FREQUENTLY ASKED QUESTIONS

GENERAL:

How can I get in touch with Sennheiser?

By registering your Spectera in the Sennheiser Portal (my.sennheiser.com), you will receive notification for software updates and release notes and can always stay up to date with what is new for the ecosystem. The portal also hosts an idea space where you can submit the features and functionalities, that you would like to see implemented with Spectera.

You can also comment on submitted ideas, and upvote or downvote suggestions. All entries will be reviewed by product management and the technical teams. The Spectera roadmap in the portal will give you an overview of what the team is working on right now, which features are targeted for implementation during the next six months, and what is part of the roadmap beyond that timeframe.

For all incidents, feature requests or bug reports. https://help.sennheiser.com/.

I´d like to learn more about the system and use cases. Where can I get more information or a training?

You can find videos on YouTube https://www.youtube.com/@sennheiser

Trainings are offered by our Technical Application Team, please check availability here: https://www.sennheiser.com/en-us/events/explore-the-future-of-wireless-technology

RF:

What bandwidths does Spectera support?

Spectera utilizes 6MHz or 8MHz depending on the region of operation.

How many frequency variants do you plan?

SEKs and Antennas (DAD) are available in two variants. One for the TV-UHF range and for the 1.4/1.5 GHz range. The Base Station can be used for both ranges, since it has no RF components. If we see the need for additional frequency ranges, we will consider this for further releases.

Sennheiser's WMAS system occupies an entire TV Channel. Isn't that a waste of resources?

It is by definition a multichannel system, if used in a unidirectional 4 channel application, that would not be the most efficient approach. However, for a more channels or bi-directional use cases it requires less spectrum and IEM and MIC can be deployed into the same TV Channel. Please refer to the "Technical Paper Why Broadband" for more details.

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What is the RF transmit power?

The RF transmit power is up to 100mW EIRP, but dependant on national regulations. It can be reduced to increase reuse of spectral resources in controlled environments.

Please note that due to the TDMA nature of the system, the power is only emitted by one device at a time.

Additionally, it is spread over an entire broadband channel. Consequently, Sennheiser's WMAS system has much lower power spectral density compared to the same number of narrowband devices where RF power adds up with each transmitter.

Do you consider operation in the 800 MHz duplex gap?

Currently not, the bandwidth available in the duplex gaps makes a deployment of WMAS at least questionable.

Do you consider operation in the 700 MHz duplex gap?

The 700 MHz duplex gap is not harmonized for use by wireless microphones. So, depending on the country other applications are using it.

What happens, if a RF channel must be changed?

Changing an RF channel takes less than 10 seconds until the system is good to go again. For future releases automated hopping might be considered.

What are 4 antenna ports good for?

Additional antennas can be used for range extension, redundancy or a second frequency channel.

How many antennas should I use?

This strongly depends on your RF environment.

What is the area you want to cover?

How much interference is to be expected?

What we have seen from our tests with the new broadband technology is that especially in reflective indoor scenarios, one antenna can be sufficient. However, in outdoor environments or scenarios with lots of body absorption, two or more antennas will be beneficial to increase the reliability of the RF link.

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DEVICES:

Can we use network switches for the antenna ports?

No. Antenna ports are used in star topology with the Base Station in the centre. This decision has been made due to the challenging latency requirements.

What is the maximum distance for antenna cables?

With copper you can achieve 100 m using standard Cat 5e network cables.

Can I extend this with a fiber solution?

Longer cable distances are possible with the use of fiber optic cables and media converters. Sennheiser tested the recommended converters for a complete distance of 4 km. We only recommend the following converters for fully tested functionality:
- Converter for the Base Station Lantronix M/GE-T-SFP-01
- Converter with PoE for DAD antenna Lantronix M/GE-PSW-PSE-01
- Converter with PoE for DAD antenna ProLabs C-GMC-SFP-POE+-EU with integrated power supply

Do you plan a pure IEM bodypack?

No, most of the customers plan bi-directional use cases of the system and don´t want to be limited by a pure IEM pack. Furthermore, there wouldn't be significant cost savings due to the bi-directional nature of the system.

Will a Handheld be available within the first release of Spectera?

The first release of Spectera includes the Base Station, SEK, DAD, LinkDesk & Web UI. The SKM handheld is currently in development and will be the next hardware devices added to the ecosystem anticipated for some time in 2026. Further details will follow as the project matures.

What is bidirectionality for a handheld microphone?

The anticipated handheld will be capable of receiving and sending control and monitoring information, but the audio will be a unidirectional transmission only, using the standard Spectera base station and antenna.

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Do mobile devices have a display and a menu?

There´s a display available to monitor e.g. volume and battery and make basic adjustments. The system offers permanent full remote control through the software so every setting can be done remotely.

AUDIO:

Do SEK bodypacks always need to operate both audio directions?

No. You can choose for each pack individually, if you want to use MIC, IEM or both.

Which audio interface is preferred?

We offer MADI (BNC and optical multimode), and Dante. Both interfaces have their advantages. MADI offers lowest and deterministic latency, Dante gives you network connectivity. Further MADI options might be considered, such as optical singlemode, depending on user feedback.

What about AES 67 and ST 2110?

The system offers AES 67 and ST 2110 audio streams via the on-board Audinate Brooklyn 3 module and Audinate software.

There are several audio link modes available. Do I have to decide for one mode for the whole system?

No, you can mix the audio modes individually per link to fulfil your particular application.

Can it be used for stereo or even 3D audio recording?

Yes, due to wireless word clock synchronisation all mobile devices are sampling at the same time. When using identical audio link modes even the latency is equal. Therefore, there will be no phase issues between WMAS audio links.

Will Spectera feature the "Engineer Mode" known from other Sennheiser wireless systems?

The Engineer Mode is currently not available, it will be added via firmware update later. The exact timing will be communicated once verified.

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COMPATIBILITY & COEXISTENCE

Is there a system compatibility to nowadays Sennheiser wireless microphones, such as D6000 or EW-D?

No, the fundamental transmission technology is different. Therefore, narrowband transmitters cannot be received with Sennheiser's WMAS system.

How do narrowband links and Sennheiser's WMAS system coexist?

Frequency planning is mandatory, of course, but there are no constraints for using both technologies simultaneously. Please refer to the "Technical Paper on Frequency Coordination" for more details.

Will Sennheiser's WMAS system be a successor to narrowband devices?

No. In many use cases, such as ENG or smaller one-digit link counts, narrowband will be the preferred solution.

What kind of redundancy is offered?

To ensure safe operations MADI and Dante connections are redundant, multi antenna setups can also be deployed for redundancy. The base station is equipped with 2 power supplies and automated switching. For more details, please refer to "Technical Paper on WMAS and Redundancy"

SOFTWARE:

Will Spectera be supported by Wireless Systems Manager (WSM), Control Cockpit or Smart Assist App?

No, WSM, Control Cockpit and the Smart Assist App won't support Spectera as the workflow of the system is very much different compared to narrowband links. LinkDesk software is the desktop application and centralized user interface for Spectera.

Are there alternatives to LinkDesk to operate the system?

LinkDesk software is the desktop application and centralized user interface to set up and operate multiple Spectera base stations, additionally you can set up and operate a single base station via the browser-based Spectera WebUI.

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Do you plan an integration of the system into the surface of mixing consoles as we know from D 6000?

Yes, we are in communication with several manufacturers.

LICENSING:

Do I need to purchase a license for the Spectera Base Station?

Yes, you will need to order a free local license for your Specter Base Station. It's important to remember that each Base Station requires its own individual license.

What does the license do for the Spectera Base Station?

The license serves a dual purpose. Not only does it activate the features of the base station, but it also determines the frequency range, the transmit power and the bandwidth of the RF channel (6 or 8 MHz) of your Spectera system.

How do I ensure that my license is compliant with my country/region?

When ordering, it's crucial to select a license that is compliant with the regulations of your specific country or region. This will ensure the optimal performance and legality of your Spectera system. Sennheiser provides support for finding the right license either personally or on our website.

Can I get multiple licenses for international touring?

No, you cannot use multiple licenses for international touring. Spectera uses a single node-based license. A node-based or node-locked license is tied to a specific device (or "node"). This allows the features to be activated and used only on that specific device. We will not offer a re-licensing service for touring; we are doing this to be compliant to current regulations and get our system certified.

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