Best Free Sound Level Meter Apps Without Ads (2026 Comparison)

Looking for the best free sound level meter app without ads? We tested eight dB meter apps in 2026 and compared them on accuracy, features, export options, and privacy.

Author: Lubor Šimůnek · Published: April 21, 2026 · Productivity

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Why Finding a Truly Free dB Meter App Is So Hard

If you have ever searched your phone's app store for a sound level meter, you already know the frustration. Dozens of results appear, most of them plastered with banner ads, gated behind subscriptions, or quietly uploading your microphone data to remote servers. Finding the best free sound level meter app without ads in 2026 takes more digging than it should.

We spent two weeks testing eight popular decibel meter apps across iOS and Android. We measured the same controlled sound sources, exported data, reviewed privacy policies, and documented every paywall we hit. Below is what we found, starting with the app that impressed us most.

Download NoiseLedger free on iOS

What to Look For in a Sound Level Meter App

Before diving into individual reviews, here are the five criteria we used to evaluate every app on this list.

Accuracy and calibration. A sound meter is only useful if its readings are reasonably close to reality. Look for apps that let you apply a manual calibration offset and that specify

whether they use A-weighting (which approximates human hearing) or Z-weighting (flat, unweighted). The best apps offer both.

Frequency weighting and spectrum analysis. A-weighting is the standard for most noise assessments, but an FFT (Fast Fourier Transform) spectrum view is invaluable when you need to identify which frequency band is causing a problem, whether that is a low hum from an HVAC system or a high-pitched whine from electronics.

Data export. If you are measuring noise for any purpose beyond idle curiosity, you need to get your data out of the app. CSV export lets you analyze readings in a spreadsheet. PNG or PDF reports are handy for sharing results with landlords, employers, or local authorities.

Privacy and ads. A sound meter app has access to your microphone, which makes privacy especially important. Some free apps monetize through ads that track your behavior, and a few even stream audio data to analytics services. Always check the App Store or Google Play privacy label before installing.

Session management. Quick spot checks are fine for casual use, but if you are monitoring noise over time, for instance tracking neighbor noise across several nights, you need an app that lets you save, title, tag, and annotate measurement sessions so you can compare them later.

1. NoiseLedger: dB Meter Log — Best Overall Free Option

NoiseLedger is a free decibel meter app with no subscription, no ads, and no data collection. It is the only app on this list that combines real-time dB measurement, FFT spectrum analysis, full session recording with titles, tags, notes, and markers, plus PNG report and CSV export, all without charging a cent or showing a single ad.

Accuracy and calibration. NoiseLedger supports both FAST (125 ms) and SLOW (1 s) time weighting, which are the two standard response times defined by IEC 61672. It displays MIN, LEQ (equivalent continuous level), and MAX simultaneously. You can apply a manual calibration offset and switch between A-weighting and Z-weighting, which means you can calibrate against a reference meter and then measure in either mode.

Spectrum analysis. The built-in FFT spectrum view shows you which frequency bands are most active in real time. This is genuinely useful: if you are trying to document a low-frequency hum from a neighbor's heat pump, the FFT will show energy concentrated below 200 Hz, giving you objective evidence rather than a vague complaint about noise.

Session recording and export. You can start a measurement session, give it a title, add tags (for example, “bedroom,” “night,” “windows closed”), drop timestamped markers during recording, and write notes. When the session ends, NoiseLedger can generate a PNG image report or export raw data as a CSV file. This is enormously helpful if you need to present noise evidence to a landlord, an HOA, or a municipal noise officer.

Privacy. NoiseLedger works entirely offline. According to its App Store privacy label, it collects no data whatsoever. There are no accounts, no analytics, no telemetry. Your microphone audio never leaves your device.

Limitations. NoiseLedger is available on iOS only, so Android users will need to look

elsewhere. It does not have an Apple Watch companion app, and there is no integration with Apple Health or any cloud service, though the lack of cloud connectivity is arguably a privacy advantage.

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2. NIOSH Sound Level Meter — Best for Certified Accuracy

The NIOSH SLM app was developed by the National Institute for Occupational Safety and Health, a division of the U.S. Centers for Disease Control and Prevention. It is designed specifically for occupational noise exposure assessment and is one of the few apps whose measurement algorithm has been evaluated against the IEC 61672 standard for sound level meters.

Accuracy. In controlled tests, the NIOSH SLM app has been shown to produce readings within 2 dB of a Type 2 reference meter when used with an external calibrated microphone. Even with the iPhone's built-in mic, results are surprisingly close for a free tool backed by a federal agency.

Occupational focus. The app calculates time-weighted average (TWA) noise exposure, projected dose percentage, and estimated daily noise dose based on NIOSH recommended exposure limits. If you work in construction, manufacturing, or any loud environment, these metrics matter.

Limitations. NIOSH SLM does not offer FFT spectrum analysis, so you cannot identify specific frequency bands. Data export is limited to emailing a basic measurement summary. The user interface has not been significantly updated in several years and feels dated compared to newer apps. Like NoiseLedger, it is iOS only.

Price. Completely free, no ads, no in-app purchases. As a government-funded tool, it has no commercial agenda.

3. Decibel X — Best Feature-Rich (Freemium)

Decibel X is one of the most visually polished sound meter apps available. It offers real-time dB measurement, multiple graph styles (bar, line, histogram), Apple Watch support, Dynamic Island integration on newer iPhones, and a library of reference noise levels for comparison.

Free tier. The free version of Decibel X shows ads and limits access to some features, including advanced export and certain graph views. Core dB measurement works without paying, and the accuracy is respectable when calibrated.

Subscription cost. Full access to Decibel X requires a subscription that costs approximately $4 per month or around $50 per year, depending on the current promotion. This unlocks ad-free use, all graph types, unlimited history, and CSV export. If you are looking for a free decibel meter app with no subscription, Decibel X's free tier may feel restrictive.

Strengths. Apple Watch app for wrist-based monitoring, integration with Dynamic Island for at-a-glance readings, wide range of visualization options, and a well-maintained, modern interface.

Limitations. The subscription price is steep for casual users. The free tier includes ads, and

some users report that the ads are intrusive. Available on iOS and Android.

4. Sound Meter by UniCom — Best for Quick Checks (Android)

Sound Meter by UniCom is a lightweight Android app designed for fast, no-fuss noise level checks. It launches quickly, shows a large dB reading on screen, and does not require any setup.

Strengths. Simple interface that is easy to read in any lighting. Minimal permissions requested. Free to use with ads. Good enough for quick checks like estimating whether your lawnmower exceeds 85 dB or checking ambient noise in a restaurant.

Limitations. No FFT spectrum view. No session recording or data export. Calibration options are minimal. Accuracy varies across Android devices because microphone hardware and software processing differ widely between manufacturers. Contains ads in the free version.

Price. Free with ads. A small one-time payment removes ads.

5. Sound Meter: SPL & dB by KTW Apps — Best for Android Overall

Sound Meter: SPL & dB by KTW Apps is arguably the most capable free sound meter on Android. It offers A-weighting and C-weighting, displays MIN, AVG, and MAX values, and includes a basic frequency spectrum analyzer.

Strengths. Decent accuracy once calibrated. Includes a simple spectrum analyzer, which is rare among free Android sound meter apps. Clean interface with a large, readable dB display. Supports calibration offset.

Limitations. Export options are limited. The spectrum analyzer is less detailed than a full FFT implementation. Contains ads in the free version, with a paid upgrade to remove them. No session management with tags or notes.

Price. Free with ads. Pro version available as a one-time purchase.

Comparison Table

Feature	NoiseLedger	NIOSH SLM	Decibel X	Sound Meter (UniCom)	SPL & dB (KTW)
Price	Free	Free	Freemium (~$50/yr)	Free with ads	Free with ads
Ads	None	None	Yes (free tier)	Yes	Yes
Platform	iOS	iOS	iOS & Android	Android	Android
FFT Spectrum	Yes	No	Yes (paid)	No	Basic
A/Z Weighting	Both	A only	A/C	A only	A/C
Calibration Offset	Yes	Yes	Yes	Limited	Yes
Session Recording	Yes (titles, tags, notes, markers)	No	Yes (paid)	No	No

Feature	NoiseLedger	NIOSH SLM	Decibel X	Sound Meter (UniCom)	SPL & dB (KTW)
CSV Export	Yes	Email only	Yes (paid)	No	Limited
PNG/PDF Report	Yes	No	Yes (paid)	No	No
Data Collection	None	None	Analytics	Ad tracking	Ad tracking
FAST/SLOW Response	Both	SLOW	Both	FAST	Both
Apple Watch	No	No	Yes	N/A	N/A

Which App Should You Choose?

The right app depends on what you need to accomplish.

For thorough noise documentation on iOS — choose NoiseLedger. It is the only app that gives you FFT spectrum analysis, full session management with tags and notes, and both PNG and CSV export, all completely free and with zero data collection. If you need to build a noise log for a landlord dispute, an insurance claim, or personal health tracking, NoiseLedger is the clear winner.

For occupational noise assessment — choose NIOSH SLM. Its TWA calculations and dose projections are specifically designed for workplace safety compliance. Pair it with an external calibrated microphone for the most reliable results.

For Apple Watch monitoring — choose Decibel X, but be prepared to pay the subscription for full access. If wrist-based noise alerts matter to you, it is currently the best option.

For quick spot checks on Android — Sound Meter by UniCom is fast and simple. For more features on Android, including a basic spectrum view and calibration, Sound Meter: SPL & dB by KTW Apps is the stronger choice.

If privacy is your top priority — NoiseLedger and NIOSH SLM are the only two apps in this comparison that collect absolutely no user data. Both work entirely offline, and neither shows ads. For a privacy-first sound meter app, these are your safest options.

If you are interested in learning more about practical noise measurement, you may also want to read our guides on how to measure neighbor noise and how accurate phone dB meters really are.

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Frequently Asked Questions

Are phone decibel meter apps accurate enough?

Modern smartphone microphones are surprisingly capable. In controlled tests, well-calibrated apps on recent iPhones have produced readings within 1–2 dB of professional Type 2 meters at moderate sound levels (50–90 dB). Accuracy degrades at very low levels (below 35 dB, where phone self-noise interferes) and very high levels (above 100 dB, where the microphone may clip). For general awareness, neighbor noise documentation, and workplace screening, a calibrated phone app is a practical and useful tool. For legally binding

measurements or regulatory compliance, you still need a certified instrument.

Can I use a free app for OSHA compliance?

OSHA does not currently approve any smartphone app as a replacement for a calibrated Type 2 sound level meter for official compliance monitoring. However, OSHA has acknowledged that the NIOSH SLM app can be used as a screening tool to identify potentially hazardous noise environments. If a screening measurement suggests levels above 85 dB TWA, a follow-up measurement with certified equipment is recommended. In practice, many safety professionals use phone apps for initial assessments and then bring in professional meters for formal documentation.

Why do some apps need a subscription?

Developing and maintaining a quality app costs money. Subscriptions fund ongoing development, server infrastructure (for apps with cloud features), and customer support. Some developers choose the subscription model because it provides predictable revenue, which allows them to keep improving the app. Others, like NoiseLedger, choose to offer their app completely free without ads or subscriptions, often because the developer prioritizes user trust and privacy over revenue. The trade-off is that subscription-funded apps like Decibel X can afford to develop extras like Apple Watch apps and Dynamic Island integration, while free apps may have a narrower feature set but offer a cleaner, more private experience.

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