



Multicell Deployment Guide

v1.0

snom M700

- Office areas with obstructions like elevator shafts, stairwells, metal walls: Up to 10 meters
- Shop floors: Up to 60 meters
- Exhibition halls or production areas without obstacles: Up to 100 meters
- Underground garages: Up to 20 meters
- Outdoors without obstructions: Up to 200-300 meters (for indoor use only)

Capacity Planning

Each base station has a maximum limit of parallel calls.

	Narrow band	Wide band
Base station	8 calls	4 calls
Repeater	5 calls	2 calls

To avoid insufficient user experience through congested DECT network, the capacity for the DECT network should be planned in advance.

Due to different usage patterns, the number of base station required to fulfil the demand of voice channels may vary.

The total capacity in the coverage area of a base station is always limited to the capacity of a single base station.

Site Planning / Cell Coverage

The actual cell coverage and quality in an installation can be determined with a special handset feature, in which the handset establishes an audio loop.

Snom urgently recommends to

Note: **This feature can be used with base stations in an infrastructure, but also with single base stations without Ethernet connection, so the feature allows to identify obstacles and difficulties in an installation.**

1. Using the Handset for reception measurement

Before starting the deployment measuring make sure the handset is properly charged. Identify the MAC address of the base station to which you want to measure. As well manually read the MAC address on the base station labels on the back side for the device to be used with the handset. The handset does not need to be (pre-)registered to a particular base.

1. Press “Menu” followed by the keys: *47* to get the handset into find bases menu.

Note: Stay close to the base station to start the search.

2. Use the cursor down/up to select the base MAC address for the base station.
3. Select the intended base.
4. The handset display will show the “RSSI” (Received signal strength indication) level of the base.
5. Optional: By pressing “hook off” key (green key) an audio loopback connection will be established with the base station.

Note: By plugging in a headset modified for a MP3 player connection audio from the handset/MP3 player will be looped back to the handset earpiece. This makes it possible to listen to audio at the same time as reading the RSSI levels of the display.

Snom recommends using a building plan and checking the base station coverage using the handset signal strength indication RSSI level from each base station.

2. Placing 2nd and following base station

In order to place the 2nd base station:

- Place the 1st SNOM M700 base station exact at the desired position, and power on the base
- Set up the handset as described in previous section.
- Use the building plan drawing and check the base station coverage using the handset RSSI levels. Mark up the acceptable spots and non-acceptable spots for placing the 2nd base station on the plan drawing. Acceptable spots are spots where the handset shows RSSI levels better than 075 dBm (meaning lower numeric number) and where you verified via audio loopback that the reception is clear.

It is recommended to have a RSSI value better than/equal to -75dBm, and never below -90dBm.: Lower numeric number than 075 dBm on the handset screen. Please note that the minus is not shown on the screen.

Typically, installations such as office buildings, warehouses and hospitality should be equipped with both base stations and repeaters on several floors to create uniform and complete radio coverage.

Do not link two or more multicell base station via a repeater. A repeater shall be only used to extend the coverage of a single base station. If Ethernet is available it is recommended to use a multicell station rather than a repeater.

Open areas can be covered with a sparse network of base stations. In such applications, the base stations and/or repeaters cover an extended range due to the extended line-of-sight radio propagation capability.