Develiot
Urban Air Quality

URBAN NOISE MONITORING STATION

DATASHEET

Document Release Information

Persons in Charge		Document Information	
Technical Approval	Petar Ivanov	Version	2.0
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1. Description

The Noise Level Monitoring Station is a hardware noise monitoring solution that helps cities and communities sense accurate noise level data. The Station operates autonomously without requiring external power source or manual data gathering.

Key features of the Noise Level Monitoring Station:

- Includes a precise and calibrated two-microphone formation that ensures consistent and accurate noise sensing;
- Provides a built-in electronic compass to determine the direction of the noise source;
- Microphones are protected with a moisture-resistant replaceable windshield;
- All housed in a rugged plastic body with IP54 rating, for outdoor mounting;
- Powered by a rechargeable and replaceable industrial battery ensuring long device life and charged by a solar panel (provided as part of the set). Can run 14 days solely on battery power without solar panel;
- Utilizes energy-efficient transmission technologies, such as LoRaWAN and NB-IoT.
- Built-in separate internal antenna (not printed on the board) to provide long-distance connectivity and lower power consumption;
- Built-in waterproof connector for attaching a solar panel or a power adapter;
- Fast and easy to install, maintain, and support;
- Streetlight post mounting kit included (for post diameter 10cm - 25 cm).
- Provides effortless multi-platform integration using standard protocols.
- Reporting interval is remotely configurable.

2. Technical Specification

Parameter	Description
Hardware Version	2.0
Detection Range	30 dB ~ 120 dB
	20 Hz ~ 20 kHz
Resolution	0.1 dB
Accuracy	0.5 dB
Power Supply	Rechargeable industrial batteries
	Solar Panel
Industrial Batteries	2700mAh industrial batteries
	Rechargeable
	Replaceable
	10 years lifetime
Solar Panel	10W
	Connects to Noise Level Monitoring Station via a waterproof connector
Connectivity Options	LoRaWAN
	NB-IoT
Protection Level	IP54, for outdoor mounting
Operating Temperature	- 30°C ~ + 60°C
Operating Humidity	0 ~ 100% RH
Dimensions	145 x 125 x 56 mm

Table 1: Noise Level Monitoring Station Specification

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3. Station Overview

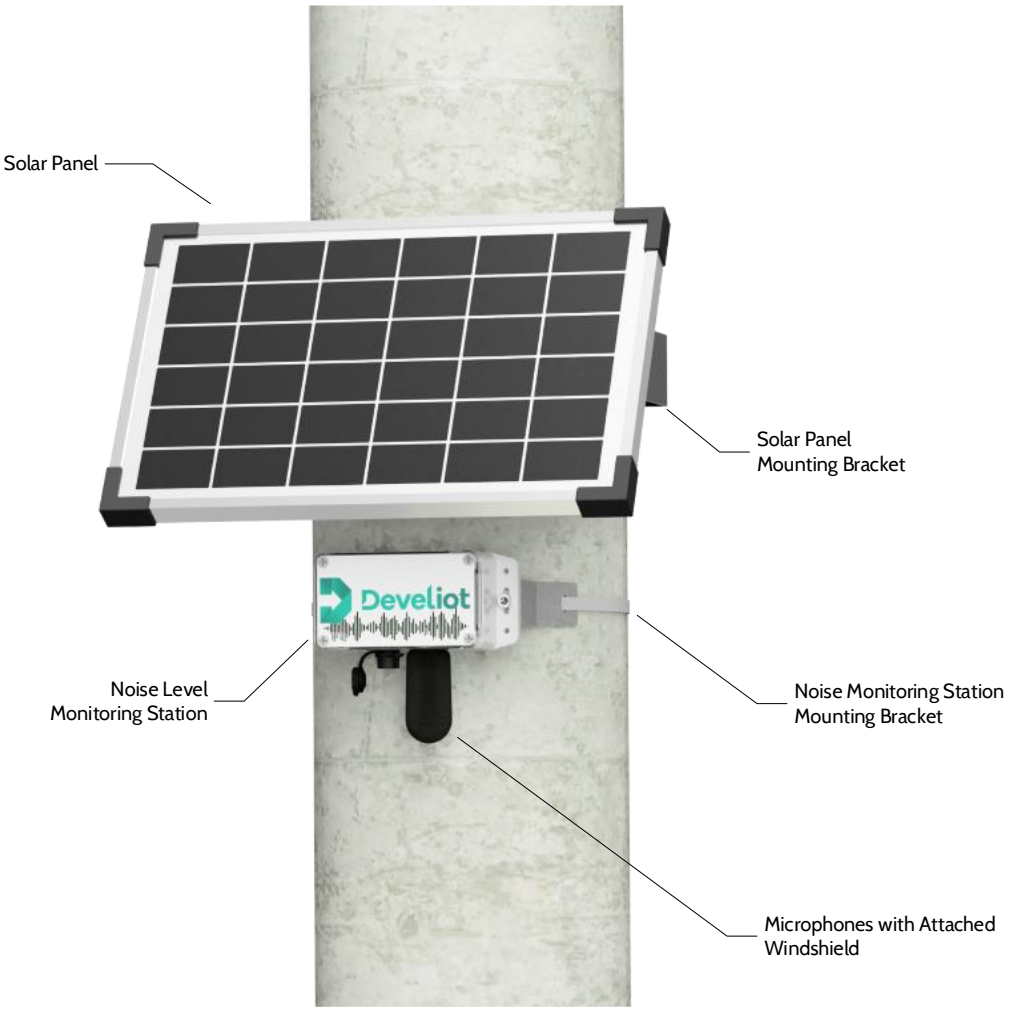

Figure 1: Noise Level Monitoring Station Overview

4. Options

Product Number	Description
DNM2010AA	LoRaWAN AU923, Solar Panel, Rechargeable Battery
DNM2010AB	LoRaWAN EU868, Solar Panel, Rechargeable Battery
DNM2010AC	LoRaWAN US915, Solar Panel, Rechargeable Battery
DNM2010AD	LoRaWAN IN865, Solar Panel, Rechargeable Battery
DNM2010AE	LoRaWAN AS923, Solar Panel, Rechargeable Battery
DNM2010DA	NB-IoT, Solar Panel, Rechargeable Battery

Table 2: Noise Level Monitoring Station Options

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