The MIU is a 2-in-1 data acquisition and transmission unit that can provide effective remote meter reading. The modular design enables it to be deployed on most pulse-enabled meters and support a variety of wireless networks, including NB-IoT, SSN, GSM, LoRa and other LPWAN.

### Level of deployments in pipe network system

1. **Level 1 >> Main Pipe Network** - The MIU can be deployed on the main pipe network to measure the total volume of water supplied and received from the water treatment plants. It can be used to detect massive leaks in main pipes.

2. **Level 2 >> Top Users** - The MIU can be deployed for the top water users. The top 10% of the users typically contribute to ~70% of water usage. Suitable for agencies with undeveloped or underdeveloped remote metering infrastructure.

3. **Level 3 >> Branched Pipe Network** - The MIU can be further deployed in the branched pipe network to monitor the water usage of different District Monitoring Areas (DMAs). Suitable for agencies exploring DMA solutions.

4. **Level 4 >> All units** - The MIU can be deployed in every household in residential areas, and every unit in commercial/industrial buildings. The data collected can be analysed to understand consumption behaviours and utilised for various applications. Suitable for agencies that aim to further reduce NRW and optimise plant operations and planning.

### Applications

- **Water Meters**
  - Non-magnetic
  - Magnetic

- **Gas Meters**
ZHTI is proud to present our latest innovation by using our patented pulse-enabled sensor integrated on most pulse-enabled meters. The magnetic MIU (mainly for gas meters) and non-magnetic MIU (for both meters) have the ability to collect data and transmit meter reading accurately/remotely. This remote metering solution can be deployed in most residential or industrial facilities.

**Capabilities**

- High Cost Efficiency
- Customisable Meter Data Reading Interval
- Automatic SMS Notification
- Flash Memory Data Storage
- Long Battery Life
- NRW Management
- Customisable Data Transmission Interval
- Anti-Tampering Alarm
- Leak Detection
- Low Battery Alert
- Easy Installation & Maintenance
- Compatible With Most Pulse-Enabled Meters

**Dimensions**

<table>
<thead>
<tr>
<th>Magnetic</th>
<th>Non-magnetic</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Magnetic Dimensions" /></td>
<td><img src="image2" alt="Non-magnetic Dimensions" /></td>
</tr>
</tbody>
</table>

**Technical Specifications**

<table>
<thead>
<tr>
<th>Parameters</th>
<th>MIU (SSN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmitting Power</td>
<td>22 dBm</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>-104 dBm</td>
</tr>
<tr>
<td>Maximum Current</td>
<td>10 mA</td>
</tr>
<tr>
<td>Standby Current</td>
<td>&lt; 50 μA</td>
</tr>
<tr>
<td>Battery Life (default settings)</td>
<td>Up to 15 years</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to 85°C</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>0-95%</td>
</tr>
</tbody>
</table>

*Dimensions and specifications may vary slightly for different models.*

**Certifications:**

- IP68
- ATEX

**EMC/EMI:** IEC60068-2-38

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