

Kolobrodov V.G., Dobrovolska C.V., Mykytenko V.I., Tymchik G.S., Tiagur V.M., Komada P., Mussabekova A., Targeusizova A., Iskakova A. Spaceborne linear array imager's spatial resolution for arbitrary viewing angles (Conference Paper)

Simplified model of image forming in spaceborne linear array sensors at arbitrary sight angles is proposed in this paper. On basis of evaluation of system lens - linear array detector modulation transfer function (MTF), the equations were obtained that allow you to determine spatial resolution on Earth's surface. An example of pushbroom imager's MTF determination at sight of Nadir and with different slopes of lens optical axis is given. Image quality changes, which accompany lens optical axis angular inclination were studied. More research needed to determine the impact of lens aberrations on imager's MTF with arbitrary viewing angles.

Keywords: linear array detector, modulation transfer function, remote sensing, spatial resolution

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