Class 1 Sound Level Meter and Advanced Acoustic Analyzer. Ultimate Depth.

XPT800



Introduction

Designed for acoustic professionals, this sound level meter supports environmental noise assessment, building acoustics, workplace risk assessment and industrial product noise testing with Class 1 performance according to IEC 61672-1:2013.

Featuring a user-friendly interface on a vibrant 4.3" sunlight-readable touchscreen, XPT800 delivers intuitive user interaction through familiar, smartphone-like gestures while maintaining a versatile 3-button keyboard to manage all functionalities seamlessly in any environment.

Driven by a 123 dB linearity range and 0.01 dB resolution, the sound level meter provides unparalleled acoustic insight. Through its advanced spectral (octave, third-octave, and FFT) and statistical analysis, it delivers the precise noise detail professionals require to tackle even the most demanding applications with complete confidence.

Engineered for seamless, unattended campaigns, the instrument delivers over 24 hours of continuous battery life, 4 GB internal memory, and smart event-triggered audio recording. Effortlessly transfer and sync your field data via Wi-Fi, Ethernet, or 4G directly to the cloud for instant remote access.

Class 1 precision
Compliant with IEC 61672-1:2013 Class 1 specifications for accurate and reliable acoustic measurements

Exceptional dynamic range
123dB linearity range covering from 15 dBA to 140 dBpeak to capture everything from ultra-quiet to noisy environments

Long-lasting battery life
The internal 9000 mAh Li-Ion rechargeable battery, supports more than 24 hours of continuous measurement campaigns

Seamless connectivity
Transfers data via Wi-Fi, Ethernet or 4G and supports NS Storage cloud synchronization

Smartphone-like interface
Navigate the 4.3” sunlight-readable touchscreen with smartphone gestures or the 3-button keyboard in any environment

Advanced analysis
Octave, third-octave, FFT, statistics, RT60 and STIPA options support specialist tasks

View product on our website
www.senseca.com/en/product/xpt800-class-1-sound-level-meter-and-advanced-acoustic-analyzer-ultimate-depth

Available product variants

Ordercode	Description	Article No.
XPT800-H	**XPT800-H: High SPL measurements** - IEC 61672 Class 1 sound level meter for measurements up to 178 dB.	VXPT800-H

Features

Interchangeable microphone sets

Compatible with MS800 and MS802 microphone sets, XPT800 handles high-level measurements up to 140 dB and 178 dB respectively. Its smart Sensor Digital Interface streamlines instrument setup with automatic preamplifier model detection, seamless calibration data handling, and automated electrical CTC

Spectral analysis

Fully compliant with IEC 61260-1:2014, the instrument performs real-time 1/1 octave (8 Hz – 16 kHz) and 1/3 octave (6.3 Hz – 20 kHz) band analysis. For ultimate field versatility, a powerful FFT analysis can run simultaneously with octave-band spectra, delivering ultra-fast 100 ms intervals with selectable spans and resolutions up to 16,000 lines.

Advanced Event Triggers & Audio

Empower your unattended noise monitoring with automated event identification powered by advanced trigger logic and unique logging capabilities. The instrument captures exceedances across broad-band levels and custom 1/1 or 1/3 octave spectrum masks using versatile AND/OR logic, instantly triggering high-fidelity Wave audio recordings up to 32-bit resolution.

Comprehensive Display Views

The rich graphical interface offers comprehensive, customizable data visualization, featuring real-time SLM, numerical tables, frequency spectra, time histories, and statistical plots for in-depth analysis. Users can simultaneously display parameters, broadband bars, percentiles, and exceedances for enhanced data interpretation.

Advanced Data Logging & Cloud Synchronization

Log measurements securely via the 4 GB embedded eMMC or USB flash drives, featuring manual archiving or automated 4G/Wi-Fi background Push sync to the cloud; this enables browser-based graph/table visualization, text export, and direct integration with NS-ENS, and NS-SIS software modules.

Smart Noise Feature Extraction

XPT800 features smart, automatic detection of impulsiveness and tonality in full compliance with DM 16/03/1998, ISO 1996-2, and ISO/PAS 1996-3:2022 standards.

Seamless Connectivity & Interfaces

Depending on your configuration, XPT800 offers ultimate field connectivity by combining embedded Wi-Fi, an optional 4G-LTE modem, and 10/100 Ethernet for real-time web communication and time sync, alongside high-speed USB-C OTG 2.0 (Mass Storage/ Communication), a versatile RJ12 auxiliary port for external power, and a 3.5 mm jack for audio and trigger I/O.

Advanced Room Acoustics

XPT800 delivers precise reverberation time calculations utilizing both the interrupted source method and the high-resolution impulse response method.

Advanced Environmental Analytics

The NS-ENS (Environmental Noise Studio) desktop software provides advanced post-processing, comprehensive reporting, and specialized analysis for environmental noise, empowering professionals to effortlessly manage urban pollution monitoring, construction site compliance, and residential impact studies.

Advanced Building Acoustics

The NS-SIS (Sound Insulation Studio) desktop software offers a professional platform for analyzing and verifying building acoustic performance, equipping engineering firms, accredited laboratories, and construction companies with advanced calculation tools, constant regulatory updates, and an intuitive interface to ensure total compliance and reliability in their consulting services.

Details

The Senseca XPT800 sound level meter is available in several tailored kits, ranging from basic setups for workplace noise assessment to advanced configurations with application-specific measurement options and specialized software for environmental noise mapping and building acoustics.

The sound level meter offers a wide range of hardware and firmware upgrades that can be easily installed post-sale, allowing you to extend sound analysis capabilities as your application needs evolve.

Basic Kit

Includes:

- XPT800 class 1 SLM:
  - Statistic analyzer
  - Advanced datalogger with history profile steps from 10ms
  - Environmental noise package
  - Event detector with advanced trigger logic
  - Spectrum masks exceedances
  - Moving average calculations
  - Noise assessment period levels
  - Extended dynamic range option
  - Push function
- NS-Storage cloud service
- MS800 microphone set:

    - MP800 preamplifier
    - MC800 1/2" free-field 50 mV/Pa microphone
- WS90 microphone windscreen
- conformity certificate
- CPUSB-C USB cable
- BAG-XPT case

SLM Kit: the Expert Logger

Includes:

- XPT800 Basic Kit:
    - BAG-8K rugged carrying case replaces BAG-XPT
- ISO 17025 calibration of XPT800 according to IEC 61672
- HD2020: Class 1 acoustic calibrator with:
    - ISO 17025 calibration of HD2020 according to IEC 60942

ENV Kit: the Environmental Noise Expert

Includes:

- XPT800 Basic Kit:
    - OF1E: advanced octave and third-octave spectrum analyzer option
    - BAG-8K rugged carrying case replaces BAG-XPT
    - ISO 17025 calibration of XPT800 according to IEC 61672 and IEC 61260 for both octave and third-octave filters
- NS-ENS: "Environmental Noise Studio" software module
- HD2020: Class 1 acoustic calibrator with:
    - ISO 17025 calibration of HD2020 according to IEC 60942

BA Kit: for Building Acoustics

Includes:

- XPT800 Basic Kit:
    - OF1E: advanced octave and third-octave spectrum analyzer option
    - OF12: reverberation time calculation option
    - BAG-8K rugged carrying case replaces BAG-XPT
    - ISO 17025 calibration of XPT800 according to IEC 61672 and IEC 61260 for both octave and third-octave filters
- NS-SIS: "Sound Insulation Studio" software module
- HD2020: Class 1 acoustic calibrator with:
    - ISO 17025 calibration of HD2020 according to IEC 60942

ENV-BA Kit: for Environmental-Building Acoustics

Includes:

- XPT800 Basic Kit:
  - OF1E: advanced octave and third-octave spectrum analyzer option
  - OF12: reverberation time calculation option
  - BAG-8K rugged carrying case replaces BAG-XPT
  - ISO 17025 calibration of XPT800 according to IEC 61672 and IEC 61260 for both octave and third-octave filters
- NS-ENS: "Environmental Noise Studio" software module
- NS-SIS: "Sound Insulation Studio" software module
- HD2020: Class 1 acoustic calibrator with:
  - ISO 17025 calibration of HD2020 according to IEC 60942

INT Kit: for Intelligibility assessments

Includes:

- XPT800 Basic Kit:
  - OF1AE: advanced octave spectrum analyzer option
  - OF6: STI/STIPA analyzer option
  - BAG-8K rugged carrying case replaces BAG-XPT
  - ISO 17025 calibration of XPT800 according to IEC 61672 and IEC 61260 for octave filters
- HD2020: Class 1 acoustic calibrator with:ISO 17025 calibration of HD2020 according to IEC 60942

Hardware options

OH3A Monitor expansion module:

Specifically designed for sound monitoring applications, this option provides full connectivity for instrument communication, power supply, and network integration. The option includes:

- RS232/485 interface
- 9-24 V input for instrument power supply and battery charging
- 5 V / 500 mA output for accessories power supply
- Ethernet connector

OH3H Network module with 4G modem:

For locations without network access points or LAN cables, this option integrates a 4G modem to ensure connectivity.

Firmware options

OF1AE class 1 IEC 61260 octave band real-time spectrum analyzer:

- Octave bands from 8 Hz to 16 kHz
- Latency equalized filters for transient analysis

OF1E class 1 IEC 61260 octave and third-octave band real-time spectrum analyzer:

- Octave bands from 8 Hz to 16 kHz
- Third-octave bands from 6.3Hz to 20 kHz
- Latency equalized filters for transient analysis

OF2 FFT spectrum analyzer

OF3S advanced statistic analyzer:

- 7 user Ln calculated either on wideband and third-octave band levels
- probabilitty distributions of either wideband and third-octave band levels
- sliding Ln calculation
- option OF1E is required

OF4 audio recording:

- manual
- on event

OF6 STI (STIPA method) analyzer:

- option OF1AE or OF1E is required

OF9 noise ratings calculations:

- NC, RNCm NR and RC criterions
- option OF1AE or OF1E is required

OF11A automatic tonality and impulse detectors according to ISO 1996:

- option OF1E is required

OF11B automatic tonality and impulse detectors according to Italian DM 16/03/1998:

- option OF1E is required

OF12 reverberation time calculation:

- option OF1AE or OF1E is required

Order Hints

Design your XPT Kit: XPT 80X Configurator

Ordering codes:

Basic code:

XPT800 Class 1 Sound Level Meter. It includes MP800 preamplifier, MC800 microphone, WS90 windscreen, standard rugged carrying case (big carrying case only for kits including HD2020 calibrator), Conformity Certificate, USB-C cable, Free access to cloud storage

Application kits:

XPT800.BA XPT800 Building Acoustics Kit
XPT800.ENV XPT800 Environmental Noise Expert Kit
XPT800.ENV-BA XPT800 Environmental - Building Acoustics Kit
XPT800.INT XPT800 Intellegibility Kit
XPT800.SLM XPT800 Expert Logger Kit

XPT800-H Variant of XPT 800 sound level meter for high SPL measurements

Firmware options:

XPT800-OF11A Automatic detectors tonality and impulse (ISO1996)
XPT800-OF11B Automatic detectors tonality and impulse (italian regulation only)
XPT800-OF12 Reverberation time
XPT800-OF1AE Spectrum analyzer: octave bands, real time operation, latency equalized filters
XPT800-OF1E Spectrum analyzer: octave bands, third-octave bands, real time operation, latency equalized filters
XPT800-OF2 FFT spectrum analyzer
XPT800-OF3S Spectrum statistic analyzer
XPT800-OF4 Audio recording
XPT800-OF6 STI (STIPA method) Analyzer
XPT800-OF9 Noise ratings

Hardware options:

XPT800-OH3A "Monitor" hardware module
XPT800-OH3H "4G Modem" network module