

# Unattended Noise Monitoring

 Made in Switzerland

Residential West X  
LAF **64.2** dB

Residential South X  
LAF **72.0** dB

NOISESCOUT WEB PORTAL  
XL2 SOUND LEVEL METER  
WEATHERPROOF OUTDOOR STATION  
NETBOX COMMUNICATIONS HUB  
DATA EXPLORER PC SOFTWARE

# Typical Applications



Long-term noise monitoring is typically found on construction sites, traffic routes, residential areas, wind farms, etc. In order to be able to implement the right application for your situation, we provide different monitoring solutions. The choice largely depends on how you prefer to access your measurement data. It is also restricted by the remoteness of the location, i.e. the availability of a data connection (e.g. mobile phone network).

- Data stored at the location
- Data stored in the cloud with a rules engine – NoiseScout Managed Mode
- Data available via FTP connection – NoiseScout Gateway Mode

## NoiseScout Managed Mode

The NoiseScout web portal displays the noise levels live in your web browser. Via the Managed Mode automatic emails can be triggered before a non-compliance condition arises. A first classification of the audio file is already provided using artificial intelligence (AI) and is mentioned in each alert.

## NoiseScout Gateway Mode

In the Gateway Mode, you are able to start and stop any monitoring from your office or mobile device providing total flexibility in meeting your project requirements.

## Key features at a Glance:

- Easy commissioning and operation
- Data automatically managed
- Automatic alarm emails with audio classification via AI allocation
- Remote access via PC or mobile devices

# Data stored at the location



## Unattended Noise Monitoring without Data Connection

At locations where there is no data network, the monitoring station logs data only to itself. Therefore, sufficient storage and power supply should be provided for long measurement periods.

To collect and analyze the data, the SD card, holding all measurement data can easily be removed from the XL2.

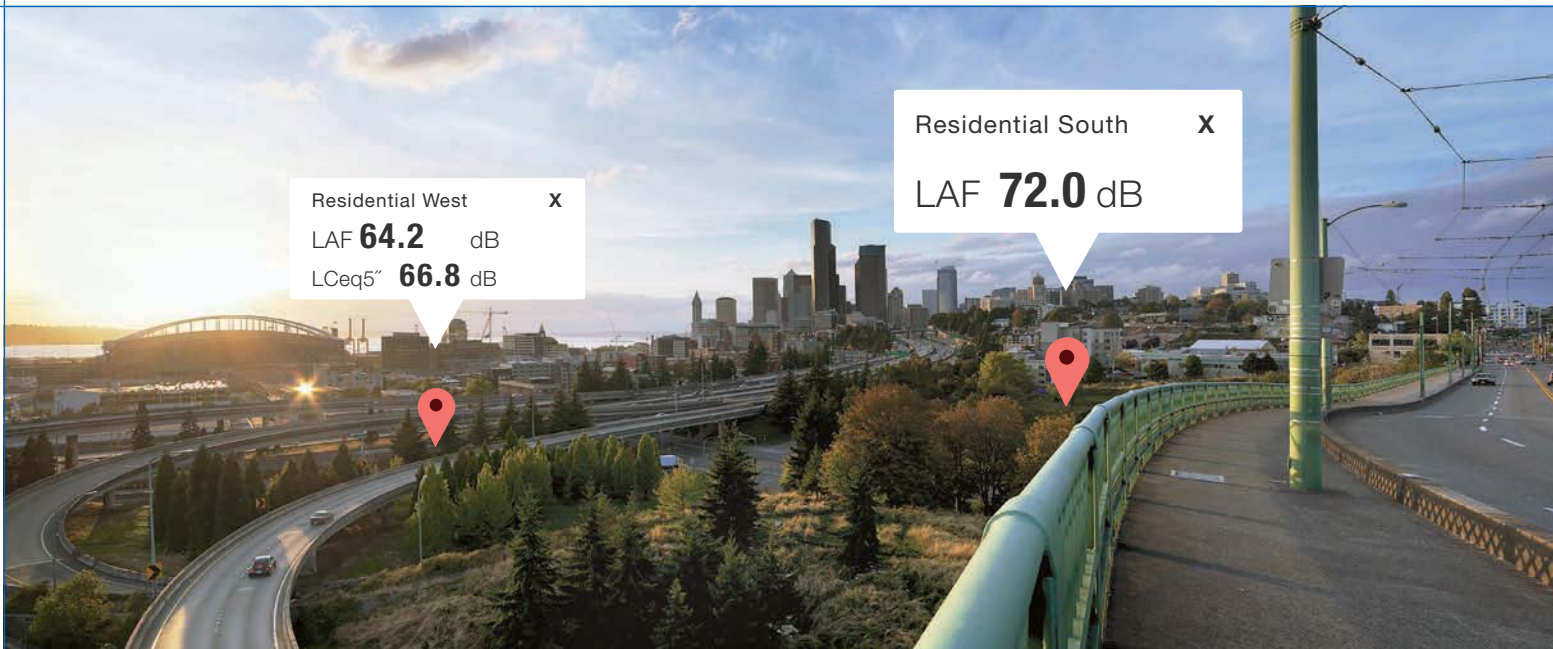
### Required Components

- XL2 Sound Level Meter
- Outdoor Microphone
- Power Supply
- Weather protection for device



XL2 Sound Level Meter + Outdoor Microphone

# NoiseScout Managed Mode

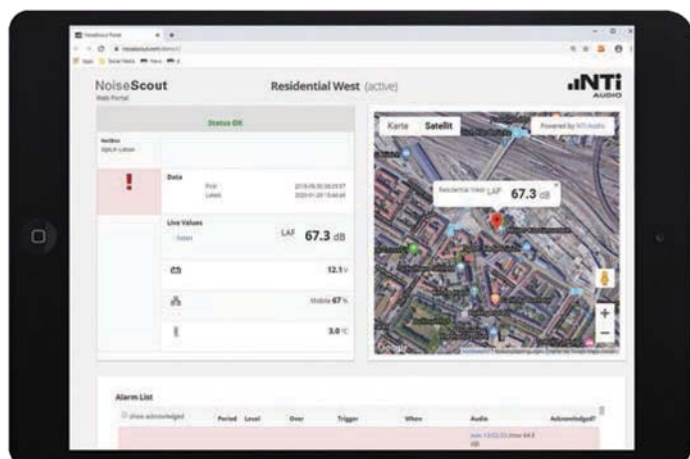


## Remote Monitoring in Managed Mode

In this solution, emails are automatically sent by the system, notifying when noise level limits are exceeded. The measurement data is stored in the cloud, including location details, weather data and audio snippets of when limits are exceeded.

### Required Components

- NoiseScout web portal access (able to manage multiple noise monitoring terminals)
- XL2 Sound Level Meter with Outdoor Microphone
- NetBox for data connection and communication (access through [www.noisescout.com](http://www.noisescout.com))
- Weather protection case or enclosure and power supply



NoiseScout Web Portal for Managed Mode

### Optional Components

- Weather station

# NoiseScout Gateway Mode



## Remote Monitoring in Gateway Mode

Remote monitoring via secure FTP connection is of particular interest to those users who want to manage their measurement from anywhere. The XL2 controls are remotely accessible, via a mobile phone for example, as if you were standing in front of the actual monitoring station. This offers the freedom to start and stop any function from your office or your mobile device – a useful tool for complete control.

### Required Components

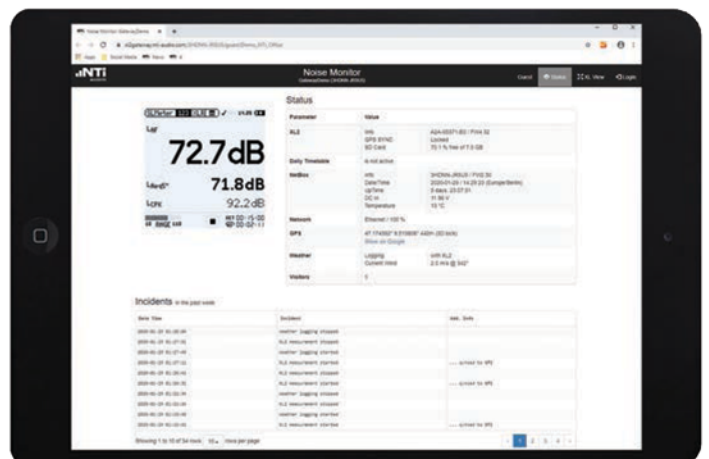
- NoiseScout Gateway access
- XL2 Sound Level Meter with Outdoor Microphone
- NetBox for data connection with an SFTP-Client
- Weatherproof enclosure and power supply

### Optional Components

- Weather station

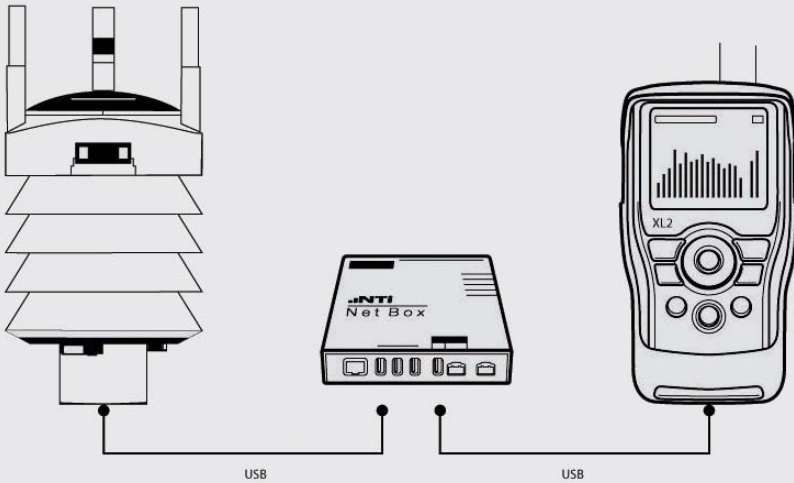


Interior of a weatherproof Enclosure



NoiseScout Web Portal for Gateway Mode

# Accessories for Noise Monitoring Terminal



## NetBox

The NetBox is the station's data communications hub. It synchronizes measurement and audio data from the XL2 to the hard disk, cloud or FTP client. It also handles weather and GPS data.



NetBox for communications

## Weather Protection

The outdoor equipment protects the sensitive electronics from harmful environmental influences. There are two types:

- Heavy Duty Outdoor Case (IP43 or IP65)
- Weatherproof Enclosure (IP66)

## Power Supply

There are three alternatives for the long-term power supply to an outdoor Noise Monitoring Terminal:

- Fixed connection to the power grid
- Rechargeable battery
- Solar panel

The variants **b** and **c** are often combined together, i.e. the solar panel serves as an energy source and the battery as an intermediate store. These configurations can be implemented on a project to project basis if needed.



Heavy Duty Outdoor Case

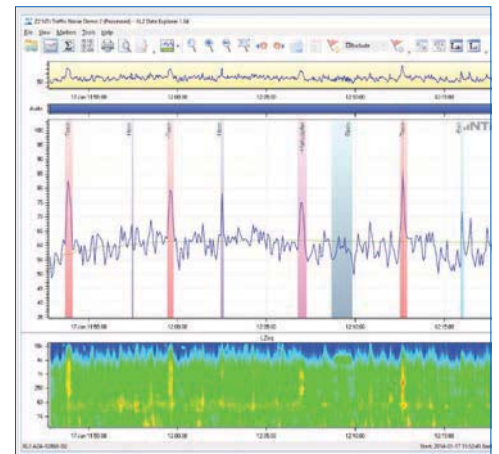
# Data Analysis and Reporting



The Data Explorer PC software is ideal for post-processing and analysis of sound level measurement data. After importing the data, it is clearly displayed and can be filtered, grouped, weighted and mathematically linked from a variety of perspectives.

## Features

- Data visualization
- Audio playback synchronized to graph
- Automated tonal and impulsive marker generation
- Percentile and rateup calculation
- Rating level Lr calculation
- Customized reporting



Level History and Spectrogram

Type	Start	Duration	LAeq [dB]	LAfmax [dB]	LAFT50 [dB]	Notes
Recorded	2014-01-20 17:11:00	00:05:00	62.2	72.8	65.8	
Project Result		00:05:00	62.2	72.8	65.8	

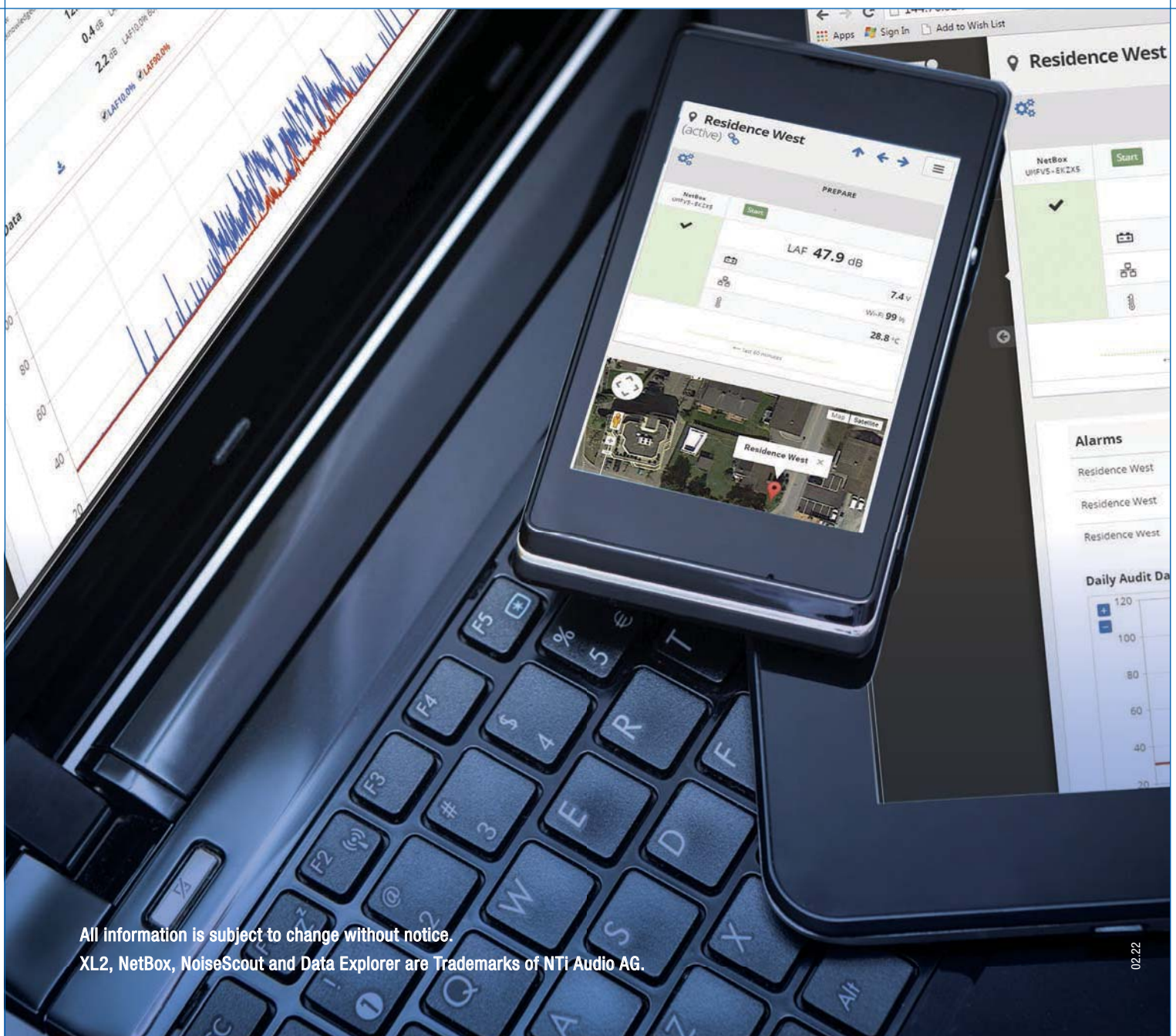
  

Type	Start	Duration	LAeq [dB]	LAfmax [dB]	LAFT50 [dB]	Notes
Marker 1 (4)		00:00:01	68.6	69.9	66.8	
Marker 1	2014-01-20 17:13:47.7	00:00:03	66.2	66.3	66.3	Tones (P4) 2.15k
Marker 1	2014-01-20 17:13:51.9	00:00:02	69.4	69.0	69.0	Tones (P4) 3.15k
Marker 1	2014-01-20 17:14:14	00:00:03	69.4	69.9	69.9	Tones (P4) 4k
Marker 1	2014-01-20 17:14:32	00:00:02	69.0	68.8	69.6	Tones (P4) 3.15k
Imp (8)		00:01:09	63.3	72.8	67.6	
Imp	2014-01-20 17:11:27.6	00:01:17.7	63.3	69.4	65.6	
Imp	2014-01-20 17:11:46.9	00:00:59.8	63.9	72.8	70.3	
Imp	2014-01-20 17:12:16	00:00:56.6	62.1	71.1	69.8	
Imp	2014-01-20 17:12:57.7	00:00:10.2	62.1	69.0	66.2	
Imp	2014-01-20 17:13:33.6	00:00:47.5	63.7	69.9	67.8	
Imp	2014-01-20 17:14:27.9	00:00:19.7	64.2	69.6	66.9	
Imp	2014-01-20 17:14:57.8	00:00:06.2	63.1	69.2	65.9	
Imp	2014-01-20 17:15:36.6	00:00:06.2	63.1	69.2	67.2	

Result Table



**DISTRIBUTOR CONTACT:**  
**CALTRON PTE LTD**  
email: [caltron@caltron.sg](mailto:caltron@caltron.sg)  
[www.caltron.sg](http://www.caltron.sg)



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