

Regarding the human exposure

Effective May 20, 2019, The Ministry of Internal Affairs and Communications has issued a partial amendment to Regulations Regarding Wireless Facilities by Ordinance No. 8.

Radio equipment which is applicable of **Incident power density (IPD)** are established newly, and radio equipment which is applicable of **SAR** and **multiple radio waves** are added.

• Radio equipment which is applicable of **SAR** (6GHz or less more than 100kHz)

A: Land mobile station

B: Land mobile system for Broadband Wireless Access (BWA)

C: Advanced MCA Land mobile station

D: 700MHz Band Intelligent Transport Systems Land Mobile Station

E: Time Division Multiple Access, Digital cordless telephone in broadband (DECT)

F: Time Division/Orthogonal Frequency-Division Multiple Access System, Digital cordless telephone in broadband (sXGP)

G: Portable Mobile Earth Station for Iridium system by broadcast of the man-made satellite station to establish on a non-stationary satellite (Iridium/Globalstar)

H: Portable Mobile Earth station for THURAYA

I: INMARSAT portable mobile earth station (GSPS)

J: Portable mobile earth station for disaster prevention portable satellite communications

• Radio equipment which is applicable of **IPD**

(30GHz or less more than 6GHz, 300GHz or less more than 30GHz)

K: Land mobile station (5G/mmW)

L: Outdoor Ultra Wide Band radio system (Outdoor UWB)

M: Specified low power radio equipment (Millimeter-wave Rader)

N: Low power data communications system (66GHz or less more than 57GHz)

- Radio equipment which is applicable of multiple radio waves

(It is put in the housing that is the same as target radio equipment and has a function to transmit multiple radio waves at the same time.)

O: PHS radio station

P: Low power data communications system (without quasi-millimeter band and a system of using 66GHz or less more than 57GH)

Q: High power data communications system in 5.2GHz band, Land mobile station

| Normal use | Radio equipment | | | | | |
|--|-----------------|----------|------------|-----------------------------|-------------|-------------|
| | A~L only | M/N only | O/P/Q only | In the case of same housing | | |
| | | | | A~L + M/N | A~L + O/P/Q | M/N + O/P/Q |
| Human body both sides of the head part (*1,*2) | ○ | N/A | N/A | ○ | | N/A |
| Human body (*3) | ○ | | N/A | ○ | | |

*1. Transmission information is the thing of the combination of "telephone (including sound broadcast)" and "telephone and other information"

*2. Transmitting radio wave in a state in proximity to a human body both sides of the head part (except for a radio equipment of using 300GHz or less more than 30GHz)

*3. A separation distance of an antenna and a human body (except for a head and both hands) are less than 20cm

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When the average power of the radio wave is less than the threshold of average for six minutes, that is not applicable. (According to the following list)

Also, in the case of putting in the same housing with the target radio equipment and it has the function that can transmit multiple radio waves at the same time, it is possible that is not applicable when the sum totals of the thing that each transmitting radio wave divided the average power of the radio wave by the threshold of the average power for six minutes becomes less than one.

| Frequency | Threshold of the mean electricity |
|--------------------------------|-----------------------------------|
| 6GHz or less more than 100kHz | 20mW |
| 30GHz or less more than 6GHz | 8mW |
| 300GHz or less more than 30GHz | 2mW |

It is necessary to apply a certification of radio law including SAR or IPD as end product, if you use the certified module to the end product which is applicable of SAR (using human body both sides of the head parts and a human body).

For Questions or Further Assistance
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