

## PRODUCT FEATURE

### 40 Seconds to Go!

## Your next meeting has arrived - Meet TIM-1000

Ceiling microphones are a popular choice. Out of sight, they provide for clean lines and obstacle free tables and there are several manufacturers that have their own version of a ceiling mic array to meet the growing client demand.

Some of these arrays are designed for smaller spaces, others can cover a surprisingly large area. Most perform relatively well. However, since speech intelligibility for these mics greatly depends upon being able to control the environment and the noise it generates, you may find that some products do not perform as well as others. This may happen due to insufficient programming, where the installer may not have set up the right, or enough, lobes to accommodate every possible scenario. For some, having to consider doing this level of programming on every project would make the ceiling mic array option a labor-intensive choice. That is until now.



We all know that picking up sound from the ceiling is a challenge. The distance from the sound source is much farther than a table mic or a gooseneck, and sometimes almost equal to the 'Critical Distance', where the room's ambient noise is almost the same level as speech. So, in Clockaudio fashion, we wanted to improve the ceiling microphone array experience and make it, not only better sounding, but also easier and more streamlined to set-up.

For the development of TIM-1000, Clockaudio's creative minds knew they wanted to design a technology that would:

- attenuate as much steady state noise in the room as possible
- find the participants in the room regardless of their location
- adjust the incoming sources of speech so that they all sound at the same level
- provide good speech intelligibility
- embrace simplicity and be easy to install, set up and go

With this criterion, our research and development team went to the drawing board and came up with an outstanding algorithm that can do all of this in a boardroom, huddle room, or any other room for that matter.

Simplicity was the priority and the founding concept behind the design of TIM. Within 40 seconds after powering up, TIM-1000 is ready to go. The noise suppression goes straight to work finding any steady state noises and attenuates them. This feature remains active and continues to identify any NEW steady state noise that is introduced into the space, like the HVAC system or a projector fan starting up.

Now TIM waits on standby, “listening” for someone to start speaking. As soon as that happens, the tracking feature kicks in to zone in on that participant and does not let go. Wherever that person moves inside the room, even when someone else starts talking, TIM hangs on to the first participant while capturing the second person.

With this feature, TIM can ‘listen’ to 4 people at the same time, processing all 4 voices individually. TIM can decipher each participant. This is where the Adaptive Proximity Tracking (APT™) comes into play.

As participants move away and/or closer to TIM, the APT will either raise the volume of the source of speech as it moves away, or tone it down as the participant moves closer to TIM and speech becomes louder. Simultaneously, TIM adjusts the other sources in the room as they engage in the conversation to keep all sounds at the same level.

These TIM features are on by default but can be turned off or modified via the simple web interface. A 3-Band equalizer is available for tweaking the single channel output and an easy to use LED color interface can be chosen to select the color of the light ring. Although you can change or turn them off, these features are what makes TIM-1000 “clearly different”.

As always, if you have any questions, contact our customer service and technical support team.