

ABSTRACT

The aim of the work is to get acquainted with the concept of SDR, analyze its work in critical conditions of radio communication and develop solutions for the construction of a mobile intermediate communication station for hard-to-reach regions.

The development of the concept, its influence on the current state of telecommunications and the possibility of setting up the system are considered.

In the course of this work the data were systematized about SDR and possible ways to implement the concept. In general, its disadvantages and advantages over traditional methods of solving radio frequency communication problems have been described.

The main achievement of the work can be considered the chosen algorithm for the implementation of the intermediate base station with low additional costs for laboratory equipment, software and hardware. The result is a systematic decision to build a base station.

Tasks:

- 1) Retro and prospective analysis of available information about the concept of SDR;
- 2) Identify available ways to build a base station;
- 3) Search for optimal conditions for the deployment of the intermediate station.

Key words: SDR, intermediate station, base station, forest, mountains