

The modulus chilled multiple PD

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The results of operations to creation of modulus matrix PD format 4x288x4, topology - multirow bar, pixel – 25x28x2 are introduced. The justification of technological conditions of fabrication p-n in epitaxial and heteroepitaxial patterns with veryzone by strata is given. The construction of a photodetector is designed. The specification statement of the multiplexer for PD is reduced. The technological track p-n and construction of a photodetector is designed. The specification statement a construction of a cryostat, and also specification statement of gaging machinery is reduced. The following results are obtained: Is selected optimal, from the point of view of conditions of beaming, method of an ionic implantation conduction, applied for inverse, of patterns; The supervisory equipment of photoelectric arguments of photodetectors supplying measurings of responsiveness and threshold performances created, both experimental is model of countermeasure feelers, and multiple patterns, coincidence with the multiplexer; The studies are held and the trade - off of a construction PD is realized; The manufacturing process of fabrication of a photodiode array PD on a ground(basis) MIE MCT and chilled silicon multiplexer designed; The construction of a cryostat reducing wormstrum to PD up to 1,3x10⁻⁹ is designed; Samples PD with arguments manufactured: - Mean specific detectivity in a maxima of spectral responsivity not less than 9,5x10¹⁰; - Wave length of a maxima of spectral responsiveness 9,8 microns, - Amount of the signal deductions - 8, - Working temperature - 80K, - V-W Responsiveness in maxima of spectral responsiveness at time of integrating 20 μs not less 8x10⁷ V / W.