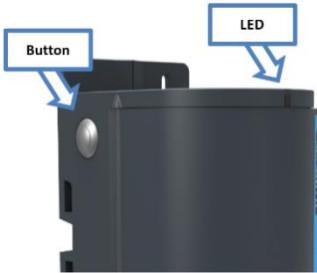
The startup manual is for EVA-221X product.

1<sup>st</sup> Edition

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- Press the button for 3 seconds for powering on the device. You will see the LED quick blink one time. Once the device connect to your LoRaWAN Network Server successfully, the LED will on for 5 seconds.



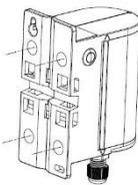
Note: Button and LED behavior below for reference.

Button Press	LED Behavior	Function
Quick Press	Quick blink for one time	Force TX
Press for 3 secs	Quick blink for one time	Power On
Press for 5 secs	Quick blink for 20 times	System off and reset to default
-	On for 5 Seconds	OTAA Join Success

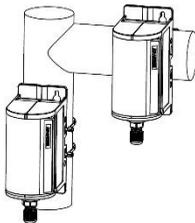
- Default data update cycle of EVA-221X is 3600 seconds. You can change the data update cycle directly from WISE-6610, Advantech LoRaWAN Gateway, or via a downlink command from your service.
- The CT sample rate is 8kHz. EVA-221X will get the current data from CT for 3 second, and calculate the RMS next.
- EVA-221X has 3 mounting style which includes wall mount, magnetic mount and pole mount.



Wall Mount



Magnetic Mount



Pole Mount

## Caution

- Please do keep this start manual securely since the information of AppKEY, AppEUI and DeviceEUI shows in this manual only.
- Keep the device dry. Rain, moisture, or any liquid might contain minerals and thus corrode electronic circuits. If the device gets wet, please dry it completely.
- Do not use or store the device in dusty or dirty environment. It might damage its detachable parts and electronic components.
- Do not store the device under excessive heat condition. High temperature can shorten the life of electronic devices, destroy batteries, and deform or melt some plastic parts.
- Do not store the device in places that are too cold. Otherwise, when the temperature rises to normal temperature, moisture will form inside, which will destroy the board.
- Do not throw, knock or shake the device. Rough handling of equipment can destroy internal circuit boards and delicate structures.
- Do not clean the device with strong chemicals, detergents or strong detergents.
- Do not apply the device with paint. Smudges might block in the device and affect the operation.
- Do not throw the battery into the fire, or the battery will explode. Damaged batteries may also explode.