



How Audio AI Turns the Car Into a Meeting Room on Wheels

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According to the [NHTSA](#), 660,000 drivers are using their cell phones while operating a vehicle at any moment in the day. To put that number in perspective, that's like seeing almost every person living in Boston using their phone during tomorrow's morning commute. It's certainly true that a chunk of this phone usage can be attributed to work-related calls, with conference calls often taking place during the drive to or from school with children present in the car. But, it's not fair – or, in the case of small children, effective – to ask these young passengers to remain quiet just because the driver needs to take a conference call. Luckily, Cerence's Passenger Interference Cancellation (P.I.C.) can make your vehicle a meeting room on wheels – and completely zone out the noisy and rambunctious passengers.

How does Passenger Interference Cancellation (P.I.C.) work?

First, imagine that you are the driver of a three-row SUV (or minivan) where each row has two passengers. Let's give each passenger zone one dedicated microphone. That gives us a grand total of six microphones inside your meeting room on wheels. To best leverage this series of microphones, we need to use simple math with complicated algorithms working behind the scenes. For example, simply muting your passengers' microphones will not suffice, because loud passengers could still be heard on the driver's microphone. That's where P.I.C. comes in. Incredibly, P.I.C. takes the signals from each of the five passenger zones and subtracts them from the outgoing signal. This ultimately cancels your noisy passengers and emphasizes your speech (as the driver and primary caller), and no one in your meeting will even know that you have a full house behind you.

“Sorry, my passengers were on mute”

Let's jump back into the driver's seat of your imaginary three-row vehicle. This time, visualize your touchscreen display to show six microphone icons (in a three row by two column layout).

With an interactive user interface, you can mute and unmute specific zones (or passengers) during a live call, thanks to Cerence's multi-zone speech processing technology. This allows you to include all passengers in your call, or to simply pick and choose who can speak up and when. Our multi-zone processing uses P.I.C. under the hood for each zone. Combining the two technologies together offers the best in-vehicle calling experience for your meeting room on wheels.

(Call to Action) Take a Ride in Cerence's “Meeting Room on Wheels”

Interested in seeing this imaginary meeting on wheels come to life? Get in touch with us to learn more and see a demo.