

WLR5-590 Series

LoRa IoT Module



Low Power Wide Area Network Solution

The WLR5-590 is designed & manufactured in a smallest form factor -SiP (System in Package). The WLR5-590 integrates with Semtech SX1276 and a 32-bit ultra-low power Cortex M0+ MCU (STM32L073x).

The WLR5-590 is a general purpose SiP for sensor integration. Sensor vendors can speed up their LPWAN integration by embedding this SiP in their design. The WLR5-590 can achieve a sensitivity of over -137dBm. The high sensitivity combined with the integrated +20dBm power amplifier yields industry leading link budget marking it optimal for any low data rate application requiring range or robustness.

The WLR5-590 is based on LoRa technology to provides low power long range high sensitivity communication using spread spectrum. The WLR5-590 also provides significant advantages in both blocking and selectivity over conventional modulation techniques, solving the traditional design compromise between range, interference immunity and energy consumption. WLR5-590 module provides a commands set interface that can use LoRa and LoRaWAN communication through UART interface.

Key Feature :

- Programmable bit rate up to 37500 bps
- High sensitivity down to -137 dBm
- Preamble detection
- Embedded memories (up to 192k bytes of Flash memory and 20k bytes of RAM)
- 3x UART
- Small foot print: 13mm x 11mm x 1.1mm

Application:

- Automated Meter Reading
- Intelligent tracking
- Wireless Alarm and Security Systems
- Industrial Monitoring and Control
- Long range Irrigation Systems
- Forest fire detection
- Healthcare Application