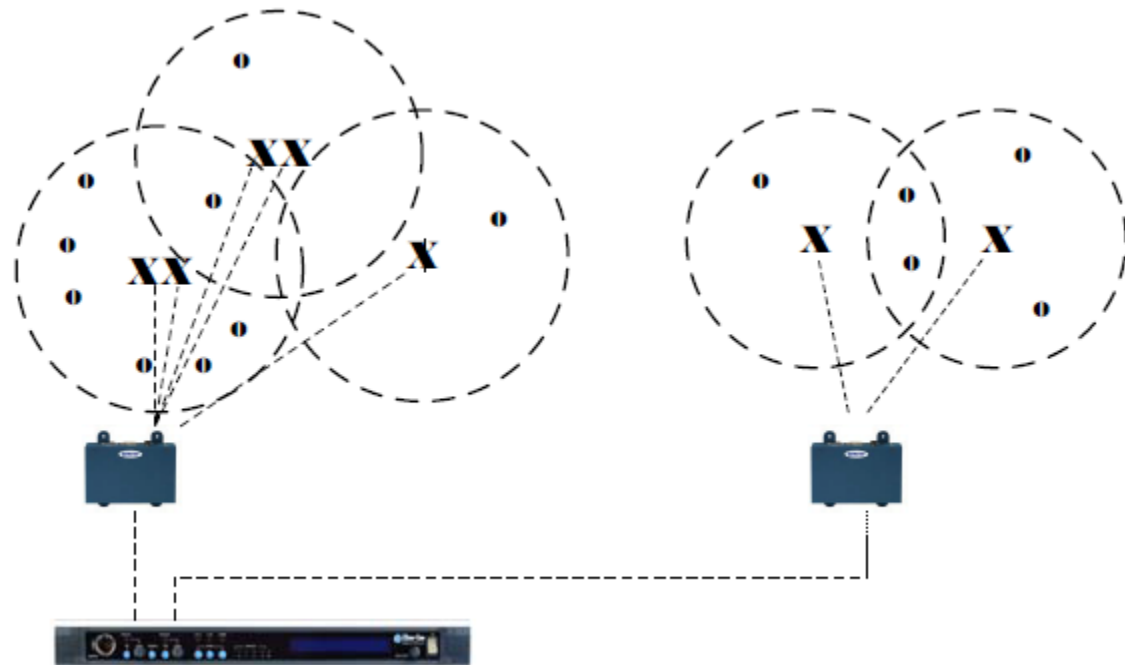
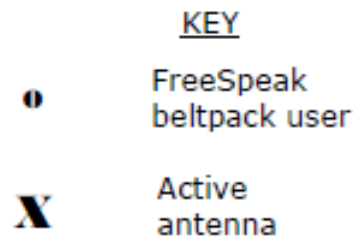
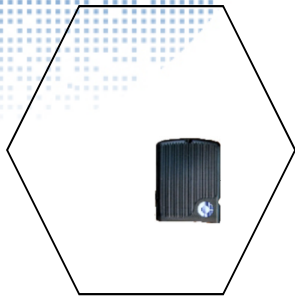


FreeSpeak II Base Station

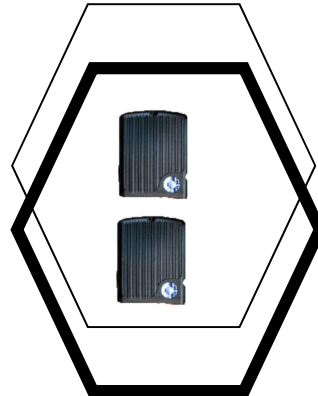
- **FreeSpeak II base station capacity**
- The FreeSpeak II base station supports up to 25 beltpacks.
- The base station allows up to **2 splitters** and **10 antennas** to be connected on the back of base at the antenna / splitter transceiver port
- **Note:** Each **antenna** is designed to handle **five beltpacks** simultaneously in good conditions. However, if interference or propagation problems occur in an area, to ensure proper operation and reliability, it may be more practical to install four beltpacks for each antenna.



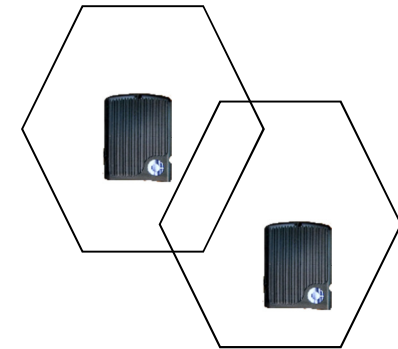
Antenna Placement



- ▶ Each Antenna covers a certain range or cell size
- ▶ Usually **50m indoors** and **150-250m outdoors**
- ▶ Each Antenna also covers 5 full duplex users (Beltpacks)



- ▶ If two or more Antennas are placed in the same area then the cell size is the same
- ▶ However the cell density has increased to handle up to 10 users in the same area**



- ▶ If Antennas are placed across the site then This increases radio coverage
- ▶ Beltpacks can roam from one Antenna to another and stay in constant communication

- ▶ Cells can be completely overlapped for density (**by co-locating multiple Antennas**)
- ▶ Cells can be overlapped at boundaries (**increases radio coverage**)

****For most working systems we use a ratio of 3-4 users per Antenna – due to system losses.**

