Testing and Performance of UFFO Burst Alert & Trigger Telescope
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The Ultra-Fast Flash Observatory pathfinder (UFFO-p) is a new space mission dedicated to detect Gamma-Ray Bursts (GRBs) and rapidly follow their afterglows in order to provide early optical/ultraviolet measurements. A GRB location is determined in a few seconds by the UFFO Burst Alert & Trigger telescope (UBAT) employing the coded mask imaging technique and the detector combination of Yttrium Oxyorthosilicate (YSO) scintillating crystals and multi-anode photomultiplier tubes. The results of the laboratory tests of UBAT's functionality and performance are described in this article. The detector setting, the pixel-to-pixel response to X-rays of different energies, the imaging capability for <50 keV X-rays, the localization accuracy measurements, and the combined test with the Block for X-ray and Gamma-Radiation Detection (BDRG) scintillator detector to check the efficiency of UBAT are all described. The UBAT instrument has been assembled and integrated with other equipment on UFFO-p and should be launched on board the Lomonosov satellite in late-2015.

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