



# **Considerations ; Items of caution in certification work**

March 7, 2019  
Certification Promotion Office, MIC

# Agenda

- 1 Compliance with obligation to match certified design
- 2 Appropriate operation of wireless LAN
- 3 Appropriate indication of Mark

# Survey of marketed equipment

- ✓ MIC carries out market survey every year to ensure the conformity of radio equipment to the applicable technology standard
- ✓ To understand the situation of marketed equipment and request manufacturer and vendor to amend the nonconforming equipment.

Purchase of  
commercial  
product

Measurement/  
analysis

Publish result/  
request

[FY2018]

Mobile phone	: over 4 types
Wireless LAN	: over 7 types
Bluetooth	: over 6 types
Drone	: over 4 types
Low power device	: over 8 types
BWA	: over 2 types
Amateur radio	: over 2 types



- ✓ In most cases, such as Wi-Fi, Bluetooth etc., the causes are due to a bug of software or inappropriate software update.
- ✓ Other causes are mainly due to manufactural failure or inappropriate indication of certification.

Case 1



Output of Bluetooth on smartphone exceeded the regulated value.  
Numbers : around 300,000

Case 2



Output of Wireless router exceeded the regulated value.  
Numbers : around 40,000

Case 3



Wireless router lost DFS function after version upgrade of firmware.  
Numbers : around 4,500

Case 4



Armature radio exceeded the spurious.  
Numbers : around 6,000

Case 5



The display of the mark was not appropriate.  
Numbers : around 1,000

Case 6



Emission of translating machine exceeded the regulated frequency.  
Numbers : around 160,000

# Notice on the cases

MIC website provides information on non-conforming equipment. This encourages users to install the repair software etc. on the equipment to meet the required technical standard based on discussion at the expert meeting.

\* Effective utilization of radio waves and growing strategy meeting Report (3) ⑤ Promotion to secure compliance with technical standards in the IoT era  
“ ~ operation of radio station that did not meet the technical standard as well as the marketing of non-conforming radio equipment should be avoided.”

認証取扱業者等	特定無線設備名(型式又は名称)	認証番号等	不適合等の概要及び対応
アールインコ株式会社	DR-620H	002	アマチュア無線機について、スプリングアスファルト強度が規定値を超えることが判明したため。
		KN4	
		98	
	DR-620D	002	認証取扱業者について、当事業の改修がなされるよう、リコールを実施。
		KN5	
		75	
ディービーリンクジャパン株式会社	TL-WR841N	002	無線LANルーターについて、規定外の周波数の電波を発射する可能性が判明したため。
		KN4	
		99	
		002	
		KN5	
		76	
		201-1504	
		35	

- ✓ Currently around 10 cases
- ✓ All the case is breach of Construction Type Conformance Obligation
- ✓ Update as necessary

URL : <http://www.tele.soumu.go.jp/j/sys/equ/tech/zirei/index.htm>

- ✓ Each non-conforming equipment requires a complete repair. It needs tremendous effort.
- ✓ After obtaining Construction Type Certification, the certified radio equipment should perform as the intended design.
- ✓ When updating software, it is necessary to verify that the characteristics of radio waves are not changed. In recent years, the number of devices whose functions can be changed by software is increasing.
- ✓ In many cases, insufficient internal cooperation and communication may lead the non-conformity. Confirm the procedure when development and model changes etc. are carried out.
- ✓ Advice based on the experiences of Registered Certification Bodies are appreciated when the measured value is close to the upper limit of the reference value etc.

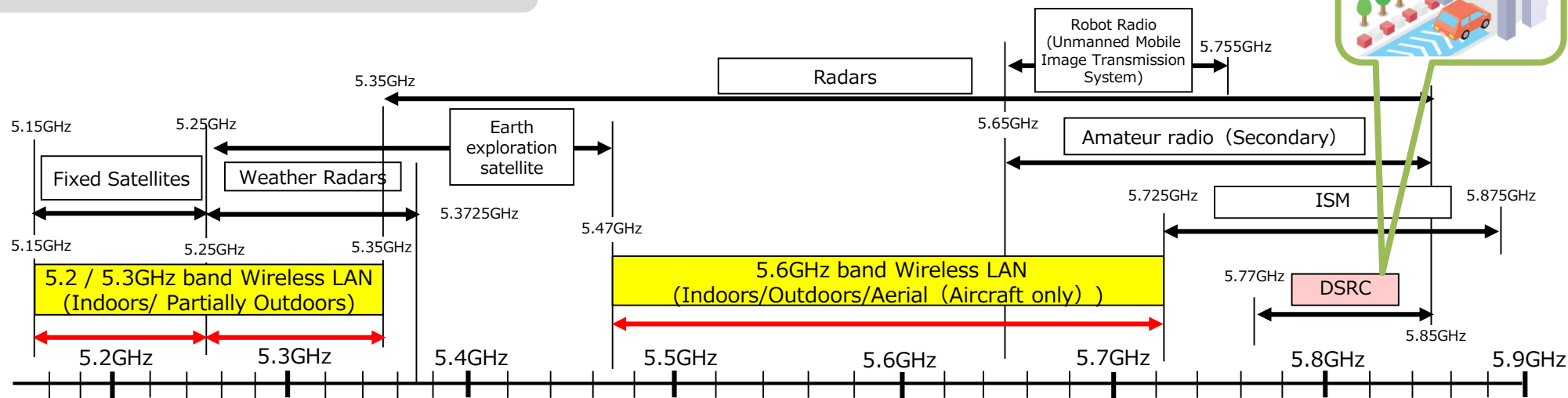
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# Usage of Wireless LAN

- ✓ Recently general wireless LANs are capable of emitting several frequencies and ways of radio wave
- ✓ Certification is required to each radio wave the LAN can emit and need measures to avoid emitting radio wave out of the certified frequencies.


## 5GHz Band Usage in Japan



W56



W52,53

W58 



In some cases of the duly certified equipment with the mark, there is equipment that did not have necessary certification for each frequency or did not have adequate measure to restrict radio emission to meet the certification.

[Inappropriate case]

W56



W52,53



The equipment did not have W53 certification.



Both Certified Dealer and Registered Certification Body are requested to ensure the adequate scope of the certification and required measure.

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- ✓ Indication of Technical Standard Compliance Mark plays an important role to confirm that the radio equipment is compliant to the technical standard.
- ✓ The mark should be attached on the “main part” of the radio equipment and “easily recognizable” .

[ Radio Act ]

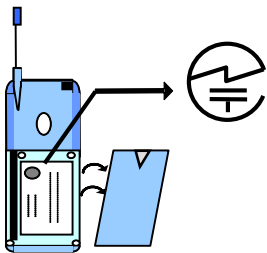
Article 37(7)(i) “shall affix the mark to the Specified Radio Equipment that receive a Technical Standards Conformity Certification “

[ Ordinance on Technical Standards Conformity Certification of Specified Radio Equipment ]

Article 8 (i) “(omit) a method to attach a mark (omit) an easily recognizable section”

Article 8 (iii) “ (omit) marking method of the mark (omit) to be clarified by attachment of the documents describing (omit) or other proper method”

Form 7 Note1 “The mark should be easily recognizable”



Attachment of the mark on the main part



Electromagnetic display and its manual

- ✓ The rules have been flexibly revised as the technology evolved.

- ✓ Revised based on opinions from expertise meeting to respond the diversity of radio communication equipment etc.

【Promulgation/Enforcement date】 2/8/2019

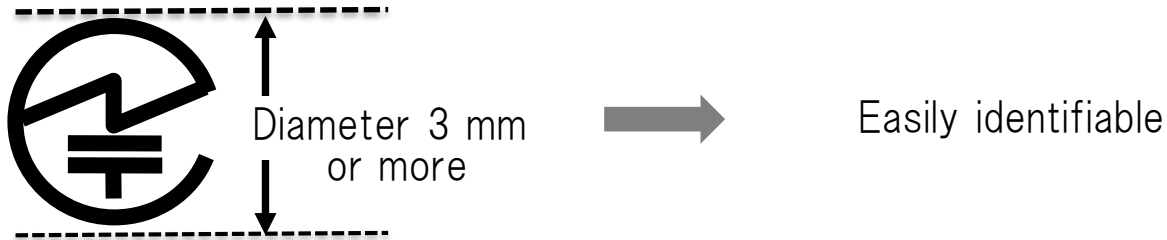
## Major comments from 「Radio Efficiency and Growth Strategy Meeting」

- Due to the miniaturization and high integration of IoT devices, the indication of the mark of 3 mm on the modules etc. becomes difficult. Requirement of Display Method for Technical Standard Conformity Certification Mark (Diameter 3 mm or more) should be relaxed.
- Users are responsible for usage of illegal radio equipment. In the future, in order to ensure the usability of IoT equipment etc., we should make the mark easy to attach and recognize.



- ① Relaxation of the requirement of Technical Standard Conformity Certification Mark size
- ② Designated radio equipment without display can indicate the mark by outer display.

## 1. Relaxation of requirement for the Size of Certification Mark



- ✓ Revision of Certification Rule Format 7, Format14 Note 1 as following:

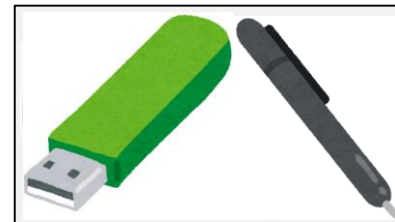
“Note 1 The size should be easily identifiable.”

## 2. New Electromagnetic display method



Built-in display

Electromagnetic display  
using external display



Without display



Peripheral monitor

- ✓ Addition following rules to Certification Rule Article 8, 20, 27, 36, 41

“An electromagnetic method that the display can immediately display the Certification Mark based on Format No. 7 in a clear state on the display of the product connected to the specified radio equipment that meets Technical Standard Conformity by a specific operation (Given that it can be displayed by wired connection with another product with built-in display before the operation of the specific wireless facility is first started)”

Thank you very much.

OMIC Website

<http://www.soumu.go.jp>

OMIC The Radio Use Website

<http://www.tele.soumu.go.jp/>

