



Ministry of Internal Affairs and Communications  
2-1-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8926 JAPAN

MIC/TB285

March 28, 2025

Mr. Vikram Raval  
Head of Global Regulatory Affairs,  
AST SpaceMobile

**Subject: The experimental testing on the direct to cell system in Japan**

Dear Mr. Vikram Raval:

I am writing to notify you that Ministry of Internal Affairs and Communications (MIC) has authorized Rakuten Mobile and AST SpaceMobile to conduct the experimental testing on the direct to cell system in Japan, under the conditions outlined in the attached document. The contents of the attached document have also been informed to the Federal Communications Commission (FCC).

Should you require any further information or clarification regarding this matter, please do not hesitate to contact us.

Sincerely yours,

廣瀬 照隆

HIROSE Terutaka

Director,

Fixed and Satellite Radio Communications Division

Radio Department, Telecommunications Bureau

Ministry of Internal Affairs and Communications

Government of Japan

Items	Conditions
Frequencies	771.5 MHz (space-to-Earth) 715.240-717.760 MHz (Earth-to-space)
Occupied Bandwidth	3M00 (771.5 MHz) 180K (715.240-717.760 MHz)
The Class of Emission	X7W (771.5 MHz) G1A, G1B, G1C, G1D, G1E, G1F, G1W, G7W, D1A, D1B, D1C, D1D, D1E, D1F, D7W (715.240-717.760 MHz)
EIRP (maximum)	39.8 dBW (771.5 MHz) -9.1 dBW (715.240-717.760 MHz)
Location of the experimental testing	Fukushima City, Fukushima, Japan - Within a 2 km radius from latitude 37°44'52" N, longitude 140°23'19" E - Within a 2 km radius from latitude 37°46'27" N, longitude 140°18'14" E Iin Town, Shimane, Japan - Within a 2 km radius from latitude 35°10'03" N, longitude 132°40'36" E Chichijima, Tokyo, Japan
Period of validity of license for the ground equipment	Five years from the date of grant of the license (The preliminary license was already granted on March 25, 2025.)
Satellite orbit altitude	520 km
Others	<ul style="list-style-type: none"> <li>- All operations under this grant of license shall be on an unprotected and non-interference basis (NIB), i.e., Rakuten Mobile and AST SpaceMobile shall not cause harmful interference to and shall not claim protection from interference caused to it by any other lawfully operating station.</li> <li>- Rakuten Mobile and AST SpaceMobile shall follow the results of international coordination in the ITU regarding the use of this frequency.</li> <li>- In the unlikely event that harmful interference is reported, Rakuten Mobile and AST SpaceMobile shall take the necessary actions to eliminate any harmful interference immediately, if necessary, the cessation of emission from the satellites.</li> </ul>

Items	Conditions
Frequencies	<p>40 GHz, 40.01024 GHz (space-to-Earth)</p> <p>46 GHz<sup>1</sup>, 46.01024 GHz<sup>2</sup> (Earth-to-space)</p> <p><i>Remarks 1: The sweep frequency range for establishing communication with the satellite shall be within <math>\pm 1.14</math> MHz.</i></p> <p><i>Remarks 2: The sweep frequency range for establishing communication with the satellite shall be within <math>\pm 1.12</math> MHz.</i></p>
Occupied Bandwidth	<p>3M00<sup>1</sup> (40 GHz), 7M00 (40.01024 GHz)</p> <p>3M00 (46 GHz), 5M53 (46.01024 GHz)</p> <p><i>Remarks 1: 3M00 bandwidth carrier consists of multiple 180K bandwidth carriers.</i></p>
The Class of Emission	<p>G1D (40 GHz), G1D (40.01024 GHz)</p> <p>X7W (46 GHz), G1D (46.01024 GHz)</p>
EIRP (maximum)	<p>25.3 dBW (40 GHz), 29.0 dBW (40.01024 GHz)</p> <p>43.4 dBW (46 GHz), 45.6 dBW (46.01024 GHz)</p>
Site of installation	Fukushima City, Fukushima Prefecture
Period of validity of license for the gateway base station	Five years from the date of grant of the license (The preliminary license was already granted on March 24, 2025.)
Satellite orbit altitude	520 km
Others	<ul style="list-style-type: none"> <li>- All operations under this grant of license shall be on an unprotected and non-interference basis (NIB), i.e., Rakuten Mobile and AST SpaceMobile shall not cause harmful interference to and must not claim protection from interference caused to it by any other lawfully operating station.</li> <li>- Rakuten Mobile and AST SpaceMobile shall follow the results of international coordination in the ITU regarding the use of this frequency.</li> <li>- In the unlikely event that harmful interference is reported, Rakuten Mobile and AST SpaceMobile shall take the necessary actions to eliminate any harmful interference immediately, if necessary, the cessation of emission from the satellites.</li> </ul>