Report on the RF Testing of:

JRC Mobility Inc.
Control Unit, Model: JRN-360T
FCC ID: 2AX5HJRN-360T

In accordance with FCC Part 27 Subpart C

Japan

Add value.
Inspire trust.

Prepared for: JRC Mobility Inc.
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COMMERCIAL-IN-CONFIDENCE

Document Number: JPD-TR-22020-0

SIGNATURE			
Hiroaki Suzuki			
NAME	**JOB TITLE**	**RESPONSIBLE FOR**	**ISSUE DATE**
Hiroaki Suzuki	Deputy Manager of RF Group	Approved Signatory	2022.03.24

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Japan Ltd. document control rules.

EXECUTIVE SUMMARY - Result: Complied
A sample(s) of this product was tested and the result above was confirmed in accordance with FCC Part 27 Subpart C.

ACCREDITED
Certificate #3686.03

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1 Summary of Test

1.1 Modification history of the test report

Document Number	Modification History	Issue Date
JPD-TR-22020-0	First Issue	Refer to the cover page

1.2 Standards

CFR47 FCC Part 27 Subpart C

1.3 Test methods

KDB 971168 D01 Power Meas License Digital Systems v03r01
ANSI/TIA/EIA-603-E-2016
ANSI C63.26-2015

1.4 Deviation from standards

None

1.5 List of applied test(s) of the EUT

Test item section	Test item	Condition	Result	Remark
2.1046	Conducted Output Power	Conducted	N/A	*1
27.50	Effective Radiated Power Equivalent Isotropically Radiated Power	Radiated	PASS	-
27.50	Peak to Average Ratio	Conducted	N/A	*1
2.1049	Occupied Bandwidth	Conducted	N/A	*1
27.53 2.1051	Band Edge Spurious and Harmonic at Antenna Terminal	Conducted	N/A	*1
27.53 2.1053	Radiated emissions and Harmonic Emissions	Radiated	PASS	-
27.54 2.1055	Frequency Stability	Conducted	N/A	*1

*1: This product has a certified module inside it. (FCC ID: QIPPLS63-W)
Therefore, it was only measured radiated test.

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1.6 Test information

None

1.7 Test set up

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1.8 Test period

1-February-2022 - 10-February-2022

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2 Equipment Under Test

All information in this chapter was provided by the applicant.

2.1 EUT information

Applicant	JRC Mobility Inc. NAKANO CENTRAL PARK EAST,10-1, Nakano 4-chome, Nakano-ku, Tokyo 164-8570, Japan Phone: +81-26-214-0267 Fax: +81-26-214-5779
Equipment Under Test (EUT)	Control Unit
Model number	JRN-360T
Serial number	JR0000005503
Trade name	JRC Mobility
Number of sample(s)	1
EUT condition	Pre-Production
Power rating	Battery: DC 12 V
Size	(W) 130 × (D) 60 × (H) 30 mm
Environment	Indoor use
Terminal limitation	-30˚C to 70˚C
Hardware version	JRN-360T
Software version	1.00
Firmware version	Not applicable
RF Specification	
Frequency of Operation	Up Link WCDMA Band IV: 1712.4-1752.6 MHz LTE Band IV: 1710.0-1755.0 MHz LTE Band VII: 2500.0-2570.0 LTE Band XII: 699.0-716.0 MHz Down Link WCDMA Band IV: 2112.4-2152.6 MHz LTE Band IV: 2110.0-2155.0 MHz LTE Band VII: 2620.0-2690.0 MHz LTE Band XII: 729.0-746.0 MHz
Modulation type	WCDMA Band IV: QPSK, 16QAM LTE Band IV: QPSK, 16QAM LTE Band VII: QPSK, 16QAM LTE Band XII: QPSK, 16QAM

Emission designator	WCDMA Band IV: 4M14F9W LTE Band IV: BW 1.4M QPSK: 1M11G7D, 16QAM: 1M10W7D BW 3M QPSK: 2M71G7D, 16QAM: 2M70W7D BW 5M QPSK: 4M53G7D, 16QAM: 4M54W7D BW 10M QPSK: 8M97G7D, 16QAM: 8M98W7D BW 15M QPSK: 13M5G7D, 16QAM: 13M5W7D BW 20M QPSK: 18M0G7D, 16QAM: 17M9W7D LTE Band VII: BW 5M QPSK: 4M54G7D, 16QAM: 4M53W7D BW 10M QPSK: 8M98G7D, 16QAM: 8M98W7D BW 15M QPSK: 13M5G7D, 16QAM: 13M5W7D BW 20M QPSK: 18M0G7D, 16QAM: 17M9W7D LTE Band XII: BW 1.4M QPSK: 1M10G7D, 16QAM: 1M10W7D BW 3M QPSK: 2M70G7D, 16QAM: 2M70W7D BW 5M QPSK: 4M53G7D, 16QAM: 4M52W7D BW 10M QPSK: 9M01G7D, 16QAM: 8M98W7D
Effective Radiated Power (E.R.P.)	LTE Band XII: 0.195 W (22.9 dBm)
Equivalent Isotropic Radiated Power (E.I.R.P)	WCDMA Band IV: 0.309 W (24.9 dBm) LTE Band IV: 0.3162 W (25.0 dBm) LTE Band VII: 0.3311 W (25.2 dBm)
Antenna type	Internal antenna
Antenna gain	WCDMA Band IV: 0.6 dBi LTE Band IV: 0.6 dBi LTE Band VII: 2.6 dBi LTE Band XII: 1.5 dBi

2.2 Modification to the EUT

The table below details modifications made to the EUT during the test project.

Modification State	Description of Modification	Modification fitted by	Date of Modification
Model: JRN-360T, Serial Number: JR0000005503			
0	As supplied by the applicant	Not Applicable	Not Applicable

2.3 Variation of family model(s)

2.3.1 List of family model(s)

Not applicable

2.3.2 Reason for selection of EUT

Not applicable

Japan

2.4 Description of test mode

The EUT had been tested under operating condition.
There are three channels have been tested as following:

Band	Modulation	Bandwidth [MHz]	Channel	Frequency [MHz]
WCDMA Band IV	QPSK, 16QAM	-	1312, 1413, 1513	1712.4, 1732.6, 1752.6
LTE Band IV	QPSK, 16QAM	1.4	19957, 20175, 20393	1710.7, 1732.5, 1754.3
		3	19965, 20175, 20385	1711.5, 1732.5, 1753.5
		5	19975, 20175, 20375	1712.5, 1732.5, 1752.5
		10	20000, 20175, 20350	1715.0, 1732.5, 1750.0
		15	20025, 20175, 20325	1717.5, 1732.5, 1747.5
		20	20050, 20175, 20300	1720.0, 1732.5, 1745.0
LTE Band VII	QPSK, 16QAM	5	20775, 21100, 21425	2502.5, 2535.0, 2567.5
		10	20800, 21100, 21400	2505.0, 2535.0, 2565.0
		15	20825, 21100, 21375	2507.5, 2535.0, 2562.5
		20	20850, 21100, 21350	2510.0, 2535.0, 2560.0
LTE Band XII	QPSK, 16QAM	1.4	23017, 23095, 23173	699.7, 707.5, 715.3
		3	23025, 23095, 23165	700.5, 707.5, 714.5
		5	23035, 23095, 23155	701.5, 707.5, 713.5
		10	23060, 23095, 23130	704.0, 707.5, 711.0

The field strength of spurious emissions was measured at each position of all three axis X, Y and Z to compare the level, and the maximum noise.
The worst emission was found in X-axis (LTE Band IV), Z-axis (WCDMA Band IV, LTE Band VII and LTE Band XII) and the worst case recorded.
Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports.

Japan

3 Configuration of Equipment

Numbers assigned to equipment on the diagram in “3.2 System configuration” correspond to the list in “3.1 Equipment used”.
This test configuration is based on the manufacture’s instruction.
Cabling and setup(s) were taken into consideration and test data was taken under worse case condition.

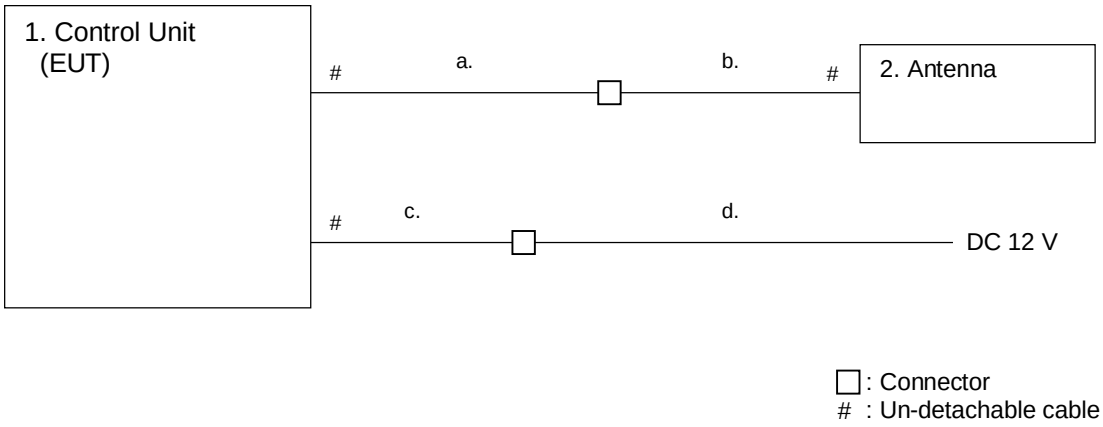
3.1 Equipment used

No.	Equipment	Company	Model No.	Serial No.	FCC ID/DoC	Comment
1	Control Unit	JRC Mobility	JRN-360T	JR0000005503	2AX5HJRN-360T	EUT
2	Antenna	GLEAD	7ABLE0008	36-210408-00038	-	Accessory

3.2 Cable(s) used

No.	Equipment	Length[m]	Shield	Connector	Comment
a	Antenna cable	0.13	Yes	Plastic	-
b	Antenna cable	0.4	Yes	Plastic	-
c	DC cable	0.2	No	Plastic	-
d	DC cable	1.5	No	Plastic	-

3.3 System configuration



Japan

4 Test Result

4.1 Effective Radiated Power

4.1.1 Measurement procedure

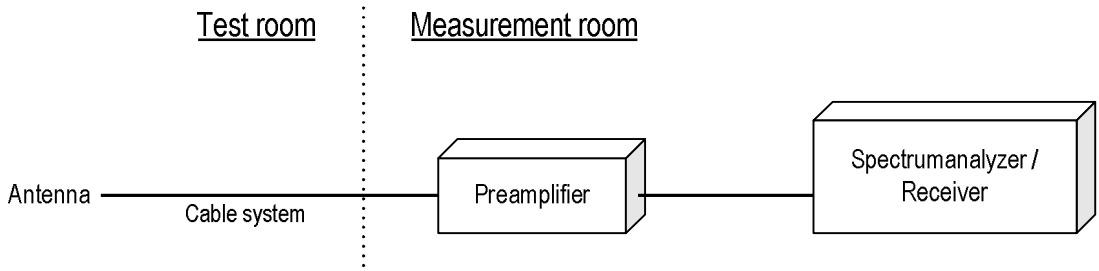
[FCC 27.50]

<Step 1>
The EUT and support equipment are placed on 1.0 meter x 1.0 meter surface, 0.8 meter height (Below or equal 1GHz) styrene foam table. Radiated emission measurements are performed at 3 meter distance with the broadband antenna (Log periodic antenna). The antenna is positioned both the horizontal and vertical planes of polarization and height is varied 1 to 4 meters and stopped at height producing the maximum emission.
The bandwidth of the spectrum analyzer is set to 1 MHz. The turntable is rotated by 360 degrees and stopped at azimuth of producing the maximum emission.

<Step 2>
The substitution antenna is replaced by the transmitter antenna (EUT).
The frequency of the signal generator is adjusted to the measurement frequency.
Level of the signal generator is adjusted to the level that is obtained from step 1, and record the emission level of signal generator.

The spectrum analyzer is set to;
a) Span = 1.5 times the OBW
b) RBW = 1-5% of the expected OBW, not to exceed 1 MHz
c) VBW ≥ 3 x RBW
d) Number of sweep points ≥ 2 x span / RBW
e) Sweep time = auto-couple
f) Detector = RMS (power averaging)
g) If the EUT can be configured to transmit continuously (i.e., burst duty cycle ≥ 98%), then set the trigger to free run.
h) If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle < 98 %), then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Ensure that the sweep time is less than or equal to the transmission burst duration.
i) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
j) Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with the band limits set equal to the OBW band edges.
If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

- Test configuration



Japan

4.1.2 Calculation method

Result (ERP) = S.G Reading - Cable loss + Antenna Gain
Margin = Limit – Result (ERP)

Example:
Limit @ 707.5 MHz : 34.7 dBm
Ant. Input = 28.0 dBm Cable loss = 0.7 dB Ant. Gain = -6.0 dBd
Result = 28.0 - 0.7 + (-6.0) = 21.3 dBm
Margin = 34.7 – 21.3= 13.4 dB

4.1.3 Limit

3 W (34.7 dBm)

[27.50(c)(10)] – LTE Band XII
Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

4.1.4 Test data

Date	:	1-February-2022			
Temperature	:	18.7 [˚C]			
Humidity	:	29.8 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

Date	:	1~2-February-2022			
Temperature	:	18.4 [˚C]			
Humidity	:	27.9 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Chiaki Kanno

Date	:	7-February-2022			
Temperature	:	20.0 [˚C]			
Humidity	:	22.9 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

[LTE Band XII]
QPSK, BW 1.4MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBd]	Result [dBm]	Limit [dBm]	Margin [dB]
H	699.7	-35.5	26.2	0.7	-5.9	19.7	34.7	15.0
H	707.5	-33.3	28.8	0.7	-6.0	22.2	34.7	12.5
H	715.3	-33.2	29.6	0.7	-6.0	22.9	34.7	11.8

[LTE Band XII]
16QAM, BW 1.4MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBd]	Result [dBm]	Limit [dBm]	Margin [dB]
H	699.7	-35.0	26.7	0.7	-5.9	20.2	34.7	14.5
H	707.5	-33.2	28.9	0.7	-6.0	22.3	34.7	12.4
H	715.3	-33.4	29.3	0.7	-6.0	22.6	34.7	12.1

[LTE Band XII]
QPSK, BW 3MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBd]	Result [dBm]	Limit [dBm]	Margin [dB]
H	700.5	-34.9	26.9	0.7	-5.9	20.3	34.7	14.4
H	707.5	-33.1	28.9	0.7	-6.0	22.3	34.7	12.4
H	714.5	-33.0	29.6	0.7	-6.0	22.9	34.7	11.8

[LTE Band XII]
16QAM, BW 3MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBd]	Result [dBm]	Limit [dBm]	Margin [dB]
H	700.5	-35.8	26.0	0.7	-5.9	19.4	34.7	15.3
H	707.5	-34.1	27.9	0.7	-6.0	21.3	34.7	13.4
H	714.5	-34.2	28.4	0.7	-6.0	21.7	34.7	13.0

[LTE Band XII]
QPSK, BW 5MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBd]	Result [dBm]	Limit [dBm]	Margin [dB]
H	701.5	-34.8	27.0	0.7	-5.9	20.4	34.7	14.3
H	707.5	-33.5	28.6	0.7	-6.0	22.0	34.7	12.7
H	713.5	-33.3	29.2	0.7	-6.0	22.5	34.7	12.2

[LTE Band XII]
16QAM, BW 5MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBd]	Result [dBm]	Limit [dBm]	Margin [dB]
H	701.5	-35.6	26.2	0.7	-5.9	19.6	34.7	15.1
H	707.5	-34.3	27.8	0.7	-6.0	21.2	34.7	13.5
H	713.5	-34.1	28.4	0.7	-6.0	21.7	34.7	13.0

Japan

[LTE Band XII]
QPSK, BW 10MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBd]	Result [dBm]	Limit [dBm]	Margin [dB]
H	704.0	-34.1	27.9	0.7	-5.9	21.3	34.7	13.4
H	707.5	-33.2	28.9	0.7	-6.0	22.3	34.7	12.4
H	711.0	-33.1	29.2	0.7	-6.0	22.5	34.7	12.2

[LTE Band XII]
16QAM, BW 10MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBd]	Result [dBm]	Limit [dBm]	Margin [dB]
H	704.0	-35.0	27.0	0.7	-5.9	20.4	34.7	14.3
H	707.5	-34.2	27.9	0.7	-6.0	21.3	34.7	13.4
H	711.0	-34.1	28.2	0.7	-6.0	21.5	34.7	13.2

4.2 Effective Isotropic Radiated Power

4.2.1 Measurement procedure

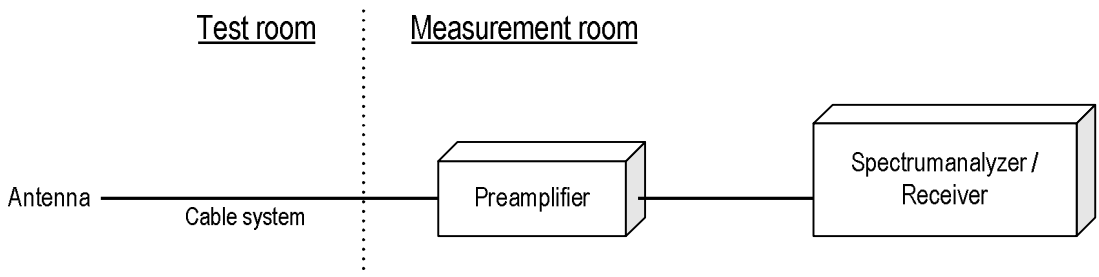
[FCC 27.50]

<Step 1>
The EUT and support equipment are placed on 0.6 meter x 0.6 meter surface, 1.5 meter height (Above 1GHz) styrene foam table. Radiated emission measurements are performed at 3 meter distance with the broadband antenna (Log periodic antenna). The antenna is positioned both the horizontal and vertical planes of polarization and height is varied 1 to 4 meters and stopped at height producing the maximum emission.
The bandwidth of the spectrum analyzer is set to 1 MHz. The turntable is rotated by 360 degrees and stopped at azimuth of producing the maximum emission.

<Step 2>
The substitution antenna is replaced by the transmitter antenna (EUT).
The frequency of the signal generator is adjusted to the measurement frequency.
Level of the signal generator is adjusted to the level that is obtained from step 1, and record the emission level of signal generator.

The spectrum analyzer is set to;
k) Span = 1.5 times the OBW
l) RBW = 1-5% of the expected OBW, not to exceed 1 MHz
m) VBW ≥ 3 x RBW
n) Number of sweep points ≥ 2 x span / RBW
o) Sweep time = auto-couple
p) Detector = RMS (power averaging)
q) If the EUT can be configured to transmit continuously (i.e., burst duty cycle ≥ 98%), then set the trigger to free run.
r) If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle < 98 %), then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Ensure that the sweep time is less than or equal to the transmission burst duration.
s) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
t) Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with the band limits set equal to the OBW band edges.
If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

- Test configuration



4.2.2 Calculation method

Result(EIRP) = Ant. Input - Cable loss + Antenna Gain
Margin = Limit – Result (EIRP)

Example:
Limit @ 1732.5 MHz : 30.0 dBm
Ant. Input = 19.3 dBm Cable loss = 1.1dB Ant. Gain = 5.2 dBi
Result = 19.3 - 1.1 + 5.2 = 23.4 dBm
Margin = 30.0 - 23.4 = 6.6 dB

4.2.3 Limit

1 W (30 dBm): WCDMA Band IV, LTE Band IV
2 W (33 dBm): LTE Band VII

[27.50(d)(4)] – WCDMA Band IV, LTE Band IV
Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

[27.50(h)(2)] – LTE Band VII
Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

Japan

4.2.4 Test data

Date	:	2-February-2022			
Temperature	:	18.0 [˚C]			
Humidity	:	29.3 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

Date	:	2~3-February-2022			
Temperature	:	19.3 [˚C]			
Humidity	:	29.8 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Chiaki Kanno

Date	:	7-February-2022			
Temperature	:	20.0 [˚C]			
Humidity	:	22.9 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

Date	:	8-February-2022			
Temperature	:	20.9 [˚C]			
Humidity	:	22.3 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

[WCDMA Band IV]

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1712.4	-45.0	20.7	1.1	5.3	24.9	30.0	5.1
H	1732.6	-45.8	19.9	1.1	5.2	23.9	30.0	6.1
H	1752.6	-46.2	19.4	1.1	5.0	23.3	30.0	6.7

[LTE Band IV]
QPSK, BW 1.4MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1710.7	-46.3	20.3	1.1	5.3	24.5	30.0	5.5
H	1732.5	-45.6	21.0	1.1	5.2	25.0	30.0	5.0
H	1754.3	-46.5	20.0	1.1	5.0	23.9	30.0	6.1

[LTE Band IV]
16QAM, BW 1.4MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1710.7	-47.6	19.0	1.1	5.3	23.2	30.0	6.8
H	1732.5	-47.6	19.1	1.1	5.2	23.1	30.0	6.9
H	1754.3	-47.6	19.0	1.1	5.0	22.9	30.0	7.1

[LTE Band IV]
QPSK, BW 3MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1711.5	-46.5	20.1	1.1	5.3	24.3	30.0	5.7
H	1732.5	-45.7	20.9	1.1	5.2	24.9	30.0	5.1
H	1753.5	-46.2	19.7	1.1	5.0	23.6	30.0	6.4

[LTE Band IV]
16QAM, BW 3MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1711.5	-47.2	19.4	1.1	5.3	23.6	30.0	6.4
H	1732.5	-46.9	19.7	1.1	5.2	23.7	30.0	6.3
H	1753.5	-47.4	19.1	1.1	5.0	23.0	30.0	7.0

[LTE Band IV]
QPSK, BW 5MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1712.5	-47.0	19.6	1.1	5.3	23.8	30.0	6.2
H	1732.5	-46.7	19.9	1.1	5.2	23.9	30.0	6.1
H	1752.5	-46.3	20.3	1.1	5.0	24.2	30.0	5.8

[LTE Band IV]
16QAM, BW 5MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1712.5	-48.2	18.4	1.1	5.3	22.6	30.0	7.4
H	1732.5	-47.6	19.0	1.1	5.2	23.0	30.0	7.0
H	1752.5	-47.0	19.6	1.1	5.0	23.5	30.0	6.5

Japan

[LTE Band IV]
QPSK, BW 10MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1715.0	-46.9	19.7	1.1	5.3	23.9	30.0	6.1
H	1732.5	-46.2	20.4	1.1	5.2	24.4	30.0	5.6
H	1750.0	-46.2	20.4	1.1	5.0	24.3	30.0	5.7

[LTE Band IV]
16QAM, BW 10MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1715.0	-47.7	18.9	1.1	5.3	23.1	30.0	6.9
H	1732.5	-47.2	19.4	1.1	5.2	23.4	30.0	6.6
H	1750.0	-47.4	19.1	1.1	5.0	23.0	30.0	7.0

[LTE Band IV]
QPSK, BW 15MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1717.5	-46.8	19.8	1.1	5.3	24.0	30.0	6.0
H	1732.5	-46.4	20.2	1.1	5.2	24.2	30.0	5.8
H	1747.5	-46.5	20.0	1.1	5.0	24.0	30.0	6.0

[LTE Band IV]
16QAM, BW 15MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1717.5	-47.8	18.8	1.1	5.3	23.0	30.0	7.0
H	1732.5	-47.4	19.2	1.1	5.2	23.2	30.0	6.8
H	1747.5	-47.4	19.0	1.1	5.0	23.0	30.0	7.0

[LTE Band IV]
QPSK, BW 20MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1720.0	-46.6	20.0	1.1	5.3	24.1	30.0	5.9
H	1732.5	-46.4	20.2	1.1	5.2	24.2	30.0	5.8
H	1745.0	-46.7	19.8	1.1	5.1	23.8	30.0	6.2

[LTE Band IV]
16QAM, BW 20MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1720.0	-47.7	18.9	1.1	5.3	23.0	30.0	7.0
H	1732.5	-47.3	19.3	1.1	5.2	23.3	30.0	6.7
H	1745.0	-47.6	18.9	1.1	5.1	22.9	30.0	7.1

[LTE Band VII]
QPSK, BW 5MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	2502.5	-51.3	19.2	1.3	6.0	23.8	33.0	9.2
H	2535.0	-50.9	19.5	1.3	5.9	24.0	33.0	9.0
H	2567.5	-52.0	18.3	1.3	6.0	23.0	33.0	10.0

[LTE Band VII]
16QAM, BW 5MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	2502.5	-52.6	17.8	1.3	6.0	22.4	33.0	10.6
H	2535.0	-52.0	18.4	1.3	5.9	22.9	33.0	10.1
H	2567.5	-53.4	16.9	1.3	6.0	21.6	33.0	11.4

[LTE Band VII]
QPSK, BW 10MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	2505.0	-51.0	19.4	1.3	6.0	24.0	33.0	9.0
H	2535.0	-50.9	19.6	1.3	5.9	24.1	33.0	8.9
H	2565.0	-50.9	19.4	1.3	6.0	24.1	33.0	8.9

[LTE Band VII]
16QAM, BW 10MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	2505.0	-51.4	19.0	1.3	6.0	23.6	33.0	9.4
H	2535.0	-51.9	18.4	1.3	5.9	22.9	33.0	10.1
H	2565.0	-52.2	18.0	1.3	6.0	22.7	33.0	10.3

[LTE Band VII]
QPSK, BW 15MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	2507.5	-50.0	20.4	1.3	6.0	25.0	33.0	8.0
H	2535.0	-49.9	20.6	1.3	5.9	25.1	33.0	7.9
H	2562.5	-51.1	19.2	1.3	6.0	23.9	33.0	9.1

[LTE Band VII]
16QAM, BW 15MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	2507.5	-50.8	19.6	1.3	6.0	24.2	33.0	8.8
H	2535.0	-50.9	19.5	1.3	5.9	24.0	33.0	9.0
H	2562.5	-52.0	18.3	1.3	6.0	23.0	33.0	10.0

Japan

[LTE Band VII]
QPSK, BW 20MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	2510.0	-49.8	20.6	1.3	6.0	25.2	33.0	7.8
H	2535.0	-49.9	20.4	1.3	5.9	24.9	33.0	8.1
H	2560.0	-51.4	18.8	1.3	6.0	23.5	33.0	9.5

[LTE Band VII]
16QAM, BW 20MHz

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	2510.0	-51.0	19.4	1.3	6.0	24.0	33.0	9.0
H	2535.0	-50.5	19.9	1.3	5.9	24.4	33.0	8.6
H	2560.0	-52.1	18.1	1.3	6.0	22.8	33.0	10.2

Japan

4.3 Radiated Emissions and Harmonic Emissions

4.3.1 Measurement procedure

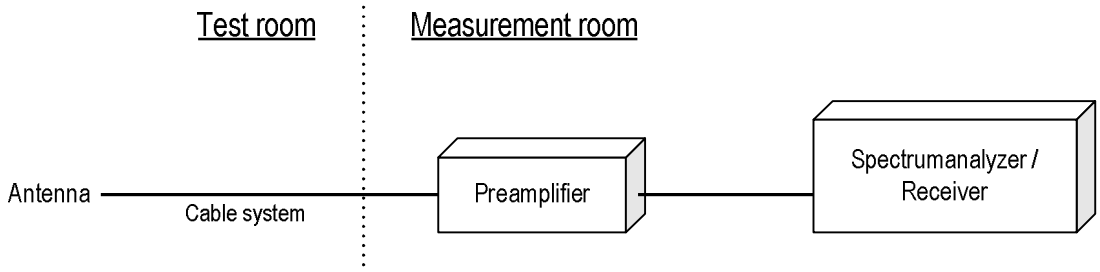
[FCC 27.53, 2.1053]

<Step 1>
The EUT and support equipment are placed on 1.0 meter x 1.0 meter surface, 0.8 meter height (Below or equal 1GHz) or 0.6 meter x 0.6 meter surface, 1.5 meter height (Above 1GHz) styrene foam table. Radiated emission measurements are performed at 3 meter distance with the broadband antenna (Biconical antenna, Log periodic antenna and double ridged guide antenna). The antenna is positioned both the horizontal and vertical planes of polarization and height is varied 1 to 4 meters and stopped at height producing the maximum emission.
The bandwidth of the spectrum analyzer is set to 1 MHz. The turntable is rotated by 360 degrees and stopped at azimuth of producing the maximum emission. The frequency is investigated up to 20GHz.

<Step 2>
The substitution antenna is replaced by the transmitter antenna (EUT).
The frequency of the signal generator is adjusted to the measurement frequency.
Level of the signal generator is adjusted to the level that is obtained from step 1, and record the emission level of signal generator.

The spectrum analyzer is set to;
a) RBW = 100 kHz for below 1GHz and 1MHz for above 1GHz / VBW ≥ 3 x RBW
b) Detector = Peak
c) Trace mode = Max hold
d) Sweep time = auto-couple

- Test configuration



Japan

4.3.2 Calculation method

Result (EIRP) = Ant. Input - Cable loss + Antenna Gain
Margin = Limit – Result (EIRP)

Example:
Limit @ 3465.0 MHz : -13.0 dBm
Ant. Input = -50.7 dBm Cable loss = 1.6 dB Ant. Gain = 8.3 dBi
Result = -50.7 - 1.6 + 8.3 = -44.0 dBm
Margin = -13.0 - (-44.0) = 31.0 dB

4.3.3 Limit

-13 dBm or less: WCDMA Band IV, LTE Band IV, LTE Band XII
-25 dBm or less: LTE Band VII

[27.53(g)] – LTE Band XII
For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

[27.53(h) (1)] – WCDMA Band IV, LTE Band IV
General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

[27.53(m)(4)] – Band VII
At least 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

Japan

4.3.4 Test data

Date	:	3~4-February-2022			
Temperature	:	21.6 [˚C]			
Humidity	:	24.3 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Chiaki Kanno

Date	:	4-February-2022			
Temperature	:	21.1 [˚C]			
Humidity	:	22.7 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

Date	:	7-February-2022			
Temperature	:	20.0 [˚C]			
Humidity	:	22.9 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

Date	:	8-February-2022			
Temperature	:	20.9 [˚C]			
Humidity	:	22.3 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

Date	:	8~9-February-2022			
Temperature	:	22.1 [˚C]			
Humidity	:	22.6 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Chiaki Kanno

Date	:	9~10-February-2022			
Temperature	:	22.8 [˚C]			
Humidity	:	22.2 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Chiaki Kanno

Date	:	10-February-2022			
Temperature	:	21.5 [˚C]			
Humidity	:	20.0 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber			Tadahiro Seino

[WCDMA Band IV]
Channel: 1312

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3424.8	-56.4	-45.5	1.6	8.1	-38.9	-13.0	25.9

Channel: 1413

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.2	-55.8	-44.9	1.6	8.3	-38.1	-13.0	25.1

Channel: 1513

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3505.2	-56.3	-45.4	1.6	8.3	-38.7	-13.0	25.7

[LTE Band IV]
QPSK, BW 1.4MHz
Channel: 19957

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3421.4	-54.8	-43.9	1.6	8.1	-37.4	-13.0	24.4

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-54.5	-43.6	1.6	8.3	-36.8	-13.0	23.8

Channel: 20393

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3508.6	-54.7	-43.8	1.6	8.2	-37.2	-13.0	24.2

[LTE Band IV]
16QAM, BW 1.4MHz
Channel: 19957

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3421.4	-55.0	-44.1	1.6	8.1	-37.6	-13.0	24.6

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-54.7	-43.8	1.6	8.3	-37.0	-13.0	24.0

Channel: 20393

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3508.6	-54.9	-44.0	1.6	8.2	-37.4	-13.0	24.4

[LTE Band IV]
QPSK, BW 3MHz
Channel: 19965

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3423.0	-54.8	-43.9	1.6	8.1	-37.4	-13.0	24.4

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-54.5	-43.6	1.6	8.3	-36.8	-13.0	23.8

Channel: 20385

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3507.0	-54.9	-44.0	1.6	8.2	-37.4	-13.0	24.4

[LTE Band IV]
16QAM, BW 3MHz
Channel: 19965

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3423.0	-54.7	-43.8	1.6	8.1	-37.3	-13.0	24.3

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-54.5	-43.6	1.6	8.3	-36.8	-13.0	23.8

Channel: 20385

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3507.0	-55.0	-44.1	1.6	8.2	-37.5	-13.0	24.5

[LTE Band IV]
QPSK, BW 5MHz
Channel: 19975

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3425.0	-54.9	-44.0	1.6	8.1	-37.4	-13.0	24.4

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-54.5	-43.6	1.6	8.3	-36.8	-13.0	23.8

Channel: 20375

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3505.0	-54.8	-43.9	1.6	8.3	-37.2	-13.0	24.2

[LTE Band IV]
16QAM, BW 5MHz
Channel: 19975

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3425.0	-55.0	-44.1	1.6	8.1	-37.5	-13.0	24.5

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-54.7	-43.8	1.6	8.3	-37.0	-13.0	24.0

Channel: 20375

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3505.0	-54.9	-44.0	1.6	8.3	-37.3	-13.0	24.3

[LTE Band IV]
QPSK, BW 10MHz
Channel: 20000

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3430.0	-54.7	-43.8	1.6	8.2	-37.2	-13.0	24.2

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-54.5	-43.6	1.6	8.3	-36.8	-13.0	23.8

Channel: 20350

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3500.0	-55.0	-44.1	1.6	8.3	-37.4	-13.0	24.4

[LTE Band IV]
16QAM, BW 10MHz
Channel: 20000

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3430.0	-55.0	-44.1	1.6	8.2	-37.5	-13.0	24.5

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-54.5	-43.6	1.6	8.3	-36.8	-13.0	23.8

Channel: 20350

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3500.0	-54.9	-44.0	1.6	8.3	-37.3	-13.0	24.3

[LTE Band IV]
QPSK, BW 15MHz
Channel: 20025

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3435.0	-55.7	-44.8	1.6	8.2	-38.2	-13.0	25.2

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-55.6	-44.7	1.6	8.3	-37.9	-13.0	24.9

Channel: 20325

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3495.0	-55.7	-44.9	1.6	8.3	-38.2	-13.0	25.2

[LTE Band IV]
16QAM, BW 15MHz
Channel: 20025

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3435.0	-55.8	-44.9	1.6	8.2	-38.3	-13.0	25.3

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-55.8	-45.0	1.6	8.3	-38.2	-13.0	25.2

Channel: 20325

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3495.0	-55.7	-44.8	1.6	8.3	-38.1	-13.0	25.1

Japan

[LTE Band IV]
QPSK, BW 20MHz
Channel: 20050

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3440.0	-55.4	-44.5	1.6	8.3	-37.8	-13.0	24.8

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-55.0	-44.1	1.6	8.3	-37.3	-13.0	24.3

Channel: 20300

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3490.0	-56.1	-45.1	1.6	8.3	-38.4	-13.0	25.4

[LTE Band IV]
16QAM, BW 20MHz
Channel: 20050

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3440.0	-55.5	-44.6	1.6	8.3	-37.9	-13.0	24.9

Channel: 20175

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3465.0	-55.4	-44.5	1.6	8.3	-37.7	-13.0	24.7

Channel: 20300

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	3490.0	-56.5	-45.6	1.6	8.3	-38.9	-13.0	25.9

[LTE Band VII]
QPSK, BW 5MHz
Channel: 20775

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5005.0	-56.6	-44.6	1.9	10.2	-36.3	-25.0	11.3

Channel: 21100

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5070.0	-56.5	-44.5	1.9	10.3	-36.1	-25.0	11.1

Channel: 21425

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5135.0	-56.8	-44.8	1.9	10.4	-36.3	-25.0	11.3

[LTE Band VII]
16QAM, BW 5MHz
Channel: 20775

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5005.0	-56.9	-44.9	1.9	10.2	-36.6	-25.0	11.6

Channel: 21100

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5070.0	-56.7	-44.7	1.9	10.3	-36.3	-25.0	11.3

Channel: 21425

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5135.0	-56.9	-45.0	1.9	10.4	-36.5	-25.0	11.5

[LTE Band VII]
QPSK, BW 10MHz
Channel: 20800

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5010.0	-56.9	-44.9	1.9	10.2	-36.6	-25.0	11.6

Channel: 21100

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5070.0	-56.8	-44.8	1.9	10.3	-36.4	-25.0	11.4

Channel: 21400

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5130.0	-57.0	-45.0	1.9	10.4	-36.5	-25.0	11.5

[LTE Band VII]
16QAM, BW 10MHz
Channel: 20800

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5010.0	-57.0	-45.0	1.9	10.2	-36.7	-25.0	11.7

Channel: 21100

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5070.0	-56.9	-44.8	1.9	10.3	-36.4	-25.0	11.4

Channel: 21400

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5130.0	-57.0	-44.9	1.9	10.4	-36.4	-25.0	11.4

[LTE Band VII]
QPSK, BW 15MHz
Channel: 20825

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5015.0	-56.9	-44.9	1.9	10.2	-36.6	-25.0	11.6

Channel: 21100

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5070.0	-56.8	-44.7	1.9	10.3	-36.3	-25.0	11.3

Channel: 21375

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5125.0	-56.9	-44.8	1.9	10.4	-36.3	-25.0	11.3

[LTE Band VII]
16QAM, BW 15MHz
Channel: 20825

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5015.0	-57.0	-45.0	1.9	10.2	-36.7	-25.0	11.7

Channel: 21100

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5070.0	-56.9	-44.8	1.9	10.3	-36.4	-25.0	11.4

Channel: 21375

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5125.0	-57.0	-44.9	1.9	10.4	-36.4	-25.0	11.4

[LTE Band VII]
QPSK, BW 20MHz
Channel: 20850

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5020.0	-56.9	-44.8	1.9	10.2	-36.5	-25.0	11.5

Channel: 21100

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5070.0	-56.7	-44.6	1.9	10.3	-36.2	-25.0	11.2

Channel: 21350

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5120.0	-56.9	-44.9	1.9	10.4	-36.4	-25.0	11.4

[LTE Band VII]
16QAM, BW 20MHz
Channel: 20850

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5020.0	-56.9	-44.8	1.9	10.2	-36.5	-25.0	11.5

Channel: 21100

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5070.0	-56.8	-44.7	1.9	10.3	-36.3	-25.0	11.3

Channel: 21350

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	5120.0	-57.0	-44.9	1.9	10.4	-36.4	-25.0	11.4

[LTE Band XII]
QPSK, BW 1.4MHz
Channel: 23017

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1399.4	-55.3	-55.7	1.0	4.6	-52.1	-13.0	39.1
H	2099.1	-50.7	-43.7	1.2	4.8	-40.1	-13.0	27.1
V	2099.1	-48.1	-38.1	1.2	4.8	-34.5	-13.0	21.5

Channel: 23095

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1415.0	-55.6	-56.0	1.0	4.8	-52.2	-13.0	39.2
H	2122.5	-53.0	-46.1	1.2	5.0	-42.3	-13.0	29.3
V	2122.5	-52.4	-42.4	1.2	5.0	-38.6	-13.0	25.6

Channel: 23173

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1430.6	-54.7	-55.4	1.0	5.1	-51.3	-13.0	38.3

[LTE Band XII]
16QAM, BW 1.4MHz
Channel: 23017

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1399.4	-51.3	-51.7	1.0	4.6	-48.1	-13.0	35.1
H	2099.1	-51.6	-44.6	1.2	4.8	-41.0	-13.0	28.0
V	2099.1	-48.8	-38.8	1.2	4.8	-35.2	-13.0	22.2

Channel: 23095

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1415.0	-55.3	-55.7	1.0	4.8	-51.9	-13.0	38.9
H	2122.5	-54.0	-47.0	1.2	5.0	-43.2	-13.0	30.2
V	2122.5	-53.0	-43.0	1.2	5.0	-39.2	-13.0	26.2

Channel: 23173

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1430.6	-55.2	-55.9	1.0	5.1	-51.8	-13.0	38.8

[LTE Band XII]
QPSK, BW 3MHz
Channel: 23025

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1401.0	-55.3	-55.7	1.0	4.6	-52.1	-13.0	39.1
H	2101.5	-44.5	-37.5	1.2	4.8	-33.9	-13.0	20.9
V	2101.5	-41.9	-31.9	1.2	4.8	-28.3	-13.0	15.3

Channel: 23095

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1415.0	-55.3	-55.8	1.0	4.8	-52.0	-13.0	39.0
H	2122.5	-53.6	-46.6	1.2	5.0	-42.8	-13.0	29.8
V	2122.5	-52.6	-42.6	1.2	5.0	-38.8	-13.0	25.8

Channel: 23165

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1429.0	-54.7	-55.1	1.0	5.0	-51.1	-13.0	38.1

[LTE Band XII]
16QAM, BW 3MHz
Channel: 23025

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1401.0	-55.6	-56.0	1.0	4.6	-52.4	-13.0	39.4
H	2101.5	-44.2	-37.2	1.2	4.8	-33.6	-13.0	20.6
V	2101.5	-41.0	-31.0	1.2	4.8	-27.4	-13.0	14.4

Channel: 23095

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1415.0	-55.3	-55.7	1.0	4.8	-51.9	-13.0	38.9
H	2122.5	-53.5	-40.9	1.2	5.0	-37.1	-13.0	24.1
V	2122.5	-52.3	-42.3	1.2	5.0	-38.5	-13.0	25.5

Channel: 23165

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1429.0	-55.2	-55.5	1.0	5.0	-51.5	-13.0	38.5

[LTE Band XII]
QPSK, BW 5MHz
Channel: 23035

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1403.0	-55.4	-55.8	1.0	4.6	-52.2	-13.0	39.2
H	2104.5	-54.7	-47.7	1.2	4.9	-44.1	-13.0	31.1
V	2104.5	-54.4	-44.4	1.2	4.9	-40.8	-13.0	27.8

Channel: 23095

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1415.0	-55.3	-55.7	1.0	4.8	-51.9	-13.0	38.9
H	2122.5	-53.4	-46.4	1.2	5.0	-42.6	-13.0	29.6
V	2122.5	-52.0	-42.0	1.2	5.0	-38.2	-13.0	25.2

Channel: 23155

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1427.0	-54.6	-54.9	1.0	5.0	-50.9	-13.0	37.9

[LTE Band XII]
16QAM, BW 5MHz
Channel: 23035

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1403.0	-55.4	-55.8	1.0	4.6	-52.2	-13.0	39.2
H	2104.5	-54.9	-47.9	1.2	4.9	-44.3	-13.0	31.3
V	2104.5	-54.4	-44.5	1.2	4.9	-40.9	-13.0	27.9

Channel: 23095

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1415.0	-55.3	-55.6	1.0	4.8	-51.8	-13.0	38.8
H	2122.5	-53.5	-46.5	1.2	5.0	-42.7	-13.0	29.7
V	2122.5	-52.0	-42.1	1.2	5.0	-38.3	-13.0	25.3

Channel: 23155

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1427.0	-54.6	-55.0	1.0	5.0	-51.0	-13.0	38.0

[LTE Band XII]
QPSK, BW 10MHz
Channel: 23060

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1408.0	-55.2	-55.6	1.0	4.7	-51.9	-13.0	38.9
H	2112.0	-54.3	-47.3	1.2	4.9	-43.6	-13.0	30.6
V	2112.0	-53.5	-43.5	1.2	4.9	-39.8	-13.0	26.8

Channel: 23095

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1415.0	-55.4	-55.8	1.0	4.8	-52.0	-13.0	39.0
H	2122.5	-53.5	-46.5	1.2	5.0	-42.7	-13.0	29.7
V	2122.5	-52.0	-42.0	1.2	5.0	-38.2	-13.0	25.2

Channel: 23130

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1422.0	-55.2	-55.7	1.0	4.9	-51.8	-13.0	38.8

[LTE Band XII]
16QAM, BW 10MHz
Channel: 23060

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1408.0	-55.5	-55.9	1.0	4.7	-52.2	-13.0	39.2
H	2112.0	-54.5	-47.5	1.2	4.9	-43.8	-13.0	30.8
V	2112.0	-54.2	-44.2	1.2	4.9	-40.5	-13.0	27.5

Channel: 23095

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1415.0	-55.3	-55.7	1.0	4.8	-51.9	-13.0	38.9
H	2122.5	-53.7	-46.7	1.2	5.0	-42.9	-13.0	29.9
V	2122.5	-52.1	-42.1	1.2	5.0	-38.3	-13.0	25.3

Channel: 23130

H/V	Frequency [MHz]	S.A Reading [dBm]	Ant. Input [dBm]	Cable loss [dB]	Ant.Gain [dBi]	Result [dBm]	Limit [dBm]	Margin [dB]
H	1422.0	-55.6	-56.0	1.0	4.9	-52.1	-13.0	39.1

Japan

5 Measurement Uncertainty

Expanded uncertainties stated are calculated with a coverage Factor k=2.
Please note that these results are not taken into account when measurement uncertainty considerations contained in ETSI TR 100 028 Parts 1 and 2 determining compliance or non-compliance with test result.

Test item	Measurement uncertainty
Conducted emission, AMN (9 kHz – 150 kHz)	±3.7 dB
Conducted emission, AMN (150 kHz – 30 MHz)	±3.3 dB
Radiated emission (9kHz – 30 MHz)	±3.2 dB
Radiated emission (30 MHz – 1000 MHz)	±5.3 dB
Radiated emission (1 GHz – 6 GHz)	±4.8 dB
Radiated emission (6 GHz – 18 GHz)	±4.5 dB
Radiated emission (18 GHz – 40 GHz)	±6.4 dB
Radio Frequency	$\pm 1.4 * 10^{-8}$
RF power, conducted	±0.8 dB
Adjacent channel power	±2.4 dB
Temperature	±0.6 °C
Humidity	±1.2 %
Voltage (DC)	±0.4 %
Voltage (AC, <10kHz)	±0.2 %

Judge	Measured value and standard limit value
PASS	**Case1** Standard limit value; +Uncertainty; -Uncertainty; Measured value — Even if it takes uncertainty into consideration, a standard limit value is fulfilled.
	Case2 — Although measured value is in a standard limit value, a limit value won't be fulfilled if uncertainty is taken into consideration.
FAIL	**Case3** — Although measured value exceeds a standard limit value, a limit value will be fulfilled if uncertainty is taken into consideration.
	Case4 — Even if it takes uncertainty into consideration, a standard limit value isn't fulfilled.

Japan

6 Laboratory Information

Testing was performed and the report was issued at:

TÜV SÜD Japan Ltd. Yonezawa Testing Center

Address: 5-4149-7 Hachimanpara, Yonezawa-shi, Yamagata, 992-1128 Japan
Phone: +81-238-28-2881

Accreditation and Registration
A2LA
Certificate #3686.03

VLAC
Accreditation No.: VLAC-013

BSMI
Laboratory Code: SL2-IN-E-6018, SL2-A1-E-6018

Innovation, Science and Economic Development Canada
ISED#: 4224A

VCCI Council
Registration number: A-0166

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Appendix A. Test Equipment

Radiated emission

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI Receiver	ROHDE&SCHWARZ	ESCI	100765	30-Sep-2022	15-Sep-2021
Spectrum analyzer	Agilent Technologies	E4447A	MY46180188	31-Mar-2022	11-Mar-2021
Preamplifier	SONOMA	310	372170	30-Sep-2022	15-Sep-2021
Biconical antenna	Schwarzbeck	VHBB9124/BBA9106	1333	31-Dec-2022	15-Dec-2021
Log periodic antenna	Schwarzbeck	VUSLP9111B	346	31-Oct-2022	15-Oct-2021
Attenuator	TOYO Connector	NA-PJ-6/6dB	N/A(S541)	30-Sep-2022	16-Sep-2021
Attenuator	TAMAGAWA.ELEC	CFA-10/3dB	N/A(S503)	31-Jul-2022	20-Jul-2021
Preamplifier	TSJ	MLA-100M18-B02-40	1929118	31-Dec-2022	22-Dec-2021
Attenuator	AEROFLEX	26A-10	081217-08	31-Dec-2022	22-Dec-2021
Double ridged guide antenna	ETS LINDGREN	3117	00224193	31-Mar-2022	30-Mar-2021
Attenuator	HUBER+SUHNER	6803.17.B	N/A(2340)	31-Dec-2022	23-Dec-2021
Double ridged guide antenna	A.H.Systems Inc.	SAS-574	469	31-Aug-2022	02-Aug-2021
Preamplifier	TSJ	MLA-1840-B03-35	1240332	31-Aug-2022	02-Aug-2021
Notch Filter	Micro-Tronics	BRM50706	003	31-Jul-2022	19-Jul-2021
Band rejection filter	Micro-Tronics	BRC50719	014	31-Dec-2022	20-Dec-2011
Notch Filter	Micro-Tronics	BRM50709	G024	28-Feb-2022	02-Feb-2021
Signal generator	ROHDE&SCHWARZ	SMB100A	177525	31-Dec-2022	08-Dec-2021
RF power amplifier	R&K	CGA020M602-2633R	B40240	30-Jun-2022	02-Jun-2021
Attenuator	HUBER+SUHNER	6820.19.A	N/A(2399)	30-Sep-2022	15-Sep-2021
Microwave cable	HUBER+SUHNER	SUCOFELX102/2m	31648	31-Mar-2022	10-Mar-2021
Dipole antenna	Schwarzbeck	VHAP	1021	31-Jul-2022	28-Jul-2021
Dipole antenna	Schwarzbeck	UHAP	993	31-Jul-2022	28-Jul-2021
Double ridged guide antenna	ETS LINDGREN	3117	00218815	31-Dec-2022	06-Dec-2021
Wideband Radio Frequency Tester	ROHDE&SCHWARZ	CMW500	126079	30-Nov-2022	15-Nov-2021
Wideband Radio Frequency Tester	ROHDE&SCHWARZ	CMW500	116338	31-Aug-2022	04-Aug-2021
Microwave cable	HUBER+SUHNER	SUCOFLEX104/9m	MY30037/4	31-Dec-2022	22-Dec-2021
		SUCOFLEX104/1m	my24610/4	31-Dec-2022	22-Dec-2021
		SUCOFLEX104/8m	SN MY30033/4	31-Dec-2022	22-Dec-2021
		SUCOFLEX104/1m	MY32976/4	31-Dec-2022	22-Dec-2021
		SUCOFLEX104/2m	SN MY28404/4	31-Dec-2022	22-Dec-2021
		SUCOFLEX104/7m	41625/6	31-Dec-2022	22-Dec-2021
PC	DELL	DIMENSION E521	75465BX	N/A	N/A
Software	TOYO Corporation	EP5/RE-AJ	0611193/V6.0.140	N/A	N/A
Absorber	RIKEN	PFP30	N/A	N/A	N/A
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-NSA)	31-May-2022	20-May-2021
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-SVSWR)	31-May-2022	20-May-2021

*: The calibrations of the above equipment are traceable to NIST or equivalent standards of the reference organizations.