

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Space Exploration Holdings, LLC (“SpaceX”), pursuant to Section 25.120 of the Commission’s rules, hereby requests Special Temporary Authority (“STA”) to use E-band spectrum to send and receive signals between gateway earth stations and SpaceX’s recently licensed second generation (“Gen2”) satellites.¹ Specifically, SpaceX requests authority to transmit in the 71.0-76.0 GHz band (downlink) and receive in the 81.0-86.0 GHz (uplink) band. The Commission deferred licensing this gateway spectrum in the *Gen2 Authorization* pending further consideration.² SpaceX requests a 60-day STA for operations while the Commission continues to process its underlying space station application.

For the most part, SpaceX will operate its E-band links with the technical parameters set forth in the underlying Gen2 application, both for testing upon initial orbital insertion and once the satellites reach their assigned orbital locations.³ However, SpaceX understands that it must operate under the STA on a non-interference basis, including with respect to federal operations in the adjacent 86.0-92.0 GHz range. As such, for the limited purpose of this STA, SpaceX will observe the interference criteria established in ITU-R RS.2017 for protection of passive systems in the 86.0-92.0 GHz band.⁴ In this way, SpaceX will ensure that these temporary operations cause no material interference to government-operated EESS systems in adjacent bands. At the same time, by adopting that limit for this STA, SpaceX does not concede that any specific out-of-band limit is the most efficient or appropriate mechanism to protect adjacent EESS systems on an ongoing basis.

SpaceX will use the E-band spectrum to communicate with gateway earth stations located throughout the U.S. and around the world. Applications for authority to use E-band spectrum for U.S.-licensed gateways will be filed with the Commission separately.

In the extremely unlikely event that harmful interference should occur due to transmissions to or from its spacecraft, SpaceX will take all reasonable steps to eliminate the interference. Should an issue arise, SpaceX can be reached at satellite-operators-pager@spacex.com, which links to the pagers of appropriate technical personnel 24/7/365.

¹ See *Space Exploration Holdings, LLC*, FCC 22-91 (rel. Dec. 1, 2022) (“*Gen2 Authorization*”).

² See *id.* ¶¶ 67-69.

³ See Application for Approval of Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System, IBFS File No. SAT-LOA-20200526-00055, Attachment A and Schedule S (May 26, 2020); Amendment, IBFS File No. SAT-AMD-20210818-00105, Attachment A and Schedule S (Aug. 18, 2021).

⁴ See *Performance and interference criteria for satellite passive remote sensing*, ITU-R RS.2017-0, Table 2 (Aug. 2012), https://www.itu.int/dms_pubrec/itu-r/rec/rs/R-REC-RS.2017-0-201208-I!!PDF-E.pdf.

Public Interest

The Commission has good cause to grant the requested STA. The requested STA would permit Gen2 satellites to communicate with gateway earth station to confirm their operational status; to evaluate the overall performance of the Gen2 network of space stations and earth stations; and to meet rapidly growing demand from consumers for high-speed, low-latency broadband service that can exceed existing Ka-band gateway capacity. Such operations will ensure that the E-band component of SpaceX's Gen2 satellites have been fully tested and prepared to support the growing Gen2 system, while bringing immediate benefit to consumers, businesses, and community anchor institutions. Accordingly, the STA will serve the public interest by supporting the preparation and use of an integral component of an NGSO satellite system that can bring high-capacity, low-latency broadband service to underserved and unserved areas of the country and around the world. And because SpaceX will take the steps described above to protect Federal systems in adjacent bands, these benefits will be realized without any offsetting problems for other licensed operators.

SpaceX anticipates launching satellites with E-band capability beginning in early February 2023. Accordingly, SpaceX requests that the Commission expeditiously grant the STA for E-band communications between Gen2 satellites and gateway earth stations for 60 days to support those operations beginning in early February while the Commission continues to consider the E-band portion of SpaceX's underlying Gen2 system application.