

ABSTRACT

The text part of the master's thesis: 116 pages., 69 pictures., 6 tables and 13 sources.

The purpose of the work is to substantiate the fact that curvature of the front of electro magnetic field have the characteristic that allow using of spatial-temporal signal processing methods to separate radio signals with other identical parameters (frequency, polarization, location of the source of the signal, etc.) one from one with the corresponding quality.

In this research we consider known technical solutions for spatial-temporal processing of signals, and also investigate the possibilities of using the physical phenomenon of curvature of the front part of an electromagnetic wave to increase the bandwidth of radio relay lines.