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Justification of the Main Technical Characteristics of the Ultra-Small Spacecraft of the Wildfire Monitoring Orbital Grouping

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Abstract. As a rule, the detection of ignition sources of wildfires in extensive areas of the Russian Federation is not timely, and the reduction of the consequences of technological disasters requires prompt (quasi-real-time) monitoring. The solution of this problem is possible by using a space system created on the basis of a multitrack orbital grouping (OG). The conducted studies have shown that it is possible to solve the task using ultra-small spacecraft (USS) corresponding to the CubeSat specification, which potentially makes it possible to reduce the required resource expenditures for the creation of USS and OG in general.

Keywords: spacecraft, supporting systems, photo-receiving device, orbital grouping

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