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Abstract/Resume:

An Improved Adaptive QAM Algorithm

for the VHF Data Exchange System (VDEs)on Water

Abstract: For the Low-order modulation with low transmission rate provides reliable transmission, and the high-order modulation improves the system capacity, we need to compromise the communication capacity and BER in VHF time-varying fading wireless channels. In this paper, we propose the M-ary QAM algorithm based on an adaptive sub-band division (ASD-MQAM). According to the current state of channels, the ASD-MQAMcan select the appropriate M-ary QAM modulation in order to meet the channel’s dynamic changes and optimize the transmit power. The simulation results show that the proposed algorithm can improve the performance of VDEs communication system on water.