

TEST REPORT

Applicant: Nagare Japan Inc.

Address of Applicant: 9th Floor, Ginza TH Building, 7-13-20 Ginza, Chuo-ku, Tokyo, 104-0061, Japan

Manufacturer: Nagare Japan Inc.

Address of Manufacturer: 9th Floor, Ginza TH Building, 7-13-20 Ginza, Chuo-ku, Tokyo, 104-0061, Japan

Factory: Shenzhen Joining Free Technology Co. Ltd.

Address of Factory: 101,201,301,Building A, No.6,Tianyang 7th Road, Dongfang Community, Songgang Street, Bao'an District, Shenzhen, China, 518105

Equipment Under Test (EUT)

Product Name: Antenna Pro

Model No.: Antenna Pro

Applicable standards: Article 2 paragraph 1 item(19)
MIC Notice No.88 Annex 1
MIC Notice No.88 Annex 43

Date of sample receipt: June 15, 2026

Date of Test: June 16, 2026-July 01, 2026

Date of report issued: July 01, 2026

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Luo

Laboratory Manager

This 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 compiler and approver.

2 Version

Version No.	Date	Description
00	July 01, 2026	Original

Tested By:

Josh. Gai

Date:

July 01, 2026

Test Engineer

Prepared By:

Jessie Lu

Date:

July 01, 2026

Project Engineer

Check By:

Robinson Lu

Date:

July 01, 2026

Reviewer

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4 Test Summary

Test Item	Test Requirement	Result
RF shielding method	Article 2 paragraph 1 item(19)	Pass
Frequency Error	Article 2 paragraph 1 item(19)	Pass
Antenna Power	Article 2 paragraph 1 item(19)	Pass
99% Occupied bandwidth	Article 2 paragraph 1 item(19)	Pass
Spurious Emissions Intensity	Article 2 paragraph 1 item(19)	Pass
Limit of secondary radiated emissions	Article 2 paragraph 1 item(19)	Pass
Interference suppression	Article 2 paragraph 1 item(19)	Pass
Transmission Antenna Gain	Article 2 paragraph 1 item(19)	Pass
Transmission Radiation Angle Width(3dB Beam width)	Article 2 paragraph 1 item(19)	N/A

Remarks

1. Pass: The EUT complies with the carrier sense capability and radio interference prevention capability.
2. N/A: EIRP does not exceed 12.14dBm/MHz

5 General Information

5.1 General Description of EUT

Product Name:	Antenna Pro
Model No.:	Antenna Pro
Operation Frequency:	2402MHz~2480MHz
Channel numbers:	40
Channel separation:	2MHz
Modulation technology:	GFSK
Data Rate:	LE 2M PHY: 2 Mb/s LE 1M PHY: 1 Mb/s
Antenna Specification:	Chip Antenna
Antenna Gain:	3.54dBi(Declared by applicant)
Power supply:	DC 3.7V, 200mAh, 0.74Wh for Li-ion battery The battery is charged via USB DC 5V

Disclaimer statement:

1. Antenna gain information provided by the customer, and the laboratory is not responsible for its authenticity.
2. The information in this section is provided by the applicant or manufacturer, GTS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2402 MHz	11	2422 MHz	21	2442 MHz	31	2462 MHz
2	2404 MHz	12	2424 MHz	22	2444 MHz	32	2464 MHz
3	2406 MHz	13	2426 MHz	23	2446 MHz	33	2466 MHz
4	2408 MHz	14	2428 MHz	24	2448 MHz	34	2468 MHz
5	2410 MHz	15	2430 MHz	25	2450 MHz	35	2470 MHz
6	2412 MHz	16	2432 MHz	26	2452 MHz	36	2472 MHz
7	2414 MHz	17	2434 MHz	27	2454 MHz	37	2474 MHz
8	2416 MHz	18	2436 MHz	28	2456 MHz	38	2476 MHz
9	2418 MHz	19	2438 MHz	29	2458 MHz	39	2478 MHz
10	2420 MHz	20	2440 MHz	30	2460 MHz	40	2480 MHz

Final test channel as follow:					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2402	20	2440	40	2480

5.2 Test mode

Software is used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

5.3 Test condition

Power Supply:	Battery:	DC 3.7V
	The RF unit is supplied by DC 3.3V. The fluctuation of input voltage to the circuit of RF unit of test equipment is under $\pm 1\%$, when input voltage from DC 3.7V to the test equipment is fluctuated by $\pm 10\%$, So, all measurement has been conducted by only rated voltage.	
	The measurement result of the voltage fluctuation at RF circuit when DC 3.89V $\pm 10\%$.	
	Power supply voltage	DC 3.3V @ RF circuit
	3.33V	3.31V
	3.7V	3.31V
	4.07V	3.31V

Remark: Both normal and extremely condition were tested, only show the worst case.

5.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC—Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen 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 files.

- **ISED —Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.5 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower AS, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: +86-0755-27798480

Fax: +86-0755-27798960

5.6 Other Information Requested by the Customer

None.

5.7 Description of Support Units

Manufacturer	Description	Model	Serial Number
UGREEN	USB Charger	CD244	N/A
Apple	IPad	A2197	N/A

5.8 Test Instruments list

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Wireless Connectivity Test Set	Anritsu	MT8862A	SN6272327180	2025-08-26	2026-08-25
2	Bluetooth Test Set	Anritsu	MT8852B	SN6262097212	2025-08-26	2026-08-25
3	EXA Signal Analyzer	Keysight	N9010B	MY60241168	2025-08-26	2026-08-25
4	Vector Signal Generator	Keysight	N5182B	MY61250192	2026-04-16	2027-04-15
5	Analog Signal Generator	Keysight	N5171B	MY61252573	2025-08-26	2026-08-25
6	RF Control Unit and Power Test Unit	Tonscend	JS0806-2	SN21F8060437	2026-04-16	2027-04-15
7	Power Control Unit	Tonscend	JS0806-4ADC	SN21C8060386	N/A	N/A
8	Wideband Radio Communication Tester	R&S	CWM500	GTS569	2025-08-26	2026-08-25
9	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	2026-04-10	2027-04-09
10	Thermo meter	JINCHUANG	GSP-8A	GTS641	2026-04-14	2027-04-03
11	Test Software	Tonscend	JS1120-3 V3.5.39	N/A	N/A	N/A

All above equipments were calibrated by Guangzhou LiSai Metrology & Test Co.,Ltd..

Technical basis for calibration: JJF 1076-2020, JJF 1101-2019, JJF 1144-2006, JJF 1396-2013, JJF 1885-2020, JJF 1931-2021, GJB 2650-1996.

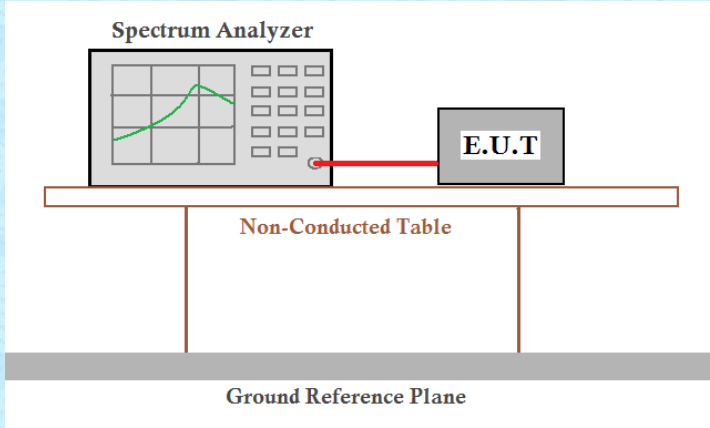
5.9 Measurement uncertainty

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR100028-1 [2] and shall correspond to an expansion factor (coverage factor) $K=1.96$ or $K=2$ (which provide confidence levels of respectively 95% and 95.5% in the case where the distributions characterizing the actual measurement uncertainties are normal).

Parameter	Uncertainty
RF frequency	$\pm 6 \times 10^{-7}$
Total RF power, conducted	$\pm 0.8\text{dB}$
Spurious emissions, conducted	$\pm 0.8\text{dB}$
DC and low frequency voltages	$\pm 3\%$
Humidity	$\pm 5\%$
Temperature	$\pm 1^\circ\text{C}$

6 Test results and Measurement Data

6.1 Frequency Error

Test condition:	Without Modulation, continuously transmitting.
Spectrum set:	Test Frequency: test channel, RBW=VBW=10KHz, Span=1MHz, Sweep time=Auto, Detector mode=Positive peak
Limit:	±50ppm
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected via a red cable to an E.U.T. (Equipment Under Test). Both are placed on a Non-Conducted Table. Below the table is a Ground Reference Plane.
Test Instruments:	Refer to section 5.8 for details
Test results:	Pass

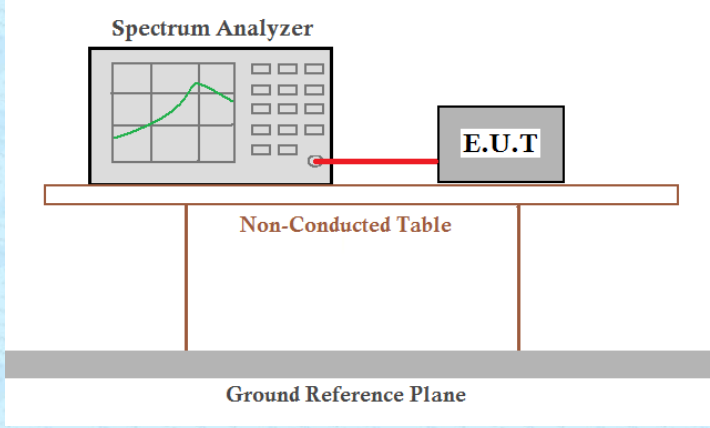
Measurement Data: The detailed test data see Appendix for BLE.

6.2 Antenna Power

Test condition:	Test diffusion code and modulate with standard coding test signal
Test Procedure:	a) The EUT is connected to the input port of the high frequency power meter through the attenuator and the transmit frequency is set. b) Remove the EUT and put the replacing signal generator (SG). Set the signal generator (SG) at same frequency and transmit on, the set SG output power at P_t to give the equivalent output level of "E". c) Calculate antenna power density by the formula below $PD = P_t + 10 \cdot \log(1/x)$. x: The duty cycle of the EUT in continuously transmitting mode P_t: Output power of the SG Antenna power tolerance: +20% No lower limit $EIRP = \text{Power} + \text{Gain}$.
Limit:	10mW
Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test results:	Pass

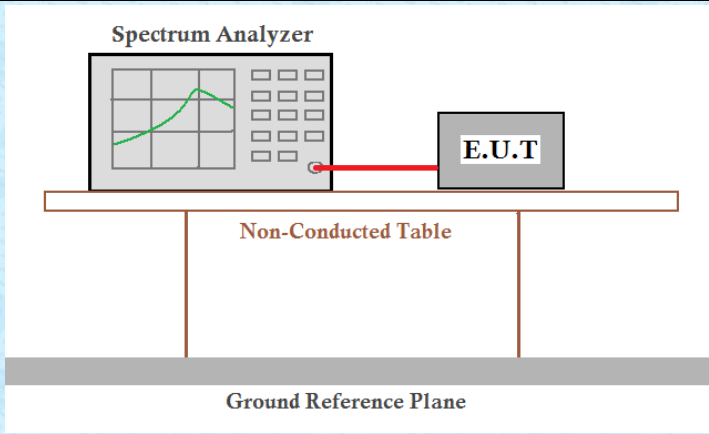
Measurement Data: The detailed test data see Appendix for BLE.

6.3 Occupy Bandwidth (99%)

Test condition:	Test diffusion code and modulate with standard coding test signal
Spectrum set:	Test Frequency: test channel, RBW=VBW=30KHz, Span=4MHz, Sweep time=Auto, Detector mode=Positive peak
Limit:	26MHz or less
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Transmitting mode
Test results:	Pass

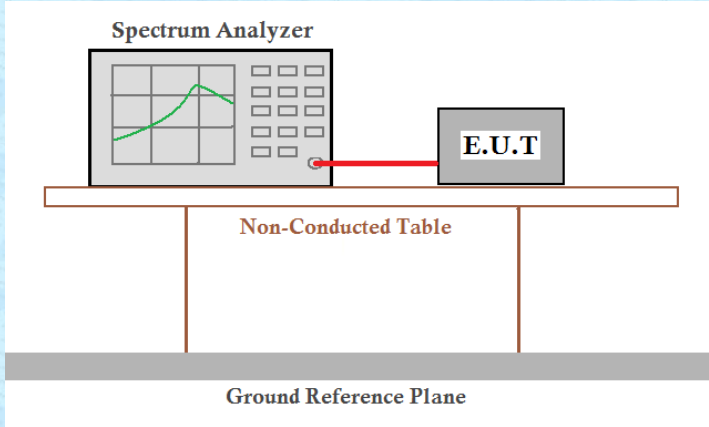
Measurement Data: The detailed test data see Appendix for BLE.

6.4 Spurious emission intensity

Test condition:	Test diffusion code and modulate with standard coding test signal
Measurement procedure:	Step 1 All spurious are measured from 30MHz to 13GHz by peak mode. Step 2 If the value measured by Step1 is 3dB or less to the limit, measure in average mode.
Spectrum set:	Step 1: Test Frequency: test channel, Below 1GHz, RBW=VBW=100KHz; Above 1GHz, RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Positive peak Step 2: Test Frequency: spurious frequency Below 1GHz, RBW=VBW=100KHz; Above 1GHz, RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Sample, Span=0Hz
Limit:	Below 1G: 0.25uW or less Below 2387 MHz: 2.5μW/MHz or less 2387 to 2400 MHz: 25μW/MHz or less 2483.5 through 2496.5 MHz: 25μW/MHz or less Over 2496.5 MHz: 2.5μW/MHz or less
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 5.8 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix for BLE.

6.5 Limit of secondary radiated emissions

Test condition:	Receiving mode
Measurement procedure:	Step 1 All spurious are measured from 30MHz to 13GHz by peak mode. Step 2 If the value measured by Step1 is 3dB or less to the limit, measure in average mode.
Spectrum set:	Step 1: Test Frequency: test channel, Below 1GHz, RBW=VBW=100KHz; Above 1GHz, RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Positive peak Step 2: Test Frequency: spurious frequency Test Frequency: test channel, Below 1GHz, RBW=VBW=100KHz; Above 1GHz, RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Sample, Span=0Hz
Limit:	Below 1GHz: 4.0nW or less Above 1GHz: 20nW or less
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 5.8 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix for BLE.

6.6 Interference suppression

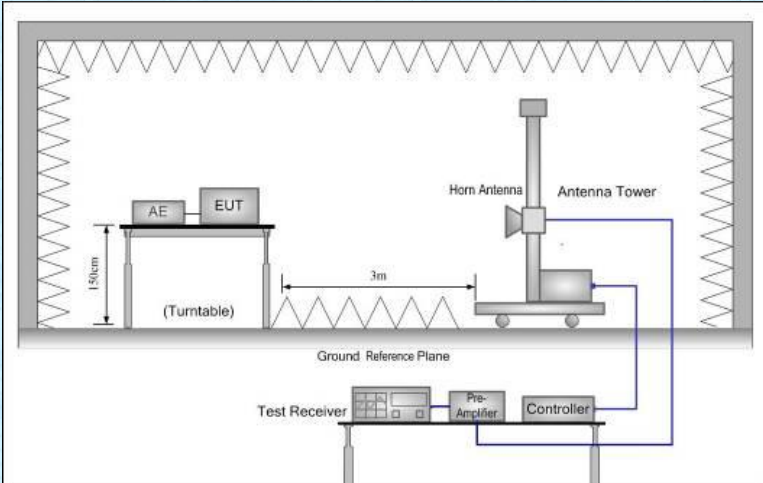
Measurement procedure:	(1) The radio equipment with automatic transmitting function of identification code a) Transmit the assigned identification code from the radio equipment. b) Confirm the identification code received by the demodulator. (2) The radio equipment with automatic receiving function of 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.
Test setup:	Radio equipment — Demodulator 8852B
Test Instruments:	Refer to section 5.8 for details
Test results:	Pass

Measurement data:

Identification function:	Good
Mac address:	7F:C7:B7:15:9A:5A

6.7 Equivalent Isotropic Radiated Power

Test condition:	Transmitting mode	
Measurement procedure:	Step 1 Set the test equipment at test frequency, and in continuous transmitting mode or intermittent burst mode (constant frequency and constant burst time). Stop the spread. Step 2 Set the height and direction of test equipment and measurement antenna approximately facing each other. Step 3 In the frequency derived in D), change the height of the measurement antenna from the ground by $\pm 50\text{cm}$ with a central focus on the antenna of test equipment. Search the location that the power is maximum by adjusting the direction of measurement antenna. Set the indicator of spectrum analyzer at this point as "E". Step 4 Remove the test equipment from the turntable, set the opening of substitution antenna at the same location as the opening of the test equipment, and receive by outputting radio wave of the same frequency from the standard signal generator for substitution. Step 5 Adjust at the maximum power point, turning the substitution antenna. Step 6 Change the height of the measurement antenna from the ground by $\pm 50\text{cm}$ with a central focus on the substitution antenna, and adjust the direction of measurement antenna to the location that the received power is maximum. Step 7 Adjust output of standard signal generator and record the power P_s that is equal to "E". Or record P_s by counting backward from the difference with "E" as the close value to "E" (within $\pm 1\text{dB}$). Step 8 EIRP is derived from the following calculating formula: $\text{EIRP} = G_S - L_F + P_S$ G_S: Absolute gain of substitution antenna (dBi). L_F: Loss of electric supply line between standard signal generator and substitution antenna (dB). P_S: Output of standard signal generator (dBm).	
Spectrum set:	Center frequency:	Frequency that gives maximum electric power (searched frequency)
	Sweep frequency band:	0 MHz
	Resolution bandwidth:	1MHz
	Video bandwidth:	Comparable level with resolution bandwidth

	Sweep mode:	Continuous sweep
	Detective mode:	positive peak
Limit:	12.14dBm	
Test setup:		
Test Instruments:	Refer to section 5.8 for details	
Test results:	Pass	

Measurement Data: The detailed test data see Appendix for BLE.

7 Test Setup Photo

Reference to the **appendix I** for details

8 EUT Constructional Details

Reference to the **appendix II** for details

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