

TEST REPORT

Reference No..... : WTX25X06158537W001
Applicant : Lumi United Technology Co., Ltd
Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370,
Address : Liuxian Avenue, Fuguang Community, Taoyuan Residential District,
Nanshan District, Shenzhen, China
Manufacturer : The same as Applicant
Address : The same as Applicant
Product Name : Hub M200
Model No..... : HM-G03D
Standards : Item 19-3 of Article 2 Paragraph 1
Date of Receipt sample : 2025-06-17
Date of Test..... : 2025-06-17 to 2025-08-06
Date of Issue : 2025-08-06
Test Report Form No. : WTX_Item 19_3_1W
Test Result..... : Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

Prepared By:

Waltek Testing Group (Shenzhen) Co., Ltd.

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Report version

Version No.	Date of issue	Description
Rev.00	2025-08-06	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Hub M200
Trade Name:	Aqara
Model No.:	HM-G03D
Adding Model(s):	HM-G03E
Rated Voltage:	Type-C DC5V POE DC48V
Battery Capacity:	/
Power Adapter:	/
Software Version:	4.3.6_0025
Hardware Version:	V1.1
<i>Note: The test data is gathered from a production sample provided by the manufacturer. The appearance of others models listed in the report is different from main-test model HM-G03D, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Wi-Fi	
Supported type:	802.11a/802.11n(HT20)/802.11n(HT40)/802.11ac(VHT20/40)/ 802.11ax(HE20/40)
Frequency Range:	W52: 5180MHz~5240MHz
Modulation:	BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Transmission data rate:	802.11a: 6/9/12/18/24/36/48/54Mbit/s 802.11n(HT20): LG(6.5/13/19.5/26/39/52/58.5/65Mbit/s) SG(7.2/14.4/21.7/28.9/43.3/57.8/65/72.2Mbit/s) 802.11n(HT40): LG(13.5/27/40.5/54/81/108/121.5/135Mbit/s) SG(15/30/45/60/90/120/135/150Mbit/s) 802.11ac(VHT20): LG(6.5/13/19.5/26/39/52/58.5/65Mbit/s) SG(7.2/14.4/21.7/28.9/43.3/57.8/65/72.2Mbit/s) 802.11ac(VHT40): LG(13.5/27/40.5/54/81/108/121.5/135/162/180Mbit/s) SG(15/30/45/60/90/120/135/150/180/200Mbit/s) 802.11ax(HE20): (17.2/34.4/51.6/68.8/103.2/137.6/154.8/172.0/206.4/229.4/258.0/286.8

	Mbit/s) 802.11ax(HE40): (36/72.1/108.1/144.1/216.2/288.2/324.3/360.3/432.4/480.4/540.5/600.5 Mbit/s)
Antenna Gain:	0.5dBi
Type of Antenna:	Internal Antenna
TX Power Control (TPC):	☐ Supported ☒ Not Supported
DFS operating mode(s)	☐ Master ☐ Slave with radar detection ☒ Slave without radar detection
Note: The Antenna Gain is provided by the customer and can affect the validity of results.	

1.2 Test Standards

The tests were performed according to following standards:

The objective is to determine compliance with Item 19-3 of Article 2 Paragraph 1

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with test method for radio equipment specified in MIC public Item 19-3 of Article 2 Paragraph 1 for certification. And measuring method for electric field intensity of radio station with remarkably weak radio wave transmitted.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted with Low Channel, Middle Channel and High Channel, accordingly in reference to the Operating Instructions.

1.4 Test Facility

Address of the test laboratory

Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

FCC – Registration No.: 125990

Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. The Designation Number is CN5010, and Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx/Rx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Operating band	20MHz		40MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
W52	36	5180	38	5190
	40	5200		
	48	5240	46	5230

Note: Number of carriers of OFDM: This device has more than 1 subcarrier in 1MHz, compliance with the requirement.

Note: Test channel

: 802.11ac-VHT20, 802.11ac-VHT40 covered by 802.11n-HT20 and 802.11n-HT40.

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With Core/Without Core
/	/	/	/

1.6 Test Conditions

Supply Voltage				
	EUT supply power V	module input power V	Rated module power V	Tolerance (%)
Normal	5.0	3.3	3.3	
+10%	5.5	3.3	3.3	
-10%	4.5	3.3	3.3	
Normal Conditions				
Normal Temperature	20-25°C	Relative Humidity	50-70%	
ATM Pressure	1019 mbar			
Note 1: When the input voltage is reduced or increased by 10%, the regulator voltage changes of less than 1%. So the following test items are conducted in the normal voltage.				
Note 2: For PoE power, No voltage fluctuations occurred.				

1.7 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	9kHz-6GHz	0.57dB
Frequency Tolerance	9kHz-6GHz	1×10 ⁻⁷
Spreading Bandwidth	9kHz-6GHz	3%
Occupied Bandwidth	9kHz-6GHz	0.015MHz
Transmitter Spurious Emissions	9kHz-25GHz	2.76dB
Receiver Spurious Emissions	9kHz-25GHz	2.76dB

1.8 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Signal Generator	Agilent	83752A	3610A01453	2025-02-23	2026-02-22
Vector Signal Generator	Agilent	N5182A	MY47070202	2025-02-23	2026-02-22
Power Sensor	Agilent	U2021XA	MY55160007	2025-02-23	2026-02-22
Power Sensor	Agilent	U2021XA	MY54240001	2025-02-23	2026-02-22
Spectrum Analyzer	Agilent	N9020A	US47140102	2025-02-23	2026-02-22
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2025-02-23	2026-02-22
Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2025-02-23	2026-02-22
Universal Radio Communication Tester	Rohde & Schwarz	CMW500	148650	2025-02-23	2026-02-22
Spectrum Analyzer	KEYSIGHT	N9020A	MY51285677	2025-02-23	2026-02-22
RF Control Unit	Tonscend	JS0806-2	24F80620870	2025-02-23	2026-02-22
Attenuator	Pasternack	PE4007-4	/	2025-02-23	2026-02-22

Remark:

- (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 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).

The calibration corresponds to c described above.

From JRL Article 24-2, paragraph 4, Item 2

Notice: calibration duration for above equipments is 1 year

1.9 Calibration Information

CCIC (Shenzhen) Metrology & Testing Service Co., Ltd
Shenghui Hongxing Chuangzhi Square, Tongren Road, Tianliao Community,
Yutang Subdistrict, Guangming District, Shenzhen, Guangdong, China.

2. SUMMARY OF TEST RESULTS

DESCRIPTION OF TEST	RESULT
RF Output Power	Compliant
Frequency Tolerance	Compliant
Occupied Bandwidth	Compliant
Transmitter Spurious Emissions	Compliant
Receiver Spurious Emissions	Compliant
Transmission Burst Length	Compliant
Adjacent Channel Emitted Power	Compliant
Out-Band Leakage Power	Compliant
Carrier Sensing Function	Compliant
Interference Prevention Function	Compliant
Dynamic Frequency selection(DFS)	Compliant
Condition for Voltage Stabilization	Compliant

N/A: not applicable.

3. RF OUTPUT POWER AND EIRP

3.1 Standard Applicable

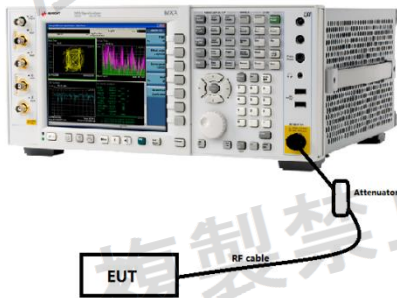
LIMIT

Antenna Power	EIRP
W52	
DSSS ≤ 10 mW/MHz, Other ≤ 10 mW	DSSS, etc ≤ 10 mW/MHz
OFDM a. OBW ≤ 20 MHz: for ≤ 10 mW/MHz b. $20 \text{ MHz} < \text{OBW} \leq 40 \text{ MHz}$: for ≤ 5 mW/MHz c. $40 \text{ MHz} < \text{OBW} \leq 80 \text{ MHz}$: for ≤ 2.5 mW/MHz d. $80 \text{ MHz} < \text{OBW} \leq 160 \text{ MHz}$: for $< \text{OBW} \leq 1.25$ mW/MHz	OFDM a. OBW ≤ 20 MHz: for ≤ 10 mW/MHz b. $20 \text{ MHz} < \text{OBW} \leq 40 \text{ MHz}$: for ≤ 5 mW/MHz c. $40 \text{ MHz} < \text{OBW} \leq 80 \text{ MHz}$: for ≤ 2.5 mW/MHz d. $80 \text{ MHz} < \text{OBW} \leq 160 \text{ MHz}$: for $< \text{OBW} \leq 1.25$ mW/MHz
W53	
DSSS ≤ 10 mW/MHz, Other ≤ 10 mW	DSSS, etc 10 mW/MHz: with TPC; 5 mW/MHz: without TPC
OFDM a. OBW ≤ 20 MHz: for ≤ 10 mW/MHz b. $20 \text{ MHz} < \text{OBW} \leq 40 \text{ MHz}$: for ≤ 5 mW/MHz c. $40 \text{ MHz} < \text{OBW} \leq 80 \text{ MHz}$: for ≤ 2.5 mW/MHz d. $80 \text{ MHz} < \text{OBW} \leq 160 \text{ MHz}$: for $< \text{OBW} \leq 1.25$ mW/MHz	OFDM a. 10 mW/MHz: with TPC; 5 mW/MHz: without TPC b. 5 mW/MHz: with TPC; 2.5 mW/MHz: without TPC c. 2.5 mW/MHz: with TPC; 1.25 mW/MHz: without TPC d. 1.25 mW/MHz: with TPC; 0.625 mW/MHz: without TPC
W56	
DSSS ≤ 10 mW/MHz, Other ≤ 10 mW	DSSS, etc 50 mW/MHz: with TPC; 25 mW/MHz: without TPC
OFDM a. OBW ≤ 20 MHz: for ≤ 10 mW/MHz b. $20 \text{ MHz} < \text{OBW} \leq 40 \text{ MHz}$: for ≤ 5 mW/MHz c. $40 \text{ MHz} < \text{OBW} \leq 80 \text{ MHz}$: for ≤ 2.5 mW/MHz d. $80 \text{ MHz} < \text{OBW} \leq 160 \text{ MHz}$: for $< \text{OBW} \leq 1.25$ mW/MHz	OFDM a. 50 mW/MHz: with TPC; 25 mW/MHz: without TPC b. 25 mW/MHz: with TPC; 1.25 mW/MHz: without TPC c. 12.5 mW/MHz: with TPC; 6.25 mW/MHz: without TPC d. 6.25 mW/MHz: with TPC; 3.125 mW/MHz: without TPC

The Output Power Tolerance must be within:

- a. W52/W53: -80% ~ +20%.
- b. W56: -50% ~ +50%.

3.2 Test Setup Block Diagram



3.3 Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A sample detector function must be used.
- (b) A measurement instrument with an integrated 1MHz power bandwidth function may be used to automate the test process.
- (c) Connect the EUT to the RF input of the spectrum analyzer via a 50ohm attenuator.
- (d) Set the RBW = 1MHz, VBW = 1MHz, center of frequency = operating frequency, Sweep = Auto.
- (e) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided emission is repetitive in nature.
- (f) Repeat above procedures until all frequency measured was complete.

3.4 Summary of Test Results/Plots

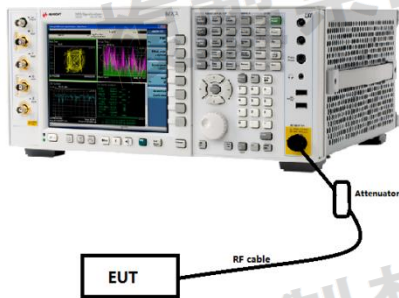
Please refer to Appendix B

4. FREQUENCY TOLERANCE

4.1 Standard Applicable

According to Item 19-3 of Article 2 Paragraph 1, the maximum permit tolerance of frequency is 20ppm.

4.2 Test Setup Block Diagram



4.3 Test Procedure

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set center frequency of spectrum analyzer = operating frequency.
3. Set the spectrum analyzer as RBW, VBW=10KHz, Span = 1MHz.
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided emission is repetitive in nature.
5. Repeat above procedures until all frequency measured was complete.

4.4 Summary of Test Results/Plots

Please refer to Appendix A

5. OCCUPIED BANDWIDTH

5.1 Standard Applicable

LIMIT

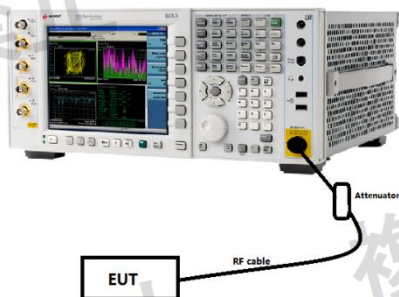
W52/W53:

- a. $OBW \leq 18\text{MHz}$ (20MHz System, Dsss, etc)
- b. $OBW \leq 20\text{MHz}$ (20MHz System, OFDM)
- c. $20\text{MHz} < OBW \leq 40\text{MHz}$ (40MHz System, OFDM)
- d. $40\text{MHz} < OBW \leq 80\text{MHz}$ (80MHz System, OFDM)
- e. $80\text{MHz} < OBW \leq 160\text{MHz}$ (160MHz System, OFDM)

W56:

- a. $OBW \leq 18\text{MHz}$ (20MHz System, Dsss, etc)
- b. $OBW \leq 20\text{MHz}$ (20MHz System, OFDM)
- c. $20\text{MHz} < OBW \leq 40\text{MHz}$ (40MHz System, OFDM)
- d. $40\text{MHz} < OBW \leq 80\text{MHz}$ (80MHz System, OFDM)
- e. $80\text{MHz} < OBW \leq 160\text{MHz}$ (160MHz System, OFDM)

5.2 Test Setup Block Diagram



5.3 Test Procedure

(1) Set up the spectrum analyzer as the follows:

Center frequency: Test frequency

Sweep bandwidth: 2 to 3.5 times of allowance

Resoluble bandwidth: less than 3% of allowance

Video bandwidth: Equivalent to resolvable bandwidth

Sweep time: Minimum time by which measuring accuracy is assured (In case of burst wave, 1 burst shall be contained per 1 sample)

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Sampling points: More than 400 points

Sweep mode : Continuous sweeping

Detection mode: Positive peak

Display mode: Maximum holding

(2) Repeat the sweeping till no change was observed on the display and enter all values of data point to the computer as array variable.

(3) About all data, convert dB value to antilogarithm of electric power dimension.

(4) Add up the electric power of all data and record it as "Sum total of electric power".

(5) Adding up data in order from the lowest frequency to upper frequencies, look for a limit point where the value reaches to 0.5% (5% in case of diffusion bandwidth) of "Sum total of electric power". Convert the limit point to frequency and record as "Lowest limit frequency".

(6) Adding up data in order from the highest frequency to lower frequencies, look for a limit point where the value reaches to 0.5% (5% in case of diffusion bandwidth) of "Sum total of electric power". Convert the limit point to frequency and record as "Highest limit frequency".

(7) Repeat above procedures until all frequency measured was complete.

5.4 Summary of Test Results/Plots

Please refer to Appendix C

6. TRANSMITTER SPURIOUS EMISSIONS

6.1 Standard Applicable

LIMIT

W52:

Bandwidth	Frequency	Limit
OBW $\leq$ 18MHz	30MHz~5142MHz	$\leq$ -26dBm
	5266.7MHz~26000MHz	$\leq$ -26dBm
18MHz < OBW $\leq$ 20MHz	30MHz~5142MHz	$\leq$ -26dBm
	5266.7MHz~26000MHz	$\leq$ -26dBm
20MHz < OBW $\leq$ 40MHz	30MHz~5141.6MHz	$\leq$ -26dBm
	5278.4MHz~26000MHz	$\leq$ -26dBm
40MHz < OBW $\leq$ 80MHz	30MHz~5132.2MHz	$\leq$ -26dBm
	5296.7MHz~26000MHz	$\leq$ -26dBm

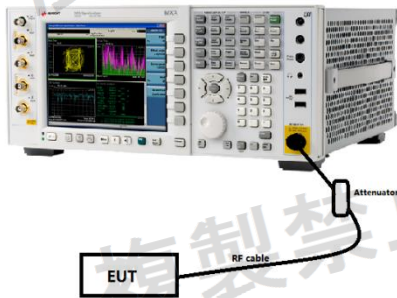
W53:

Bandwidth	Frequency	Limit
OBW $\leq$ 18MHz	30MHz~5233.3MHz	$\leq$ -26dBm
	5350MHz~26000MHz	$\leq$ -26dBm
18MHz < OBW $\leq$ 20MHz	30MHz~5233.3MHz	$\leq$ -26dBm
	5350MHz~26000MHz	$\leq$ -26dBm
20MHz < OBW $\leq$ 40MHz	30MHz~5221.6MHz	$\leq$ -26dBm
	5358.4MHz~26000MHz	$\leq$ -26dBm
40MHz < OBW $\leq$ 80MHz	30MHz~5203.3MHz	$\leq$ -26dBm
	5376.8MHz~26600MHz	$\leq$ -26dBm

W56:

Bandwidth	Frequency	Limit
OBW $\leq$ 20MHz (NO OFDM)	30MHz~5470MHz	$\leq$ -26dBm
	5730MHz~26000MHz	$\leq$ -26dBm
OBW $\leq$ 20MHz (OFDM)	30MHz~5460MHz	$\leq$ -26dBm
	5765MHz~26000MHz	$\leq$ -26dBm
20MHz < OBW $\leq$ 40MHz	30MHz~5460MHz	$\leq$ -19dBm
	5770MHz~26000MHz	$\leq$ -19dBm
40MHz < OBW $\leq$ 80MHz	30MHz~5460MHz	$\leq$ -19dBm
	5770MHz~26000MHz	$\leq$ -19dBm

6.2 Test Setup Block Diagram



6.3 Test Procedure

- (1) A spectrum In case of conducted measurements, the radio device shall be connected to the measuring equipment via a suitable attenuator.
- (2) The measurement equipment shall be set for peak hold mode of operation.
- (3) the transmitter shall be operated at the highest output power, or, in the case of equipment able to operate at more than one power level, at the lowest and highest output powers;
- (4) The resolution bandwidth shall be set to 100kHz from 10MHz to 1GHz, the resolution bandwidth shall be set to 1MHz above 1GHz , and the sweep time shall be set to auto mode, to ensure all major modulation products are captured.
- (5) When the searched result is less than the specified limit, the maximum one shall be recorded, when the result is more than the specified limit, all measured values shall be recorded.
- (5) This measurement shall be repeated with the transmitter in standby mode where applicable.
- (6) Repeat above procedures until all frequency measured was complete.

6.4 Summary of Test Results/Plots

Please refer to Appendix D

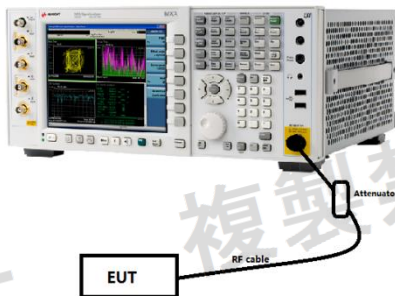
7. RECEIVER SPURIOUS EMISSIONS

7.1 Standard Applicable

According to Item 19-3 of Article 2 Paragraph 1. The receiver spurious emissions shall not exceeded the following limit:

- (1) Below 1GHz : 4nW/100kHz
- (2) 1GHz or higher : 20nW/MHz

7.2 Test Setup Block Diagram



7.3 Test Procedure

- (1) A spectrum In case of conducted measurements, the radio device shall be connected to the measuring equipment via a suitable attenuator.
- (2) The measurement equipment shall be set for peak hold mode of operation.
- (3) the transmitter shall be operated at the receiving mode.
- (4) The resolution bandwidth shall be set to 100kHz from 10MHz to 1GHz, the resolution bandwidth shall be set to 1MHz above 1GHz , and the sweep time shall be set to auto mode, to ensure all major modulation products are captured.
- (5) When the searched result is less than the specified limit, the maximum one shall be recorded, when the result is more than the specified limit, all measured values shall be recorded.
- (5) This measurement shall be repeated with the transmitter in standby mode where applicable.
- (6) Repeat above procedures until all frequency measured was complete.

7.4 Summary of Test Results/Plots

Please refer to Appendix E

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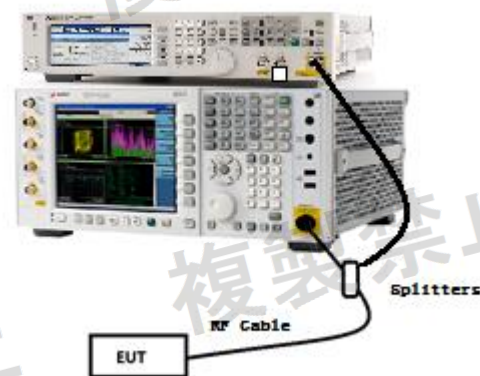
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8. CARRIER SENSING FUNCTION

8.1 Standard Applicable

According to ORRE, art 49.20. The device shall have the carrier sensing function.

8.2 Test Setup Block Diagram



8.3 Test Procedure

1. SG adjust the frequency as same as the EUT transmitted signal, unmodulation, power level 0dBm, Then turn off the RF signal
2. EUT have transmitted the maximum modulation signal and fixed channel
3. Setting of the SA following as RBW/VBW: 1/3MHz SPAN: 50MHz Sweep time: Auto continue PK
4. SG Signal on EUT shall be stop the transmitted, Then turn off the SG, The EUT shall be continuous transmitted signal.

8.4 Summary of Test Results/Plots

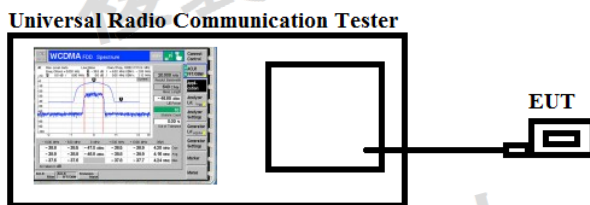
Please refer to Appendix H

9. INTERFERENCE PREVENTION FUNCTION

9.1 Standard Applicable

According to Item 19-3 of Article 2 Paragraph 1. The device shall have the function of automatic transmission or reception of identification code.

9.2 Test Setup Block Diagram



9.3 Test Procedure

1. Set the EUT in the usual operation condition
2. The radio equipment with automatic transmitting function of identification code
 - A. Transmit the assigned identification code from the radio equipment.
 - B. Confirm the identification code received by the demodulator.
3. The radio equipment with automatic receiving function of identification code
 - A. Transmit the assigned identification code from the opposite equipment.
 - B. Confirm that the usual communication is available.
 - C. Transmit the identification code distinct from the assigned one from the opposite equipment.
 - D. Confirm that the radio equipment is stopped or an indication is displayed as the identification code is different.
4. The identification function shall be recorded with "Good" or "No".

9.4 Summary of Test Results/Plots

Please refer to Appendix I

10. Adjacent Channel Emitted Power

10.1 Standard Applicable

LIMIT

W52/W53/W56

For system $OBW \leq 18\text{MHz}$

- 20MHz detuning: -25dBc/18MHz
- 40MHz detuning: -40dBc/18MHz

For system $18\text{MHz} < OBW \leq 20\text{MHz}$

- 20MHz detuning: -25dBc/20MHz
- 40MHz detuning: -40dBc/20MHz

For system $20\text{MHz} < OBW \leq 40\text{MHz}$

- 40MHz detuning: -25dBc/40MHz
- 80MHz detuning: -40dBc/40MHz

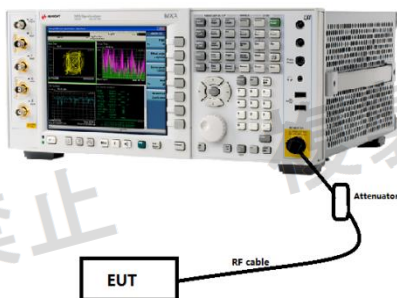
For system $40\text{MHz} < OBW \leq 80\text{MHz}$

- 80MHz detuning: -25dBc/80MHz

For system $80\text{MHz} < OBW \leq 160\text{MHz}$

- N/A

10.2 Test Setup Block Diagram



10.3 Test Procedure

(1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The center frequency of the channel under test.

Resolution BW: 300kHz.

Video BW: 300kHz.

Span $\geq 90\text{MHz}$,

Detector: Peak.

Trace Mode: Max Hold.

10.4 Summary of Test Results/Plots

Please refer to Appendix G

11. Out-band Leakage Power

11.1 Standard Applicable

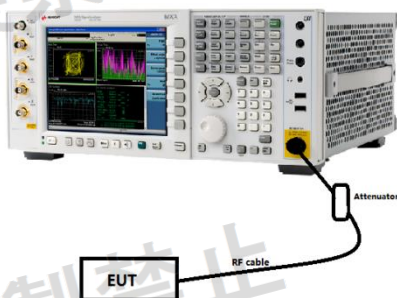
LIMIT

W52	
Bandwidth	Limit (e.i.r.p)
OBW ≤ 18MHz	5140~5142MHz: 2.5μW/MHz or less
	5142~5150MHz: 15μW/MHz or less
	5250~5251MHz: $10^{1-(f-9)}$ mW/MHz or less (f: 10-11MHz)
	5251~5260MHz: $10^{1-(8/90)(f-11)}$ mW/MHz or less (f: 11-20MHz)
	5260~5266.7MHz: $10^{1.8-(6/50)(f-20)}$ mW/MHz or less (f: 20-26.7MHz)
18MHz < OBW ≤ 20MHz	5266.7~5360MHz: 2.5μW/MHz or less
	5135~5142MHz: 2.5μW/MHz or less
	5142~5150MHz: 15μW/MHz or less
	5250~5250.2MHz: $10^{1-(8/3)(f-9.75)}$ mW/MHz or less (f: 10-10.2MHz)
	5250~5251MHz: $10^{1-(f-9)}$ mW/MHz or less (f: 10-11MHz)
20MHz < OBW ≤ 40MHz	5251~5260MHz: $10^{1-(8/90)(f-11)}$ mW/MHz or less (f: 11-20MHz)
	5260~5266.7MHz: $10^{1.8-(6/50)(f-20)}$ mW/MHz or less (f: 20-26.7MHz)
	5266.7~5365MHz: 2.5μW/MHz or less
	5100~5141.6MHz: 2.5μW/MHz or less
	5141.6~5150MHz: 15μW/MHz or less
40MHz < OBW ≤ 80MHz	5250~5251MHz: $10^{-(f-20)+\log(1/2)}$ mW/MHz or less (f: 20-21MHz)
	5251~5270MHz: $10^{-(8/190)(f-21)-1+\log(1/2)}$ mW/MHz or less (f: 21-40MHz)
	5270~5278.4MHz: $10^{-(3/50)(f-40)-1.8+\log(1/2)}$ mW/MHz or less (f: 40-48.4MHz)
	5278.4~5400MHz: 2.5μW/MHz or less
	5020~5123.2MHz: 2.5μW/MHz or less
	5123.2~5150MHz: 15μW/MHz or less
	5250~5251MHz: $10^{-(f-40)+\log(1/4)}$ mW/MHz (f: 40-41MHz)
	5251~5290MHz: $10^{-(8/390)(f-41)-1+\log(1/4)}$ mW/MHz (f: 41-80MHz)
	5290~5296.7MHz: $10^{-(3/100)(f-80)-1.8+\log(1/4)}$ mW/MHz (f: 80-86.7MHz)
	5296.7~5480MHz: 2.5μW/MHz or less
W53	
Bandwidth	Limit
OBW ≤ 18MHz	5140~5233.3MHz: 2.5μW/MHz or less
	5233.3~5240MHz: $10^{1.8-(6/50)(f-20)}$ mW/MHz or less (f: 26.7-20MHz)
	5240~5249MHz: $10^{1-(8/90)(f-11)}$ mW/MHz or less (f: 20-11MHz)
	5249~5250MHz: $10^{1-(f-9)}$ mW/MHz or less (f: 11-10MHz)
	5360~5360MHz: 2.5μW/MHz or less
18MHz < OBW ≤ 20MHz	5135~5233.3MHz: 2.5μW/MHz or less
	5233.3~5240MHz: $10^{1.8-(6/50)(f-20)}$ mW/MHz or less (f: 26.7-20MHz)
	5240~5249MHz: $10^{1-(8/90)(f-11)}$ mW/MHz or less (f: 20-11MHz)

	5249~5249.8MHz: $10^{1-(f-9)}$ mW/MHz or less (f: 11-10MHz) 5249.8~5250MHz: $10^{1-(8/3)(f-9.75)}$ mW/MHz or less (f: 9.8-10MHz) 5360~5365MHz: 2.5μW/MHz or less
20MHz <OBW ≤ 40MHz	5100~5210MHz: 2.5μW/MHz or less 5210~5221.6MHz: 2.5μW/MHz or less 5221.6~5230MHz: $10^{-(3/50)(f-40)-1.8+\log(1/2)}$ mW/MHz or less (f: 48.4-40MHz) 5230~5249MHz: $10^{-(8/190)(f-21)-1+\log(1/2)}$ mW/MHz or less (f: 40-21MHz) 5249~5250MHz: $10^{-(f-20)+\log(1/2)}$ mW/MHz or less (f: 21-20MHz) 5350~5358.4MHz: 15μW/MHz or less 5358.4~5400MHz: 2.5μW/MHz or less
40MHz <OBW ≤ 80MHz	5020~5203.3MHz: 2.5μW/MHz or less 5203.3~5210MHz: $10^{-(3/100)(f-80)-1.8+\log(1/4)}$ mW/MHz (f: 86.7-80MHz) 5210~5249MHz: $10^{-(8/390)(f-41)-1+\log(1/4)}$ mW/MHz (f: 80-41MHz) 5249~5250MHz: $10^{-(f-40)+\log(1/4)}$ mW/MHz (f: 41-40MHz) 5350~5376.8MHz: 15μW/MHz or less 5376.8~5480MHz: 2.5μW/MHz or less

W56	
Bandwidth	Limit
OBW ≤ 19.7MHz	5455~5460MHz: 2.5μW/MHz or less 5460~5470MHz: 12.5μW/MHz or less 5725~5740MHz: 12.5μW/MHz or less 5740~5745MHz: 2.5μW/MHz or less
19.7MHz <OBW ≤ 38MHz	5455~5460MHz: 12.5μW/MHz or less 5460~5470MHz: 50μW/MHz or less 5725~5760MHz: 12.5μW/MHz or less
38MHz <OBW ≤ 78MHz	5340~5460MHz: 12.5μW/MHz or less 5460~5469.5MHz: 50μW/MHz or less 5469.5~5470MHz: 51.2μW/MHz or less 5470~5725MHz: 50μW/MHz or less 5725~5800MHz: 12.5μW/MHz or less

11.2 Test Setup Block Diagram



11.3 Test Procedure

- (1) Enable EUT under transmission mode and connected it to the spectrum analyzer through antenna output port as the block diagram show in TEST CONFIGURATION

Use Spectrum's ACP measurement function and set spectrum analyzer as fellow:

Frequency: include each specified frequency range

- (2) RBW: 1MHz ,VBW: 1MHz,Sweep time: Auto

- (3) Detector mode: Positive peak

- (4) Indication mode: Max hold

11.4 Summary of Test Results/Plots

Please refer to Appendix J

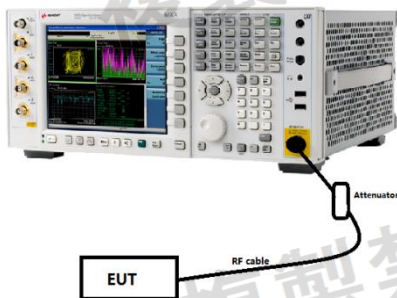
12. Transmission Burst Length

12.1 Standard Applicable

LIMIT

8ms or less

12.2 Test Setup Block Diagram



12.3 Test Procedure

Enable EUT under transmission mode and connected it to the spectrum analyzer through antenna output port as the block diagram show in TEST CONFIGURATION

Use Spectrum's ACP measurement function and set spectrum analyzer as follow:

Spectrum Condition:

- (1) Frequency: test frequency
- (2) Span: 0Hz, RBW: 1MHz, VBW: 3MHz, Sweep time: Auto, Sweep mode: single
- (3) Detector mode: Peak, Indication mode: Max hold

12.4 Summary of Test Results/Plots

Please refer to Appendix F

13. Dynamic Frequency Selection (Slave)

13.1 Standard Applicable

Article 2 paragraph 1 of item 19-3

13.2 Test Method:

Ordinance Regulating Radio Equipment No. 18, Article 49-20

WAS/RLAN devices operating in slave mode (slave device) can be operated in a network controlled by a WAN/RLAN device operating in master mode (master device).

13.3 Summary of Test Results

Can be operated in a network controlled by a WAN/RLAN device operating in master mode .

Pass

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

***** END OF REPORT *****