

TEST REPORT

Product	: seed studio reCamera 2002 Series
Trade mark	: Seed Studio
Model/Type reference	: See section 4.2
Serial Number	: N/A
Report Number	: EED32Q82048204
Date of Issue	: Dec. 30, 2024
Product Class	: Item 19-3 of Article 2 Paragraph 1, MIC Notice No.88 Appendix No.45
Test result	: PASS

Prepared for:

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Date:

Dec. 30, 2024

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Check No.: 9744271124

1 Version

Version No.	Date	Description
00	Dec. 30, 202	Original

2 Test Summary

Test Item	Test Requirement	Limit/Severity	Result
Antenna Requirement	Item 19-3 of Article 2 Paragraph 1	Notice 88 Appendix 43,B-1 (1)&(2)	PASS
Number of channels or channel separation	Item 19-3 of Article 2 Paragraph 1	7	PASS
Tolerance of frequency	Item 19-3 of Article 2 Paragraph 1	20×10^{-6} or less	PASS
Occupied Bandwidth	Item 19-3 of Article 2 Paragraph 1	For BW=20MHz:OFDM $\leq$ 20MHz; Others $\leq$ 18MHz For BW=40MHz:OFDM $\leq$ 40MHz For BW=80MHz:OFDM $\leq$ 80MHz	PASS
Tolerance of adjacent channel leakage power and out-band leakage power	Item 19-3 of Article 2 Paragraph 1	Adjacent channel leakage power See page 16 Out-band leakage power EIRP : refer to Item 19-3 of Article 2 Paragraph 1 Table 1	PASS
Antenna Power	Item 19-3 of Article 2 Paragraph 1	OFDM 20MHz sys: 10mW/MHz or less 40MHz sys: 5mW/MHz or less 80MHz sys: 2.5mW/MHz or less Tolerance : +20%,-80%	PASS
Tolerance of unwanted emission intensity(conducted)	Item 19-3 of Article 2 Paragraph 1	2.5 μ W/MHz	N/A
Interference prevention capability	Item 19-3 of Article 2 Paragraph 1	Article 49	N/A
Carrier sense capability	Item 19-3 of Article 2 Paragraph 1	Article 49	PASS
RF accessibility	Item 19-3 of Article 2 Paragraph 1	Article 49	N/A
Burst Length	Item 19-3 of Article 2 Paragraph 1	8ms or less	PASS
Limit of secondary radiated emissions(conducted)	Item 19-3 of Article 2 Paragraph 1	20MHz system OB: below 18MHz: (1) Below 5140MHz, 2.5 μ W/MHz (2) Over 5360MHz, 2.5 μ W/MHz OB: over 18MHz, below 19MHz (1) Below 5135MHz, 2.5 μ W/MHz (2) Over 5365MHz, 2.5 μ W/MHz 40MHz system OB:From 19MHz to 38MHz (1) Below 5100MHz, 2.5 μ W/MHz (2) Over 5400MHz, 2.5 μ W/MHz 80MHz system OB:From 38MHz to 78MHz (1) Below 5020MHz, 2.5 μ W/MHz (2) Over 5480MHz, 2.5 μ W/MHz	PASS
Spurious Emission of Rx	Item 19-3 of Article 2 Paragraph 1	(1) Below 1GHz : 4nW (2) 1GHz or higher : 20nW	PASS

Remark:

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

EUT: In this whole report EUT means Equipment Under Test.

Tx: In this whole report Tx (or tx) means the product in transmitting status.

Rx: In this whole report Rx (or rx) means the product in receiving status.

RF: In this whole report RF means Radiated Frequency.
DS: Direct spreading
FH: Frequency hopping
OFDM: Orthogonal frequency division multiplexing.

Model No.: reCamera 2002w 64GB, reCamera 2002w 8GB, reCamera Core 2002w 64GB, reCamera Core 2002w 8GB

Only the model reCamera Core 2002w 64GB was tested. The following description shows the difference between each model and the reCamera 2002w 64GB.

Model	EMMC	Difference description
reCamera 2002w 64GB	64GB	Normal
reCamera 2002w 8GB	8GB	The emmc sizes are different
reCamera Core 2002w 64GB	64GB	No lens board and interface board and supporting structural parts
reCamera Core 2002w 8GB	8GB	The emmc sizes are different and no lens board and interface board and supporting structural parts

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4 General Information

4.1 Client Information

Applicant:	Seeed Technology Co., Ltd
Address of Applicant:	9F, G3 Building, TCL International E City, Zhongshanyuan Road, Nanshan District, Shenzhen
Manufacturer:	Seeed Technology Co., Ltd
Address of Manufacturer:	9F, G3 Building, TCL International E City, Zhongshanyuan Road, Nanshan District, Shenzhen
Factory:	Shenzhen Xinxian Technology Co., Limited
Address of Factory:	F5, Building B17, Hengfeng Industrial City, No. 739 Zhoushi Rd, Baoan District, Shenzhen, Guangdong, P.R.C.

4.2 General Description of EUT

Product Name:	seeed studio reCamera 2002 Series	
Model No.(EUT):	reCamera 2002w 64GB, reCamera 2002w 8GB, reCamera Core 2002w 64GB, reCamera Core 2002w 8GB	
Test Model No.:	reCamera Core 2002w 64GB	
Trade mark:	Seeed Studio	
EUT Supports Radios application:	5.15-5.25GHz	
Operating Frequency:	5.15-5.25GHz	
Rated power:	0.35mW/MHz (W52 Band_802.11a-HT20) 0.35mW/MHz (W52 Band_802.11n-HT20) 0.35mW/MHz (W52 Band_802.11ac-VHT20)	
Type of Modulation:	IEEE for 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE for 802.11ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK)	
Transmit Data Rate:	IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: up to 216.7 Mbps, IEEE 802.11ac VHT20: up to 346.7 Mbps	
Antenna Type:	PIFA antenna	
Antenna gain :	1.34dBi	
Function:	☒ SISO ☐ 2x2 MIMO ☐ TPC	
Test Power Grade:	Default	
Test Software of EUT:	MobaXterm Personal 22.1.exe	
Power Supply:	USB port:	DC 5.0V
Test Voltage:	DC 5.0V	
Sample Received Date:	Dec. 10, 2024	
Sample tested Date:	Dec. 10, 2024 to Dec. 27, 2024	

4.3 EUT Test Environment Recorded

Temperature:	24°C
Humidity:	54% RH
Atmospheric Pressure:	1010mbar

4.4 Description of Support Units

The EUT has been tested with associated equipment below.

1) support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
/	/	/	/	/

4.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

4.6 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Frequency Error	10Hz
2	Occupied Bandwidth	10kHz
3	Antenna Power	0.55dB
4	Spurious Emissions	0.46dB(30MHz-1GHz)
		0.55dB(1GHz-18GHz)
5	Carrier sense capability	1.0dB
6	Temperature test	0.64°C
7	Humidity test	3.8%
8	DC and low frequency voltages test	0.026%

5 Equipment List

Equipment	Manufacturer	Model No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)	Calibration body	Classification
Spectrum Analyzer	Keysight	N9010A	MY54510339	12-05-2024	12-04-2025	CTIMT	(c)
Signal Generator	Keysight	N5182B	MY53051549	11-30-2024	11-29-2025	CTIMT	(c)
DC Power	Keysight	E3642A	MY56376072	11-30-2024	11-29-2025	CTIMT	(c)
RF control unit(power unit)	JS Tonscend	JS0806-2	22G8060592	07-22-2024	07-21-2025	CTIMT	(c)
Temperature/Humidity Indicator	biaozhi	HM10	1804186	05-29-2024	05-28-2025	CTIMT	(c)
BT&WI-FI Automatic test software	JS Tonscend	JS1120-3	V3.2.22	---	---	---	(c)
Digitalmultimeter	FLUKE	111	90240138	03-05-2024	03-04-2025	CTIMT	(c)
Spectrum Analyzer	R&S	FSV3044	101509	01/17/2024	01/16/2025	CTIMT	(c)

Remark:

CTI: Centre Testing International Group Co., Ltd

Address: Build C, Hongwei Industrial Zone, Baoan 70 District, Shenzhen, China

CTIMT: CTI MEASUREMENT AND TESTING CO.,LTD.

Address: Building B and C, Taohuayuan Sci-Tech Innovation Park, Tiegang Community, Xixiang Sub-district, Bao'an District, Shenzhen, Guangdong, China

LISA: Guangzhou LiSai Metrology & Test Co., Ltd.

Address: No.8. South Street Shi Ji Institute Guangzhou. Guangdong. China

(a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) in Japan (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1) in JRL.

(b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act (Act No. 51 of 1992).

(c) Calibration conducted in countries except Japan, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).

(d) 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

Notice: Calibration duration for above equipment is 1 year.

6 Radio Technical Requirements Specification

**Table 1: 5 GHz band low-power data communication system (1)
(5.2GHz band) (Item 19-3 of Article 2 Paragraph 1)**

Test Item	Technical standard
Assigned frequency or designated frequency	W52: 5180, 5200, 5220, 5240, 5190, 5230, 5210MHz
Communication method	One-way communication, simplex, semi-duplex, or duplex operation of digital signal transmission including spread spectrum
Number of channels or channel separation	7
Tolerance of frequency ($\times 10^{-6}$)	20×10^{-6}
Tolerance of occupied bandwidth	For BW=20MHz: OFDM ≤ 20 MHz; Others ≤ 18 MHz For BW=40MHz: OFDM ≤ 40 MHz For BW=80MHz: OFDM ≤ 80 MHz
Antenna power	OFDM 20MHz sys: 10mW/MHz or less 40MHz sys: 5mW/MHz or less 80MHz sys: 2.5mW/MHz or less Tolerance : +20%,-80%
EIRP	20MHz sys: 10mW/MHz or less 40MHz sys: 5mW/MHz or less 80MHz sys: 2.5mW/MHz or less
Tolerance of spurious emission intensity	2.5 μ W/MHz
Tolerance of adjacent channel leakage power and out-band leakage power	Adjacent channel leakage power See page 14 Out-band leakage power See page 15
Transmission burst length	8ms or less
Limit of secondary radiated emissions	(1) Below 1GHz : 4nW (2) 1GHz - 10GHz : 20nW (3) 10GHz or higher : 20nW
Interference prevention function	Shall have the function of automatic transmission or reception of identification code.
Structure	Shall be of the structure that the RF and modulator sections excluding antenna cannot easily be opened.
Note	DS: Direct spread OFDM: Orthogonal frequency division multiplexing

Note: The Technical Standards described here do not cover all of the regulated items.

6.1 Transmitter Requirements

6.1.1 EUT test voltage and Frequency

6.1.1.1 EUT test voltage

Power Supply:	USB port:	DC 5.0V
Test voltage require:	Supply the rated voltage and the rated voltage $\pm 10\%$ to power supply. However, If the fluctuation of input voltage to the circuit of RF unit (except power supply) of test equipment is under $\pm 1\%$, when input voltage from external power supply to the test equipment is fluctuated by $\pm 10\%$: Conduct the test with the rated voltage only.	
Power Supply result:	The measurement result of the voltage fluctuation at RF circuit when DC 5V +/- 10%.	
	DC Input	RF circuit
	5.5V	3.300V
	5.0V	3.300V
	4.5V	3.300V
	NT: Normal Temperature NV: Normal Voltage LV: Low Voltage HV: High Voltage	

6.1.1.2 Test frequency

Test frequencies:	If the EUT can be set to 3 or more different (carrier) frequencies in 1 allocated band, testing shall be performed using the Lowest, Middle and the Highest frequency (L,M and H). If there are 2 or fewer frequencies, testing shall be performed with the available frequencies.	
Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

EUT channels and frequencies list:

802.11a 20MHz	
802.11n 20MHz	
802.11ac 20MHz	
W52	
Channel	Frequency (MHz)
36	5180
40	5200
44	5220
48	5240

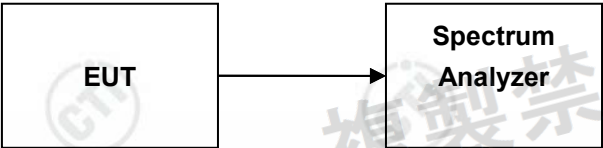
Test channel:

Test mode	Test channel/frequency(MHz)
Mode 1: IEEE 802.11a W52 mode	CH36/5180, CH40/5200, CH 48/5240
Mode 4: IEEE 802.11n/ac 20MHz W52 mode	CH36/5180, CH40/5200, CH 48/5240

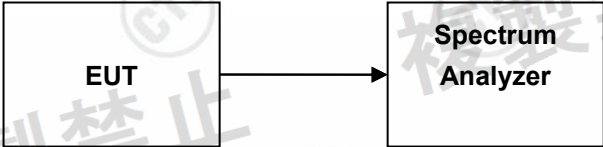
6.1.2 Antenna Requirement

Standard requirement	
Applicable for equipment with an antenna terminal, including testing terminals) If an antenna connector is available, all relevant tests will be carried out conducted. If not, tests will be carried out in an anechoic room or with a suitable test-fixture.	
EUT Antenna	Refer to internal photos.
The antenna is integrated on the main PIFA and no consideration of replacement. The best case gain of the antennae is 1.34dBi.	
Result: An antenna connector is available, all relevant tests will be carried out conducted.	

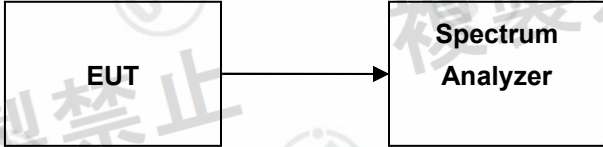
6.1.3 Tolerance of frequency

Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	Enter the unmodulation mode for the product. Test in Channel lowest, middle and highest, keep in continuously transmitting status.
Test Configuration:	<div style="text-align: center;">  <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre> </div>
Test Conditions:	Frequency Counter or Spectrum Analyzer is used for measurement.
EUT conditions:	Modulation/Spread/Hopping off, CW Tx If EUT does not accept "Modulation OFF" mode in the measurement, you may use "Modulation ON" mode. In that case you can use the Max power Frequency as the measuring results.
Spectrum Analyzer conditions:	Frequency: Test Frequency Span 1MHz RBW 10kHz (Modulation OFF), VBW 10kHz (Modulation OFF), Sweep Time Auto Detector mode Positive peak Indication mode Max hold
Technical standard:	Tolerance of frequency: $\pm 20 \times 10^{-6}$
Test result:	Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204

6.1.4 Occupied Bandwidth

Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	<div style="text-align: center;">  <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre> </div>
EUT conditions:	Modulation/Spread/Hopping on. For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Frequency: Test Frequency Span 40MHz/80MHz/160MHz RBW 300kHz VBW 300kHz Sweep Time Auto detector mode Positive peak Indication mode Max hold OBW 99%
Technical standard:	For BW=20MHz:OFDM $\leq$ 20MHz; Others $\leq$ 18MHz For BW=40MHz:OFDM $\leq$ 40MHz For BW=80MHz:OFDM $\leq$ 80MHz
Test result:	Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204

6.1.5 Adjacent Channel Power Tolerance

Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	<div style="text-align: center;">  <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre> </div>
EUT conditions:	Modulation/Spread/Hopping on. For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Frequency: Test Frequency RBW 300kHz VBW 300kHz Tx bandwidth 20MHz Adjacent channel bandwidth 20MHz, Channel spacing 20MHz Alternate channel bandwidth 20MHz, Channel spacing 40MHz Sweep Time Auto Detector mode Positive peak Indication mode Max hold
Technical standard:	20MHz system (OB: below 20MHz) (1) Mean power of $\pm 10\text{MHz}$; bandwidth at 20MHz; detuning : -25dBc (2) Mean power of $\pm 10\text{MHz}$; bandwidth at 40MHz; detuning : -40dBc 40MHz system (OB: over 20, below 40MHz) (1) Mean power of $\pm 20\text{MHz}$; bandwidth at 40MHz; detuning : -25dBc (2) Mean power of $\pm 20\text{MHz}$; bandwidth at 80MHz; detuning : -40dBc 80MHz system (OB: over 40, below 80MHz) Mean power of $\pm 40\text{MHz}$; bandwidth at 80MHz; detuning : -25dBc
Test result:	Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204

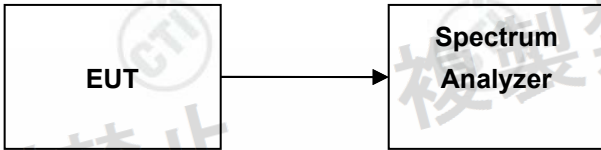
Note: The cable loss and antenna gain have been put into spectrum analyzer as amplitude offset.

6.1.6 Out-Band Emissions Power

Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	 <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre>
EUT conditions:	Modulation/Spread/Hopping on. For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Step 1 All spurious are measured by peak mode. Step 2: Frequency: Spurious Frequency RBW 1MHz VBW 1MHz Sweep Time Auto Detector mode Sample Indication mode Max hold
Technical standard:	<p>OB: ≤18MHz 5142MHz or less ≤2.5μW/MHz 5142-5150MHz ≤15μW/MHz 5250-5251MHz ≤10^{-1-(f-9)}mW/MHz 5251-5260MHz ≤10^{-1-(8/90)(f-11)}mW/MHz 5260-5266.7MHz ≤10^{-1.8-(6/50)(f-20)}mW/MHz 5266.7MHz or more ≤2.5μW/MHz Note:f=MHz,difference from 5240MHz.</p> <p>OB: 18-20MHz 5135-5142MHz ≤2.5μW/MHz 5142-5150MHz ≤15μW/MHz 5250-5250.2MHz ≤10^{-1-(8/3)(f-9.75)}mW/MHz 5250.2-5251MHz ≤10^{-1-(f-9)}mW/MHz 5251-5260MHz ≤10^{-1-(8/90)(f-11)}mW/MHz 5260-5266.7MHz ≤10^{-1.8-(6/50)(f-20)}mW/MHz 5266.7MHz or more ≤2.5μW/MHz Note:f=MHz,difference from 5240MHz.</p> <p>OB: 20-40MHz 5141.6MHz or less ≤2.5μW/MHz 5141.6-5150MHz ≤15μW/MHz 5250-5251MHz ≤10^{-(f-20)+log(1/2)}mW/MHz 5251-5270MHz ≤10^{-(8/190)(f-21)-1+log(1/2)}mW/MHz 5270-5278.4MHz ≤10^{-(3/50)(f-40)-1.8+log(1/2)}mW/MHz 5278.4MHz or more ≤2.5μW/MHz Note:f=MHz,difference from 5230MHz.</p> <p>OB: 40-80MHz 5123.2MHz or less ≤2.5μW/MHz 5123.2-5150MHz ≤15μW/MHz 5250-5251MHz ≤10^{-(f-40)+log(1/4)}mW/MHz 5251-5290MHz ≤10^{-(8/390)(f-41)-1+log(1/4)}mW/MHz 5290-5296.7MHz ≤10^{-(3/100)(f-80)-1.8+log(1/4)}mW/MHz 5296.7MHz or more ≤2.5μW/MHz Note:f=MHz,difference from 5210MHz.</p>
Test result:	Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204

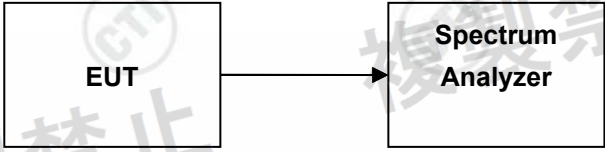
Note: The cable loss and antenna gain have been put into spectrum analyzer as amplitude offset. .

6.1.7 Antenna Power

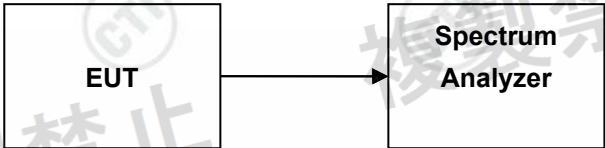
Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	<div style="text-align: center;">  <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre> </div>
EUT conditions:	Modulation/Spread/Hopping on For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Step Frequency: Test Frequency Span 40MHz/80MHz/160MHz RBW 1MHz VBW 1MHz Sweep Time Auto Detector mode Positive peak Indication mode Max hold Step 2 Frequency: Test Frequency Span: 0MHz RBW: 1MHz/3MHz VBW: 1MHz/3MHz Sweep: Time Auto Detector mode: RMS Indication mode: Clear Write
Technical standard:	OFDM 20MHz sys: 10mW/MHz or less 40MHz sys: 5mW/MHz or less 80MHz sys: 2.5mW/MHz or less Tolerance : +20%,-80%
E.I.R.P.	$\leq 10\text{mW/MHz}$ ($\text{OBW} \leq 19\text{MHz}$) $\leq 5\text{mW/MHz}$ ($19 \leq \text{OBW} \leq 38\text{MHz}$) $\leq 2.5\text{mW/MHz}$ ($38 \leq \text{OBW} \leq 78\text{MHz}$)
Test result:	Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204

Note: The cable loss have been put into spectrum analyzer as amplitude offset.

6.1.8 Spurious Emissions of Tx

Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	<div style="text-align: center;">  <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre> </div>
EUT conditions:	Modulation/Spread/Hopping on. For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Step1 All spurious are measured from 30MHz to 26 GHz by peak mode. Step 2: Frequency: Spurious Frequency RBW 100kHz (30 – 1GHz), 1000kHz (over 1GHz) VBW 100kHz (30 – 1GHz), 1000kHz (over 1GHz) Sweep Time Auto Detector mode Sample Indication mode Max hold
Technical standard:	20MHz system OB: below 18MHz: (1) Below 5140MHz, 2.5μW/MHz (2) Over 5360MHz, 2.5μW/MHz OB: over 18MHz, below 19MHz (1) Below 5135MHz, 2.5μW/MHz (2) Over 5365MHz, 2.5μW/MHz 40MHz system OB:From 19MHz to 38MHz (1) Below 5100MHz, 2.5μW/MHz (2) Over 5400MHz, 2.5μW/MHz 80MHz system OB:From 38MHz to 78MHz (1) Below 5020MHz, 2.5μW/MHz (2) Over 5480MHz, 2.5μW/MHz
Test result:	Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204

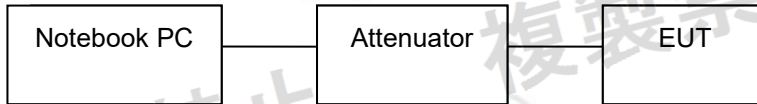
6.1.9 Transmission Burst Length

Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	<div style="text-align: center;">  <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre> </div>
EUT conditions:	Modulation/Spread/Hopping on. For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Frequency: Test Frequency Span 0MHz RBW 1MHz, VBW 1MHz, Sweep Time: $\geq 1\text{ms}$ Detector mode Positive peak Indication mode Max hold
Technical standard:	Burst length $\leq 8\text{ms}$
Test result:	Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204

6.1.10 Interference prevention function

1) Measurement system diagram

(1) When transmitting identification code



Test result:

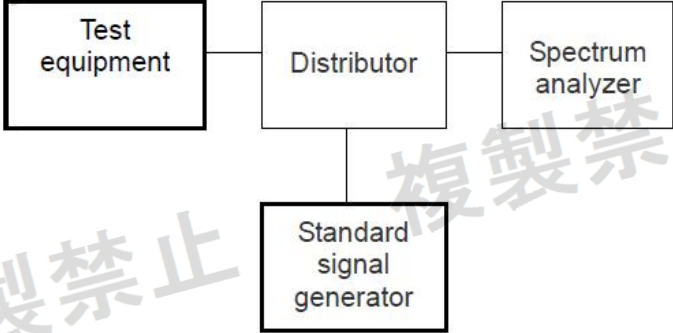
- 1) The transmitting mode of EUT is normal operating, the interference prevention function does meet the requirements (Good).
- 2) The receiving mode of EUT is normal operating, the interference prevention function does meet the requirements (Good).

MAC address:

2C:F7:F1:21:25:70

- 3) Test result: The unit does meet the requirements (Good).

6.1.11 Carrier sense capability

Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	The EUT state shall be "normal mode link with wireless router"
Test Configuration:	 <pre> graph LR TE[Test equipment] --- D[Distributor] D --- SA[Spectrum analyzer] D --- SSG[Standard signal generator] </pre>
Measurement Procedure:	<ol style="list-style-type: none"> 1. SG adjusted the frequency as same as the EUT transmitted signal and emitted the absence of modulation from SG and power level is (on $22.79 + Gr - 20 \cdot \log(F)$ dBm) (Gr is the antenna gain, F is the transmission frequency). 2. Turn off the RF signal of the SG. 3. EUT have transmitted the maximum modulation signal and fixed channelize. 4. Setting of SA: RBW/VBW=1MHz/1MHz, Span= 50MHz, Sweep time= auto, Sweep mode= continuous, Detect mode=positive peak 5. SG RF signal on, 6. Record the result, 7. SG RF signal off, 8. Record the result.
Technical standard:	EUT shall be stop the transmitted any signal and SG RF signal off.
Test result:	<p>The unit does meet the requirements (Good).</p> <p>Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204</p>

6.1.12 RF accessibility

Standard requirement

Article 49-20, paragraph 1 (a)

The EUT shall be constructed in such a way that sensitive RF parts, (like modulation and oscillator parts) cannot be reached easily by the user. These parts shall be covered by soldered metal caps or glue or by other mechanical covers. If the covers are fixed with screws, these shall be not the common type(s) like a Phillips, but special versions like Torx, so that the user cannot open the device with common tools.

☐ Sealed with special screws.
☐ Plastic chassis is being welded using ultrasonic waves.
☐ Chassis is glued using a special adhesive.
☒ Metal covers are spot-fused.
☐ Cover is specially interlocked.
☐ RF and Modulation components are covered with shielding case and this shielding case is soldered.
☐ Shield case is welded at RF and modulation parts, and ID-ROM is welded using the BGA Method.
☐ Shield case is welded at RF and modulation parts, and ID-ROM is glued at its lead with a special adhesive.
☐ Shield case is welded at RF and modulation parts, and ID-ROM is glued with anon-transparent laminating agent.
☐ RF and Modulation parts are mounted on PCB with surface mount technology, the antenna is printed on PCB, chip is welded on PCB, and there is no any adjustable parts on PCB or adjustable parts are not exposed.
Refer to internal photos.

6.2 Receiver Requirements

6.2.1 Conducted Spurious Emissions of Rx

Test Requirement:	Item 19-3 of Article 2 Paragraph 1
EUT Operation:	
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	
 <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre>	
EUT conditions:	Rx
Spectrum Analyzer conditions:	Step 1 All spurious are measured from 30 MHz to 26 GHz by peak mode. Step 2: Frequency: Spurious Frequency RBW 100kHz (30 – 1GHz) , 1MHz (over 1GHz) VBW 100kHz (30 – 1GHz) , 1MHz (over 1GHz) Sweep Time Auto Detector mode Sample Indication mode Max hold
Technical standard:	(1) Below 1GHz : 4nW (2) 1GHz or higher : 20nW
Test result:	Refer to Appendix: W5.2 Wi-Fi of Report No. EED32Q82048204