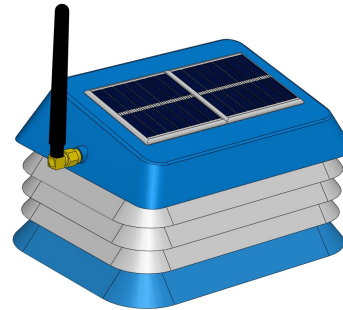


Solar based EM Sensor reference platform



Mobiveil's Solar based EM sensor reference platform is an environmental monitoring system to measure outdoor air quality and to provide real-time localized air quality index.

It's a robust **Solar powered platform**, with Long range communication interface (LoRA), cloud-based data processing, location based view, metrics of adjacencies, history of statistics, secure online access and options to integrate with variety of host and applications



It detects pollution and hazardous weather patterns and delivers real-time emergency alerts. IP55-rated ruggedized design helps ensure long-lasting durability in all climates.

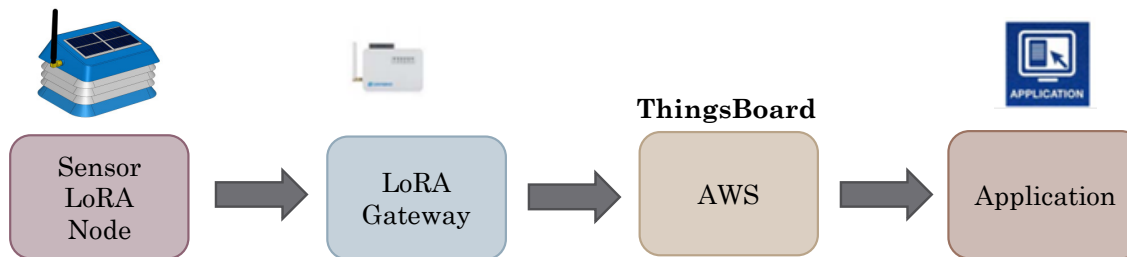
It provides comprehensive air quality data that enables industries and corporations to make better environmental decisions based on the air pollution levels at their specific location. The solution provides a wide range of connectivity, including low-power, wide-area network (LoRaWAN) 433/470/865/868/915 MHz.

Key Features

- Solar Powered with battery backup for 3 to 4 days
- Remote and real time measurement monitoring
- Outdoor IP rated unit (IP55)
- Monitoring of Toxic gases
- Things board application
- Predictive environmental alert
- Data normalization
- **Based on Atmel Micro controller (ATSAMD20J18A)**

Applications

- Forest Air-Quality Monitoring
- Urban Air Monitoring Networks
- Roadside air quality monitoring
- Environmental monitoring in residential areas, schools, Hospitals
- Industrial area air quality monitoring
- Emission monitoring of particulate and pollution sources
- Public vehicle parking
- Malls and shopping complex



Specifications



Environmental sensors	Temperature and Humidity Barometric pressure
Gas sensors	Carbon Monoxide Nitrogen Dioxide Sulfur Dioxide Ozone
Particle matter sensor	PM2.5
Power	Solar powered.
Battery life	3 Days (without solar power harvesting)
Current Consumption	150 mA (Sensing)
Operating temperature	0° to 45° C
Communication	LoRA WAN
Measurement	≥ 30 minutes
IP rating	IP55

Key Benefits

- Remote and real time measurement monitoring.
- Require less human interaction in risky areas.
- Roadside emissions monitoring
- Security : End to End protection from Edge to Cloud
- Air Quality Index Report
- Air Quality Statistics Report
- Data Visualization
- Environmental Data Analytics
- Smart Reports
- Pollution Alerts
- Scalability and interoperability