

## Outline of Proposed Amendment to Ministerial Ordinance

### 1 Item

Partial amendment of Regulations for Enforcement of the Radio Law, etc.

### 2 Scope of the amendment to ministerial ordinance

- Regulations for Enforcement of the Radio Law
- Regulations for Radio Equipment
- Concerning Technical Regulations Conformity Certification of Specified Radio Equipment
- Notices related

### 3 Reasons for amendment

Recently, the application of the Ultra Wide Band (UWB) Radio system to the sensor network has been attracting attention, and demand for outdoor use, which assumed to be mounted on mobile terminals in Japan is increasing. Against this backdrop, Japan institutionalized the system to enable outdoor use of some frequency bands (between 7.587 GHz and 8.4 GHz) in May 2019.

The amendment is a revision of the technical standards to expand the frequency band available for outdoor use, in view of alignment with regulations of other countries, and in response to expansion of UWB uses, and the need for use in radar applications utilizing broadband.

#### 4 Outline of the amendment

##### Technical requirements of UWB radio system outside

Item	Technical requirements
Frequency Allocation	7.25GHz-9.0GHz
Antenna Power (Average)	-41.3 dBm/MHz (EIRP) or less
Antenna Power (Peak)	0 dBm / 50 MHz (EIRP) or less
Occupied Bandwidth	1.75GHz
Spreading Bandwidth	450 MHz or more (Bandwidth between the upper and lower frequencies for 10 dB down)
Crosstalk Prevention Function	<p>Automatically send or receive a code (identification code) to identify receiver/sender ( For data transmission)</p> <p>or</p> <p>By identifying the modulation method and other characteristics of the received radio waves, it is possible to distinguish between the reflected wave of the radio wave transmitted by oneself and by others (for radio localization).</p> <p>Function to stop the emission of radio waves (Not required when using only radio waves with a frequency of 7.587 to 8.4 GHz) .</p>
Unwanted Emission Strength	Appendix 1
Secondary Radiated Emission Strength of receiving device	Appendix 2
Operational restrictions	Prohibition of use in the sky.
Housing requirements	The housing case shall not be capable of being opened easily.

Appendix 1 (Unwanted Emission Strength)

Frequency	Limit value (Average)	Limit value (Peak)
under 1,600MHz	-90dBm/MHz	-84dBm/MHz
1,600MHz or more – under 2,700MHz	-85dBm/MHz	-79dBm/MHz
2,700MHz or more – under 7.25GHz	-70dBm/MHz	-64dBm/MHz
7.25GHz or more – under 9.0GHz	-59.3dBm/MHz	-35dBm/MHz
9.0GHz or more – under 10.25GHz	-60dBm/MHz	-35.7dBm/MHz
10.25GHz or more – under 10.6GHz	-70dBm/MHz	-64dBm/MHz
10.6GHz or more – under 10.7GHz	-85dBm/MHz	-79dBm/MHz
10.7GHz or more – under 11.7GHz	-70dBm/MHz	-64dBm/MHz
11.7GHz or more – under 12.75GHz	-85dBm/MHz	-79dBm/MHz
12.75GHz or more	-70dBm/MHz	-64dBm/MHz

Appendix 2 (Secondary Radiated Emission Strength of receiving device)

Frequency	Limit value (Average)
under 1,600MHz	-90.0 dBm/MHz
1,600MHz or more – under 2,700MHz	-85.0 dBm/MHz
2,700MHz or more – under 7.25GHz	-70.0 dBm/MHz
7.25GHz or more – under 9.0GHz	-54.0 dBm/MHz
9.0GHz or more – under 10.25GHz	-60.0 dBm/MHz
10.25GHz or more – under 10.6GHz	-70.0 dBm/MHz
10.6GHz or more – under 10.7GHz	-85.0 dBm/MHz
10.7GHz or more – under 11.7GHz	-70.0 dBm/MHz
11.7GHz or more – under 12.75GHz	-85.0 dBm/MHz
12.75GHz or more	-70.0 dBm/MHz

5 Proposed date of entry into force  
June, 2021