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

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL	WY9XMJ
(Nature of Service)	(Call Sign)
XT MO	2173-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 Vodafone.

Station Locations
(1) MOBILE: Non-geostationary LEO satellites; Call Sign S3065
(2) MOBILE: Non-geostationary LEO satellites; Call Sign S3065

Frequency Information

MOBILE: Non-geostationary LEO satellites; Call Sign S3065

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37.5-37.6 GHz	MO	100MG1D	6857 W (ERP)	0.00001 %

This authorization effective January 03, 2025 and
will expire 3:00 A.M. EST June 03, 2025

FEDERAL COMMUNICATIONS COMMISSION

Frequency Information

MOBILE: Non-geostationary LEO satellites; Call Sign S3065

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
947.5-957.5 MHz	MO	10M0G1W	19275.2 W (ERP)	0.00001 %
947.5-957.5 MHz	MO	5M00G1W	9637.6 W (ERP)	0.00001 %
947.5-957.5 MHz	MO	3M00G1W	5782.6 W (ERP)	0.00001 %
947.5-957.5 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) Licensee shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.

(3) Licensee should be aware that this authorization is issued on a non-interference and secondary basis. Licensee shall not cause interference to or claim protection from interference caused to it by any lawfully operating stations.

(4) This authorization is subject to any and all conditions placed on the operations by the Republic of Türkiye and Vodaphone.

(5) 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.

(6) 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).

(7) This STA is limited to testing with Vodafone Turkiye with earth stations located in the territory of Turkiye.

Special Conditions:

(8) Satellite testing is limited to the 902.5-912.5 MHz (earth-to-space) and 947.5-957.5 MHz (space-to-earth) for satellite transmissions and satellite reception associated with testing in Turkiye.

(9) AST is allowed to use the 47.5-47.6 GHz (earth-to-space) and 37.5-37.6 GHz (space-to-earth) for gateway communications.

(10) AST SpaceMobile may not conduct any commercial operations as part of this experimental Part 5 request.

(11) The authority granted by this STA expires on either the expiration date of the foreign administration's authorization or the expiration date of this STA, whichever is earlier.

(12) Prior to commencing any operations under this grant, AST SpaceMobile must provide to the Commission a copy of the license from the Turkiye Administration to Vodafone Turkiye for the continuation of operations beyond 31.12.2024.

(13) Prior to commencing any operations in the 902.5-912.5 MHz (earth-to-space) and 947.5-957.5 MHz (space-to-earth) bands, AST SpaceMobile must obtain consent from Vodafone Turkiye, the licensee in these bands.

(14) AST SpaceMobile’s operations must satisfy all terms and conditions of any foreign license or authorization in connection with the subject operation, including but not limited to any transmit power, out-of-band emissions, testing duration, geographic, or other limits.

(15) All communications by AST SpaceMobile satellites with earth stations in Turkiye must operate in compliance with any and all laws, regulations, and requirements applicable to such operations in the territories of Turkiye Administration.

(16) One week prior to commencing any operations authorized by this STA, 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 902.5-912.5 MHz and 947.5-957.5 MHz 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) A 24/7 point of contact in the United States, with authority and ability to cease all emissions, for this operation 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 of STA shall be 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.

Special Conditions:

(19) 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.

(20) AST SpaceMobile shall maintain full control of its satellites at all times and shall operate its satellites in accordance with all existing coordination agreements.

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

(22) The maximum power levels under this grant must be in accordance with the supplement filed on 12.30.2024. At no time shall these levels be exceeded.

(23) Earth station operations must comply with the parameters in the Vodafone Turkiye authorization and any other requirements imposed by the appropriate regulatory authority in Turkiye for this testing.

(24) AST SpaceMobile must comply with all relevant International Telecommunication Union (ITU) regulations and with all existing and future coordination agreements relevant to these operations.

(25) 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.

(26) This authorization is subject to modification to bring it into conformance with any rules or policies adopted by the Commission or the Turkiye Administration 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 or Turkiye Administration's actions.

Special Conditions:

(27) 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 period and within 240 days following the grant of this license reporting on activities over the entire license period. To the extent possible and commensurate with data gathered during the conduct of the testing, this test report should provide details of AST SpaceMobile testing including the theoretical and measured in-band and out-of-band received power along with all assumptions and/or specifications used to calculate/measure those power levels as well as any technical details and operational procedures related to protecting radio astronomy sites. Specifically, measurements should include the simultaneous received power level (e.g., temporal power flux) of individual and multiple satellite beams (from specified geolocation(s) of multiple satellites), with an accounting of both the fundamental channel and adjacent channel received power (i.e. received aggregate power and component beam power of the desired channel and adjacent OOB channel). Note that the FCC rules (47 CFR 5.73(a)(1)) permit the Commission to request periodic reports to evaluate the progress of the experimental program and that the Commission could request that AST SpaceMobile supplement any report filed with additional information.

(28) All space-to-Earth transmissions at angles greater than 65.0° from nadir relative to each AST&Science LLC satellite (Callsign S3065) shall not exceed an unwanted equivalent isotropically radiated power (EIRP) density of -21 dB(W/100 MHz) in the frequency band 36-37 GHz.