

# Poly Audio Innovations



## Poly NoiseBlockAI

Distracting noise is one of the biggest challenges during calls. Keyboard typing, papers shuffling, HVAC systems, dogs barking, and reverberation<sup>1</sup> can make it harder to understand the speaker, diverting attention from the conversation at hand.

Poly NoiseBlockAI technology uses machine learning to identify and block noises, ensuring a distraction-free call experience. This technology seamlessly eliminates disruptive noises during gaps in conversation and intelligently filters them when someone is speaking. By removing these distracting noises and reverberation<sup>1</sup>, Poly NoiseBlockAI keeps conversations on track and allows meeting participants to be heard more clearly. Additionally, it removes the need for muting, helping to capture more authentic conversations with real-time reactions, fostering a more natural and engaging communication environment.

Problem	Feature	Benefit
Noises cause distractions during calls - ie train, keyboard typing, paper shuffling, and HVAC sounds.	Uses machine learning to recognize and block noises occurring during the meeting.	Keeps the focus on my voice so I can be heard more clearly. Keeps meetings on track by blocking out distractions for the far end.
Regularly clicking mute and unmute during a meeting takes away from focus.	Auto-mutes non-verbal noises so there's no need to mute/unmute during meetings.	Near end participants can focus on their meeting Captures more authentic conversation with real-time reactions
Audio reflections from glass and other hard surfaces make it difficult to hear the speaker.	Recognizes and reduces reverberation. <sup>1</sup>	Enhances the clarity of voices in the meeting room. <sup>1</sup>
Nearby interfering talker when taking a call on your headset	Limits the amount of nearby conversation transitted through the microphone on your headset. <sup>2</sup>	Far end participants here even less bakground noise, ensuring your voice is heard clearly <sup>2</sup>

<sup>1</sup>Reverberation removal included in Poly NoiseBlockAI v2  
<sup>2</sup> Verbal noise reduction included in Poly NoiseBlockAI for headsets

### Products with Poly NoiseBlockAI

#### Video

- Poly Studio X family<sup>1</sup>
- Poly Studio V family<sup>1</sup>
- Poly Studio P15
- Poly Studio R30
- Poly Studio USB
- Poly G7500<sup>1</sup>
- Poly Studio G62<sup>1</sup>

#### Desktop Phones

- Poly CCX
- Poly Edge E series

#### Headsets

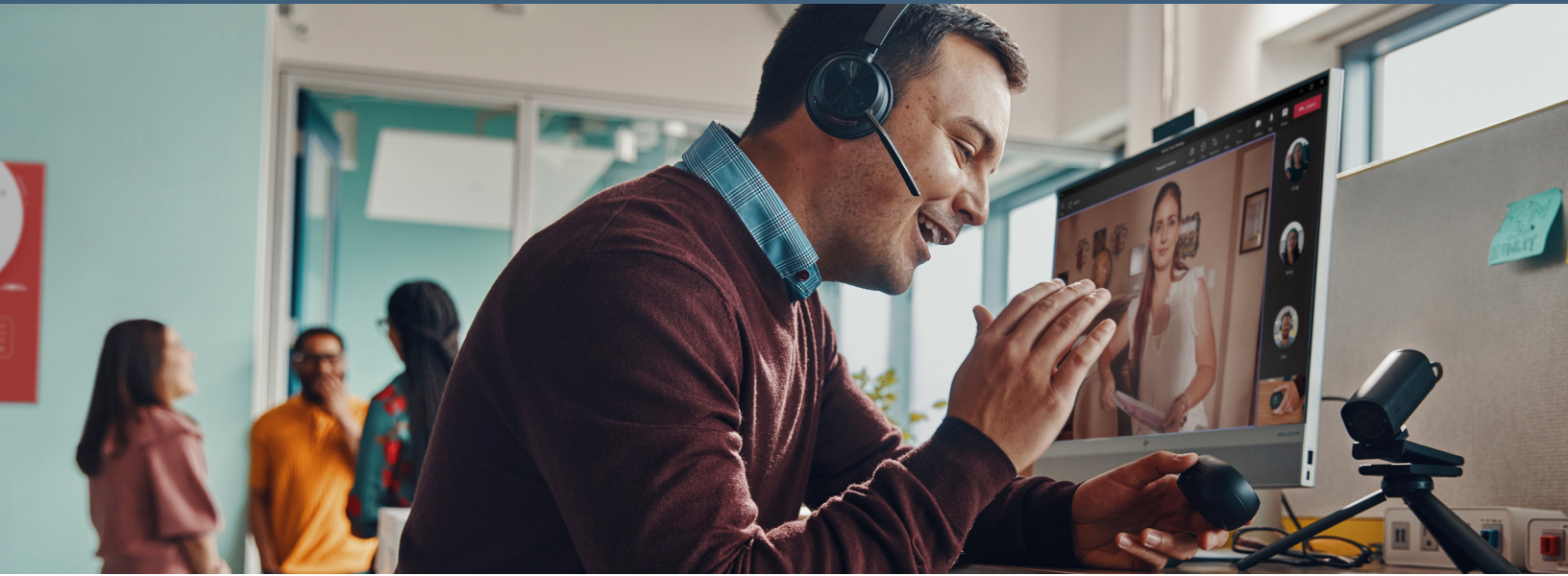
- Poly Voyager Free 60 Series<sup>2</sup>

#### Conference Phones

- Poly Trio C60

### Demo Videos

- [Poly Company YouTube Channel](#)
- [NoiseBlockAI Conference Room Demo](#)
- [Next-Gen NoiseBlockAI Video<sup>1</sup>](#)



## Poly Acoustic Fence

Meetings are often taken on the go or in highly trafficked meeting spaces, introducing unwarranted noises and conversations into calls that disrupt the flow of meetings. The sounds from outside the meeting can be distracting and lead to confusion by making it challenging for participants on the far end of the call to discern whether a voice is part of the conversation.

PolyAcousticFence technology defines a specific zone to capture voices within, effectively shielding calls from non-participant voices. Functioning as a smart mute, it eliminates the confusion of other voices joining the call and allows near end participants to focus on the meeting and participate authentically without constantly toggling the mute button. While a speaker is talking in the defined zone, voices from outside of it may still be picked up, but less prominent. This ensures that the primary conversation remains clear, providing a seamless and distraction-free meeting experience.

Problem	Feature	Benefit
External noises and conversations cause distractions/disruptions during calls - i.e. traffic noise, dog bark, leaf blowers, or hallway conversations.	Creates an invisible fence during calls and focuses on the voices within that defined zone.	Keeps meetings on track by blocking distracting noises and conversations from outside the defined zone from entering your call.
Regularly clicking mute and unmute during a meeting takes away from focus.	Auto-mutes external noises or voices so there's no need to mute/unmute during meetings.	Near end participants can focus on their meeting. Captures a more authentic conversation with real-time reactions.

### Products with Poly Acoustic Fence

#### Video

- Poly Studio X family
- Poly Studio V family
- Poly Studio P15
- Poly Studio R30
- Poly Studio USB
- Poly G7500
- Poly Studio G62

#### Headsets

- Poly Voyager Focus2
- Poly Voyager 4300
- Poly Savi 7400
- Poly Savi 7300
- Poly Blackwire 8225

#### Desktop Phones

Available on all Poly Desktop Phones

### Demo Videos

- [Poly Company YouTube Channel](#)
- [Acoustic Fence Conference Room Demo](#)
- [Acoustic Fence Technology for Headsets](#)
- [Poly Voyager Focus 2 - Acoustic Fence Technology Demo](#)

## Poly Acoustic Fence

## How it works

<p>Poly Studio X family Poly Studio V family Poly Studio P15 Poly Studio R30 Poly Studio USB</p>	<p>Personal and public meeting spaces often have open doors, open floor plans, or are near high trafficked locations. In an office environment, individuals may not always be aware of ongoing video calls, leading to confusion on the far end when non-participant voices inadvertently enter the call. With Poly Acoustic Fence technology, the audio pick-up zone is selected as an angle from the video bar. This ensures that voices from people talking outside of the designated meeting space are not included in the call.</p>
<p>Poly G7500 Poly Studio G62</p>	<p>When used on Poly G7500 or G62 with multiple, physically separated microphones, Acoustic Fence technology becomes even more precise. It creates a defined sound barrier that can more accurately tune outside conversations allowing to better showcase the speaker's voice.</p>
<p>Headsets</p>	<p>Poly Acoustic Fence technology creates a defined zone in front of the headset wearer's mouth and captures their voice within it, shielding the call from distracting outside voices and sounds. Multiple microphones located on a microphone boom and the earcup work together to reduce background noise so that the user's voice is heard more clearly on calls. The microphone on the ear cup will pick up background noise that should be minimized, while the microphone on the boom recognizes and transmits your voice.</p>
<p>Single additional microphone: Poly Voyager 4300 Series Poly Savi 7400 Poly Savi 7300 Blackwire 8225</p>	<p>Poly Acoustic Fence technology, as found in the Blackwire 8225, uses a long noise canceling microphone boom with an additional microphone located on the ear cup. This additional microphone picks up the background noise and using DSP this noise is minimized from the user's voice.</p>
<p>Multiple additional microphones: Poly Voyager Focus 2</p>	<p>The Poly Voyager Focus 2 headset provides even greater transmit noise reduction despite its shorter microphone boom. In this implementation Poly's Acoustic Fence technology uses four microphones in total, two microphones on the boom and one on each ear cup, to create a virtual pick up bubble focused at the front of the user's mouth. Anything outside of this bubble (typically noise) is ignored.</p>
<p>Desktop Phones</p>	<p>Poly Acoustic Fence technology on Poly desktop phones helps block out the background conversations and noises that the other party would otherwise hear—perfect for noisy corporate offices and home offices. Acoustic Fence technology works when the phone user is either using the phone's handset or a wired headset. The feature uses the phone's speakerphone microphone as a reference microphone to remove the background noise. With Poly Acoustic Fence technology, you have more productive conversations by eliminating the need to repeat yourself because of distracting interruptions.</p>

## WindSmart Technology

WindSmart technology from Poly provides wind noise reduction from background noise caused from strong breezes of up to 14 mph. There are multiple layers to the wind noise reduction system.

- Microphone boom has aerodynamic characteristics to minimize wind turbulence (flow separation) (Poly Voyager 5200 only)
- Sophisticated wind screen design has calibrated porosity to minimize wind energy while allowing correct speech energy.
- Each microphone is inside its own “wind box”, so that a microphone with less wind noise can be selected over a mic that has more wind noise.
- Additional wind noise filters are applied once all the microphone signals are algorithmically selected and summed.

### Products with WindSmart Technology

#### Headsets

- Poly Voyager Free 60 Series
- Poly Voyager 5200 Series

### Demo Videos

- [Poly Company YouTube Channel](#)
- [Voyager Free 60 Series – WindSmart Technology Demo Video](#)
- [Poly Voyager 5200 Series wind and noise cancelling demo](#)

## SoundGuard and SoundGuard Digital

Poly Encore Pro QD  
Poly Blackwire 3200/3300

SoundGuard provides acoustic limiting for protection against sounds exceeding 118dBA

Poly Blackwire 8225 and 5200  
Poly Voyager Focus2 and 4300  
Poly Savi 8400, 8200, 7400, and 7300  
Poly EncorePro USB  
PolyEncorePro QD when used with DA85 or DA75

All the benefits of SoundGuard plus anti-startle protection, which detects and eliminates sudden increases in sound, and time-weighted average (TWA) control, which prevents average sound exposure from exceeding 85 dBA

## M-mode, originally called Music Mode

Video calls are used widely for an assortment of use cases where it's necessary to hear the true audio with full depth and detail. For users wishing to experience this true audio with no AGC or noise suppression, only echo cancellation, M-mode is a great solution.

#### Use cases include:

- Remote music learning
- Assists in hearing internal sounds during medical examination
- Teaching language
- Diagnose trouble with a machine on manufacturing floor

### Products with M-mode

#### Video

- Poly Studio X family
- Poly Studio V family
- Poly G7500
- Poly Studio G62