

Japanese Radio Regulations for UAV Operations

Radio equipment used to operate unmanned aerial vehicles (UAV) in Japan must basically conform to Japanese Radio Regulations.

The use of radio equipment basically requires that the equipment be operated by an individual who holds a radio operator license, and that the individual or corporation must own registered radio equipment and have a radio station license.

When using radio equipment in a frequency band that does not require a license or a radio station license, the equipment must be certified in accordance with the technical compliance standards, etc., of the Ministry of Internal Affairs and Communications.

The following are the main radio frequencies permitted for UAV airspace use in Japan.

Classification	Radio station license	Frequency band	Transmission power	Use form	Remarks	License of Radio Operator
Radio station not requiring license or registration	Required	72–73 MHz band	500 m at less than 200 μ V/m	For operation	For radio-controlled use	Not required
		920 MHz band	20 mW	For operation and data communication	Special low-power radio equipment	
		2.4 GHz band	10 mW/MHz	For operation, image transmission, and data communication	Low-power data transmission system	
Portable radio station	Not required	1.2 GHz band	Up to 1 W	Image transmission (analog)	Not to be used going forward	On-The-Ground
Portable radio station		169 MHz band	Aerial transmission up to 10 mW	For operation For image transmission	Unmanned vehicle object image transmission system Established in 2016	Service III Category Special Radio Operator or higher qualification
Land mobile station		Part of 2.4 GHz band	Up to 1 W	For data transmission		
		5.7 GHz band	Up to 1 W			
Amateur radio station		5.6 GHz band Amateur radio bands	Up to 2 W		Technical standard compliance certification required	Amateur Four-Class Radio

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(from Ministry of Internal Affairs and Communications website)

When operating the unmanned mobile vehicle image transmission system described above, it is necessary to join the Japan Unmanned System Traffic & Radio Management Consortium (JUTM) and undergo operational coordination.

In addition to these, 351 MHz band digital simple radio stations (registered stations) with airspace use frequencies (up to 1W in the air, up to 5W on the ground), private infrastructure lines (LTE), and satellite radio stations are also available for use.

For LTE use, you must subscribe to LTE for airspace use provided by a telecommunications company in Japan and use a SIM card that is approved for airspace use.

5.8GHz-band ISM, 430MHz-band long-range radios, and 915MHz-band high-power radios used for UAVs in other countries are not allowed in Japan.

Japanese Radio Regulations are stricter than those of other countries, but there are permits to operate UAVs for a certain period of time as an exception. Accordingly, please contact the competition headquarters in advance with an overview and specifications of any radio equipment you plan to use to control and monitor your UAV.