



Our Competencies
for Cellular Networks

Cellular Networks

A cell (Latin cellula = small space) is a self-sufficient, functioning space or area. In our scenario it refers to a radio room or area. Thus, the word „cellular networks“ can be translated into a combination (network) of several independent radio rooms.

Our Joint Solution Approach

With a strong partner in the field of the mobile radio standard LTE and the company Rohill with their competencies in the field of TETRA trunked radio technology, we cooperate with two experienced global players and have jointly developed a demonstrator for cellular networks.

We have integrated the two independent technologies into several of our 19" cases (BTuLB) certified according to mili-

tary standards and combined them to form a functional multi-base station.

Our cellular network demonstrator uses a powerful and compact mobile radio network to produce a fully functional and deployable high-capacity LTE base station with up to 1000 active users per cell for low-latency broadband applications.

The Compact Network technology offers the following benefits:

- Ranges up to 60 km
- Supported frequency bands e.g. LTE B28, etc.
- Secure communication via AES 256, etc.
- Multi eNodeB support (up to 10 eNodeB)
- Resistant to extreme conditions (possible MIL-STD 810 certification)
- Simple operation through web-based network management and terminal device administration

ROHILL TetraNode

Our demonstrator is complemented by the Rohill TetraNode, which acts as an independent TETRA base station and thus extends voice communication, enables narrowband data transmission and serves as the interface to digital BOS radio (Public Safety).





Modularity

To increase the operating range and to supplement the radio cells of our deployable multi-base station, drones or small weather balloons can be equipped with our own transmission equipment to transfer HD video, infrared or thermal camera streams in real time.

Areas of Application

Among other things, effective team communication in the areas of public safety (police, fire brigade, ambulances, etc.) and public transport (subway, tram, buses) requires:

- Voice communication within groups
- Emergency call support
- Map-based site services

Extended by chat functions and SMS-like text messages, our multi-base station (LTE and TETRA) offers a complete solution for critical communication in the military environment as well as in public security.



www.steep.de

Mobile Networks

Tel.: +49 228 6681 - 169

Fax: +49 228 6681 - 777

E-mail: mobile.netze@steep.de

Justus-von-Liebig Strasse 18
53121 Bonn, Germany