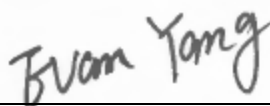


Japan Radio Test Report

Project No. : 2304C095
Equipment : VR Controller
Brand Name : RAZER
Test Model : RZ06-05010R
Series Model : N/A
Applicant : Razer Inc.
Address : 9 Pasteur, Suite 100, Irvine, CA92618, USA
Manufacturer : Razer (Asia-Pacific) Pte.,Ltd.
Address : 1 one-north Crescent, #02-01 Singapore 138538
Factory : RAZER TECHNOLOGY AND DEVELOPMENT (SHENZHEN)CO., LTD
Address : East Wing, 3rd Floor, Block 2, Phase 1 of Vision Shenzhen Business Park Keji South Road, Hi-Tech Industrial Park, Shenzhen 518057, China
Date of Receipt : May 23, 2023
Date of Test : May 24, 2023 ~ Jun. 07, 2023
Issued Date : Jul. 14, 2023
Report Version : R00
Test Sample : Sample No.: DG2023052395
Standard(s) : Ordinance Regulating Radio Equipment General Provisions, Transmitting Equipment, Receiving Equipment, Article 49-20
Test Procedure : Test Method Specified Radio Equipment Article 2 Paragraph 1 of item19

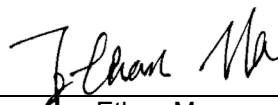
The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.(Dongguan).

Prepared by :



Evan Yang

Approved by :



Ethan Ma

No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong, China.

Tel: +86-769-8318-3000 Web: www.newbtl.com Service mail: btl_qa@newbtl.com

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

The report must not be used by the client to claim product certification, approval, or endorsement by CNAS or any other agency.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

Table of Contents	page
REPORT ISSUED HISTORY	4
1. SUMMARY OF TEST RESULTS	5
1.1. TEST FACILITY	6
1.2. MEASUREMENT UNCERTAINTY	6
1.3. TEST ENVIRONMENT CONDITIONS	6
2. GENERAL INFORMATION	7
2.1. GENERAL DESCRIPTION OF EUT	7
2.2. DESCRIPTION OF TEST MODES	9
2.3. BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	11
2.4. DESCRIPTION OF SUPPORT UNITS	11
2.5. TABLE FOR PARAMETERS OF TEST SOFTWARE SETTING	12
3. TEST RESULTS	13
3.1. FREQUENCY TOLERANCE MEASUREMENT	13
3.2. OCCUPIED BANDWIDTH MEASUREMENT	14
3.3. UNWANTED EMISSION INTENSITY MEASUREMENT	15
3.4. ANTENNA POWER TOLERANCE MEASUREMENT	17
3.5. LIMITATION OF COLLATERAL EMISSION OF RECEIVER MEASUREMENT	18
3.6. TRANSMISSION ANTENNA GAIN (EIRP ANTENNA POWER) MEASUREMENT	20
3.7. TRANSMISSION RADIATION ANGLE WIDTH (3DB BEAMWIDTH) MEASUREMENT	22
3.8. RADIO INTERFERENCE PREVENTION CAPABILITY MEASUREMENT	24
3.9. CONSTRUCTION PROTECTION CONFIRMATION METHOD	25
4. LIST OF MEASURING EQUIPMENTS	26
5. EUT TEST PHOTO	27
APPENDIX A - FREQUENCY TOLERANCE	28
APPENDIX B - OCCUPIED BANDWIDTH	30
APPENDIX C - UNWANTED EMISSION INTENSITY	32
APPENDIX D - ANTENNA POWER TOLERANCE AND EIRP ANTENNA POWER	36
APPENDIX E - LIMITATION OF COLLATERAL EMISSION OF RECEIVER	38

REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-JPAP-1-2304C095	R00	Original Report.	Jul. 14, 2023	Valid

1. SUMMARY OF TEST RESULTS

Part	Description of Test	Rule Section	Result
3.1	Frequency Tolerance	Article 5, Table 1	Pass
3.2	Occupied Bandwidth (99%)	Article 6, Table 2	Pass
3.3	Unwanted Emission Intensity	Article 7, Table 3	Pass
3.4	Antenna Power Tolerance	Article 14	Pass
3.5	Limitation of Collateral Emission of Receiver	Article 24, Paragraph 2	Pass
3.6	Transmission Antenna Gain (EIRP Antenna Power)	Article 49-20, Item 1-e & 1-f	Pass
3.7	Transmission Radiation Angle Width (3dB Beamwidth)	Article 49-20, Item 1-f	N/A
3.8	Radio Interference Prevention Capability	Article 9-4, Item 9-C Article 6-2, Item 3 of the Regulation for Enforcement of the Radio Law	Good
3.9	Construction Protection Confirmation	Article 49-20, Item1-a	Pass

Method of measurement:	MIC Notice No.88 Appendix No.43
Test condition:	Conductive, RF test program provided by the customer was used to control the operating channel as well as the output power level.

Abbreviations used in this test report are as follows:

NC:	Normal Condition
EC:	Extreme Condition
EUT:	Equipment Under Test
DS:	Direct spreading
FH:	Frequency hopping
OFDM:	Orthogonal frequency division multiplexing

1.1. TEST FACILITY

The test facilities used to collect the test data in this report:

TR13/TR15: No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong, China.

1.2. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty	Remark
Frequency Tolerance / 99% Bandwidth	$\pm 6.25 \times 10^{-7}$	Confidence levels of 95%
Antenna Power / TX-RX Emission	$\pm 0.5\text{dB}$	Confidence levels of 95%
Transmission Antenna Gain	$\pm 3.72\text{dB}$	Confidence levels of 95%

1.3. TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
Frequency Tolerance	24~25°C	50~57%	DC 5V	Willem Li
Occupied Bandwidth (99%)	24~25°C	50~57%	DC 5V	Willem Li
Unwanted Emission Intensity	24~25°C	50~57%	DC 5V	Willem Li
Antenna Power Tolerance	23°C	57%	DC 5V	Complex Qin
Limitation of Collateral Emission of Receiver	24~25°C	50~57%	DC 5V	Willem Li

2. GENERAL INFORMATION

2.1. GENERAL DESCRIPTION OF EUT

Equipment	VR Controller
Brand Name	RAZER
Test Model	RZ06-05010R
Series Model	N/A
Model Difference(s)	N/A
Hardware Version	EVT
Software Version	V0.00.08.01
Power Source	1# Supplied from USB port. 2# Supplied from battery.
Power Rating	1# 5V $\overline{\text{---}}$ 1.2A 2# DC 3.7V 1600mAh 5.92Wh
Operation Frequency	2402MHz ~ 2480MHz
Data Rate	2Mbps
Modulation Type	GFSK
Occupied Bandwidth	2Mbps: 2.18 MHz
Antenna Power (Rated Power)	2Mbps: 2.70 mW
Antenna Power (Max. Conducted Power)	2Mbps: 2.6002 mW

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- The system model number is RZ06-0501. this system consists of left controller (Model: RZ06-05010L) and right controller (Model:RZ06-05010R).

3. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

4. Table for Filed Antenna:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	INPAQ	N/A	PIFA	N/A	2.72

Note: The antenna gain is provided by the manufacturer.

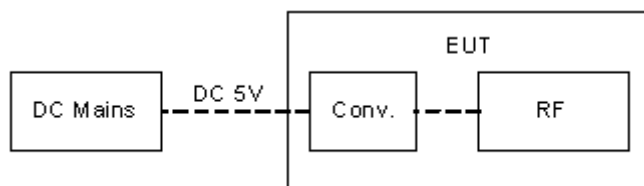
2.2. DESCRIPTION OF TEST MODES

The EUT was tested while in a continuous transmitter / receiver mode.

The EUT was tuned to a low, middle and high channel for all tests. The EUT continuously transmitted a modulated packet with payload, while transmitting the EUT was setup to operate at the intended maximum power output available to the end user. For all test case pre/scans were completed in all modes to determine worst case levels.

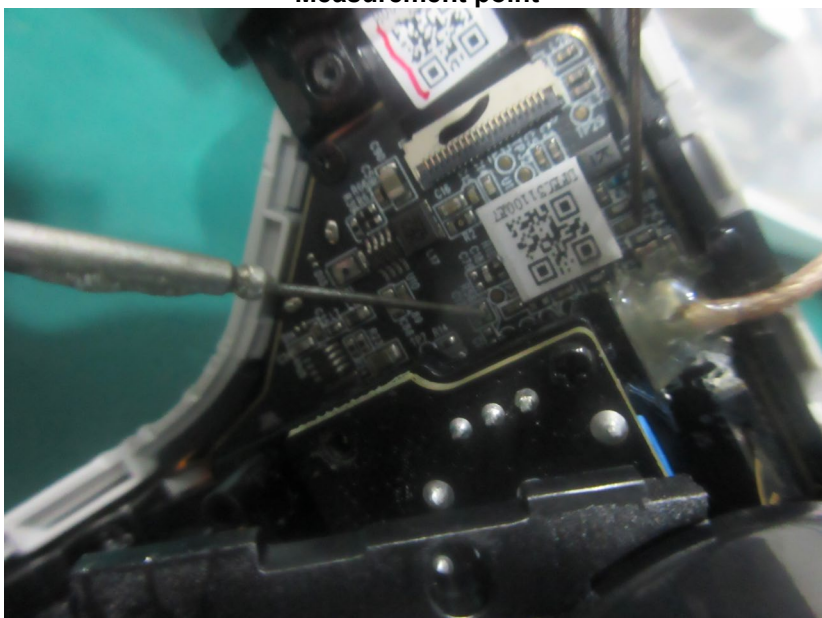
Test Mode	Description
Mode 1	2Mbps/CH00, CH39, CH78

Power Supply Voltage Fluctuation Test



Voltage Fluctuation Test	Normal Voltage	High Voltage + 10% of Normal Voltage	Low Voltage - 10% of Normal Voltage
Input: DC Power	5V	5.5V	4.5V
Output: DC Power	2.710V	2.710V	2.710V
Voltage Variation (%)	--	0.0	0.0

Measurement point



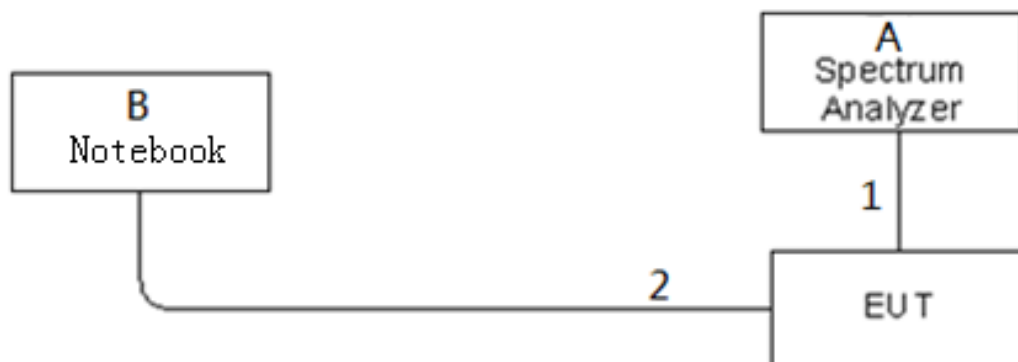
Note:

Voltage Variation (%)
 = (Output High Voltage or Low Voltage - Output Normal Voltage) / Output Normal Voltage * 100

During the input supply voltage to the EUT from the external power source is varied by +/- 10%, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/- 1%.

Exempt extremely high and low supply voltage condition tests, EUT only operated in normal voltage to test all regulations.

2.3. BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.4. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
A	Spectrum Analyzer	R&S	FSP40	100185
B	Notebook	DELL	N/A	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	RF Cable	YES	NO	0.1m
2	Control Cable	NO	NO	1.8m

2.5. TABLE FOR PARAMETERS OF TEST SOFTWARE SETTING

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level.

Test Software Version	FCCMTKTest_V1.0.0.0		
Frequency (MHz)	2402	2441	2480
2Mbps	4	4	4

3. TEST RESULTS

3.1. FREQUENCY TOLERANCE MEASUREMENT

3.1.1. LIMIT

Item	Limits (See Article 5, Table1 of the Ordinance Regulating Radio Equipment)
Frequency Tolerance	-50ppm≤50

3.1.2. SETTING

The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Span	200kHz
RBW / VBW	10kHz / 10kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.1.3. TEST PROCEDURES

Test method according to Claus 3 of Annex No.43 of MIC Notification No.88.

1. Frequency accuracy of SA shall be less than 10% of limits tolerance (5ppm).
2. Set spectrum analyzer with condition in section 3.1.2 and tune reference level to observe receiving signal position.
3. Center Frequency: The center frequency of testing for EUT.
4. EUT have transmitted absence of modulation signal and fixed channelize. f is using the mark cursor to mark the peak frequency value · fc is declaring of channel frequency.
Then the frequency error formula is $(f_c - f) / f_c \times 10^6$ ppm and the limit is less than ± 50 ppm.

3.1.4. TEST SETUP LAYOUT



3.1.5. TEST DEVIATION

There is no deviation with the original standard.

3.1.6. EUT OPERATION DURING TEST

The EUT was programmed to be in un-modulation mode.

3.1.7. TEST RESULTS

Please refer to the Appendix A.

3.2. OCCUPIED BANDWIDTH MEASUREMENT

3.2.1. LIMIT

Item	Limits (See Article 6, Table2 and Article 49-20, Item1-h,i of the Ordinance Regulating Radio Equipment)
Occupied Bandwidth	FHSS≤83.5MHz; OFDM, DSSS≤26MHz; Others≤26MHz

3.2.2. SETTING

The following table is the setting of spectrum analyzer.

Spectrum Parameter	Setting
Span	2Mbps: 4MHz
RBW / VBW	300kHz / 300kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.2.3. TEST PROCEDURES

Test method according to Clause 4 of Annex No.43 of MIC Notification No.88.

1. Set spectrum analyzer with condition in section 3.2.2 and tune reference level to observe receiving signal position.
2. EUT have transmitted the maximum modulation signal and fixed channelize
(For DSSS or OFDM Device) or continuous maximum power of hopping mode(For FHSS Device).
SA set to 99% of occupied bandwidth to measure occupied bandwidth. The limit is less than 26MHz
(For DSSS or OFDM Device) or 83.5MHz(For FHSS Device).

3.2.4. TEST SETUP LAYOUT



3.2.5. TEST DEVIATION

There is no deviation with the original standard.

3.2.6. EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

3.2.7. TEST RESULTS

Please refer to the Appendix B.

3.3. UNWANTED EMISSION INTENSITY MEASUREMENT

3.3.1. LIMIT

Item	Limits
	(See Article 7, Table 3 of the Ordinance Regulating Radio Equipment)
TX	$\leq 0.25 \mu\text{W}/100\text{kHz}$ ($30\text{MHz} \leq f \leq 1000\text{MHz}$)
Spurious	$\leq 2.5 \mu\text{W}/\text{MHz}$ ($1000\text{MHz} \leq f < 2387\text{MHz}$; $2496.5\text{MHz} < f$)
Emission	$\leq 25 \mu\text{W}/\text{MHz}$ ($2387\text{MHz} \leq f < 2400\text{MHz}$) and ($2483.5\text{MHz} < f \leq 2496.5\text{MHz}$)
Measurement range: 30MHz~5th harmonics	

3.3.2. SETTING

The following table is the setting of spectrum analyzer.

Spectrum Parameter	Setting
RBW / VBW	100kHz / 100kHz (30~1000MHz) 1 MHz / 1 MHz (Above 1000MHz)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.3.3. TEST PROCEDURES

Test method according to Clause 5 of Annex No.43 of MIC Notification No.88.

- EUT have transmitted the maximum modulation signal and fixed channelize.
- Set spectrum analyzer with condition in section 3.3.2 and tune reference level to observe receiving signal position.
- SA adjusted to start frequency 30MHz and stop frequency 1000MHz. Then to mark peak reading value + cable loss shall be less than $0.25\mu\text{W}/100\text{kHz}$.
- SA adjusted to start frequency 1000MHz and stop frequency 2387MHz. Then to mark peak reading value + cable loss shall be less than $2.5\mu\text{W}/\text{MHz}$.
- SA adjusted to start frequency 2387MHz and stop frequency 2400MHz. Then to mark peak reading value + cable loss shall be less than $25\mu\text{W}/\text{MHz}$.
- SA adjusted to start frequency 2483.5MHz and stop frequency 2496.5MHz. Then to mark peak reading value + cable loss shall be less than $25\mu\text{W}/\text{MHz}$.
- SA adjusted to start frequency 2496.5MHz and stop frequency 12500MHz. Then to mark peak reading value + cable loss shall be less than $2.5\mu\text{W}/\text{MHz}$.
- If the Result_Value is over the requirement, take total sum of 1MHz band centered at the spur frequency like time domain power measurement as Result_Value.

3.3.4. TEST SETUP LAYOUT



3.3.5. TEST DEVIATION

There is no deviation with the original standard.

3.3.6. EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

Note:

- ※ 1: Frequency Band 1 ($30\text{MHz} \leq f \leq 1000\text{MHz}$)
- ※ 2: Frequency Band 2 ($1000\text{MHz} \leq f < 2387\text{MHz}$)
- ※ 3: Frequency Band 3 ($2387\text{MHz} \leq f < 2400\text{MHz}$)
- ※ 4: Frequency Band 4 ($2483.5\text{MHz} < f \leq 2496.5\text{MHz}$)
- ※ 5: Frequency Band 5 ($2496.5\text{MHz} < f$)

Band	1	2	3	4	5
Cable Loss(dB)	11.5	11.5	11.5	11.5	11.5

3.3.7 TEST RESULTS

Please refer to the Appendix C.

3.4. ANTENNA POWER TOLERANCE MEASUREMENT

3.4.1. LIMIT

Item	Limits (See Article 14 and 49-20 Item1-e of the Ordinance Regulating Radio Equipment)
Antenna Power Density	$\leq 3\text{mW/MHz}$ (FHSS 2427~2470.75MHz) $\leq 10\text{mW/MHz}$ (OFDM, DSSS 2400~2483.5MHz) $\leq 10\text{mW}$ (Others 2400~2483.5MHz)
Antenna Power Tolerance	+20%, -80% (Base on manufacturer declare antenna power)

3.4.2. TEST PROCEDURES

Test method according to Clause 6 of Annex No.43 of MIC Notification No.88.

1. Connect the high frequency power meter to the attenuator and measure the total power.
2. Set the antenna power as follows:
 - a. Continuous waves: value in a.
 - b. Burst waves: value in a, and value calculated from the average power within bursts from rates of transmission times.

3.4.3. TEST SETUP LAYOUT



3.4.4. TEST DEVIATION

There is no deviation with the original standard.

3.4.5. EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

3.4.6. TEST RESULTS

Please refer to the Appendix D.

3.5. LIMITATION OF COLLATERAL EMISSION OF RECEIVER MEASUREMENT

3.5.1. LIMIT

Item	Limits (See Article 24, Paragraph 2 of the Ordinance Regulating Radio Equipment)
RX Spurious Emission	$\leq 4 \text{ nW } (-54 \text{ dBm}) (f < 1\text{GHz})$
	$\leq 20 \text{ nW } (-47 \text{ dBm}) (1\text{GHz} \leq f)$
Measurement range: 30MHz~5th harmonics	

3.5.2. SETTING

The following table is the setting of spectrum analyzer.

Spectrum Parameter	Setting
RBW / VBW	100kHz / 100kHz (30~1000MHz) 1 MHz / 1 MHz (Above1000MHz)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.5.3. TEST PROCEDURES

Test method according to Clause 7 of Annex No.43 of MIC Notification No.88.

- EUT have the continuous reception mode and fixed only one channelize.
- Set spectrum analyzer with condition in section 3.5.2 and tune reference level to observe receiving signal position.
- SA set RBW: 100kHz and VBW: 100kHz. Then adjust to start frequency 30MHz and stop frequency 1000MHz. Search to mark peak reading value + cable loss shall be less than 4nW.
- SA set RBW: 1MHz and VBW: 1MHz. Then adjust to start frequency 1000MHz and stop frequency 12500MHz. Search to mark peak reading value + cable loss shall be less than 20nW.
- If power level of lower emissions are more than 1/10 of limit (0.4nW for $f < 1\text{GHz}$, 2nW for $f \geq 1\text{GHz}$), all those are to be indicated in the 2nd and 3rd lines. If others are 1/10 or less more of the limit, no necessary to be indicated.

3.5.4. TEST SETUP LAYOUT



3.5.6. TEST DEVIATION

There is no deviation with the original standard.

3.5.6. EUT OPERATION DURING TEST

The EUT was programmed to be in continuously receiving mode.

Note:

- ※ 6: Frequency Band 6 ($f < 1\text{GHz}$)
- ※ 7: Frequency Band 7 ($1\text{GHz} \leq f$)

Band	6	7
Cable Loss(dB)	1.5	1.5

3.5.7. TEST RESULTS

Please refer to the Appendix E.

3.6. TRANSMISSION ANTENNA GAIN (EIRP ANTENNA POWER) MEASUREMENT

3.6.1. LIMIT

Item	Limits (See Article 49-20, Item1-f of the Ordinance Regulating Radio Equipment)	
EIRP Power Density	<input checked="" type="checkbox"/>	For an Omni-directional antenna: ≤6.91dBm/MHz (FHSS 2427~2470.75MHz) ≤12.14dBm/MHz (OFDM, DSSS 2400~2483.5MHz) (20MHz systems) ≤12.14dBm/MHz (Others 2400~2483.5MHz)
	<input type="checkbox"/>	For a directional antenna: ≤16.91dBm/MHz (FHSS 2427~2470.75MHz) ≤22.14dBm/MHz (OFDM, DSSS 2400~2483.5MHz) (20MHz systems) ≤22.14dBm/MHz (Others 2400~2483.5MHz)

3.6.2. SETTING

The following table is the setting of spectrum analyzer.

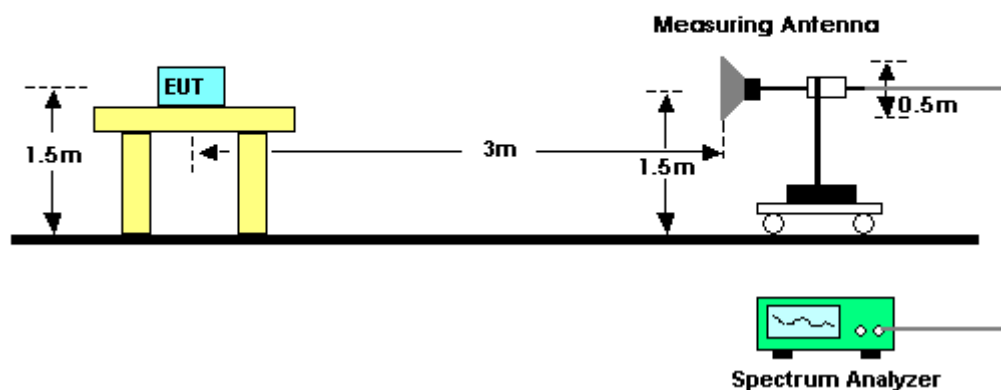
Spectrum Analyzer	Setting
Span	2Mbps: 4MHz
RBW	1MHz
VBW	3MHz
Detector	Positive peak
Trace	Max Hold
Sweep Time	60s

3.6.3. TEST PROCEDURES

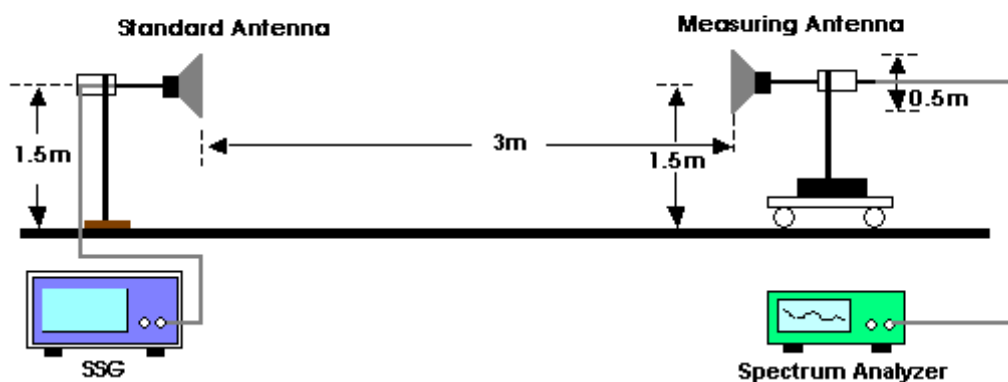
Please refer to 3.4.3 and the EIRP= Power Density+Gain.

3.6.4. TEST SETUP LAYOUT

For EUT radiation measurement



For standard antenna measurement



3.6.5. TEST DEVIATION

There is no deviation with the original standard.

3.6.6. EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

3.6.7. TEST RESULT OF TRANSMISSION ANTENNA GAIN (EIRP ANTENNA POWER)

Method of measurement:	See MIC Notice No.88 Appendix No.43 Clause 10
Results:	Please refer to the Appendix D.

3.7. TRANSMISSION RADIATION ANGLE WIDTH (3DB BEAMWIDTH) MEASUREMENT

3.7.1. LIMIT

Item	Limits (See Article 49-20, Item1-f of the Ordinance Regulating Radio Equipment)
3dB antenna beam width	360/A (if $A < 1$; then $A = 1$) $A = \{\text{EIRP Power [mW]} / 16.36 \text{ for DSSS, OFDM}\}$

3.7.2. SETTING

The following table is the setting of the spectrum analyzer.

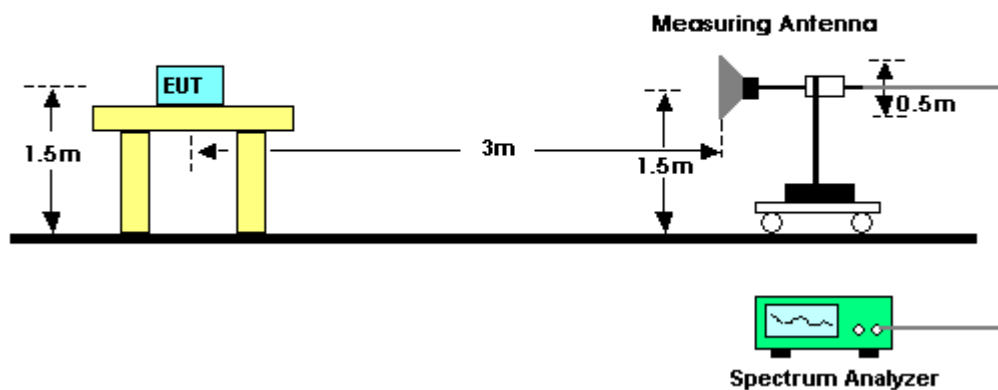
Spectrum Parameter	Setting
Span	0MHz
RBW	1MHz
VBW	1kHz
Y scale	5dB
Detector	Peak
Trace	Max Hold

3.7.3. TEST PROCEDURES

Test method according to Clause 22 of Annex No.43 of MIC Notification No.88.

1. Set EUT and measuring antenna at the same height and roughly facing each other.
2. Set spectrum analyzer with condition in section 3.7.2 and tune reference level to observe receiving signal position.
3. Rotate directions of the EUT horizontally and vertically to find the maximum receiving power.
4. Move the measuring antenna height up and down within $\pm 50\text{cm}$ of EUT height and swing it to find the maximum output of measuring antenna. The output level at the spectrum analyzer is read as "E".
5. Calculate permitted radiation angle in horizontal and vertical using EIRP measured in another test method.
6. Calculate 3dB antenna beam width by the formula below $360/A$ (If $A < 1$; then $A = 1$).
 $A = \{\text{EIRP Power [mW]} / 16.36 \text{ for DSSS, OFDM}\}.$

3.7.4. TEST SETUP LAYOUT



3.7.5. TEST DEVIATION

There is no deviation with the original standard.

3.7.6. EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

3.7.7. TEST RESULT OF TRANSMISSION RADIATION ANGLE WIDTH (3DB BEAMWIDTH)

Method of measurement:	See MIC Notice No.88 Appendix No.43 Clause 22
Results:	N/A

3.8. RADIO INTERFERENCE PREVENTION CAPABILITY MEASUREMENT

3.8.1. LIMIT

Item	Limits (See Article 9-4, Item9-C of the Ordinance Regulating Radio Equipment)
Identification code	The wireless equipment of the radio station mainly used in the same station automatically sends or receives the identification code.

3.8.2. MEASURING ID CODE SOFTWARE

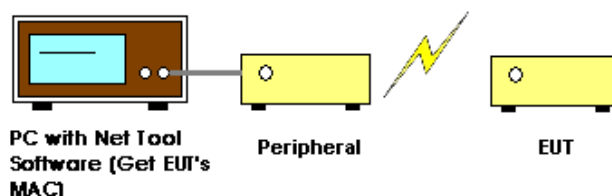
PC with Net Tool	Setting
MAC IP List	MAC Scan

3.8.3. TEST PROCEDURES

Test method according to Clause 23 of Annex No.43 of MIC Notification No.88.

1. In the case that the EUT has the function of automatically transmitting the identification code:
 - a. Transmit the predetermined identification codes form EUT.
 - b. Check the transmitted identification codes with the demodulator.
2. In the case of receiving the identification code:
 - a. Transmit the predetermined identification codes form the counterpart.
 - b. Check if communication is normal.
 - c. Transmit the signals other than predetermined ID codes form the counterpart.
 - d. Check if the EUT stops the transmission, or if it displays that idnetification codes are different from the predetermined ones.

3.8.4. TEST SETUP LAYOUT



3.8.5. TEST DEVIATION

There is no deviation with the original standard.

3.8.6. EUT OPERATION DURING TEST

The EUT was programmed to be in normal mode.

3.8.7. TEST RESULT OF RADIO INTERFERENCE PREVENTION CAPABILIT

Test Power:	Normal Voltage
Test Mode:	2Mbps
Test Result:	Good (identification code: N/A)

Note: Our customer explained that his product before factory process has a pairing process, VR Controller built-in with a set of 16-bit ID code, paired with the Dongle will remember one of the ID code.

3.9. CONSTRUCTION PROTECTION CONFIRMATION METHOD

3.9.1. LIMIT

(See Article 49-20, Item1-a of the Ordinance Regulating Radio Equipment)

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

3.9.2. CONFIRMATION METHOD

The RF and modulation portions are protected against illegal modification as following method:

Tick the appropriate box	
<input type="checkbox"/>	1. Sealed with special screws.
<input type="checkbox"/>	2. Plastic chassis is being welded using ultrasonic waves.
<input type="checkbox"/>	3. Chassis is glued using a special adhesive.
<input type="checkbox"/>	4. Metal covers are spot-fused.
<input type="checkbox"/>	5. Cover is specially interlocked.
<input type="checkbox"/>	6. RF and Modulation components are covered with shielding case and this shielding case is soldered.
<input type="checkbox"/>	7. Shield case is welded at RF and modulation parts, and ID-ROM is welded using the BGA Method.
<input type="checkbox"/>	8. Shield case is welded at RF and modulation parts, and ID-ROM is glued at its lead with a special adhesive.
<input type="checkbox"/>	9. Shield case is welded at RF and modulation parts, and ID-ROM is glued with a non-transparent laminating agent.
<input checked="" type="checkbox"/>	10. RF and Modulation parts are mounted on PCB with surface mount technology, and there is no any adjustable part on PCB or adjustable parts are not exposed.

4. LIST OF MEASURING EQUIPMENTS

Kind of Equipment	Manufacturer	Model No.	Serial No.	Validity Date	Calibration Agency	Class Information
Spectrum Analyzer	R&S	FSP40	100185	Jul. 03, 2023	CEPREI Calibration and Testing Center	(c)
Peak Power Analyzer	Keysight	8990B	MY51000506	Jul. 03, 2023	CEPREI Calibration and Testing Center	(c)
Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 03, 2023	CEPREI Calibration and Testing Center	(c)
*Multi-output DC Power Supply	GW Instek	GPC-3030DN	EK880675	Jul. 25, 2023	CEPREI Calibration and Testing Center	(c)
MXG Vector Signal Generator	Agilent	N5182A	MY49060447	Jan. 08, 2024	CEPREI Calibration and Testing Center	(c)
Attenuator	WOKEN	6SM3502	VAS1214NL	Jul. 03, 2023	CEPREI Calibration and Testing Center	(c)

Remark:

- Calibration conducted by the National Institute of Information and Communications Technology (NITC) in Japan (hereinafter referred to as "NITC") or a designated calibration agency under Article 102-18 paragraph (1) in JRL.
- Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act (Act No.51 of 1992).
- Calibration conducted in countries except Japan, which shall be equivalent to the calibration Conducted by the NITC or a designation agency under Article 102-18 paragraph (1).
- Calibration, etc. conducted by using measuring instruments and other equipment listed in the right column of appended table No.3, which shall have been given any type of calibration, etc. listed above from (a) to (c). From JRL Article 24-2, paragraph 4, item 2.

Note:

- The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
- *The calibration interval of the above test instruments is 36 months and the calibrations are traceable to NML/ROC and NIST/USA.

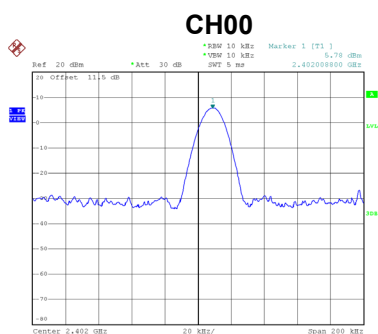
5. EUT TEST PHOTO



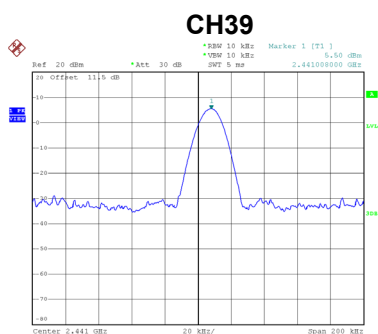
APPENDIX A - FREQUENCY TOLERANCE

Test Mode:	TX Mode_2Mbps
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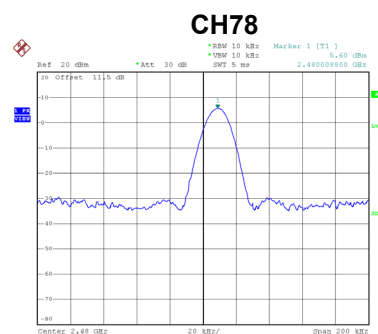
Test Voltage	Normal Voltage			Remarks
Test Frequency (MHz)	2402	2441	2480	Low/Mid/High of test frequency range
Measured Frequency (MHz)	2402.0088	2441.0080	2480.0088	-
Frequency Tolerance (ppm)	3.66	3.28	3.55	Limit: $-50 \leq \text{ppm} \leq 50$



Date: 29.MAY.2023 11:39:17



Date: 6.JUN.2023 09:41:11

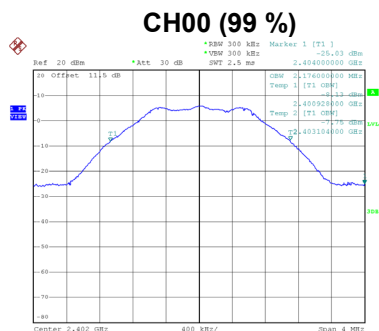


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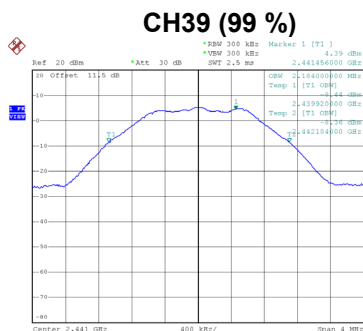
APPENDIX B - OCCUPIED BANDWIDTH

Test Mode:	TX Mode_2Mbps
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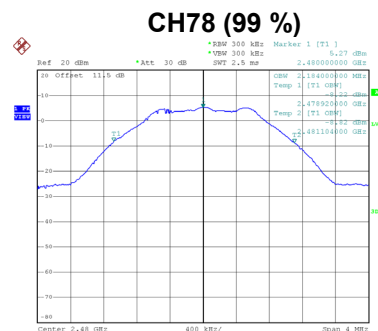
Test Voltage	Normal Voltage			Remarks
Test Frequency (MHz)	2402	2441	2480	Low/Mid/High of test frequency range
Occupied Bandwidth (MHz)	2.18	2.18	2.18	Limit ≤ 26 MHz



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Date: 6.JUN.2023 09:48:44



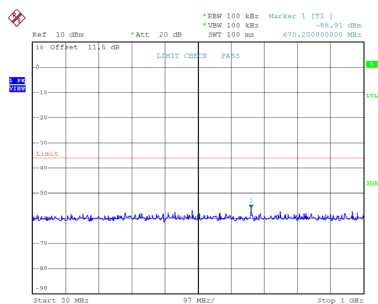
Date: 1.JUN.2023 14:30:46

APPENDIX C - UNWANTED EMISSION INTENSITY

Test Mode:	TX Mode_2Mbps
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Test Voltage		Normal Voltage			Remarks	
Test Frequency		MHz	2402	2441	2480	Low/Mid/High of test frequency range
Unwanted Emission Intensity (Power emission within1MHz bandwidth)	※1	MHz	670.2000	922.4000	681.8400	Limit ≤ 0.25 μW/100kHz (-36 dBm/100kHz)
		μW/100kHz	0.0026	0.0018	0.0021	
	※2	MHz	2387.0000	2378.6780	2273.2660	Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
		μW/MHz	0.0111	0.0161	0.0124	
	※3	MHz	2400.0000	2393.2920	2397.8940	Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		μW/MHz	12.3027	0.0149	0.0104	
	※4	MHz	2486.6460	2488.8560	2483.5000	Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		μW/MHz	0.0092	0.0184	1.1641	
	※5	MHz	3076.7030	3636.8990	3596.8850	Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
		μW/MHz	0.0386	0.0325	0.0299	

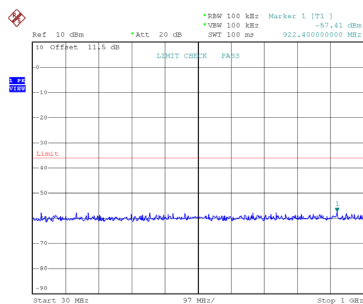
CH00



Date: 29.MAY.2023 11:30:11

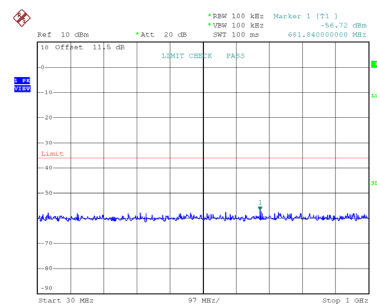
CH39

※1: $30\text{MHz} \leq f \leq 1000\text{MHz}$



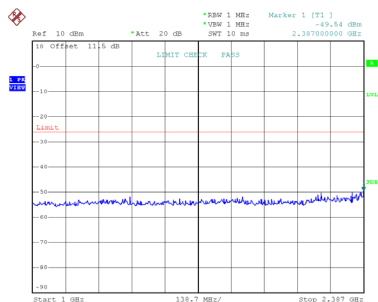
Date: 6.JUN.2023 09:40:10

CH78

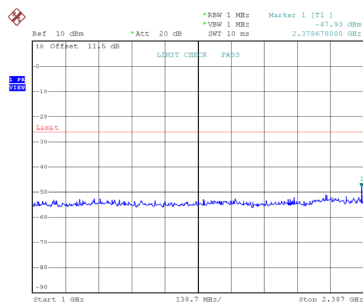


Date: 2.JUN.2023 15:14:19

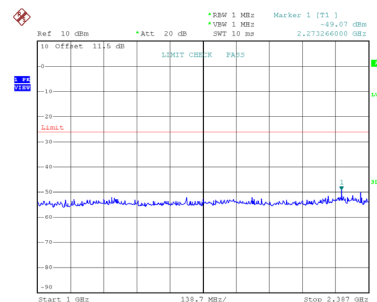
※2: $1000\text{MHz} \leq f < 2387\text{MHz}$



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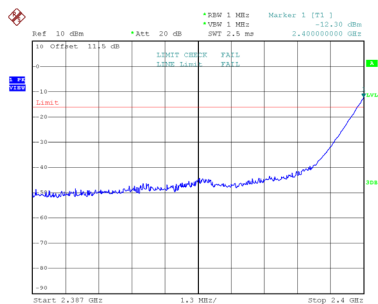


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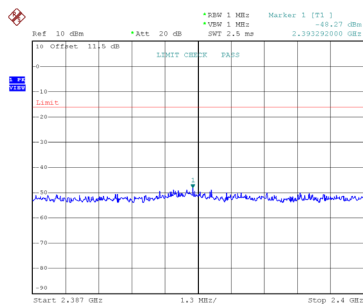


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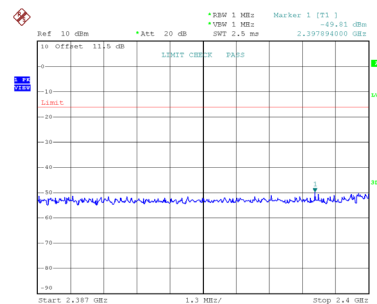
※3: $2387\text{MHz} \leq f < 2400\text{MHz}$



Date: 29.MAY.2023 11:30:33

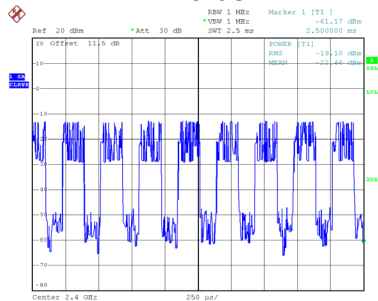


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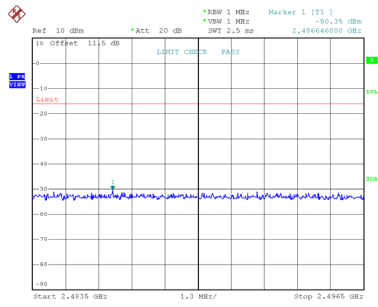
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ZeroSP



Date: 29.MAY.2023 11:30:38

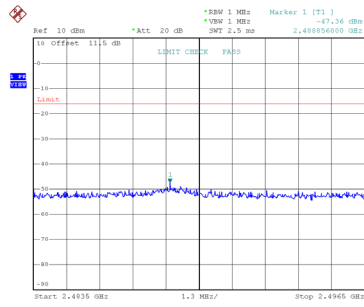
CH00



Date: 29.MAY.2023 11:30:51

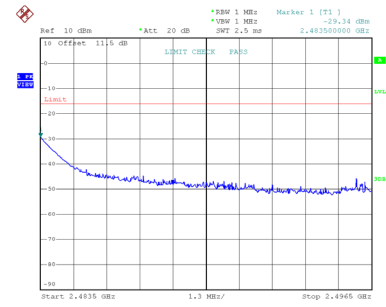
CH39

※4: 2483.5MHz<f≤2496.5MHz



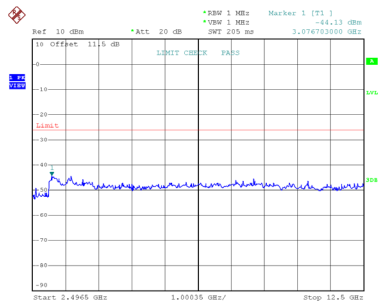
Date: 6.JUN.2023 09:40:43

CH78

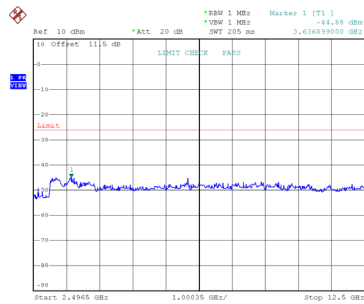


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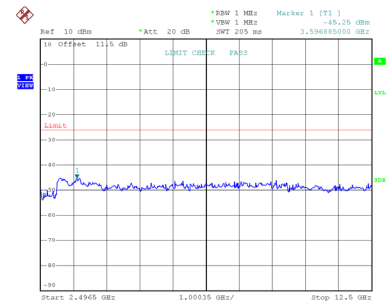
※5: 2496.5MHz<f



Date: 29.MAY.2023 11:31:02



Date: 6.JUN.2023 09:40:54



Date: 2.JUN.2023 15:15:01

APPENDIX D - ANTENNA POWER TOLERANCE AND EIRP ANTENNA POWER

Test Mode:	TX Mode_2Mbps
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Normal Voltage

Test Frequency (MHz)	Conducted RF output power		Rated RF output power	Conducted RF output power Limit	Antenna Power Tolerance in Limit	
	(dBm)	(mW)	(mW)	(mW)	(+20%, -80%)	
2402	4.05	2.5410	2.70	10	-5.89	%
2441	4.13	2.5882	2.70	10	-4.14	%
2480	4.15	2.6002	2.70	10	-3.70	%

Test Frequency (MHz)	Radiated RF output power	Limit
	(dBm)	(dBm)
2402	6.77	12.14
2441	6.85	12.14
2480	6.87	12.14

Note:

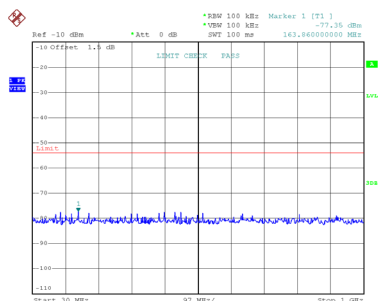
1. Antenna power tolerance = {(conducted power-rated power)/rated power}
2. Radiated RF output power (EIRP) = conducted RF output power + Max. Antenna gain

APPENDIX E - LIMITATION OF COLLATERAL EMISSION OF RECEIVER

Test Mode:	RX Mode_2Mbps
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Test Voltage		Normal Voltage			Remarks
Test Frequency	MHz	2402	2441	2480	Low/Mid/High of test frequency range
Limitation of Collateral	※6	MHz	163.8600	433.5200	Limit ≤ 4 nW (-54 dBm)
		nW	0.0184	0.0169	
Emission of Receiver	※7	MHz	4795.0000	3093.0000	Limit ≤ 20 nW (-47 dBm)
		nW	0.0431	0.0365	

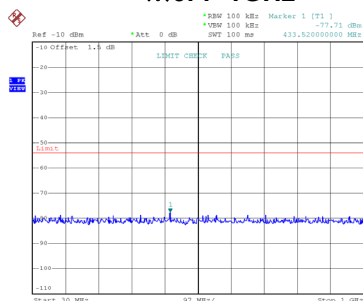
CH00



Date: 29.MAY.2023 11:56:07

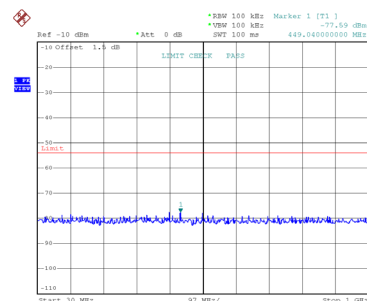
CH39

※6: f<1GHz



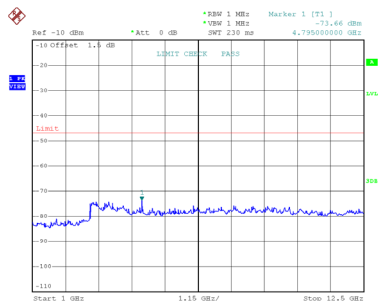
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CH78

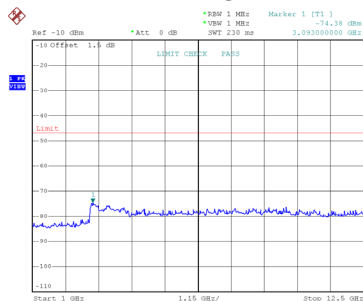


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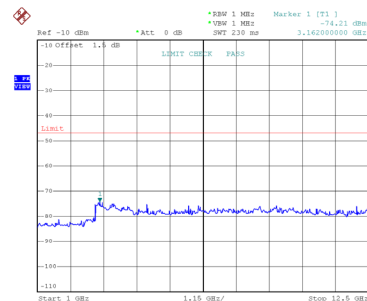
※7: 1GHz≤f



Date: 29.MAY.2023 11:56:19



Date: 6.JUN.2023 09:50:36



Date: 29.MAY.2023 11:57:28

End of Test Report