

# Microphone Musings: Essential Considerations

By Ben Dandola-Grubb

We've used microphones our entire lives and continue to use them daily, at the very least on our phones. Many of us even remember when a wire was connected to that phone—a foreign concept to my kids. The basic microphone premise is to capture sound, convert it to an electrical signal, transmit it elsewhere, and then convert it back to sound with a speaker. Today there are microphone types for every scenario imaginable.

The goal for all scenarios is crystal clear sound pickup of someone speaking. I'll refer to this person as the talker. Whether talking on the phone, in a conference room or speaking to thousands in a stadium, the talker's speech needs to be perfectly transmitted to the intended listeners. Those listeners shouldn't strain to hear. In a great audio system, the listeners will seamlessly hear the message without thinking about volume, sound quality, or background noise. They won't even notice an audio system exists.

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# InfoComm 2023: The Verrex Insiders Must-See List

By Kyle Stetson

InfoComm 2023 is just around the corner, and I couldn't be more thrilled to attend! As we witnessed earlier this year with ISE, the return of in-person shows has brought a wave of enthusiasm, making them bigger and better than ever. Personally, this will be my first InfoComm show, and I can't wait to immerse myself in the experience. Additionally, as I approach my first year as an Account Executive at Verrex, I am honored to be able to attend and engage with all the AV technology.

As a primarily remote employee with a client base around the globe, I'm particularly looking forward to connecting with industry professionals face-to-face. Nothing can replace this in-person experience, sharing stories and catching up over an iced coffee. I am also looking

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Microphones are just the starting point of an audio system, though without excellent sound pickup at the microphone, the downstream system will not make the sound much better. We can narrow the use-case scenarios to create a logical microphone selection process in the audiovisual world.

## **Personal Microphones**

Let's start at the personal level. Whether at your desk or on the go, personal microphones have a simple purpose: Pickup audio from a single talker—you. Many people will use a Bluetooth headset with good filtering to help reduce background noise when walking on a city street. Next is a microphone for your desk. Based on your environment and work style, there are two basic choices, each available wired or wireless: Headset or Speakerphone. Here are some basic questions to ask when choosing a personal microphone:

- 1. Is there background noise to eliminate? Yes = Headset
  - a. Are you in a call center on an open floor? Yes = Headset
  - b. Are there kids going crazy and dogs barking in the background? Yes = Headset
- 2. Do I have a relatively quiet personal space? Yes = Speakerphone

Additional considerations when choosing between wired and wireless headsets:

- 1. Do you move around the office or home during a call? Yes = Wireless Headset
  - a. Wired is tried and true but provides less freedom of movement.
  - b. Wireless can be challenged when in the proximity of many wireless headset users but can provide great freedom.



Ben's Tip: I can walk anywhere in my house using my DECT (Digital European Cordless Telecommunications) headset. If I go outdoors, I can walk 75 feet from the house before losing good transmission.

Some personal microphones allow connection to your mobile phone, laptop, and desk phone, enabling the same microphone to be used for any call type or source while automatically switching between sources.

## **Conference Microphones**

Next, we need microphones when more than one person is in a shared space. This could be as simple as enabling speakerphone on your mobile for the kids to call Grandma on FaceTime or an elaborate executive boardroom. We must first understand the use case when choosing an appropriate microphone system. What is the dynamic of a small collaborative session? Who needs to speak during an all-hands call?

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## **Small and Medium Spaces**

Small spaces are generally simple, and a speakerphone like the one at your desk can be acceptable. But what else should we think about? Is the area enclosed in a room or a shared open space? What is the ambient background noise? Does the radiator in the corner create a constant clicking in the winter? How large of an area needs microphone coverage? Presumably, all calls include a video aspect such as Zoom, Teams, or Webex, and we need to think about cabling from the microphone to the computer or laptop driving the video call. Can we pull new cable?

Ultimately we land on one of two microphones types:

## **Speakerphones**

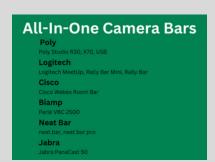
These are good for small spaces for 2-6 people where cabling is simple, such as a huddle table butted against the front wall.

#### All-In-One Camera Bars

Microphones built into a mic-speaker-video-bar solution are great because some allow the pickup area to be restricted to only the intended area, actively rejecting sound from other directions. In addition, some All-In-One Camera Bar solutions have available add-on microphone pods to grow the solution into a larger space while maintaining simplicity. All-in-One Camera Bar solutions are the most economical option for quick installations that require no bells or whistles.

Here are some great examples of both types of Conference Microphones:





This is only the beginning of the microphone story. Next issue, I'll get into Integrated Microphone Systems and explore the many facets of designing systems that facilitate each client's unique workflow and collaborative culture. In the meantime, <u>contact us</u> to answer your microphone questions or discuss your unique microphone needs.



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forward to engaging in demos, attending information sessions, and getting out of the Expo Hall to attend dinners and parties hosted by various manufacturers.

While there, I'm eager to dive into the discussions around meeting equity and the ever-evolving hybrid work landscape. It's remarkable to witness the transformation in how we all work nowadays. The world of AV is thriving, and it's truly an exhilarating time to be a part of it.

# **Kyle's Must-See List**

I have been advised to plan most of my days before arriving at InfoComm but leave room for surprise technologies and vendors that may not be front and center on the show floor. With that in mind, I've compiled a list of solutions and technologies I plan to check out on the show floor. Here are a few highlights:

#### Cameras

- Tabletop 360-degree camera systems—The ability to include multiple cameras and automatically switch between speakers opens up exciting possibilities.
- Auto-switching multi-cam systems—I'm on the hunt for multi-cam ePTZ switching systems using AI facial detection and ceiling microphones to focus on the active speaker while adjusting the full room camera to include all attendees. This essentially creates a virtual production camera team for your room.
- Low Profile Fixed Cameras—I will explore options allowing for more cameras in a conference space without overwhelming users with excessive technology.

#### **Displays**

- 21:9 and ultra-wide displays—I will examine the difference between DVLED and LCD. What companies are staying up with this trend to keep all content on one large display and more importantly, who has the video distribution systems available to support this resolution?
- Reduced pixel pitch LED at affordable price points—I'm on the lookout for LED options with reduced pixel pitch that align with more reasonable pricing, making them suitable for boardroom applications.
- Products that allow me to think outside the 16:9 box are also on my mind.

#### **Software**

• Campus or facility systems management—I'm looking to discover efficient AV management solutions for campuses or facilities to monitor what is working, what needs scheduled maintenance, and what is not working. The ability to fix a problem before a client even knows about it is the dream for service desks everywhere.

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• Immersive Conference Rooms – Using media servers and content distribution systems to multiple projectors or LED walls around a boardroom, why stick with just displays at the front? Instead, I'm looking for solutions allowing 360-degree video and audio – taking the boardroom meeting to the next level.

#### Other

• Sustainability—I'm looking for companies with initiatives and solutions focused on sustainable practices within the AV industry. Is your system automatically turning off when users leave the room? Are you using recyclable materials in your packaging? These are the types of companies I am looking to partner with.

Now that you know my agenda, I'm curious about your interests. What kinds of AV solutions are you eager to learn about? If you're attending InfoComm, what's at the top of your "don't miss" list? If you are unable to make it this year, our team would be more than happy to check out anything for you while we're there. Simply reach out to me at <a href="mailto:kstetson@verrex.com">kstetson@verrex.com</a> and let me know what specific areas or products we should research on your behalf. Once I return, we can arrange a meeting to discuss our findings in detail.

InfoComm 2023 promises to be an event filled with innovation, connections, and valuable insights. I can't wait to experience it firsthand and bring back the latest developments to share with you. So, remember to drop me an email and let me know how I can help you make the most of this incredible opportunity.

Looking forward to connecting soon!

