FLEXIBLE INSTEAD OF STATIC

The advantages of ceiling microphones with dynamic beamforming technology

***Wedemark/Sydney, 5 August 2019* – More doesn't always equal better: A single, dynamic microphone beam is all that Sennheiser's innovative ceiling microphone needs to pick up superior audio in any conference room. Rather than using many static beam zones, the audio specialist is championing an approach that uses a dynamic beam that automatically focuses on the active speaker and follows their voice no matter where they move in the room. In a new whitepaper, Sennheiser describes how the patented technology in its TeamConnect Ceiling 2 microphone differs from other beamforming solutions to deliver crystal-clear audio quality and enable incredibly natural conversations.**

Beamforming technology, which localizes and evaluates sound sources and suppresses interference, has revolutionized the microphone market. For both installation and use, beamforming products perform better than conventional microphones and have proved particularly attractive as a solution for conference rooms and meetings. Intelligent microphone arrays offer low installation costs, invisible cabling, enhanced audio quality for remote participants and freedom of movement thanks to a wide pick-up area.

Not all beamforming technology is the same

For ceiling microphone arrays, there are actually different types of beamforming technology – and the new whitepaper from Sennheiser explains why not all of these are equal. Other solutions use static beamforming with fixed speaker zones. However, automatic, dynamic beamforming technology is an alternative that delivers far greater flexibility. While the former uses several static beams at the same time, dynamic solutions use just one beam, which automatically aligns within milliseconds to the position of the person speaking.

Automatic, dynamic beamforming technology ensures that a speaker is clearly audible, no matter where they move in a room

Contrary to popular belief, having several beams does not increase functionality. Quite the reverse, in fact: A look at the characteristics of the beams shows that the decisive criterion is the way the beam works (i.e. flexible vs. static). Unlike a system that uses predefined beamforming zones and directions, a dynamic beam allows greater flexibility for day-to-day use. At the same time, a dynamic beam system reduces the time required for installation and set-up – and ongoing reconfiguration is not needed.

The paper describes the limitations of static systems that, for example, can result in a speaker becoming difficult to understand if they move beyond their initial pre-configured beamforming zone – for example, when getting up to write on a whiteboard.

By contrast, automatic, dynamic beamforming technology is proving a game changer as the flexible beam allows for ad hoc changes in the speaker's position in the room without the need for reconfiguration. As well as giving the maximum freedom of movement during meetings, this automated, flexible approach means there are fewer requirements for technical support, as there is no need to reconfigure the direction of the microphone's beamforming zones when a room layout is changed or if a greater number of attendees are in the room.

What does 'automatic, dynamic and flexible beamforming' mean?

Sennheiser's TeamConnect Ceiling 2 is the only ceiling microphone array with a patented combination of real-time recognition of the person speaking and automatic, dynamic beamforming technology. In practice, this works by first detecting the position of the person speaking and then aligning its directivity to this position in real time. The 28 omni-directional microphone capsules of the TeamConnect Ceiling 2 microphone array record all the audio

signals in the meeting room and select the relevant speaker in real time by means of digital signal processing. This means that the system can determine the position of the speaking person at any time, regardless of whether he or she is sitting, standing or moving around. As the realignment of the beam's directivity takes just milliseconds, there is no loss of audibility even during lively quick-fire conversations.

The single dynamic microphone beam of TeamConnect Ceiling 2 allows you to move about the room freely while maintaining perfect audio quality

"Understanding the difference between beamforming microphones is key to finding a solution that delivers the level of flexibility your business requires," said Jens Werner, Business Communication Portfolio Manager. "By comparing the two beamforming technologies, our whitepaper helps those who are new to this innovation understand advantages of automatic dynamic beamforming over products that are limited to pre-defined speaking zones. More isn't always better when it comes to beams, but more flexibility and freedom for your business certainly is!"

To learn more, please download the new whitepaper at:
https://assets.sennheiser.com/global-downloads/file/12317/TI_1247_v1.0_TCC2_White_Paper_EN.pdf

More information on TeamConnect Ceiling 2 can also be found in this video:
https://www.youtube.com/watch?time_continue=83&v=iaRDPu6dfmg

The images of this press release can be accessed here:
http://www.sennheiser-brandzone.com:80/pincollection.jspx?collectionName=%7B7ba7d522-f1ef-40d6-9fe8-61a225db394e%7D

About Sennheiser
Shaping the future of audio and creating unique sound experiences for customers – this aim unites Sennheiser employees and partners worldwide. Founded in 1945, Sennheiser is one of the world's leading manufacturers of headphones, loudspeakers, microphones and wireless transmission systems. Since 2013, Sennheiser has been managed by Daniel Sennheiser and Dr. Andreas Sennheiser, the third generation of the family to run the company. In 2018, the Sennheiser Group generated turnover totaling €710.7 million. www.sennheiser.com

Global press contact

Stephanie Schmidt
stephanie.schmidt@sennheiser.com
+49 (5130) 600 – 1275

Local Press Contact

Heather Reid
heather.reid@sennheiser.com
+61 448 119 609