DETECTION OF FLUCTUATED PULSE WITH UNKNOWN TIME DELAY AND INTENSITY

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Detection algorithms for rapid fluctuated radio-pulse with rectangular modulating function and with unknown time delay and intensity are investigated. It is shown, that optimal algorithm, obtained by maximum likelihood method, is sufficiently complicated and lead to multi channel structure of detector. Asymptotically optimal algorithm for the detection of weak pulse is proposed. This algorithm leads to simplified single channel detector. Characteristics of asymptotically optimal detector in the case of strong signal are improved by means of the variation of input filter bandwidth.