

Rosel holding, which is part of the state corporation Rostec, intends to increase the production of avalanche photodiodes, which are still produced in small batches. These components are in demand in laser long-range meters, optical communications, industrial automation and medical diagnostics.

Avalanche photodiodes convert weak light radiation into electric current, enhancing it due to the internal effect of the avalanche. This feature makes them indispensable in those areas where high sensitivity to minimal signals is required, for example in lidars, optical tomographs and quantum cryptography systems.

The production of products in the holding is engaged in the company "Optron". The line presents diodes based on silicon and arsenide Gallium - Indium. The former work in the range of 400-1100 nm and are used in medical equipment, laser control systems and optical spectroscopy. The latter cover the range of 900-1700 nm and are in demand in telecommunications, fiber-optic communication and remote sensing systems.

Now diodes are produced in cases with a diameter of 9 mm with a photosensitive site up to 500 microns. The company also expands the ruler, adding a smaller diameter case - 5.6 mm, as well as options with a reduced photosensitive site. In parallel, the release of innovative solutions in the form of micro-assemblies with an amplifier, which also find demand in the market, is mastered.