



# Nanjing Rejee Intelligent Technology Co., Ltd.



## Enabling LoRa® for Critical Monitoring in Industrial Environments

SL712-LF LoRa based  
Pressure Sensor

Discover how Rejee's SL712-LF pressure sensor leverages LoRa® technology to provide long-range, low-power monitoring in challenging industrial environments. Powered by Semtech's SX1268 chipset, it offers reliable data transmission and over two years of battery life, supporting both private LoRa and LoRaWAN® networks for critical infrastructure.

## QUICKFACTS

### Company

Nanjing Rejee Intelligent Technology Co., Ltd.  
[rejee.com](http://rejee.com)

### Customer Profile

Rejee is focused on IoT applications with technology development as the core driving force. The company provides easy-to-use, reliable IoT software and hardware solutions.

### Objectives

Pressure Sensor to achieve longer wireless transmission distances and lower power consumption.

### Results

Developed a LoRa High-Precision pressure sensor supporting LoRa proprietary and LoRaWAN® protocol.

### Products and Services

- [LoRa Connect™](#)
- [LoRaWAN®](#)



## INTRODUCTION

Rejee focuses on technical services for IoT hardware (communication and sensing) and AI hardware (high computing power). They specialize in high-performance, highly integrated intelligent hardware products and solutions. With expertise in the Internet of Everything and edge intelligence, they deliver end-to-end hardware support from data collection to intelligent decision-making. Their product portfolio includes LPWAN modules, intelligent sensing terminals, edge computing nodes and customized AI computing hardware. Rejee has developed multiple node modules (SX127x, SX126x, LLCC68), along with gateways and gateway modules based on SX1302, offering diverse IoT solutions.

## CHALLENGE

Pressure sensors are often installed in challenging environments such as underground networks, sealed pipelines, or dense urban areas between tall buildings. These locations create significant obstacles for traditional wireless technologies, as concrete, soil and steel structures severely weaken or block signal transmission. As a result, the effective communication distance is greatly limited, leading to gaps in reliable monitoring. Since these sensors are typically powered by batteries, frequent recharging or replacement is impractical. This makes low power consumption a critical requirement to extend operational life and reduce maintenance. Overcoming these challenges is essential to ensure continuous, long-range and cost-efficient monitoring of vital infrastructure.

## SOLUTION

The SL712-LF Pressure Sensor, powered by the SX1268 LoRa chipset, delivers long-range, low-power monitoring for critical infrastructure. Supporting both private LoRa and LoRaWAN protocols in the China ISM 470–510 MHz band, it ensures stable connectivity across wide areas. With an ultra-low power design, it achieves more than 2 years battery life, minimizing maintenance. The sensor reliably monitors water, oil and air pressure, while BLE help mobile provides convenient real-time access and control.



*SL712-LF LoRa based  
Pressure Sensor*





**Key applications include:**

- Fire hydrants for enhanced safety monitoring
- Urban water supply networks for continuous pressure visibility
- Industrial hydraulic systems for operational efficiency
- Oil tank storage and transportation for safe, reliable logistics

**BENEFITS**

**Strong Signal Penetration:** Powered by LoRa technology and SX1268's exceptional -137 dBm sensitivity with +22 dBm output power, the SL712-LF delivers reliable data even in interference-heavy environments such as underground pipelines, fire hydrants, hydraulic systems and oil transport lines.

**Extended Battery Life:** With an optimized SX1268 design consuming less power in sleep mode, the device achieves more than 2 years of battery life. This reduces replacement cycles by lowering maintenance costs and ensuring uninterrupted operation.

**Flexible & Scalable Deployment:** Supporting both private LoRa networks and LoRaWAN, the SL712-LF adapts easily to industrial or wide-area applications. Each gateway can handle hundreds of nodes, reducing infrastructure costs .

**Learn More:** [www.semtech.com/lora](http://www.semtech.com/lora)







#### About Semtech

Semtech Corporation (Nasdaq: SMTC) is a high-performance semiconductor, IoT systems and cloud connectivity service provider dedicated to delivering high-quality technology solutions that enable a smarter, more connected and sustainable planet. Our global teams are committed to empowering solution architects and application developers to develop breakthrough products for the infrastructure, industrial and consumer markets.

To learn more about Semtech technology, visit us at [Semtech.com](https://www.semtech.com) or follow us on [LinkedIn](#) or [X](#).

"Semtech", "LoRa" and "LoRaWAN" are registered trademarks of Semtech Corporation or its subsidiaries. Other product or service names mentioned herein may be the trademarks of their respective owners. © 2025 Sierra Wireless, Inc. © 2025 Semtech Corporation. All rights reserved. 2025.09.22