

Special Algorithms for Radiometric Correction of ERS Images in Infrared Range

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Abstract. Principal algorithms for processing of the images generated by the modern Russian Earth remote sensing (ERS) equipment MSU-GS (mounted on the geostationary spacecraft Elektro-L) in infrared range are presented in the article. The developed algorithms make it possible to perform signal correction, as well as compensate for an influence of a large number of factors: from operation features of electrical channels to alteration of temperature of the instrument case. The implementation of the algorithms reduces the difference in temperature equivalent to geometric and time noises to 0.1 K. It is necessary to mention that all algorithms are implemented in the standard complex for data processing obtained from MSU-GS.

Keywords: geostationary orbit, Earth remote sensing, infrared range of the spectrum, image processing, signal correction