

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554**

Application of

SPACE EXPLORATION HOLDINGS, LLC

For Modification of the
SpaceX Gen2 NGSO Satellite System

Call Signs: S3069/S2992

ICFS File No. SAT-MOD-_____

**APPLICATION FOR MODIFICATION OF
THE SPACEX GEN2 NGSO SATELLITE SYSTEM**

Madeleine Chang
Manager, Satellite Policy

SPACE EXPLORATION TECHNOLOGIES CORP.

1155 F Street, N.W.
Suite 475
Washington, DC 20004
Tel: 202-649-2700

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SpaceX created its v3 satellites to deliver gigabit broadband everywhere on Earth. These new v3 satellites will enhance both the coverage, capacity, and reliability of SpaceX's second-generation ("Gen2") system, allowing people, enterprises, and government users to enjoy high-quality broadband and ubiquitous mobile connectivity wherever they are. Since SpaceX filed for its upgraded Gen2 system, the Commission proposed to enhance the quality and capacity of next-generation satellite systems for consumers by unlocking the 12.7-13.25 GHz band and 42.0-42.5 GHz bands for downlink operations. While the Commission already authorized SpaceX's requests to operate uplinks in the 12.7-13.25 GHz band and downlinks in the 42.0-42.5 GHz band outside the United States,¹ this modification requests authority to operate downlinks in these bands globally consistent with the Commission's rulemaking proposals. Authorizing SpaceX to improve the quality and capacity of its Gen2 system through this additional spectrum while the Commission completes its rulemaking would ensure that American consumers and people around the world can benefit from this spectrum as swiftly as possible.

Additional frequencies to expand service and network capacity. The Commission authorized SpaceX to use Ku-, Ka-, V-, E- and W-band frequencies on its Gen2 satellites to deliver high-speed, low-latency broadband service to consumers around the world. Among the frequencies the Commission authorized for the Gen2 system are the 12.70-13.25 GHz band (Earth-to-space) and the 42.0-42.5 GHz band (space-to-Earth, for use outside the U.S. only). SpaceX now requests authorization for its Gen2 constellation to use additional spectrum in Ku- and V-bands: 12.70-13.25 GHz (space-to-Earth), and 42.0-42.5 GHz (space-to-Earth, within the U.S.) as detailed in Schedule S and the Technical Attachment.

Granting this modification will serve the public interest by enabling faster, more

¹ See *Space Exploration Holdings, LLC*, DA 26-36 (SB rel. Jan. 9, 2026).

symmetrical broadband speeds for American consumers while making more intensive and efficient use of historically underused spectrum. Recognizing the promise these bands hold for enhancing next-generation satellite systems, the Commission proposed to add downlink allocations to the U.S. Table of Frequency Allocations for both the 12.70-13.25 GHz and 42.0-42.5 GHz bands.² The record in the rulemaking proceeding demonstrates the importance for additional contiguous downlink spectrum to meet the needs of American consumers.³ This expanded, contiguous downlink will both improve the capacity of next-generation satellite systems—allowing more consumers to receive better service—and open new opportunities for sharing and coordination among competitors that rely on Ku-band spectrum for consumers.

Granting SpaceX’s modification also would ensure that American consumers can benefit from the full capabilities of v3 satellites as soon as possible. The Commission already granted SpaceX authority to operate downlinks in the 42.0-42.5 GHz band internationally—authorizing operations in the U.S. would bring those benefits home. The 10.7-12.7 GHz band already delivers high-speed, low-latency broadband to millions of people—expanding that downlink spectrum to the 12.7-13.25 GHz band would expand those benefits to millions more. Ultimately, the Gen2 system offers a bridge to a world where a farmer in rural Kansas can run AI-powered crop analysis in real-time instead of waiting hours for results. Where an emergency responder in Alaska can stream high-definition video during a crisis without buffering. Where a doctor in remote Montana can conduct AI-assisted diagnostics with instant image processing. Where a student on Tribal lands can access interactive AI tutoring without lag, and a researcher at a polar station can upload

² See *Satellite Spectrum Abundance*, 40 FCC Rcd. 3794, ¶ 29 (2025) (“*Spectrum Abundance NPRM*”).

³ See, e.g., Comments of Open Technology Institute at New America and Public Knowledge, SB Docket No. 25-180, at 6-7 (filed July 28, 2025); Comments of Kuiper Systems LLC, SB Docket No. 25-180, at 3-7 (filed July 28, 2025); Comments of Logos Space Services, Inc., SB Docket No. 25-180, at 3-7 (filed July 28, 2025); Letter from Dave Cavossa, Commercial Space Federation, to Marlene H. Dortch, SB Docket No. 25-180, at 2-4 (filed Aug. 26, 2025).

terabytes of climate data in minutes instead of days.

SpaceX can quickly put these frequencies into use for Americans because they lie directly adjacent to downlink frequency bands that the Commission already authorized for the Gen2 system. Contiguous spectrum allows operators to more swiftly upgrade existing equipment to provide even higher quality service to consumers.⁴ More contiguous spectrum would also allow for larger individual channels and more efficient spectrum aggregation, helping alleviate the downlink bandwidth limitations that can constrain access to cloud-based models, high-bit rate data streams and real-time services. As consumer and enterprise demand for high-bandwidth, real-time applications and AI-powered devices increases, so too will the need for everyone—and everything—to have ubiquitous access to robust and reliable broadband. SpaceX requests to operate in these frequency bands globally, subject to any necessary waivers to operate on a non-conforming basis where conforming frequency allocations do not yet exist.

ITU Cost Recovery. As a result of the actions taken at the 1998 Plenipotentiary Conference, as modified by the ITU Council in 2005, the ITU now charges processing fees for satellite network filings. Therefore, Commission applicants are responsible for all fees charged by the ITU. SpaceX confirms that it is aware of this requirement and accepts responsibility to pay any ITU cost recovery fees associated with this application. Invoices for such fees may be sent to the contact representative listed in the accompanying FCC Form 312.

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This Modification will improve the capacity, quality, and reliability of SpaceX's Gen2 system for American consumers and people around the world. SpaceX requests that the Commission swiftly authorize SpaceX to upgrade its Gen2 satellite system.

⁴ See Amendment of Parts 2 and 25 of the Commission's Rules to Enable NGSO Fixed-Satellite Service (Space-to-Earth) Operations in the 17.3-17.8 GHz Band, 39 FCC Rcd. 11156, ¶ 1 (2024).

Respectfully submitted,

SPACE EXPLORATION HOLDINGS, LLC

By: /s/ Madeleine Chang
Madeleine Chang
Manager, Satellite Policy

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Suite 475
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