

Request for Experimental Authority

Iridium Satellite LLC (“Iridium”) hereby requests an experimental license for a period of eighteen (18) months, beginning on or before February 29, 2024, to transmit from its space stations to the CubeSat Based Laser Crosslink Experiment (“CBAS-LCE”) in the 1618.725–1626.5 MHz band.¹

Iridium’s request is made to support the CBAS-LCE cubesat project developed by the Naval Information Warfare Center (“NIWC”) Pacific and sponsored by the Missile Defense Agency (“MDA”). The main project experiment will utilize two SUPERNOVA 6U cubesats, each equipped with an optical laser payload to demonstrate a peer-to-peer optical laser communication in space and evaluate space-to-Earth network protocols.² Each cubesat will have a Tracking, Telemetry, and Command (TT&C) payload consisting of: (1) an Iridium model 9603N modem that will have continuous capability to communicate with space stations in Iridium’s “Big LEO” constellation; and (2) a UHF/S-band transceiver that will communicate once per day during passes over an earth station in San Diego.

The CBAS-LCE is currently scheduled to launch on March 1, 2024 and operate over the following 12 months. Iridium requests authority to cover 18 months to account for the possibility of launch delays.

There will be no change during the experiment in the operating parameters of Iridium’s space stations. For this reason, no operating parameters, other than effective radiated power and an emission designator, are shown in the form that this exhibit accompanies. The only change for which Iridium seeks an experimental license is adding CBAS-LCE as a point of communication for Iridium’s satellite constellation. Iridium’s Part 25 space station license does not cover space-to-space communications.

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¹ Iridium’s constellation licensed under Callsign S2110 is comprised of 66 satellites, any one of which may be used as part of the experiment at any point in time.

² The National Telecommunications and Information Administration has authorized the operation of the cubesats. See SPS-25039/1.