

## The Outline of Proposed Amendment to Ministerial Ordinance

### 1 Item

Partial amendment of Regulations for Radio Equipment etc.

### 2 Amendment to Ministerial Ordinance

Amendment for Radio Equipment

### 3 Reasons for amendment

Currently, while sensors using cameras, infrared rays, and LED lights are commonly used in electronic devices such as home appliances, there is an increasing need for sensor systems using radio waves with higher detection accuracy.

In particular, products for measuring heart rates using infrared rays and LED lights have appeared on the market such as wearable devices including smart watches. The use of radio waves enables these products to detect them more accurately.

Japan will amend the current technical regulations for 2.4GHz band Low Power Data Communication systems responding to these new usage needs.

### 4 Amendment Outline

Items	Technical requirements of 2.4 GHz band Low Power Data Communication systems (only for radiolocation)
Frequency Allocation	2400-2483.5MHz
Occupied Bandwidth	26MHz or less
Communication type	—
Modulation type	Other than Spread Spectrum modulation or OFDM
Antenna Power	10mW or less
Allowable deviation of Antenna Power	Max +20%, Min -80%
Antenna Gain	12.14dBi or less
Unwanted Emission Strength	$2387\text{MHz} \leq f < 2400\text{MHz}$ and $2483.5\text{MHz} < f \leq 2496.5\text{MHz}$ : 25 $\mu$ W or less $2387\text{MHz} > f$ and $2496.5\text{MHz} < f$ : 2.5 $\mu$ W or less
Secondary Radiated Emission Strength	$f < 1\text{GHz}$ : 4nW or less $f \geq 1\text{GHz}$ : 20nW or less
Crosstalk Prevention Function	By identifying the modulation system and other characteristics of the received radio waves, it must be possible to distinguish the reflected waves of radio waves transmitted by its own station from the radio waves transmitted by other radio stations.

- 5 Proposed date of entry into force  
May, 2020