Abel Avellan, 2901 Enterprise Lane, Midland, TX 79706,

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL	WY9XOX
(Nature of Service)	(Call Sign)
XT MO	2053-EX-ST-2024
(Class of Station)	(File Number)

NAME AST&Science LLC

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:
Please see Exhibit A for description of test effort with AT&T.

Station Locations
(1) MOBILE: AT&T low-band footprint; see Exhibit A
(2) MOBILE: Non-geostationary LEO satellites; Call Sign S3065

Frequency Information

MOBILE: AT&T low-band footprint; see Exhibit A

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
704-716 MHz	MO	180KDXD	0.12 W (ERP)	0.00001 %
824-849 MHz	MO	180KDXD	0.12 W (ERP)	0.00001 %

This authorization effective January 23, 2024 and
will expire 3:00 A.M. EST May 30, 2025

FEDERAL COMMUNICATIONS COMMISSION

Frequency Information

MOBILE: Non-geostationary LEO satellites; Call Sign S3065

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
734-746 MHz	MO	10M0G1W	19275.2 W (ERP)	0.00001 %
734-746 MHz	MO	5M00G1W	9637.6 W (ERP)	0.00001 %
734-746 MHz	MO	3M00G1W	5782.6 W (ERP)	0.00001 %
734-746 MHz	MO	1M43G1W	2698.5 W (ERP)	0.00001 %
869-894 MHz	MO	10M0G1W	19275.2 W (ERP)	0.00001 %
869-894 MHz	MO	5M00G1W	9637.6 W (ERP)	0.00001 %
869-894 MHz	MO	3M00G1W	5782.6 W (ERP)	0.00001 %
869-894 MHz	MO	1M43G1W	2698.5 W (ERP)	0.00001 %

Special Conditions:

(1) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.

(2) The occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

(3) Experimental licensee must obtain consent from AT&T to conduct SCS operations in the geographic areas covered by each license listed in the experimental license application.

Special Conditions:

(4) The aggregation of all space station downlink emissions outside the applicant's SCS frequency band(s) of operation shall not exceed power flux density of -120 dBW/m2/MHz at 1.5 meters above ground level.

(5) The co-channel median field strength limit in the SCS frequency band(s) of operation must not exceed 40 dBμV/m at or beyond (a) the license boundaries of the licenses listed in the experimental application, and (b) the international borders with Mexico and Canada.

(6) If testing results in unacceptable interference to part 90 non-cellular 800 MHz licensees (see 47 CFR 22.970 for definition of unacceptable interference), testing must cease and may not resume unless unacceptable interference is avoided.

(7) Federal agencies may not conduct any operations under this grant.

(8) This STA grant is limited to testing of Supplemental Coverage from Space (SCS) with AT&T Mobility Spectrum LLC in the continental United States with mobile earth stations (handsets) at the locations specified in File no. 2053-EX-ST-2024, Exhibit A, Attachment A. SCS testing under this grant is limited to the frequency bands 704-716 MHz and 824-849 MHz (earth-to-space), and 734-746 MHz and 869-894 MHz (space-to-earth).

(9) All operations under this grant are on an unprotected and non-interference basis (NIB), i.e., AST SpaceMobile must not cause harmful interference to and must not claim protection from interference caused to it by any other lawfully operating station. In the event of any harmful interference caused under this grant of STA, AST SpaceMobile must immediately cease operations upon notification of such interference. AST SpaceMobile must immediately inform the Commission, in writing, of such an event.

(10) Testing under this grant is limited to the five authorized AST Block 1 Bluebird satellites operating in Low-Earth Orbit. All operations of the AST Block 1 Bluebird satellites must comport with the Commission's decision, and the terms and conditions in AST SpaceMobile Partial Grant, Order and Authorization, FCC 24-756 (rel. Aug. 2, 2024).

(11) Following launch of each AST Block 1 Bluebird satellite that is capable of providing SCS service, the licensee, AST & Science LLC ("AST SpaceMobile"), must notify the FCC through electronic submission to the license file, of the status of the satellite (transmissions commenced, etc.), not later than 7 days after commencement or expected commencement of transmissions, and of termination of transmissions, not later than three months after such termination.

(12) AST SpaceMobile may not conduct any commercial operations under this grant.

(13) AST SpaceMobile shall comply with the limits specified in §25.202, §25.204, and § 25.204 of the Commission's Rules, and as discussed in the SCS Order, FCC 24-28.

Special Conditions:

(14) Prior to commencing any testing in the 704-716 MHz and 824-849 MHz (earth-to-space), and 734-746 MHz and 869-894 MHz (space-to-earth) frequency bands, AST SpaceMobile must obtain consent from AT&T Mobility Spectrum LLC, the licensee in these bands.

(15) At the U.S. borders with Canada or Mexico, the power flux density (pfd) from any of the satellite downlink beams shall not exceed -116 dBW/m2. AST SpaceMobile must comply with any cross-border agreement(s) relevant to the bands mentioned above.

(16) One week prior to commencing any operations authorized by this grant, AST SpaceMobile shall notify any potentially affected operators, unless the relevant terrestrial provider(s) has been designated to provide notification(s) or conduct coordination processes. For purposes of this STA, a potentially affected operator includes any operators authorized to use the frequency bands covered by this STA and those authorized to operate in frequency bands adjacent to the 704-716 MHz and 824-849 MHz (earth-to-space), and 734-746 MHz and 869-894 MHz (space-to-earth) bands. The notice should include the day and times of each test as well as the name and contact information of the stop buzzer personnel that will be available to cease operations in the event of reported interference.

(17) AST SpaceMobile shall maintain a 24/7 point of contact in the United States, with authority and ability to cease all emissions. For this operation the point of contact is Mr. Federico Fawzi: +1-432-276-3465, frequencycoordinator@ast-science.com, which links to the pagers of appropriate technical personnel.

(18) All operations under this grant must stay within the minimum power level, as codified in the Commission's rules, to close the link.

(19) Any action taken or expense incurred as a result of operations pursuant to this grant is solely at AST SpaceMobile's own risk. Grant of this Experimental STA does not imply grant or denial of any other pending application and is without prejudice to any determination that the Commission may make regarding pending or future AST SpaceMobile applications.

(20) This authorization is subject to modification to bring it into conformance with any rules or policies adopted by the Commission in the future. Accordingly, in making any investments relating to operations authorized in this grant, AST SpaceMobile assumes the risk that it may be subject to additional conditions or requirements as a result of any future Commission actions.

(21) AST SpaceMobile must submit a test report in the ELS license file for this grant within 150 days reporting on activities occurring during the first 90 days of the license