



## WIRELESS NETWORK CONNECTIVITY FOR UNCONNECTED METERS

### MIU-X - Wireless Metering Interface Unit

#### EASY WIRELESS METER ENABLEMENT FOR REAL-TIME DATA COLLECTION

The eleven-x MIU-X [Meter Interface Unit] quickly and easily converts standalone mechanical meters to “smart” wireless meters utilizing standard registers. The MIU-X collects the registers from the existing mechanical meter and communicates the usage data directly over a LoRaWAN™ network to the utility data center.

Compatible with many current metering solutions, the eleven-x MIU-X enables AMI [advanced metering infrastructure] with your existing meters. There is no need for sole-source proprietary network connectivity, so customer service options remain flexible without any long-term or limiting commitments. The MIU-X can be configured remotely with no programming needed, making wireless data collection easy with existing meters.

#### REAL-TIME DATA = IMPROVED WORKFLOWS AND A BETTER CUSTOMER EXPERIENCE

Real-time data allows organizations an easy and efficient way to provide enhanced customer service and a better overall customer experience while reducing operational costs. Save time and money by eliminating costly wiring, estimated reads and drive-by or manual data collection while offering your customers accurate billing with an invoice that matches their meter registers.

#### LOW TOTAL COST OF OWNERSHIP

Enable streamlined operations and improved service capabilities with real-time usage data collection without upfront meter replacement costs. Save time and money by eliminating costly wiring and electrical requirements. Remove the need and costs associated with complex and customer-intrusive installations or upgrades, and manual or drive-by data collection.

Installation of the MIU-X is a simple process that can be completed in a matter of minutes saving money, time and resources. The MIU-X offers long battery life [>10 years], low connectivity fees and near-zero maintenance costs resulting in a low total cost of ownership.

#### Enabling AMI with Existing Meters:

- Enabling real-time data communication
- Retrofit current in-field unconnected meters
- Avoid expensive “rip and replace” projects
- Reduce operational costs
- Improved meter reading frequency
- Eliminates:
  - Estimated reads
  - Running electrical to the meter
  - Drive-by or manual data collection
- Remote configurability:
  - In-field updates
  - Programmable meter reads
- Low total cost of ownership:
  - Low connectivity fees
  - Near-zero maintenance
  - >10-year battery life
- Simple 3-step installation process
- Secure two-way wireless communications:
  - AES-128 encryption
  - Device Authentication
- Supports a wide range of meters



**TECHNICAL SPECIFICATIONS**

**Communications**

Communication Protocol	LoRaWAN™ 1.0.1
Device Class	Class A
Frequency	902-928 MHz – North American Standard ISM Band
Transmit Power	Up to 20dBm

**Mechanical**

Enclosure	Ruggedized enclosure
Antenna	Internal
Ingress Rating	IP67 – waterproof   dustproof
Mounting	Wall Mounting

**Security**

AES-128 encryption
Tamper Detection
Temperature

**Provisioning**

Secured key injection and key exchange
Key management with join server
NFC provisioning support [optional]
Infield or backoffice secure provisioning

**Environments**

Operating Ambient	-30°C to 60°C
Components	rated at a minimum of -30°C to 85°C
Battery	>10-year battery life
Battery Capacity	3.6V, 7200mAh

**Warranty**

1 year

**Certifications**

LoRaWAN
FCC Part 15.247
ISED RSS-247

FOR MORE INFORMATION:

web: [www.eleven-x.com](http://www.eleven-x.com) | email: [collaborate@eleven-x.com](mailto:collaborate@eleven-x.com)

**About eleven-x Inc.**

eleven-x operates Canada’s first and only coast-to-coast public low power network that enables the promise of Smart Cities, Buildings, Campuses, and Enterprise IoT applications. Supporting the use of low cost battery powered sensors, the LoRaWAN™ based network addresses many Internet of Things [IoT] use cases where requirements include wireless connectivity, devices that require long battery life, no maintenance and a low total cost of ownership.

