XL3 ACOUSTIC ANALYZER
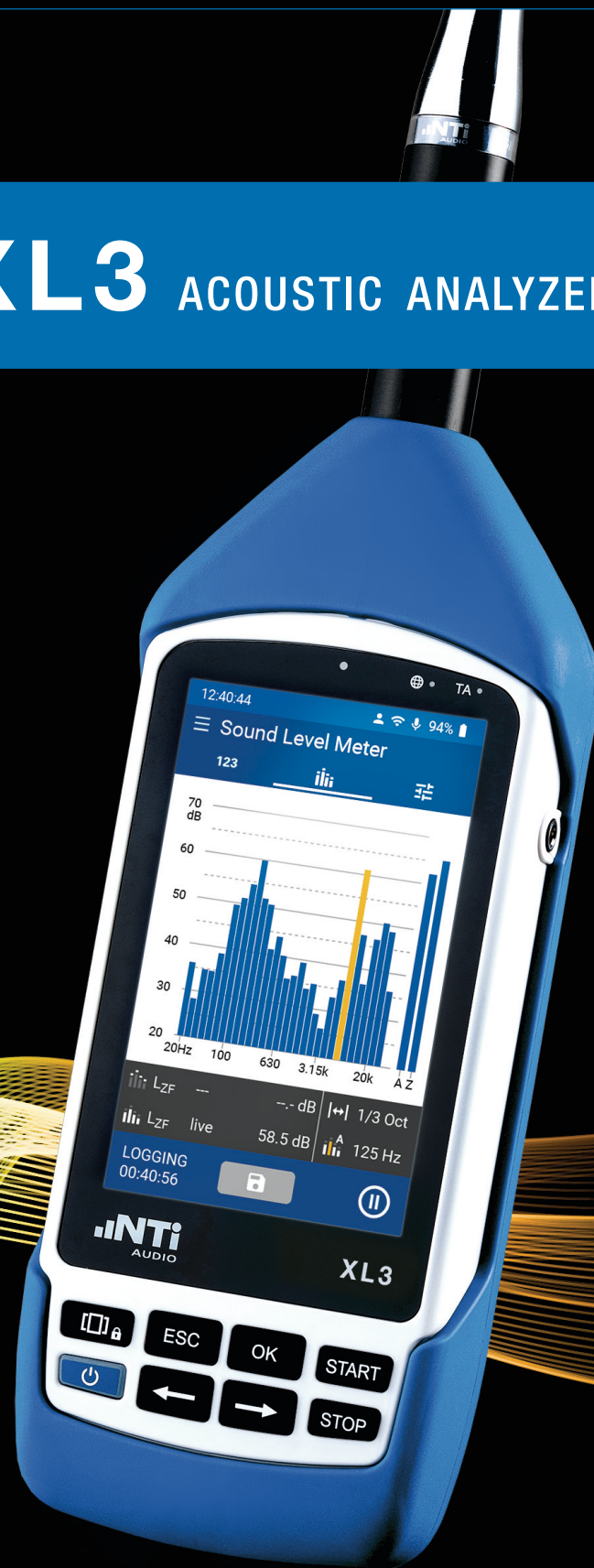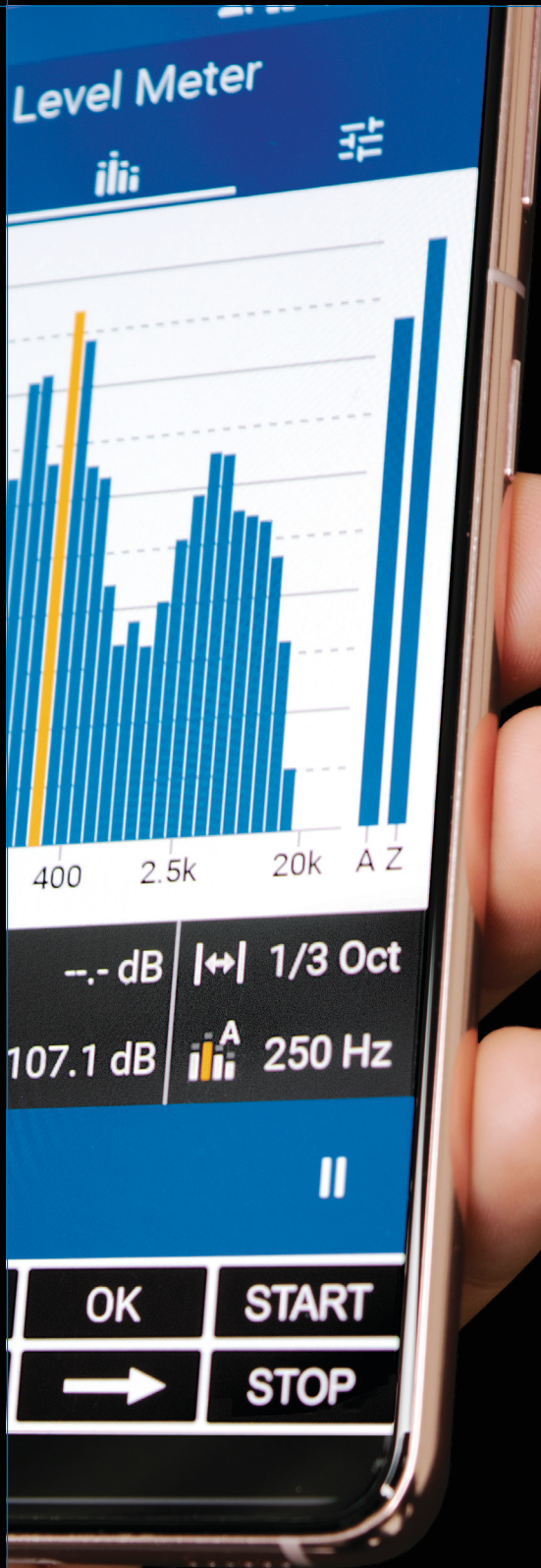
CLASS 1 SOUND LEVEL METER

1/3-OCTAVE SPECTRUM ANALYZER

REVERBERATION TIME ANALYZER

BUILDING ACOUSTICS ANALYZER

Made in Switzerland

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 has a dynamic range of 160 dB, which is achieved 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.
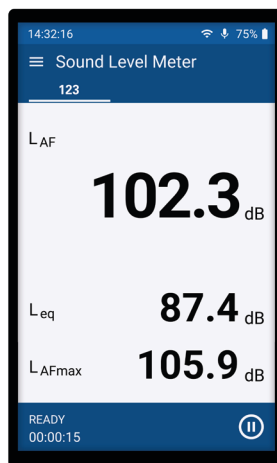
The Heart of Noise Monitoring

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.
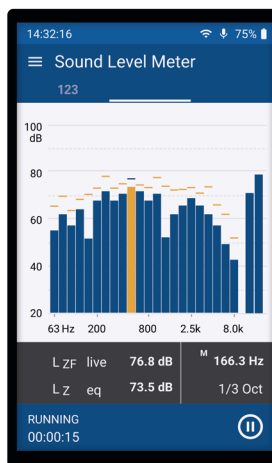
Sound Level Meter

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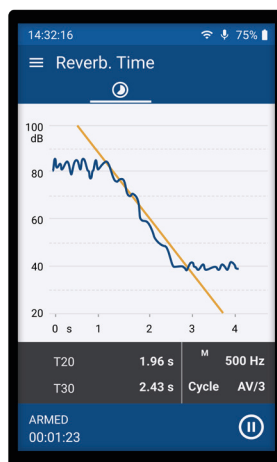
All stored measurement data is available in simple text format. Professional data evaluation and further calculations are carried out in the optional Data Explorer PC Software.
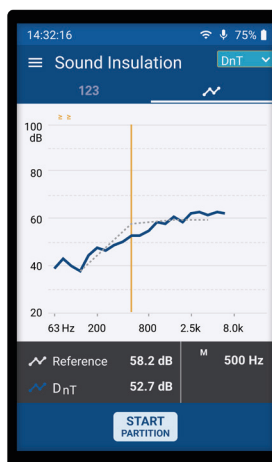
Spectrum

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	· Class 1 according to IEC 61672 and ANSI S1.4 · Type-Approved configuration with TA-Option · System Self-test (CIC) with M2340 microphone
Level	· Frequency weighting: A, C, Z · Time weighting: Slow, Fast · Min, Max, Peak, EQ, EQT, Taktmax
Functionality	· Single measurement range: 17 dBA - 137 dB · Frequency range: 4.3 Hz - 23 kHz · Level limits · Logging interval 1 s · Voice notes (planned)
Audio	· Compressed (ADPCM), 24 kHz, 12 kHz
Extended Noise Measurement Option	· Sound Exposure Level LAE · Time weighting: Impulse · Percentile statistics L% · Logging 100 ms (broadband, spectrum) · Spectrum logging Lmin and Lmax · Audio: 24, 32 bit with 12, 24, 48, 96 kHz · Level-time history graph (planned) · Back-erase (planned) · Pre-trigger (planned)

SPECTRAL ANALYZER

Accuracy	· Class 1 according to IEC 61260 and ANSI S1.11
Frequency range	· Octave band: 8 Hz - 16 kHz · 1/3 octave band: 6.3 Hz - 20 kHz
Functionality	· Filter base 10 · Leq with frequency weighting A, C, Z

REVERBERATION TIME

Accuracy	· ISO 3382 and ASTM E2235 · Schroeder backward integration
Functionality	· Octave band: 63 Hz - 8 kHz · Measurement parameters T20, T30 · Impulse and interrupted noise source · Automatic averaging for position & room
Extended Room Acoustics Option	· 1/3 octave band: 50 Hz - 10 kHz · T20, T30, T15, EDT simultaneously · Audio recording · Minimum trigger level · Decay curve (planned)

more specifications are listed in the user manual

BUILDING ACOUSTICS (optional)

Standards	· ISO 16283 and ISO 717 · Airborne and impact sound insulation
Functionality	· Results shown on XL3 · Averaging of source and receiving room · Requires Extended Room Acoustics Option
Results	· D, Dn, DnT and R' · Chart and table

INTERFACES

Input	· XLR balanced with 48 V phantom power
Network	· 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	· Data and audio streaming · Control, configuration & data retrieval
Digital I/O	· Connection of accessories · SDI-12 and 1-Wire
Memory	· Removable SD card with 32 GB memory · Supports external hard disk
Further Functionalities	· Automatic microphone detection (ASD) · Built-in microphone for voice notes · Loudspeaker · Headphone/line output: 3.5 mm jack, stereo
Power supply	· Removable battery (Li-Po) · Battery life > 8 hours · Power supply 9 VDC, USB-C

GENERAL

Display	· 4.3" IPS color display with capacitive touch · 480 x 800 pixels
Mechanics	· 1/4" tripod mount · Folding stand
Dimensions	· 210 x 85 x 45 mm, 8.3 x 3.3 x 1.8"(L x W x H)
Weight	· 510 g, 18 oz

All information is non-binding and subject to change without notice.

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XL3

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