

XL3 ACOUSTIC ANALYZER

CLASS 1 SOUND LEVEL METER
1/3-OCTAVE SPECTRUM ANALYZER
REVERBERATION TIME ANALYZER
BUILDING ACOUSTICS ANALYZER





XL3 remote access via mobile device

Fully Networked

The XL3 is fully networked. The remote control interface and the built-in web server allow operation and data access from any mobile device.

New Technologies

State-of-the-art hardware and software technologies, high-performance processors and enough memory to cover all requirements, make the XL3 the ideal solution for acousticians. The unit offers a wide single range for easy usage, which is covered without any range switching.

Smart User Interface

The high-resolution 4.3-inch color touch display allows intuitive control of all measurement functions. All common operating functions are also accessible on the keypad below the display.

The Heart of Noise Monitoring

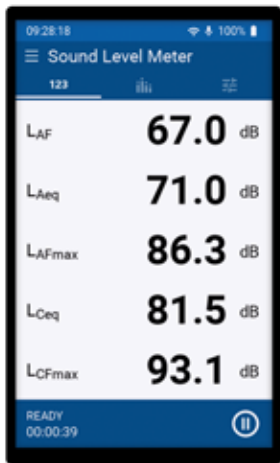
The XL3 is fully network-capable and can be connected with USB or Wi-Fi via an external router to the internet at any time for upload of data to the cloud. The binary streaming format facilitates compact data transmission over cellular networks. In addition to a large SD memory card, the XL3 also supports the connection of an external hard disk. A weather station can be connected directly to the XL3 via the SDI-12 interface.

XL3 – Acoustic Analyzer



The XL3 is a professional sound level meter and acoustics analyzer for noise measurements, room acoustics and building acoustics – optimized for the needs of the acoustician.

Sound Level Meter



The Class 1 Sound Level Meter records numerous levels in parallel over the entire measurement period. At the same time the XL3 logs the frequency spectrum and, if desired, records the audio as a wav file.

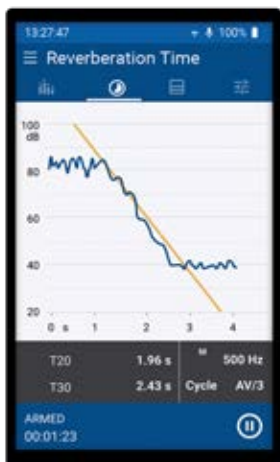
All stored measurement data is available in simple text format. Professional data evaluation and further calculations are carried out in the optional Data Explorer PC Software.

Spectrum



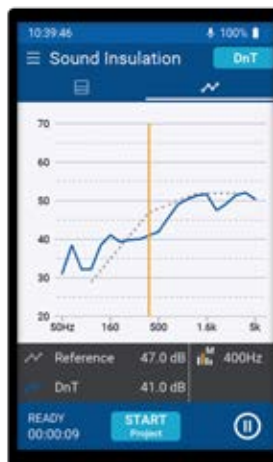
The XL3 determines the frequency spectrum with a Class 1 filter bank in octave or 1/3 octave resolution between 6.3 Hz and 20 kHz. All values are calculated in parallel. In addition, two spectra can be selected and displayed simultaneously. Both the level and the frequency axes can be freely zoomed and scrolled.

Reverberation Time



The standard reverberation time measurement determines T₂₀ or T₃₀ in octave bands from 63 Hz - 8 kHz. The values of a measured position or of an entire room are averaged on the XL3. The optional Room Acoustics Package extends the Acoustic Analyzer to 1/3 octave band resolution, T₁₅ or EDT. Use either an impulse source or an interrupted pink noise as the test signal.

Building Acoustics



The optional Building Acoustics module enables direct determination of airborne and impact sound insulation, according to ISO 16283, while you are on site. Measure in the source and receiving rooms and see the sound insulation results on the display. A detailed measurement report is easy to create with the optional Sound Insulation Reporter PC Software.

TECHNICAL SPECIFICATIONS

SOUND LEVEL METER XL3+M2230 / XL3+M2340

Accuracy	<ul style="list-style-type: none"> Class 1 according to IEC 61672 and ANSI S1.4 Type-Approved configuration with TA-Option System Self-test (CIC) with M2340 microphone
Level	<ul style="list-style-type: none"> Frequency weighting: A, C, Z Time weighting: Slow, Fast Min, Max, Peak, EQ, EQT, Taktmax
Functionality	<ul style="list-style-type: none"> Single measurement range: 17 dBA - 137 dB Frequency range: 4.3 Hz - 23 kHz Level limits Logging interval 1 s Voice notes (planned)
Audio	<ul style="list-style-type: none"> Compressed (ADPCM), 24 kHz, 12 kHz
Extended Noise Measurement Option	<ul style="list-style-type: none"> Sound Exposure Level LAE Time weighting: Impulse Percentile statistics L% (broadband, spectrum) Logging 100 ms (broadband, spectrum) Audio: 24, 32 bit with 12, 24, 48, 96 kHz Event-triggered audio and data recording (planned)

SPECTRAL ANALYZER

Accuracy	<ul style="list-style-type: none"> Class 1 according to IEC 61260 and ANSI S1.11
Frequency range	<ul style="list-style-type: none"> Octave band: 8 Hz - 16 kHz 1/3 octave band: 6.3 Hz - 20 kHz
Functionality	<ul style="list-style-type: none"> Filter base 10 Leq with frequency weighting A, C, Z Spectrum logging Leq, Lmin and Lmax

REVERBERATION TIME

Accuracy	<ul style="list-style-type: none"> ISO 3382 and ASTM E2235 Schroeder backward integration
Functionality	<ul style="list-style-type: none"> Octave band: 63 Hz - 8 kHz Measurement parameters T20, T30 Impulse and interrupted noise source Automatic averaging
Extended Room Acoustics Option	<ul style="list-style-type: none"> 1/3 octave band: 50 Hz - 10 kHz T20, T30, T15, EDT simultaneously Minimum trigger level Automatic room averaging of multiple positions Audio recording Decay curve (planned)

more information are listed in the product specifications

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BUILDING ACOUSTICS (optional)

Standards	<ul style="list-style-type: none"> ISO 16283 and ISO 717 Airborne and impact sound insulation
Functionality	<ul style="list-style-type: none"> Results shown on XL3 Averaging of source and receiving room Flatness of adjacent 1/3 octave band (planned) Requires Extended Room Acoustics Option
Results	<ul style="list-style-type: none"> D, Dn, DnT and R' Chart and table

INTERFACES

Input	<ul style="list-style-type: none"> XLR balanced with 48 V phantom power
Network	<ul style="list-style-type: none"> Wi-Fi integrated (2.4 GHz) LAN via USB adapter USB-C as host or slave, USB-A as host Data and website access via USB Web server, ftp, ntp 4G/5G via optional external gateway Remote access connect.nti-audio.com (optional)
API-interface Option	<ul style="list-style-type: none"> Data and audio streaming Control, configuration & data retrieval
Digital I/O	<ul style="list-style-type: none"> Connection of accessories SDI-12 and 1-Wire
Memory	<ul style="list-style-type: none"> Removable SD card with 32 GB memory Supports external hard disk
Further Functionalities	<ul style="list-style-type: none"> Automatic microphone detection (ASD) Built-in microphone for voice notes Loudspeaker Headphone/line output: 3.5 mm jack, stereo
Power supply	<ul style="list-style-type: none"> Removable battery (Li-Po) Battery life > 8 hours Power supply 9 VDC, USB-C

GENERAL

Display	<ul style="list-style-type: none"> 4.3" IPS color display with capacitive touch 480 x 800 pixels
Mechanics	<ul style="list-style-type: none"> 1/4" tripod mount Device stand
Dimensions	<ul style="list-style-type: none"> 210 x 85 x 45 mm, 8.3 x 3.3 x 1.8" (L x W x H)
Weight	<ul style="list-style-type: none"> 510 g, 18 oz

XL3

info@nti-audio.com
 www.nti-audio.com

