

## Application Note for SC15L Series

### 1. Serial Device Data Monitoring using LoRa:

#### Architecture:



The field devices are linked to SC15L (LoRa transmitter) through RS485/RS232 serial interface. Meanwhile, the SCADA system interfaces with SC15L APS (LoRa receiver) via RS485/RS232.

The SCADA transmits data transparently to the field location, where it is received, and subsequently, the field's response data is sent transparently back to the SCADA system.

It's feasible for a user to connect upto 100 SC15L devices to a single SC15L APS.

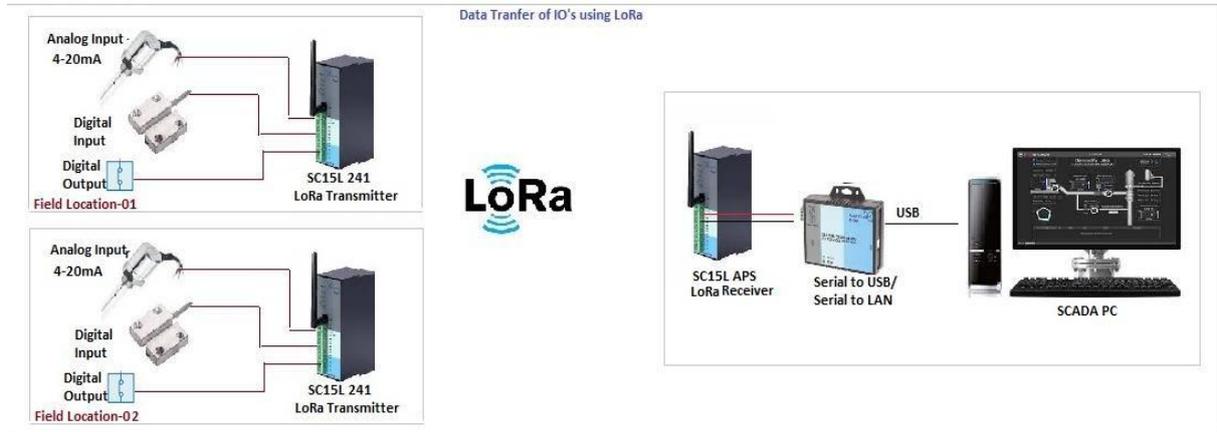
The communication distance supported reaches a maximum of 2.5 kilometers under Line-Of- Sight (LOS) conditions by LoRa devices.

#### Hardware Requirements:

- LoRa units (SC15L's & SC15L APS)
- Field Device with Serial Interface.
- SCADA/Any Serial Software with PC
- Antenna suitable for the desired communication range
- 12VDC/ 24VDC Power source for the gateway device

Instead of SCADA software user can connect the Any IoT gateway to SC15L APS and further sending data to cloud-based software. Also, user can connect HMI for Local Data Display.

## IO's Data Monitoring using LoRa:



LoRa Transmitter (SC15L 241) support 2 Analog Inputs (4-20mA), 4 Digital Input and 1 Digital Output channel. User can connect field IO's directly to SC15L 241. The SC15L 241 will send the IO's data to SC15L APS by predefined periodic interval.

User can check the IO's data on Modbus RTU interface at SC15L APS location