

## Receiving device for optical information leakage channel from multimode fiber based on silicon photomultiplier

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**Commercially available G651 multimode optical fibers and silicon photomultipliers ketek RM 3325, ON Semi FC 30035 and manufactured by OAO “Integral” have been used in this article as objects of research. The characteristics of silicon photomultipliers and information leakage channels formed on bends of different diameter of a multimode optical fiber have been obtained. The possibility of using silicon photomultipliers for registration of optical radiation emerging from the bend region has been shown. It has been established that a decrease in the bending diameter of a multimode optical fiber results in an increase in the bandwidth of the information leakage channel that occurs in the region of this bend. The maximum throughput of the resulting information leakage channel of 34.3 Mbps has been obtained for a fiber bending diameter of 5 mm using a ketek PM 3325 photodetector.**

**Keywords:** silicon photomultiplier, multimode optical fiber, information leakage channel, information security, fiber optic communication lines.

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