



## 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 [20 years], low connectivity fees and near-zero maintenance costs resulting in a low total cost of ownership.

#### Enabling AMI with New or Existing Meters:

- Compatible with Neptune and Sensus UI-1203 protocol meters, including:
  - Sensus | Neptune | Badger | Mueller Kamstrup | Zenner | And more..
- Enabling real-time data communication
- Retrofit current in-field unconnected meters
- Reduce operational costs
- Improved meter reading frequency
- Configurable from 15minutes to 24hours
- Eliminates:
  - Estimated reads
  - 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
  - 20-year battery life
- Simple 3-step installation process
- Secure two-way wireless communications:
  - AES-128 encryption
  - Device Authentication



**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

**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	20-year battery life
Battery Capacity	3.6V, 7200mAh

**Warranty**

20 years (\*Industry standard 101/10 prorated)

**Certifications**

LoRaWAN  
FCC Part 15.247  
ISED RSS-247

FOR MORE INFORMATION:

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**About eleven-x Inc.**

eleven-x Inc. simplifies IoT and facilitates faster, evidence-driven decisions through wireless connectivity and real-time data collection for Smart Cities, Campuses, Buildings and Industry. We offer complete device to cloud LoRaWAN™ solutions, comprised of accurate and reliable sensor networks delivering secure data to our customers through easy-to-use dashboards and industry standard API's. Organizations rely on eleven-x's wireless connectivity expertise to deliver turnkey solutions that improve operations, simplify processes and deliver value in today's connected world.

