Single Photon Detector for Laser Time-Transfer Link to Next-Gen Galileo Satellite – Power Source Radiation Resistance

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Abstract. The gamma radiation test of an DC/DC integrated converter is presented. Three samples of the device were irradiated by a total dose of 74 Gy provided by a cobalt source. This component is intended for improoving control circuit of solid state single photon detector. The detector is a key part of the laser time-transfer link payload for the next generation of Galileo GNSS satellites. These radiation tests were successful and will be included in a development of a new generation of solid state photon counting detector control circuits for space missions.