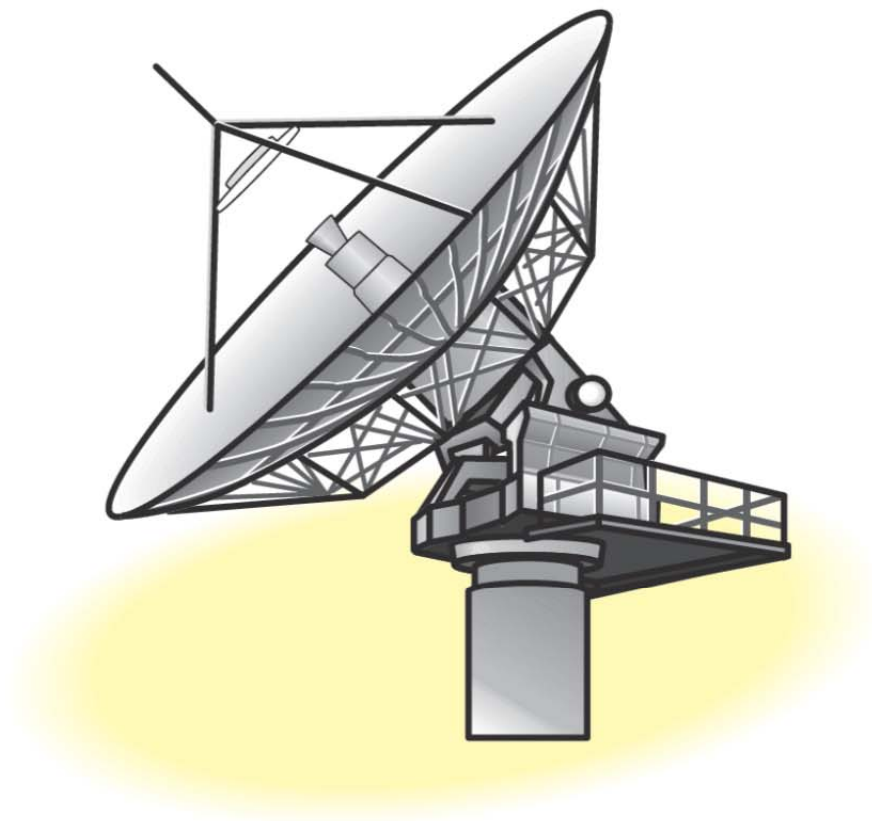


Introduction to Inspections Based on the Radio Act

- Technical Standard Conformity • Certification Service
- Application Form Creation Support Service



JET

Japan Electrical Safety & Environment Technology Laboratories
Yokohama Laboratory Radio Equipment Testing Center

The Ministry of Internal Affairs and Communications has registered JET as a “Registered Certification Body” based on the Radio Act.

What is the Radio Act?

The Radio Act is a law established to prevent broadcast equipment and other radio equipment from being affected by radio wave.

The purpose of this Act is to promote public welfare by ensuring the fair and effective utilization of radio waves. The term radio waves refers to electromagnetic waves of frequencies not exceeding 3,000,000 MHz.

What is a Registered Certification Body?

A Registered Certification Body is an organization that can perform technical standard conformity certifications and construction design certifications of specified radio equipment based on the Radio Act.

System

The technical standard conformity certification system conducts tests and certifies that specified radio equipment conform to technical standards. As a general rule, each piece of radio equipment is tested at the stage before installation at a radio station - at the factory and during distribution. The Registered Certification Body provides a certification number (indication) for each piece of certified radio equipment.

The construction design certification system certifies construction design (including confirmation methods for conformity of equipment to the construction design) for specified radio equipment that conforms to the Radio Act. Radio equipment manufactured based on certified construction designs are provided with a certification number for each construction design by the person who obtained the certification.

Obligations

Persons who receive certification are obligated to undertake the following:

- 1) Construction design conformity obligations
- 2) Inspection record storage obligations

Construction design certification numbers for inspections

Date and location where inspection was performed

Name of responsible person that conducted the inspection

Number of specified radio equipment that was inspected

Inspection method

Inspection results



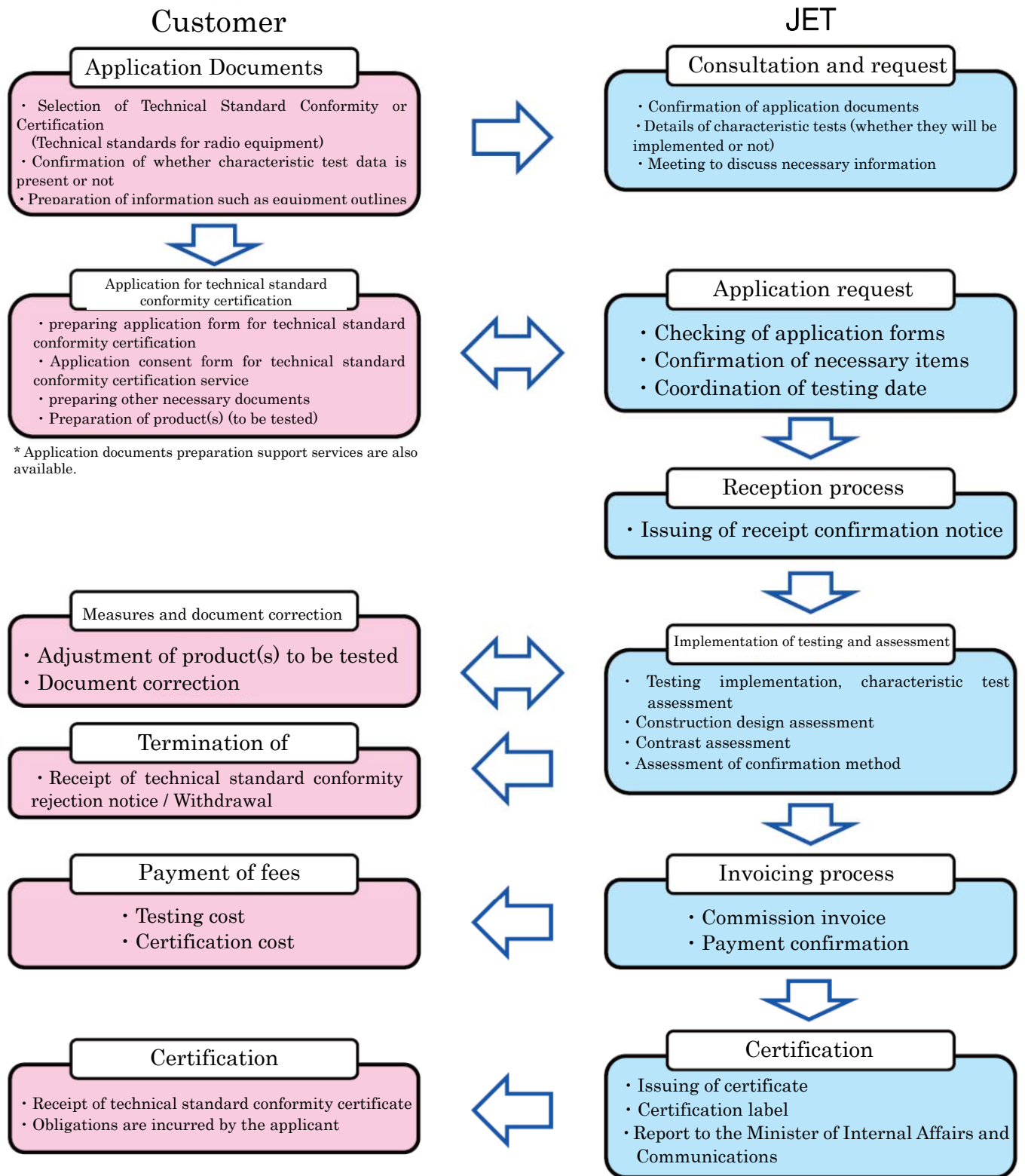
“Technical Standard Conformity Mark” certifying conformity with Japanese technical standards

Certification Types

There are **two types** of methods for obtaining certification for specified wireless equipment.

	Technical standard conformity certification (Technical Standard Conformity)	Construction design certification (Certification)
Features	All products produced in small lots are assessed	Design methods and products of mass produced products are assessed
Price	More expensive as the number of applications increases	Prices are substantially lower as the number of applications increases
Assessment	All products are checked	The number of application forms increases

Flow from Application to Issuance of Certificate



Our website: <http://www.jet.or.jp/>

Detailed information is available by accessing “Service” -> “Assessments Based on Laws” -> “The Radio Act: Technical Standard Conformity Certification”.

JET has obtained registration that covers all segments of specified radio equipment.

Specified Radio Equipment

Segment 1 License-exempt stations: 20 classes (Article 38-2-2 Item (1) (i) of the Radio Act)

Specified low power wireless equipment, wireless LAN, Bluetooth, etc.

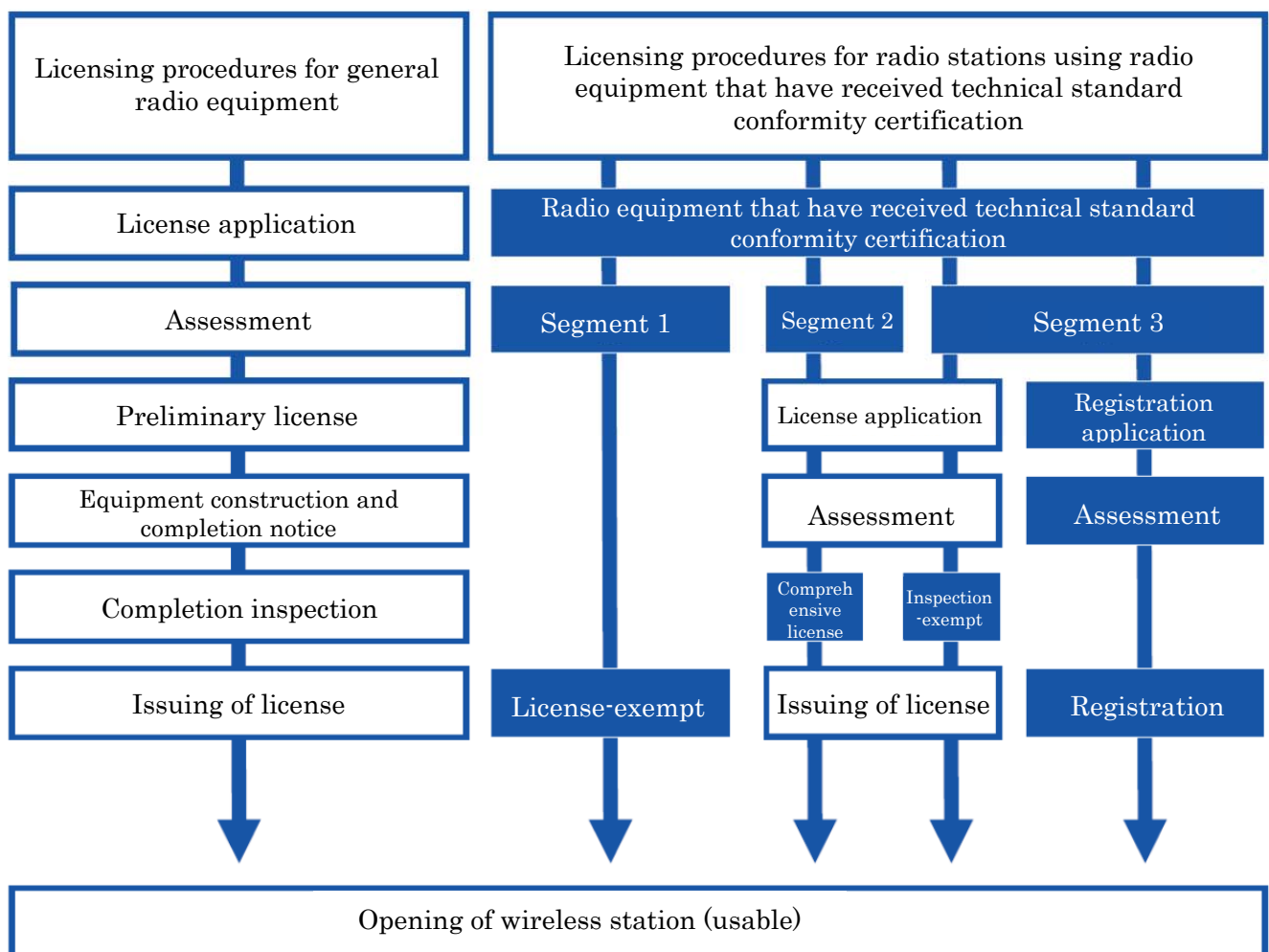
Segment 2 Specified radio stations: 37 classes (Article 38-2-2 Item (1) (ii) of the Radio Act)

Cell phones, WiMAX, etc.

Segment 3 Others: 100 classes (Article 38-2-2 Item (1) (iii) of the Radio Act)

Base stations, radio buoys, campus radios, etc.

Concept of Legal Effects



* Procedures in **dark blue** will be simplified.

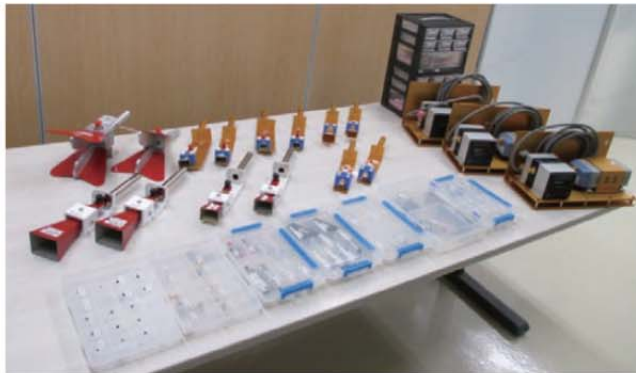
Measurement Equipment Specifications

Measurement frequency range: 9kHz – 220GHz
(Reference value indications: 9kHz – 110GHz)

Measurement settings: Evaluation of conduction signals,
evaluation of radiated signals via
antenna coupling

Measurement modulation analysis:
IEEE802.11a,b,g,n,ac

Standard signal: Rubidium standard signal generator

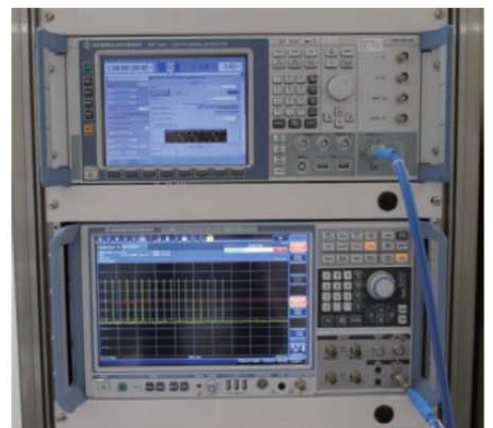


Others: Millimeter wave (60GHz band) testing
(WirelessHD/WiGig), UWB radio
communication system testing,
DFS testing

DFS

Because WLAN devices share the same frequencies with weather radars, marine and military radars, the use of equipment with DFS (Dynamic Frequency Selection) functions are required to automatically detect the corresponding frequency band and operate while avoiding the frequencies, and the operation must be confirmed.

- Weather radar
Type W53
5.3GHz band (5250 – 5350MHz: 52/56/60/64ch)
Cannot be used outdoors 4 channels that have been
available for use since May 2005
- Marine and military radar
Type W56
5.6GHz band (5470 – 5752MHz:
100/104/108/112/116/120/124/128/132/136/140ch)
Can be used outdoors 11 channels that have been
available for use since January 2007



Scope of Application

Japan

- ◆ Radio Act
 - Specified radio equipment, all segments described in Article 38-2-2 of the Radio Act
 - High-frequency equipment
 - Weak radio
- ◆ Others
 - Agent services for SAR test and Telecommunications Business Act

European region

- ◆ R&TTE Directive (CE marking)
 - ETSI EN 300 220 series
 - ETSI EN 300 328
 - ETSI EN 301 489 series
 - ETSI EN 302 065
 - ETSI EN 300 330 series
 - ETSI EN 300 440 series
 - ETSI EN 301 893 series
 - ETSI EN 302 291 series, etc.

U.S.

- ◆ 47 CFR Regulations (FCC regulations)
 - FCC Part 15 Subpart C (including B, D, E)
 - FCC Part 22 series

Consult us for other regions and applications.

Application Documents Issuance Support Service

JET provides support for creation of application forms related to the technical standard conformity certification.

JET provides advice on making the necessary documents and support on preparing application documents prior to application and start of assessment.

Inquiries

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About JET

JET is a company that supports “Safety,” “Quality” and “Environmental Conservation.”

JET (Japan Electrical Safety & Environment Technology Laboratories) was founded in 1963 as a designated testing body by the government of Japan based on the Electrical Appliance and Material Control Law (the current Electrical Appliances and Materials Safety Act), taking over testing operations that the government had conducted. Since then, JET has expanded its services ranging mainly from those as a registered testing body based on the Electrical Appliances and Materials Safety Act and the Radio Act to testing and inspection services such as certification, EMC measurement and performance tests for electrical products.

A wide variety of services are available to support various needs. Please contact your nearest JET office.

JET meets various needs such as testing and certification of electrical products and equipment

- Testing, inspection and certification services for electrical products, etc.
Conformity assessments based on the Electrical Appliances and Materials Safety Act (PSE)
Safety certifications for electrical products, etc. (S-JET certification)
Certification of circuit breakers for residential use
Testing and registration of components and materials for electrical products (CMJ registration system)
- Testing and certification services for use of new energy
Certification for photovoltaic modules (JETPVm Certification)
Certification for system interconnection equipment for small distributed generation systems
Calibration of secondary reference photovoltaic cells
Measurement of the performance of photovoltaic modules for comparison measurements
- Testing services that meet needs such as the improvement of the safety of electrical products
Measurement of electromagnetic compatibility (EMC)
Measurement of electromagnetic field (EMF)
Various requested tests (various tests for safety, performance, etc.)
- Testing, inspection and certification services based on various relevant laws and regulations
Technical standard conformity certification based on the Radio Act
Conformity assessments based on the Consumer Products Safety Act (PSC)
Certification based on the Industrial Standardization Act (JIS Mark)
Certification for water supply equipment based on the Water Supply Act.
Certification for medical devices based on the Pharmaceutical Affairs Act
- Certification services for various quality and environmental management systems.



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[ISO Registration Center]	Shimomoto Building 5F, 1-46-3 Hatsudai, Shibuya-ku, Tokyo 151-0061 Tel: +81-3-5358-0694, Fax: +81-3-5358-0727
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