



## SpeechLine Digital Wireless

# MULTI-ROOM MODE PLANNING AND SETUP



**SPEECHLINE DIGITAL WIRELESS**  
AN 1073 v2.2

System planning for multi-room applications.

## System planning with SpeechLine Digital Wireless

When you plan the installation of a wireless audio system for one of your projects, there are several aspects to consider, such as the number and size of conference rooms or the number of wireless microphone links you plan on installing. These aspects matter for any size of audio installation, be it small or large scale. With this document we would like to provide some guidance for when you start planning your project with SpeechLine Digital Wireless in the license-free 1.9 GHz frequency band.



For detailed technical information on SpeechLine Digital Wireless please refer to the system instruction manual. You can access it via the download area of the SpeechLine Digital Wireless product page at [www.sennheiser.com](http://www.sennheiser.com).

### Rough planning

- Define the the number of rooms for the installation.
- Define how each room shall be equipped and used.
- Define audio per room -> how many SpeechLine Digital Wireless links or TeamConnect Wireless systems.
- Identify other devices (DECT) using the 1G9 frequency range.
- Double-check that the local number of devices using the 1G9 range does not exceed the available spectrum (see next page).

### Fine planning

- Identify the position of any DECT access points, e.g. for in-house DECT phones.
- Define the installation style -> where and how shall the receivers be installed.
- Define if external antennas for remote installation of receivers are required (check for maximum antenna cable length).
- Consider the recommended distance of SpeechLine Digital Wireless antennas to DECT access points of at least 3 meters to prevent blocking effects.
- For convenient remote control consider using a network switch to connect all SpeechLine Digital Wireless receivers to the network.

### SpeechLine Digital Wireless installation planning

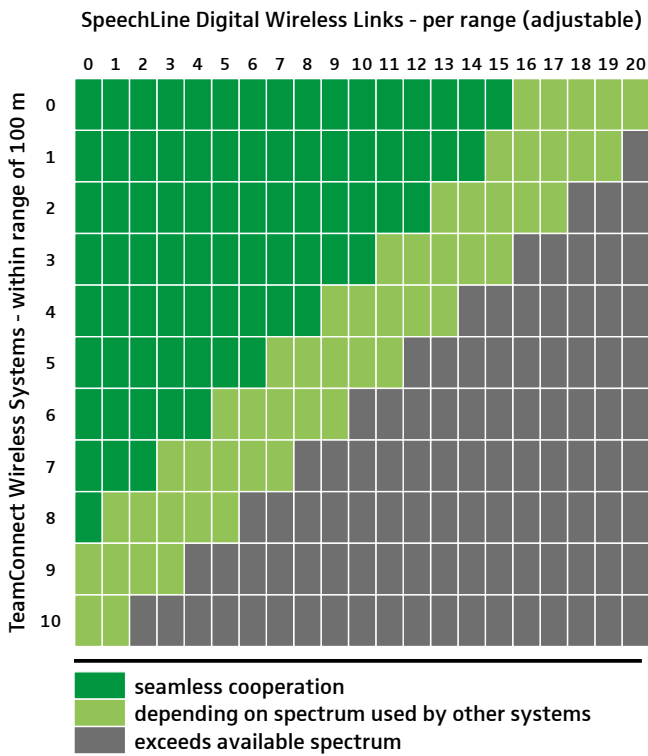
- Specify all SpeechLine Digital Wireless receivers of one location to be installed together in one rack.
- Consider the available recommendations for antenna positioning.
- Specify that all SpeechLine Digital Wireless receivers in one rack must always be switched on/off together to guarantee the best performance.

## Shared use of 1.9 GHz spectrum

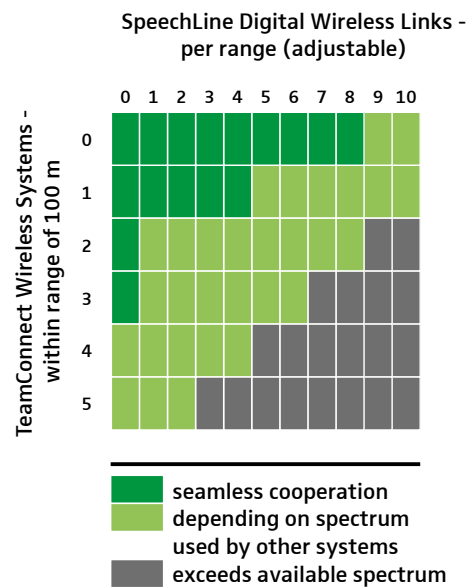
When SpeechLine Digital Wireless is used in combination with other devices or systems using the 1.9 GHz frequency band (e.g. Sennheiser TeamConnect Wireless or DECT phones), you should consider the following information.

The maximum number of SpeechLine Digital Wireless links depends on the number of other systems in use. The following charts indicate the possible combinations of systems for the use in the following regions.

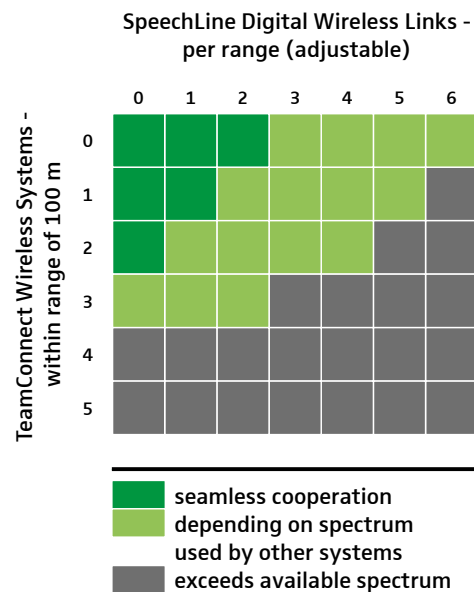
### Europe, Indonesia, India, UK, Hong Kong, Singapore, Malaysia, Australia:



### USA, Canada, Latin America, Brasil, Taiwan:



### Japan:




## Multi-Room Mode setup procedure with SpeechLine Digital Wireless

With this document we would like to provide some guidance for when you start planning your project with SpeechLine Digital Wireless in the license-free 1.9 GHz frequency band for multiple rooms with a total number of more than 20 wireless microphone links depending on product variants and country-specific regulations.

SpeechLine Digital Wireless offers two different RF power modes for different types of installations: the **automatic mode** with adaptive power for **single-room installations** and the **manual mode** for **multi-room installations**.

For this scenario the manual mode needs to be used. In order to use the manual mode, please navigate to **System Settings -> RF Power** in the menu of the SL Rack Receiver DW and select one of the five RF power levels. Please consider the checklist below.

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### For an installation in multiple rooms please consider the following steps to use the Multi-Room Mode:

Perform these steps **room by room subsequently**. When you perform the installation and configuration in one room, all devices in all other rooms need to be switched off.

- Install all receivers of one room in one rack.
- Connect all cables for the receivers.
- Make sure to power all receivers via a multiple socket with a central power switch.
- Mount all antennas as recommended and feasible.
- Ensure that all receivers are switched off.
  
- Switch on the first receiver. This receiver will become the Master.
- If necessary, pair a transmitter. Only if necessary, as the sets are delivered already paired.
- Set the RF power of the receiver to the recommended RF power level according to the room size as indicated on the receiver UI.
- Power cycle (switch off and on again) the receiver to verify the selected value.
- Perform a walktest to ensure the best reception coverage.
- If necessary adjust the RF power level and repeat the walktest for verification.
  
- Make sure to leave the Master receiver switched on for all following steps.
  
- Then, switch on all other receivers. They will synchronize with the Master receiver.
- Set all other receivers to the same RF power level as the Master receiver.
- Power cycle the other receivers. The Master receiver must be switched on all the time.
  
- Once the rack is configured, all devices must be switched off/on together every time via the central power switch of the multiple socket. Make sure not to switch any receiver on or off individually.
  
- Switch off all devices in this room before setting up the devices in the next room

After all rooms are set up this way, you benefit from a very robust SpeechLine Digital Wireless System with all easy-to-use benefits. Every room can now be switched on upon demand.