

Lencore
Acoustics Corp.

USG

Achieving HIPAA Oral Privacy Compliance

USG and LENCORE Acoustics helping you meet healthcare privacy requirements.



HIPAA Mandates Safeguards for Patient Privacy

Federal standards for protecting the privacy of personal health information (PHI) are in effect.

Reasonable efforts must be made to assure confidentiality at pharmacy counters, medical consultation areas, and all other healthcare facilities.

These privacy regulations apply to both existing spaces and new construction.

USG and LENCORE Acoustics can provide a simple and economical way to meet these requirements.

The federal government has mandated that all pharmacies and healthcare providers in the U.S. must have safeguards in place to protect patient health information from intentional or unintentional disclosure.

Because physicians and pharmacists discuss medications, symptoms and health conditions with their customers and patients at consultation areas where others might be able to overhear, making changes that will protect the privacy of these conversations is a paramount concern facing all healthcare professionals.

Frequently Asked Questions

Here are answers to some frequently asked questions about the privacy guidelines with which pharmacies, hospitals and other healthcare providers must comply.

Q. What is the privacy law?

A. It's part of the Health Insurance Portability & Accountability Act (HIPAA), which was established to provide health-care coverage continuity, ensure greater accountability and simplify administrative functions within the healthcare industry. It creates extensive new requirements for privacy standards including transmission of health information in electronic, paper and oral forms. All types of healthcare organizations are affected by HIPAA legislation:

- | | |
|----------------------------------|------------------------------------|
| Pharmacies | Billing agencies |
| Physician offices | Information systems vendors |
| Health plans | Life insurers |
| Hospitals | Universities |
| Military medical bases | Employers |
| Public health authorities | Service organizations |
| Clearinghouses | |

Since April 14, 2003, pharmacies and all healthcare providers have been required to have appropriate technical and physical safeguards in place to protect oral privacy during transmission of health information in spoken communications (as well as paper and electronic form).

Q. Does compliance require extensive renovations or other construction?

A. Although the privacy regulations apply to existing spaces as well as new construction, most healthcare facilities do not need expensive sound-proofing or an elaborate retrofit. In the vast majority of cases, upgraded ceiling panels and a quality sound masking system are sufficient to meet industry standards.

Q. Are these improvements necessary throughout the entire space?

A. Probably not. When planning how you will meet the HIPAA oral privacy standards, the first step is to assess every place where patient information is exchanged. For example, consultation counters and pharmacy areas are key places where medical discussions and transactions might be overheard by customers and employees not on the medical staff. A few changes in these immediate areas may be sufficient to comply with privacy requirements.

Q. How can the establishment of "reasonable safeguards" be demonstrated?

A. In the absence of specific guidelines, many companies are using established benchmarks to demonstrate that they are providing reasonable safeguards. In addition, they are considering industry standards such as ASTM testing and reviewing what other "prudent" providers are doing in their own facilities. End users should also document the measures they have implemented to meet speech privacy needs. With USG ceilings and LENCORE® sound masking, critical values such as articulation index and privacy index can be measurably improved.

A Closer Look at Measuring and Controlling Sound

To understand some of the oral privacy issues the HIPAA regulations are designed to address, consider how sound is transmitted and how it can be detected by both intended and unintended listeners.

Sound can be classified several ways depending on its transmission.

- **Direct sound** travels directly to the listener's ear from its source.
- **Reflected sound** reaches the ear after bouncing off one or more surfaces in the room.
- **Transmitted sound** reaches a listener after passing through a solid body, such as ceiling panels suspended over two rooms with a common ceiling plenum.
- **Diffacted sound** bends over the top of and around the sides of partitions.

The acoustics of a space are determined by how much sound the ceiling, walls and other surfaces absorb or reflect and how much sound may be transmitted through to adjacent areas. Almost all building materials can absorb, reflect and dampen sound vibrations to some extent. But for critical surfaces like ceilings, panels made of material like mineral fiber or fiberglass are often chosen for their superior acoustical properties.

Measuring Acoustical Performance

Key calculations in determining the acoustical efficiency of a ceiling panel:

- 1. Noise Reduction Coefficient (NRC)** measures the degree to which a ceiling panel absorbs sound. NRC is represented by a number between 0 and 1.00, which indicates the percentage of sound reaching it that will be absorbed. For example, an acoustical ceiling panel with an NRC value of .60 will absorb 60% of the sound that strikes it and deflect 40% back into the space. A ceiling panel with an NRC of .50 or higher is considered to offer significant sound absorbing properties.
- 2. Ceiling Attenuation Class (CAC)** indicates the ability of a ceiling panel to reduce sound transmission. Measured in decibels (dB), CAC represents how much sound will be prevented, or attenuated, from transmitting between rooms with a common ceiling plenum. For example, a ceiling panel with a CAC of 40 will reduce transmitted sound by 40 dB. A ceiling panel with a CAC of 35 or higher is considered to offer significant sound attenuation properties.
- 3. Articulation Class (AC)** measures sound reflected from the ceiling to adjacent work spaces in open-plan environments.
- 4. Articulation Index (AI)** represents how all elements in and properties of a space affect the ability to understand speech. AI is expressed as a decimal value between 0 (renders speech unintelligible) and 1.00 (causes no interference with speech clarity).

By absorbing sound within a space, reducing the amount of sound transmitted to adjacent areas and rendering conversation less intelligible to non-participants, quality ceiling panels and sound masking provide a solid foundation for an effective acoustical management system.

Achieving a “Reasonable” Oral Privacy Solution in Your Space

Bringing your facilities into HIPAA compliance may not require extensive renovations or exorbitant expense. In fact, you may be able to meet privacy standards by applying a two-part solution that is straightforward and time-tested.

Part 1: Upgrading Ceiling Panels

Traditionally, acoustics have been a secondary factor in the design of healthcare settings. During construction and even subsequent renovations, drug stores and other medical facilities are often fitted with general-purpose ceiling panels that may not provide optimum sound reduction and attenuation.

Upgrading with ceiling panels designed to improve the acoustics of such open areas is an effective first step in bringing a facility closer to meeting the new privacy requirements. Ceiling panels featuring higher NRC and CAC properties are available in a variety of styles and materials to meet a full spectrum of design and budget needs.

Part 2: Sound Masking

To fully meet the HIPAA oral privacy standards, the performance of even the most acoustically effective ceiling panels will likely need enhancement. This can be easily accomplished with sound masking.

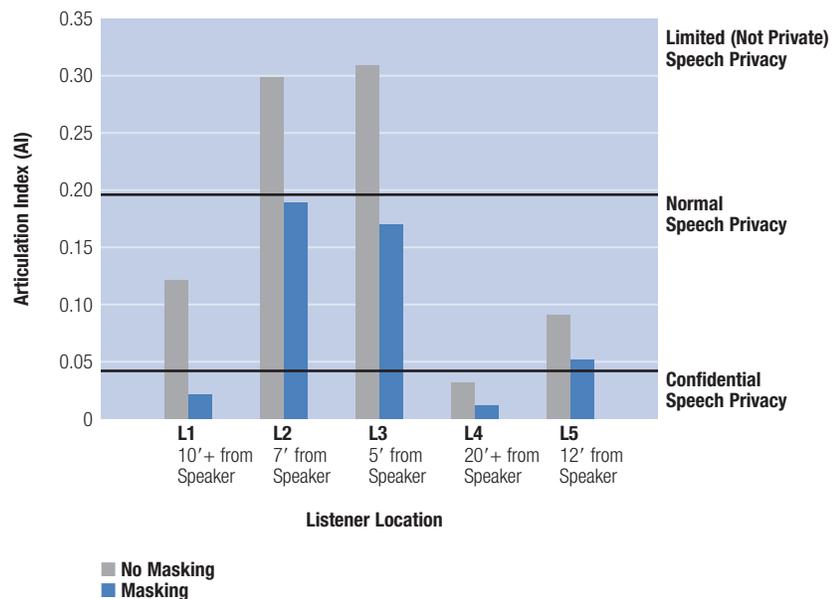
Sound masking introduces an unobtrusive, ambient background sound into open spaces and other areas using special low-voltage, UL-listed speakers installed in the plenum above a suspended ceiling, where they are not seen.

Sound masking is set one to three decibels above conversational speech, rendering discussions unintelligible to those outside the immediate area. The random sound produced is non-directional and harmoniously uniform, and the masking level can be adjusted to suit a variety of conditions and privacy requirements.

Meeting Privacy Standards

The chart below shows how well a listener might be able to overhear conversation at various distances from the people speaking. For example, L1, or Listener No. 1, is located 10 or more feet from the conversation; L2 is located seven feet from the conversation; etc. The gray bar represents the articulation index (AI) when sound masking is not used. The blue bar shows AI with masking. As you can see, AI is significantly lower with masking. This reduction is particularly dramatic five to seven feet from a conversation, which is the typical distance between pharmacy consultation areas and customers standing in line. **AI of .20 or lower meets ASTM industry standards (E-1130) for privacy.**

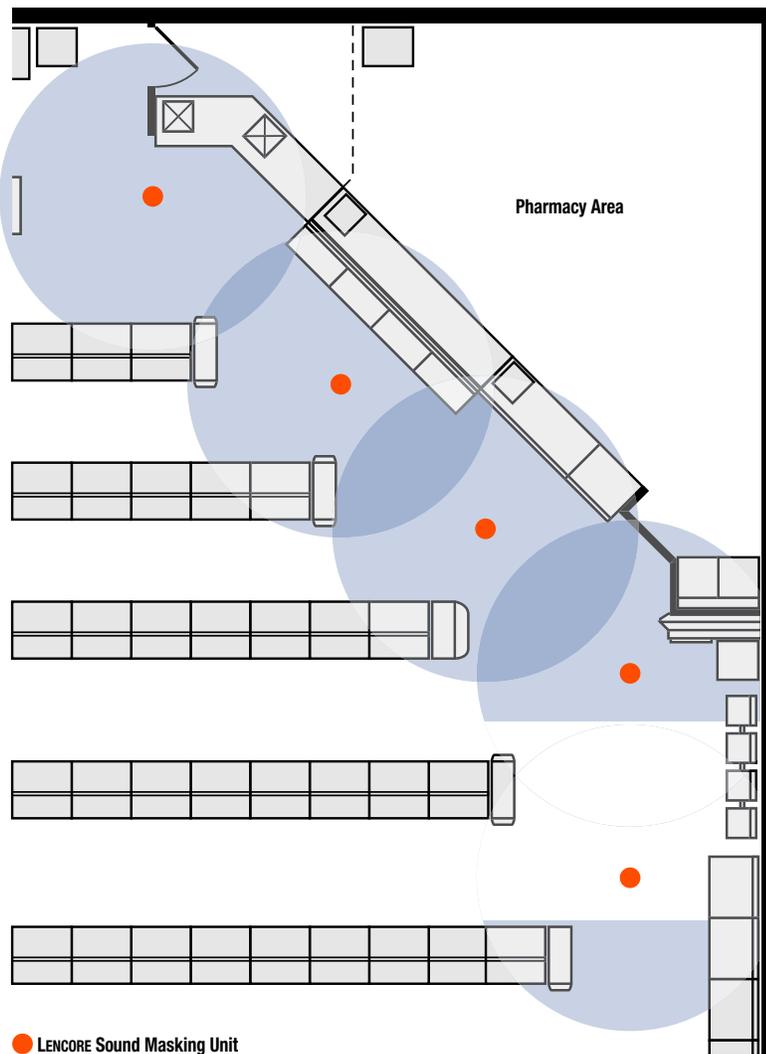
Measured Articulation Index



The following diagram shows a typical pharmacy floor plan. With quality acoustical ceiling panels, in addition to sound masking, all customer areas adjacent to the consultation counter show an AI below .2 and therefore achieve speech (oral) privacy requirements. This example is based on the ASTM E-1130 standard and uses USG ORION™ 210 CLIMAPLUS ceiling panels and a LENCORE SPECTRA® Sound Masking System.

The shaded circles represent the coverage area for each masking unit. Your layout may vary depending upon individual requirements. Adjustments can be made to the LENCORE system to cover more or less area.

Typical Pharmacy Floor Plan



USG and LENCORE Acoustics: A Sound Partnership

With 100 years' experience designing and manufacturing the most complete, cutting-edge line of building material products including interior acoustical systems, USG has teamed with LENCORE Acoustics Corp., a pioneer of sound masking technology, to offer an affordable solution to help you meet HIPAA oral privacy requirements.



Working together, USG acoustical ceiling panels and LENCORE sound masking can help ensure patient privacy by:

- Significantly reducing the amount of sound reflected within the space.
- Significantly attenuating sound transmission to adjacent spaces.
- Rendering conversations at the consultation counter unintelligible to others in nearby display and waiting areas.

A LENCORE SPECTRA Sound Masking System enhances the acoustical benefits of ceiling panels by reducing intelligibility of individual conversations in an open-plan environment. A SPECTRA system can also be used in closed offices and consultation areas to prevent conversations from being overheard outside these spaces.

Recommended USG Acoustical Ceiling Panel	NRC	CAC	CAC with LENCORE Sound Masking ¹
ECLIPSE™ panel	.70	35	45
FROST™ panel	.70	40	50
HALCYON™ panel	.90	30	40
MILLENNIA® panel	.70	35	45

¹ LENCORE sound masking adds the equivalent of 10 points of CAC by increasing ambient background sound by 10 dB.

The Performance of These Systems is Backed by:

Experience	<p>USG ceiling panels are installed in healthcare facilities worldwide and has a proven success record with clients that include numerous pharmacies and drug stores, hospitals, clinic facilities and health insurers.</p> <p>LENCORE Acoustics principals are responsible for over 125 million square feet of sound masking installed in Fortune 500 companies around the world including many healthcare facilities and businesses. Wherever information is considered private and needs to be protected, you'll find LENCORE sound masking.</p>
Quality	<p>USG ceiling panels and LENCORE sound masking products are manufactured in the USA, and both companies operate under strict environmental guidelines. Committed to "Green Office" design, USG offers ceiling panels with the industry's highest percentage of recycled content (up to 82%). Similarly, LENCORE sound masking products are manufactured with more than 50% recycled content and use half the wattage of competing systems.</p>
Turnkey service	<p>Representatives of USG and LENCORE Acoustics assess your acoustical requirements for each pharmacy and/or healthcare facility, oversee installation on-site to ensure industry compliance and provide documentation that reasonable safeguards have been made to protect the privacy of customer healthcare information.</p>
Peace of mind	<p>USG and LENCORE Acoustics are dedicated to helping you meet your oral privacy needs. We have an extensive national network of installers ready to put your compliance solution in place.</p>

Standards Do Exist

USG and LENCORE products already meet ASTM standards for speech privacy (E-1130), and based on independent testing, LENCORE sound masking in collaboration with USG ceiling panels dramatically improves speech privacy.

To learn more about the "Reasonable" Oral Privacy Solution from USG and LENCORE Acoustics, call 800 USG.4YOU (800 874.4968) or contact LENCORE Acoustics at 516 682.9292 or www.hipaoralprivacy.com.

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