

The preliminary results of ground tests over the ring array

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This paper covers the results of ground tests over the ring array with the two-spot CCRs for the GLONASS satellites. The given reflectors are 48 mm in size with the predetermined dihedral angle offset of 2-3 ang.sec. which are located in the ring-type area. The array consists of 36 CCRs. Each reflecting face has a dielectric interference phase-shifting coating, which allows to get one spot in the FFDP with the ideal angles of 90° . The resulting diffraction pattern has a ring-like shape, however, due to the velocity aberration of light only a smaller group of CCRs, located at the opposite sides of the ring of CCRs, participates in laser impulse reflection. As a result, in case of the array inclinations two narrow signals appear on the Earth with the time shift between them.