![eleven-x logo]

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 AMR [automatic meter reading] 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 AMR 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

![MIU-X device with dimensions: 15.24 cm (6"), 6.35 cm (2.5"), 4.45 cm (1.75")]

eleven-x.com/solutions

TECHNICAL SPECIFICATIONS

MIU-X +
EXISTING METER

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

LORAWAN
NETWORK

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	>10-year battery life
Battery Capacity	3.6V, 7200mAh

CLOUD

Warranty

1 year

Certifications

LoRaWAN
FCC Part 15.247
ISED RSS-247

BACK OFFICE
APPLICATIONS

FOR MORE INFORMATION:
web: www.eleven-x.com | email: 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.

LoRa Alliance Member™

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