

Estimation of the Parameters of Free Space Quantum Key Distribution System Depending on the Insertion Losses

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Abstract. A telescopic system consisting of two modules is used to organize the quantum channel. The accuracy of the adjustment of these modules relative to each other ensures a reduction in losses in the channel, therefore, an important step before conducting the next experiments is the alignment of the system. Both modules of the system are mounted on movable supports that allow the modules to rotate around two axes. Using these supports, we managed to reduce the losses in the atmospheric channel with a length of 1 meter to 10 dB when the radiation is introduced into a single-mode fiber.

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