The Outline of Proposed Amendment to Ministerial Ordinance

1 Item

Partial amendment of Regulations for Enforcement of the Radio Law

2 Amendment to ministerial ordinance

Regulations for Enforcement of the Radio Low

Regulations for Radio Equipment

Concerning Technical Regulations Conformity Certification of Specified Radio Equipment

3 Reasons for amendment

Expanding sensor network increases the usages of 920MHz band low power wireless system which include the low speed radio communication using for detection sensors. Based on these usages, technical regulations such as the channel use, transmission time and antenna gain are required amendment to promote the development of the radio systems and services.

The reason for this amendment is to expand the new purpose of use of the 920MHz band low power wireless system and to meet demands for heavily use of radio frequency.

4 Outline of the amendment

Technical requirements of radio equipment (Red underlined character is amended)

OTechnical requirements of Passive tag system [Amended parts]

	1W RFID system	250mW RFID system	
Radio type	No regulation		
	1W or less	250mW or less	
Power		The power can exceed 250mW up to 500mW when the radio equipment is inside one component which cannot be opened easily and EIRP (Effective Isotropically Radiated Power) is less than 27dBm.	

	6dBi or less	3dBi or less
Antenna gain		The antenna gain can exceed 3dBi up to 27dBm EIRP.
	-74dBm	-74dBm (-64dBm when power is less
G :		than 10mW.)
Carrier sense		
level		In case of the power exceed 250mW,
		make carrier sense level decrease in dB
		which exceeded power beyond 250mW.

OTechnical requirements of Active tag system [Amended part]

when using one unit channel. 250mW or less The power can exceed 20mW up to 250mW when the radio equipment is inside one component which cannot be opened easily and EIRP is less than 16dBm. 3dBi or less Antenna gain The antenna gain can exceed 3dBi up to 27dBm EIRP. [Carrier sense time: 5ms or more] Transmission time Carrier sense time: 5ms or more] Carrier sense: No need]		250mW system	20mW system	1mW system	
Power Power Antenna gain The antenna gain can exceed 3dBi up to 27dBm exceed 3dBi up to 27dBm EIRP. [Carrier sense time: 5ms or more] [Carrier sense time: 5ms or more] The power can exceed 20mW or less The power can exceed 20mW up to 250mW when the radio equipment is inside one component which cannot be opened easily and EIRP is less than 16dBm. 3dBi or less 3dBi or less 3dBi or less 3dBi or less The antenna gain can exceed 3dBi up to 27dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm e	Frequency				
Power Antenna gain The antenna gain can exceed 3dBi up to 27dBm exceed 3dBi up to 27dBm EIRP. [Carrier sense time: 5ms or more] Transmission time Carrier sense time: 50ms or	tolerance	The frequency tolerance can exceed above value within the assigned frequency band			
Power		when using one unit channel.			
Power Po		250mW or less	20mW or less	1mW or less	
inside one component which cannot be opened easily and EIRP is less than 16dBm. 3dBi or less The antenna gain can exceed 3dBi up to 27dBm EIRP. [Carrier sense time: 5ms or more] Transmission time inside one component which cannot be opened easily and EIRP is less than 3dBm. 3dBi or less The antenna gain can exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm EIRP. [Carrier sense time: 5ms or more] (1) 916-928MHz Sending duration: 4s or less Iess Sending duration: 100ms or less, cannot exceed Pause duration: 50ms or Pause duration: 50ms or Pause duration: 50ms or Pause duration: 50ms or 3dBi or less The antenna gain can exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm exceed 3dBi up to 3dBm exceed 3dBi up to 16dBm excee	Power		20mW up to 250mW when	1mW up to 250mW when	
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time less less less Sending duration: 100ms or less, cannot exceed Pause duration: 50ms or Pause duration: 50ms or 3.6s/h.				(1) 916-928MHz	
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Pause duration: 50ms or Pause duration: 50ms or 3.6s/h.	time	less	less		
		D 1	D 1		
				ა. სS/n.	
more more Pause duration: 100ms or		more	more	Pause duration: 100ms or	

	[Carrier sense time : 128µs	[Carrier sense time: 128µs	more
	or more]	or more]	
	Sending duration: 400ms	Sending duration: 400ms	
	or less, cannot exceed	or less, cannot exceed	(2) 928.15-929.65MHz
	360s/h.	360s/h.	
			Sending duration: 50ms or
	Pause duration: 2ms or	Pause duration: 2ms or	less
	more	more	D 1 4: . 70
			Pause duration: 50ms or
	The sending duration can	*The sending duration can	more
	be excluded from 360s/h	be excluded from 360s/h	
	limitation for ACK which	limitation for ACK which	
	starts within 2ms when	starts within 2ms when	
	receiving the request and	receiving the request and	
	finishes within 5ms (50ms	finishes within 5ms (50ms	
	for systems using one unit	for systems using one unit	
	channel) when receiving	channel) when receiving	
	the request.	the request.	
	-80dBm	-80dBm	No need
Carrier sense		In case of the power exceed	
		250mW, make carrier	
level		sense level decrease in dB	
		which exceeded power	
		beyond 250mW.	
Identification	32 bits or more which required operations for telecommunication business.		
code			
code			

5 Proposed date of entry into force August, 2017