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Specifics of measuring temperature-frequency characteristics of high-sensitive staring thermal imagers

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This paper examines the specifics of measuring temperature-frequency characteristics of modern high-sensitive staring thermal imagers, which serves as a basis for estimating, predicting and comparing their information efficiency (particularly range) during detection and recognition of targets located on natural heterogeneous terrain background. The main factors affecting this characteristic have been analyzed with consideration for the fact that these devices usually function in a contrast-limited mode where their efficiency is restricted not by the noise of the device but by limited contrast sensitivity of the decoder's human eye.

Keywords: thermal imager, temperature-frequency characteristics, bench testing.

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