Unnecessary about HF cordless phones (Article 8) and VHF cordless phones (Article 9)

We want to delete items and arrange related items to meet international standards.

Radio quality of HF radio and VHF radio based on international standards

Maintenance of items (draft 8 and 9)

end. Related laws: Article 45 of the Radio Law (Technical Standards)

I. Budget measures: No special measures required

All. group   Other: New and old provisional table (attached)

◉ National Radio Research Institute Notice No. 200-00-0

Pursuant to Article 45 of the Radio Wave Act and Article 123 (1) 1-6 of the Enforcement Decree of the same Act,

Technical Standards for Wireless Equipment for Public Business" (National Radio Research Service Notice No. 2018-9, 2018.

7. 2.) Amends and announces a part as follows.

00:00 2020

National Radio Research Institute

The "Technical Standards for Radio Equipment for Aviation" is amended as follows.

In Article 3②, "Aviation Act, English" shall be referred to as "Aviation Safety Act, Airport Facility Act".

Article 5 is deleted.

In Article 6①, "28 ㎒" is set to "22 ㎒" and "118 ㎒ to 136.975 ㎒"
"117.975 ㎒ to 137 ㎒" shall be deleted and the same Article ② shall be deleted.

Article 7 is deleted.

Article 8 is as follows.

Article 8 (Short-wave radiotelephone and data link device) ① J3E radio wave 2,850 ㎑ to 22

Technical standards for radio equipment in aircraft and aeronautical stations using frequencies up to ㎒
It is as follows.

  1. Conditions of the transmitting device

phrase minute   article   key

Frequency tolerance	Aircraft station	±20 Hz or less
	Aviation Bureau	±10 Hz or less
Sideband		Be an upper sideband
Antenna supply power (Peak envelope power)	Aircraft station	400 W or less (Excluding Addendum 27/62 of the Radio Regulations)
	Aviation Bureau	6 kW or less
Carrier power	Aircraft station	26 dB more than the peak envelope power Low value
	Aviation Bureau	40 dB more than the peak envelope power Low value

Unnecessary launch (Peak envelope power)	Distance from specified frequency		Attenuation
	1.5 kHz or more but less than 4.5 kHz		30 dB or more
	4.5 kHz or more but less than 7.5 kHz		38 dB or more
	Aircraft station		43 dB or more
	7.5 kHz or more	Aviation Bureau	50 W Below	[43+10log (attached Dupokrak Power W))] dB or more
			50 W Excess	60 dB or more

2. If 3,023 kHz 5,680 kHz is used, A3E and H3E radio waves should be used.

3. When installing a selective calling device (SELCAL), use H2B radio waves

② Aircraft stations using frequencies from 2,850 kHz to 22 MHz of J2D radio waves, and

The conditions of the transmitting device as the technical standard of the radio equipment of the aeronautical station are as follo

phrase minute		article key
Frequency tolerance	Aircraft station	±20 Hz or less
	Aviation Bureau	±10 Hz or less
Occupied frequency bandwidth		2.8 kHz or less
Antenna supply power (Peak envelope power)	Aircraft station	400 W or less (Excluding Addendum 27/62 of the Radio Regulations)
	Aviation Bureau	6 kW or less

Unnecessary launch (Peak envelope power)	Distance from specified frequency		Attenuation
	1.5 kHz or more but less than 4.5 kHz		30 dB or more
	4.5 kHz or more but less than 7.5 kHz		38 dB or more
	Aircraft station		43 dB or more
	7.5 kHz or more	Aviation Bureau	50 W Below	[43+10log(Peak envelope Power (W))]

| | 50 W Below | dB or more |
| | 50 W Excess | 60 dB or more |

Article 9 is as follows.

Article 9 (Ultra-band radio telephone and data link device) ① A3E radio wave 117.975 MHz part

Radio equipment of aircraft and aeronautical stations using frequencies up to 137 MHz

The conditions of the transmission device on the basis of alcohol are as follows.

phrase minute		article key
Frequency tolerance	Aircraft station	Channel spacing 25 kHz ±(specified frequency×30×10^{-6})
		Channel spacing 8.33 kHz ±(specified frequency×5×10^{-6})
	Aviation Bureau	Channel spacing 25 kHz ±(specified frequency×20×10^{-6})
		Channel spacing 8.33 kHz ±(specified frequency×1×10^{-6})

Effective Radiation Power (ERP)	Within the radio station operating range Aircraft station	20 μV/m (-120 dBW/m²) More than
	Free space loss model As appropriate as standard Provide the intensity	Aviation Bureau 75 μV/m (-109 dBW/m²) More than
Modulation		85% or more
Adjacent channel leakage power (Air station)	Power channel spacing 8.33 7, 7 에서 from the center of the first adjacent channel. Measured by bandwidth — should be 45 45 or less (except for aircraft stations)	

② Aircraft stations using frequencies from G1D radio waves 117.975 ㎒ to 137 ㎒

And the conditions of the transmitting device as the technical standards of the radio equipment of the aeronautical station are as

phrase minute		article key
Frequency tolerance	Aircraft station	±(specified frequency×5×10 $_{-6}$)
	Aviation Bureau	±(specified frequency×2×10 $_{-6}$)
Effective Radiation Power (ERP)	Free space within the radio station's operating range Based on the loss model Provide field strength	aircraft 20 μV/m (-120 dBW/m²) bureau More than 75 μV/m (-109 dBW/m²) Aviation Bureau More than
Leakage power of adjacent channels	Aircraft station	25 from the center of the first adjacent channel 2 2 dBm when measured with bandwidth Less than
	Aviation Bureau	25 from the center of the second adjacent channel --28 dBm when measured with bandwidth Less than

This notice shall take effect on the date of the notice.

New and old provisional table

Current row	Amendment
Article 3 (Definition) ① (Omitted)	Article 3 (Definition) ① (Omitted)
② of terms used in this notice	② of terms used in this notice
Meaning is excluded from paragraph 1.	The meaning is that specified in paragraph 1
And radio equipment rules and aviation law,	Radio facility rules and aviation
As determined by related laws such as zero	Related laws such as the Safety Act and Airport Facilities Act
Follow.	It is as defined in.

Article 5 (Ratio and Jobs of Antenna Power Supply) Article 5 <Deleted>

Negative electric field strength) ①

The ratio is 28 ㎒ or less

Is from 118 ㎒ to 136.975 ㎒

Using the same antenna in the frequency band

To fire 2 or more radio waves

At each frequency of the aircraft station transmitter
The antenna supply power for each type is

Antenna supply in all applicable frequency bands

The frequency at which the power is maximized

Should be more than 50% of the power supply

do.

② The noise field strength is 1,606.5 ㎑ part

The frequency band up to 28,000 ㎓

Of aircraft stations for receiving radio waves

In the place where the receiving equipment is installed

The local noise field strength is

Should not be more than 5 μV/m in the watchtower

All.

Article 6 (Conversion device, etc.) ① Air traffic control Article 6 (Conversion device, etc.) ① Air traffic control

Page 6

Current row	Amendment
With the Aviation Administration,	With the Aviation Administration,
Frequency of radio equipment for aircraft station	Frequency of radio equipment for aircraft stations
In the band of 28 ㎒ or less,	Conversion is in the frequency band below 22 MHz
Within 30 seconds, from 118 ㎒	Within 30 seconds, 117.975 ㎒ part
In the frequency band up to 136.975 ㎒	In the frequency band up to 137 MHz
It should be done within 8 seconds.	Must be done within 8 seconds.
② Receiving device of aviation station and aircraft station	② Deletion
Is fixed frequency tuning as far as possible	
It must be circular.	
③ Communication other than air traffic control	② Communication other than air traffic control
Radio stations for aircraft and aircraft station	Radio for aviation and aircraft stations
Rain frequency switching is possible	It is possible to switch equipment frequency
It should conform to Clause 1.	It should conform to Clause 1.

Article 7 (Modulation Degree) ① Aviation Bureau and Aircraft <Article 7 Deleted>

A2A radio and A2B radio used by the station

Modulation of wave, H2A and H2B

The degree should be at least 85%. this

In the case of modulation frequency,

same.

phrase minute   Modulation frequency

A2A propagation, A2B propagation
Wave, H2A propagation and H2B
Radio wave   Frequency   1,000 Hz
1,606.5   kHz   from   Standard.
Up to 28,000 km
A2A propagation, A2B propagation
Wave, H2A propagation and H2B 1,020 Hz (that
The frequency of radio waves is Deviation is ±50 Hz
MHz from 136.975 MHz   Should be below)
Up to

Page 7

Current row	Amendment

② Used by aviation and aircraft stations

The modulation degree of A3E radio waves is

It should be 85% or more in the womb.

Article 8 (interrupted band, short band radiotelephone Article 8 (Short-wave radiotelephone and data

And short band data link device) ①   Link device) ① J3E radio wave 2,850 kHz

J3E Radio 1606.5 kHz to 28,000 kHz   From 22 MHz to the frequency used

Use radio waves up to   That for aircraft and aeronautical radio

Aircraft station radio equipment technical standards The technical standards of facilities are as follows:

Is as follows.   same.

1. Conditions of the transmitting device   1. Conditions of the transmitting device

phrase minute	article	key	phrase minute	article	key
Antenna supply power	Carrier power 26 dB lower than the power Will be	Peak Envelope Propaganda frequency	Allowable deviation	Aircraft station Aviation Bureau	±20 Hz or less 10 Hz or less
Sideband	Be an upper sideband		Sideband	Be an upper sideband	
Output impedance Lovely	Possible 50 [Omega] would be		Antenna supply Power (peak Envelope power)	Aircraft station	400 W or less (Propagation rules Appendix 27/62 except)
Total frequency characteristic	350 Hz to 2,500 Hz In case of inputting modulation frequency Be within 6 dB Modulated at a frequency of 1,000 kHz			Aviation Bureau	6 kW or less
Comprehensive Why Noise	Input by applying the standard input level If the device's full output And the unnecessaryness included in it The ratio of minutes should be 20 dB or more Peak envelope supplying to the feeder Prior to unnecessary launch of line power The attenuation of the wave is Depending on the distance from the specified frequency Each of the following values With specified frequency	carrier power		Aircraft station Aviation Bureau	Peak Envelope Propaganda 26 보다 than power Lower than Value Peak Envelope Propaganda More than 40 Lower than Value
Unnecessary launch	interval Attenuation 1.5 kHz or more 4.5 Less than kHz 30 dB or more 4.5 kHz or more 7.5 38 dB or more		Unnecessary launch (Peak envelope Line power)	Specified frequency Interval with 1.5 kHz or more Less than 4.5 kHz 4.5 kHz or more Less than 7.5 kHz term	Attenuation 30 dB or more 38 dB or more

| Less than kHz 7.5 kHz or more | 43 dB or more | 7.5 kHz or more | zero group bureau | 43 dB More than |

Current row	Amendment

| | [43+10 log(attach 50 W this Ha term power(zero W))] dB bureau More than 50 W 60 dB second More than and |

2. The transmission device of No. 1 is on H3E 2. 3,023 kHz 5,680 사용 using

   Carrier for transmission by   A3E and H3E radio waves are used

   Can be transmitted , it will be the   To do

3. Condition of receiving device   3. Set up a selective call device (SELCAL)

    division   article key   If you are using H2B propagation

	Number at modulation frequency of 1,000 kHz	To do
	All outputs of new devices, including guns	
Sensitivity	The ratio of the unnecessary components included is 20 dB	
	Receiver required to do as	
	Input voltage of 3 μV or less	

Ha I of God arc line Tack Degree	Pass Inverse Will be Damping Quantity Will be	6 dB Deterioration width is ±1.1 kHz or less Will be 60 dB deterioration width is ±2 kHz or less Will be
		1. Medium frequency spurious Response and video frequency spurious The response frequency is
	Spury earth answer	In receivers below 22 MHz Over 60 dB, over 22 MHz For receiving devices of 28 MHz or less Standing over 50 dB
		2. Spurious of other frequencies The response should be over 40 dB

<div style="text-align:center">

Current row   Amendment

</div>

	Sensitivity suppression effect is modulated 10 μV
	Phase of the desired wave input voltage
Effective choice	1 ㏛ or more from Taeyang hope wave
Degree	In the case of falling jammers
	Obstruction to suppress the hope wave by 3 ㏈
	Input voltage should be over 20 ㎷
Local rash part	The frequency tolerance of the transmitter
Frequency car	Same value
Auto gain Adjuster Characteristics	Modulated at a frequency of 1,000 kHz
	Receiver input voltage at 5 μV
	Appears when it is changed to 100 μV
	Force change should be 10 10 or less
	When receiving to get the rated output
Rated output	Modulation notes with an input voltage of 1,000 ㎐
	Less than 5 에서 at wave number
	Modulated at a frequency of 1,000 kHz
Total distortion And noise	A voltage of 30 에 to the receiver input
	If applied, all output of the receiving device
	And unnecessary components contained therein
	The ratio of the fruit must be 20 ㏈ or more

4. As a receiving device according to No. 3,   4. <Delete>

Adding a home pager

When a selective call signal is received

Yiwu no added carrier Oh you

And receive that signal.

It should be.

② J3E Radio 1606.5 ㎑ to 28,000   ② <Delete>

Use radio waves up to 사

Aviation station radio equipment technology

From June 1 to 1, 4

Only the condition group will do. However, the transmitting device

Of carrier power and unwanted emission

The damping amount is suitable for the conditions in the following table.

<div style="text-align:center">

Current row   Amendment

</div>

shall.

division	article	key
Return	40 ㏈ lower than peak envelope power	

Pajeon Will be
Power

The peak envelope power supplied to the feeder
The attenuation of the unwanted emission propagation to
Applicable
In the interval between the frequency and the specified frequency
Each value should be as follows

Designated Share

Watchtower   Attenuation

Spacing

1.5 ㎑

More than
4.5 ㎑   30 ㏈ or more

Unnecessary under
launch   4.5 ㎑

More than
7.5 ㎑   38 ㏈ or more

under

The peak envelope power is 50 W.

7.5 ㎑   If exceeded

More than 60 ㏈ or more

Peak envelope power is 50 W

Or less

: 43+10logPX or more (PX is

Transmitter's peak envelope

Power (unit: W))

③ J2D propagation from 2,800 ㎑ to 22,000 ② J2D radio waves 2,850 D to 22 ㎒

Terms using frequencies up to ㎑   Aviation using frequencies up to

Radio equipment for public mobile service   Radio equipment technology for flag stations and aviation stations

Jun is suitable for the conditions in the following table. As a standard, the conditions of the transmitting device are all

Should   It is like the note.

Distinction	Condition
antenna Before supply Power	1) Aviation Bureau: 6 kW or less 2) Aircraft station: 400 W or less (ITU In the case of Appendix 27/62 of the Radio Regulations. Excluded)

phrase minute	article	key
frequency Allowable deviation	Aircraft station Aviation Bureau	±20 ㎐ or less ±10 ㎐ or less
Occupied frequency Bandwidth		2.8 ㎑ or less
Antenna supply	Aircraft station	400 W or less

Current row   Amendment

Usage notes   As defined in Annex 27 to the ITU Radio Regulations
wave number   To the carrier (reference) frequency table to sky   Power (peak
Fit   Envelope power
)   (Propagation rules
Appendix 27/62
except)

Sideband partiality	Upper sideband Vertical polarization

Aviation Bureau 6 kW or less

frequency   1) Aviation station: ±10 ㎐
Allowed flights   2) Aircraft station: ±20 ㎐
car

Specified frequency and
Spacing   Attenuation

Occupancy   2.8 ㎑ or less
Inverse width

1.5 ㎑ or more
Less than 4.5 ㎑   30 ㏈ or more

4.5 ㎑ or more
Less than 7.5 ㎑   38 ㏈ or more

The peak envelope that feeds the feeder
Of propagation of unnecessary emission to electric power
Attenuation is the frequency and the specified frequency

Airline 43 ㏈

Flag   More than

Next to each number
Same value as

Designated frequency

Suwa interval	Attenuation
1.5 ㎑ More than 4.5 Less than ㎑	30 ㏈ or more
4.5 ㎑ More than 7.5 Less than ㎑	38 ㏈ or more
7.5 ㎑ More than	Aircraft station: 43 dB or less Prize Aviation Bureau: Peak envelope power is 50 W exceeds : 60 ㏈ or more Peak envelope power is 50 W or less: 43+10logPX More than (PX is the peak of the transmitter Envelope power (unit: W)

Unforeseen four

Unnecessary launch (
Peak envelope
power)

7.5 ㎑ or more

AirlineHa
bureau

this
AirlineHa
bureau

[43+1
0log(
50 Peak
W Envelope
propaganda
Power(W
))]dB
More than

50
W
second
and

60
dB
More than

Signal Method

Signal modulation method for each transmission speed
Each would be something like this
1) Transmission speed is 300 bits per second
Or if it is 600 bits per second:
   2-phase phase modulation (2PSK)
2) Transmission speed is 1200 bits per second
In case of: 4 phase phase modulation (4PSK)

Current row   Amendment

3) Transmission speed is 1800 bits per second
In case of: 8 phase phase modulation (8PSK)

Current row	Amendment
Article 9 (Ultra-bandwidth radiotelephone and day Turbine device) ① Aircraft station radio As a facility, A3E radio wave from 118 ㎒ All bands up to 136.975 ㎒ Radio equipment technology Jun is as follows. 1. Conditions of the transmitting device	Article 9 (Ultra-bandwidth radiotelephone and day Turlink Device) ① A3E propagation From 117.975 ㎒ 137 ㎒ to share Aircraft stations and ports using wavenumber As a technical standard of principality radio equipment The conditions of the transmitting device are as shown in the following table. All.

phrase minute   article key

Modulation method Amplitude modulation method
Signal As a frequency of 1,000 kHz, 85%
Narrative 35 ㏈ or more when modulated
Comprehensive frequency
Modulation frequency 350 ㎐ to 2,500 ㎐
Water characteristics Less than 6 서
At a frequency of 1,000 kHz, at least
Input level with 85% modulation

phrase minute   article key

	channel interval	±(designated frequency Number ×30×10 -6)
Aircraft station	25 ㎑ channel interval	±(designated frequency Number×5×10 -6)
frequency Allowable deviation	8.33 ㎑ channel	±(designated frequency

Total distortion | The same level as 400 Hz, 1,000
each frequency of Hz or 2,500 Hz

And noise | In case of modulation according to
Chi's former demodulation output and the four of them
The ratio of unnecessary components included is 12 dB
More than

Assigned shares when channel spacing is 25 kHz

Frequency | Less than ±0.003% of wave number,

Degree | Allocated shares with null spacing of 8.33 kHz
Less than ±0.0005% of wave number

Operate in the area where the aircraft operates
To the range and altitude suitable for the condition (kPa)

Electric field strength | Free space propagation

To Based least 20 μV
/m(-120 dBW/㎡)

8.33 첫번째 First interval of channel spacing

Adjacent channel | 7 kHz bandwidth from the center of the contact channel

Leakage power | When measured with — 45 dBc or less
Will be

interval Number
25 kHz ×20×10 -6)

Aviation Bureau channel

interval ±(designated frequency
8.33 kHz Number×1×10 -6)

Radio station 20 μV
operation aircraft /m(-120
Within range bureau dBW/㎡)

Free space More than
Loss model
of

Based 75 μV
appropriate /m(-109
Electric field strength Aviation Bureau dBW/㎡)

To More than
To provide
that

Modulation 85% or more

Adjacent channel For channel spacing 8.33 첫, the first
Leakage power from the center of the adjacent channel
(Air station) 측정 Measured with bandwidth — 45

Current row

Amendment

dB or less (however, aircraft station)
Is excluded)

2. Condition of receiving device

2. <Delete>

phrase
minute | article key

Sensitivity | Electric field strength 75 μV/m (-109 dBW/㎡),
For 50% amplitude modulated radio signals
Signal-to-noise of the audio output signal
Rain should be over 15 km

30% modulation with a frequency of 1,000 kHz
barrel | The applied voltage is applied to the receiver input.
and | In the case of 6 dB deterioration, the designated stock
versus | ±0.005% of wave number (offset carrier
station | In case of receiving frequency
width | Should be more than ±8 kHz)

Ha | 30% modulation with a frequency of 1,000 kHz
I | feeling Applied voltage is applied to the receiver input
of | iron In case the width of 40 dB drop is ±17 kHz
God
arc | Quantity Within, the width of 50 dB drop is ±25
line | Be within kHz

Tack Lovely
Degree Pew

Lee
uh 60 dB or more
Lovely
Huh
answer

Hope wave of 20 μV or more and 500 μV or less
Desired under the condition of input voltage
spin More than 50 에서 from the green onion

side30% modulation with a frequency of 1,000 kHz

artib0kHz interference (frequency is 100

room Spe04.1r more and 156 ㎒ or less)

Hyo castheone case, receiver reception by intermodulation

line　Power is less than rated power ─ 10 ㏈

Tack　Less than

Degree　30% modulation with a frequency of 1,000 kHz

feelingthe desired wave input voltage of 20 ㎶

Degreethe applied state,

BilSignal of receiver output when applied

OhThe noise to noise ratio should be 6 ㏈ or higher

1. Spurious response frequency and 100

Page 14

Current row　　　　　　　　Amendment

Frequency of ㎒ or more and 156 ㎒ or less

Excluding those within 25 ㎑ from the onion

Receiver input voltage is 10

것's

2. Notes of 25 ㎑ or more and 1,215 ㎒ or less

Wavenumber (spurious response frequency and

100 MHz or more and 156 MHz or less

Receiver).

100 것

1. Modulation frequency from 350 kHz to 2,500

Must be within 6 ㎐ from ㎐

Synthesis2. When receiving an offset carrier

FrequencyThe modulation frequency exceeds 2,500 kHz

Can　Each modulation frequency

castle　Decay (at modulation frequency 5,000 kHz

Is compared to the output at 1,000 ㎐

─ Attenuate below 18))

FrequencyAllocation frequency when channel spacing is 8.33 ㎑

NumberBe less than ±0.0005% of the number

An JungChannel spacing is 25 ㎑, 50 ㎑, 100 ㎑

DegreeIs less than ±0.005% of the assigned frequency

Will be

1.A frequency of 1,000 kHz, which changes by 30%

Adjusted receiver input voltage is 10 μ V

If changed from 10 10 to

The output change of blue frequency is 10 10 or less

High

2. The frequency of 1,000 kHz changes by 30%.

Adjusted receiver input voltage is 200 ㎃

To 10 μ V

AutomaticThe output ratio of the blue frequency is normal

VolumeIt will be a value of ±3 ㏈ compared to the output.

controlUntil the time is less than 0.25 seconds

Devicethat

3. Received by transmission (receiver input voltage

As a frequency of 1,000 kHz to 30%

Which modulation 10 μ and that of V) coming from

When switching to the audible frequency output

±3 ㏈ compared to the steady state output

The time until it becomes the value of

Be within 0.25 seconds

benefit 30% modulation with a frequency of 1,000 kHz

The input voltage of 20 μ V

Page 15

Current row   Amendment

Compared to the rated output when applied to

W ㅡ over 10 출력
that

Print
Control

Attenuate output over 40 ((output

Limited to having level controllers

All)

1. Frequency from 350 350 to 2,500 Hz

The voltage of 10 시킨 modulated as 85%

To the receiver input

Rigorous powers and the unnecessary included in them

Synthesis The ratio of minutes should be 12 dB or more

Why rate 2. Frequency from 350 350 to 2,500 500

And job 10 시킨 modulated as 30 kHz

Well   Output when a group input voltage is applied

±10 dB less than this rated output

When it's tomorrow, its output and include it in

Ratio of unnecessary components becoming 16.5 dB

Will be

30% modulation with a frequency of 1,000 kHz

Prescribed 200 μ V or more and 10 ㎷ or less

Noise   Rated by applying voltage to the receiver input

level   Adjust the gain to get the output

If set, the output at the time of no modulation is

25 dB or less of the rated output

DSB-AM and VDL technology applied

VDL

When operating the service independently,

On teen   The reception function of DSB-AM device is 150

One   Signals below ㎌/m (-102 dBW/㎡)

DSB-
AM

100 로부터 from the intensity and assigned channel
Available

Minimum than DSB-AM signal on null

My castle

VDL signal strength over 50 대

Condition

So that the proper and clear voice output

To provide

VHF   1. VHF communication receiving system input

FM

In stage ㅡ having a level of 5 dBm

broadcast Caused by VHF FM broadcast signal

On teen   Is the two resulting from the third intermodulation.

One   Satisfactory performance for signals

VHF   To provide

Communication 2. VHF communication receiving system input

Receive   In stage ㅡ having a level of 5 dBm

In-flight Sensitivity to VHF FM broadcast signal

Current row	Amendment

Tone
key   Not deteriorate

3. Conditions of transmitting antenna   3. <Delete>

phrase minute	article	key

In the horizontal plane

Orientation characteristics   Satisfactory omnidirectional

Polarization   Perpendicular

4. As a radio facility for compulsory aircraft stations   4. <Delete>

A3E radio wave from 118 ㎒ to 136.975

Radio waves up to ㎒

Antenna of transmission equipment used

The power supply is 2 W or more, and

Valid through months 'm Lee is listed in the following table

Would

Flight altitude	Effective delivery distance
300 m	More than 70 km
500 m	More than 90 km
700 m	More than 105 km
1000 m	Over 125 km
1500 m	More than 150 km
3000 m	More than 210 km
5000 m	More than 275 km
7000 m	More than 315 km

② A3E as a radio facility for the Aviation Administration   ② <Delete>

Radio waves from 118 ㎒ to 136.975 ㎒

Radio theory using radio waves of frequency

Rain's technical standards are as follows:

All.

1. Conditions of the transmitting device

phrase minute	article key
Modulation method	Amplitude modulation method
	Write down as a frequency of 1,000 kHz
Total distortion	10 in case of 80% modulation

Current row	Amendment

% Or less

Modulation frequency 300 ㎐ ～ 3,000 ㎐
Within 6 ㏈

Comprehensive frequency effect obtained according to this

Water characteristic Raises the effect equal to or greater than

Is recognized as having performance

This is not the case.

80% as a frequency of 1,000 kHz

Signal stand

Noise ratio

30 dB or more when modulated

Will be

The effective radiated power (ERP) lity

Free space within the scope of mastery of

Radiated power

Minimum 75 으로 based on radio wave

/m(-109 dBW/㎡) or more

Values that can provide meter strength

Should be

When the channel spacing is 8.33 kHz

±0.0001% of allocated frequency, channel

Assigned when the null interval is 25 kHz

frequency   Less than ±0.002% of frequency

Stability   that

Channel spacing is 50 kHz, 100 kHz days

When assigned frequency ±0.005%

Less than

2. Condition of receiving device

To meet the conditions under paragraph (1) 2.

that. However, sensitivity, frequency stability, existence

Effective reception bandwidth and species sum frequency characteristic

Should meet the conditions in the following table.

phrase minute   article key

20 μV/m(-120 dBW/㎡) or more

Field strength, 50% amplitude modulation

Sensitivity(A3E) Audio signal through wireless signal

Signal line if provided

Noise ratio should be more than 15 dB

When the channel spacing is 8.33 kHz

Frequency stability

Degree

Less than ±0.0001% of sugar frequency

Will be

Effective reception   For a receiver with a channel width of 8.33 kHz

Bandwidth   Effective receive bandwidth is allocated

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Current row   Amendment

Return within ±0.0005% of wave number

Wave frequency is enough

Providing clear audio output

Should be

Channel width 25 kHz, 50 kHz, 100

Valid receiver's effective reception

The bandwidth is ±0.005 of the assigned frequency.

If the carrier frequency within%

Ooh enough and clear audio

The output should be provided.

Total frequency Modulation frequency 350 Hz ～ 2,500 Hz

characteristic Within 6 6

3. Antenna conditions

phrase minute	article key
	Used for communication on air traffic control
Polar wave	Vertical polarization in use
if	And include as much horizontal polarization as possible
	Will do

③ G1D as a radio facility for aircraft stations

Radio waves 118 ㎒ to 136.975 ㎒

Using radio waves of the frequency of

Technical standards for ship facilities are as follows.

Same as

1. Conditions of the transmitting device

phrase minute	article key
Modulation method	DSB-AM, D8PSK, GFSK
frequency Allowable deviation	±0.0005 from assigned frequency % or less
	The effective radiated power is
	Distance suitable for station operating conditions.
Radiated power	To free space loss at and altitude Based on a minimum of 20 μV/m (-120 dBW/㎡) Value
Spurious	43+10log(P) or 70 dBc
Stud spinning	Less stringent value

② G1D radio waves 117.975 ㎒ to 137

A frequency of up to ㎒ used wherein

Air stations and aeronautical stations of the radio equipment group

The condition of the transmitting device on the basis of alcohol

The table is as follows.

phrase minute		article key
Aircraft station	frequency	±(specified frequency ×5×10$_{-6}$)
Aviation Bureau	Allowable deviation	±(specified frequency ×2×10$_{-6}$)
	Radio station operation Sleeping in range	Airtime/m(-120 Flag dBW/㎡) 20 μV
	Effective Copil space loss power Based on model (ERP) As appropriate Field strength To provide	Oil space loss More than 75 μV Airline/m(-109 bureau dBW/㎡) More than

Current row   Amendment

Current row	Amendment
The first adjacent channel leakage power is 25 ㎑ channel under all operating conditions 2 dBm when measured in bandwidth	First adjacent bond Null From the center Aircraft station 25 ㎑ bandwidth Measured by 2
Adjacent channel Leakage power high The second adjacent channel leakage power is 25 ㎑ channel under all operating condition Measured with bandwidth − 28 dBm Less than	dBm or less Adjacent channel Second adjacent bond leakage power Null From the center Aviation Bureau 25 ㎑ bandwidth Measured with -28 dBm or less

2. Condition of receiving device

end. The reception function is 40 μV/m or less

Object signal and the receiver input to ryeokdan

VHF F M broadcast signal

And outer − the 33 dBm level of

Have the other one or more new bands

Defined with respect to the call of the multiple rate

2. <Delete>

The meeting should be.

I. The reception function is 40 μV/m or less

Object signal and the receiver input to ryeokdan

West ─ with a level of 5 dBm

One or more VHF F M broadcasts

Defined with respect to the signals of the multiple rate

The meeting shall, Mo de stars

The allowable error rate is as follows.

(1) Mo de to -2 for multiple rate up beam

The defined BER should be 1/104

do.

(2) Mo de to -3 for multiple rate up US

Correction of the BER after 1/103

Should

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<div align="center">

Current row   Amendment

</div>

(3) Mo de -4 for multiple rate up US

Correction of the BER after 1/104

Should

3. The polarization of the radiation characteristics can be direct so that the lever is

Lock

④ G1D as a radio facility for the Aviation Administration

Radio waves 118 ㎒ to 136.975 ㎒

Using radio waves of the frequency of

The technical standards for ship facilities are described in Section 3.

It must be suitable for the conditions specified. All

However, frequency tolerance and radiated power

Must meet the conditions in the following table

All.

phrase minute   article key

frequency   ±0.0002 from the assigned frequency

Allowable deviation loss

Effective radiation power is the definition of facility

Become Free ball within the operating range

Radiated power At least 75 based on liver loss

Electric field steel of μV/m (-109 dBW/㎡)

Be a value to provide degrees