

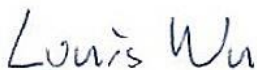


FCC RADIO TEST REPORT

FCC ID : QYLAX211NG
Equipment : Wireless Module
Brand Name : Getac
Model Name : AX211NGW
Applicant : Getac Technology Corporation.
5F., Building A, No. 209, Sec.1, Nangang Rd., Nangang
Dist., Taipei City 115018, Taiwan, R.O.C.
Standard : FCC Part 15 Subpart E §15.407

The product was received on Feb. 11, 2025 and testing was performed from Feb. 17, 2025 to Mar. 04, 2025. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.



Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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History of this test report

| Report No. | Version | Description | Issue Date |
|------------|---------|-------------------------|---------------|
| FR521111F | 01 | Initial issue of report | Mar. 19, 2025 |
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Summary of Test Result

| Report Clause | Ref Std. Clause | Test Items | Result (PASS/FAIL) | Remark |
|---------------|-----------------|------------------------------|--------------------|----------|
| - | 15.407(e) | 6dB & 26dB Bandwidth | Pass | See Note |
| - | 2.1049 | 99% Occupied Bandwidth | Pass | See Note |
| 3.1 | 15.407(a) | Maximum E.I.R.P Output Power | Pass | - |
| - | 15.407(a) | Power Spectral Density | Pass | See Note |
| - | 15.407(b) | Unwanted Emissions | Pass | See Note |
| - | 15.207 | AC Conducted Emission | Pass | See Note |
| - | 15.203 | Antenna Requirement | Pass | See Note |

Note: For host device, the Conducted Output Power is no difference after compared to module (Model: AX211NGW)

Conformity Assessment Condition:

The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Yun Huang

Report Producer: Clio Lo

1 General Description

1.1 Product Feature of Equipment Under Test

| Product Feature | |
|----------------------|---|
| General Specs | WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, Wi-Fi 6GHz 802.11ax, and GNSS. |
| Antenna Type | WLAN: <Main>: PIFA Antenna <Aux.>: PIFA Antenna |

The product was installed into Tablet PC (Brand Name: Getac, Model Name: A140, A140G2, A140Y (Y= 10 characters, Y can be 0-9, a-z, A-Z, "-", "_" or blank for marketing purpose and no impact safety related critical components and constructions.)) during test, and the host information was recorded in the following table.

| Antenna Information for Host | | | |
|------------------------------|------------------------|---|---|
| Antenna | Manufacturer | GTK | |
| | Antenna Type | PIFA Antenna | PIFA Antenna |
| | Part number | 340140100002 | 340140100003 |
| | Peak gain (dBi) | Main Antenna: WLAN (5G UNII-4): 2.97 | Aux. Antenna: WLAN (5G UNII-4): 2.26 |

| Sample Information for Host | |
|-----------------------------|-----------------------|
| SKU | SKU 5 |
| WWAN | Support (EM7511) |
| WLAN | Support (AX211NGW) |
| RFID | Not Support |
| GPS | Support (MC1010) |
| Finger printer | Support |
| Barcode | Support |
| AC Adapter 1 (65W) | Not Support |
| AC Adapter 2 (120W) | Not Support |
| AC Adapter 3 (65W) | Support |
| AC Adapter 3 (65W) | Support |

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.1.1 Antenna Directional Gain

Follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01 F2)f)ii)

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows:

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

G_{ANT} is set equal to the gain of the antenna having the highest gain.

For PSD measurements, the directional gain calculation.

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the k th antenna is being fed by spatial stream j , or zero if it is not;
 G_k is the gain in dBi of the k th antenna.

As minimum $N_{SS}=1$ is supported by EUT, the formula can be simplified as:

Directional gain = $10 \cdot \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}]$ dBi

Where G_1, G_2, \dots, G_N denote single antenna gain.

The directional gain "DG" is calculated as following table.

| UNII-4 | | | DG | DG |
|--------|---------|---------|-------|-------|
| | | | for | for |
| | Chain A | Chain B | Power | PSD |
| | (dBi) | (dBi) | (dBi) | (dBi) |
| | 2.26 | 2.97 | 2.97 | 5.63 |

Calculation example:

If a device has two antenna, $G_{CHAIN A} = 2.26$ dBi; $G_{CHAIN B} = 2.97$ dBi

Directional gain of power measurement = $\max(2.26, 2.97) + 0 = 2.97$ dBi

Directional gain of PSD derived from formula which is

$10 \times \log \{ \{ [10^{(2.26 \text{ dBi} / 20)} + 10^{(2.97 \text{ dBi} / 20)}]^2 \} / 2 \}$

= 5.63 dBi



1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

| | |
|---------------------------|--|
| Test Site | Sporton International Inc. Wensan Laboratory |
| Test Site Location | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855 |
| Test Site No. | Sporton Site No. |
| | TH05-HY |

FCC designation No.: TW3786

1.4 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ FCC KDB 291074 D02 EMC Measurement v01
- ♦ ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.



2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

2.1 Carrier Frequency and Channel

| Frequency Band | Bandwidth | Channel | Frequency (MHz) | Note |
|----------------------------|-----------|---------|-----------------|----------|
| 5850-5895 MHz (U-NII-4) | 20 MHz | 169 | 5845 | Straddle |
| | | 173 | 5865 | |
| | | 177 | 5885 | |
| | 40 MHz | 167 | 5835 | Straddle |
| | | 175 | 5875 | |
| | 80 MHz | 171 | 5855 | Straddle |
| | 160 MHz | 163 | 5815 | Straddle |

Note: The channel noted with "straddle" spans 5.725-5.850 GHz and 5.850-5.895 GHz.

2.2 Test Mode

The final test modes include the worst data rates for each modulation shown in the table below.

MIMO Mode

| Modulation | Data Rate |
|---------------|-----------|
| 802.11ax HE80 | MCS0 |

2.3 EUT Operation Test Setup

The RF test items, utility "QCRT 0.7332.23.90.0" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

3 Test Result

3.1 Maximum E.I.R.P Output Power Measurement

3.1.1 Limit of Maximum E.I.R.P Output Power

For client devices operating under the control of an indoor access point in the 5.850-5.895 GHz band, the maximum power spectral density must not exceed 14 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm. Client devices operating on a channel that spans the 5.725-5.850 GHz and 5.850-5.895 GHz bands must not exceed an e.i.r.p. of 30 dBm.

3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

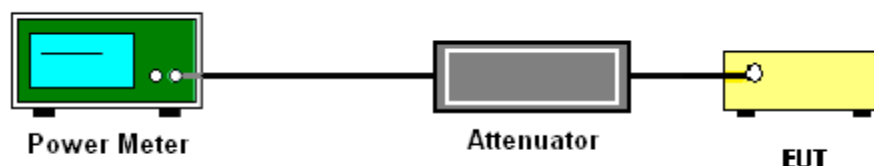
3.1.3 Test Procedures

The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter.
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.1.4 Test Setup



3.1.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.



4 List of Measuring Equipment

| Instrument | Brand Name | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|--------------------------|-----------------|-------------------------------------|--------------------------------|------------------------------|------------------|---------------------------------|---------------|------------------------|
| Hygrometer | TECPEL | DTM-303A | TP201996 | N/A | Nov. 01, 2024 | Feb. 17, 2025~ Mar. 04, 2025 | Oct. 30, 2025 | Conducted (TH05-HY) |
| USB Power Sensor | DARE | RPR3008W | RPR8W-2301 0013 (NO:100) | 10MHz~8GHz | Jul. 26, 2024 | Feb. 17, 2025~ Mar. 04, 2025 | Jul. 25, 2025 | Conducted (TH05-HY) |
| Signal Analyzer | Rohde & Schwarz | FSV3044 | 101466 | 10HZ~44GHZ | Aug. 14, 2024 | Feb. 17, 2025~ Mar. 04, 2025 | Aug. 13, 2025 | Conducted (TH05-HY) |
| Switch Control Mainframe | Burgeon | ETF-058 | EC1300484 (BOX3) | N/A | May 20, 2024 | Feb. 17, 2025~ Mar. 04, 2025 | May 19, 2025 | Conducted (TH05-HY) |
| Software | Sporton | BTWIFI_Final_ version_25011 4 | N/A | Conducted Other Test Item | N/A | Feb. 17, 2025~ Mar. 04, 2025 | N/A | Conducted (TH05-HY) |

Appendix A. Test Result of Conducted Test Items

| | | | | |
|----------------|--------------------|--------------------|-------|----|
| Test Engineer: | Beck Chen | Temperature: | 21~25 | °C |
| Test Date: | 2025/2/17-2025/3/4 | Relative Humidity: | 51~54 | % |

Remark: For Conducted Test Items, Ant. 1 means Chain A (Aux.) and Ant. 2 means Chain B (Main).

TEST RESULTS DATA
Average Power Table

| UNII-4 MIMO | | | | | | | | | | | | | | |
|-------------|-----------|-----|-----|-------------|-----------|-------------------------------|-------|-------|----------|-------|------------------|-------|------------------------|-------|
| Mod. | Data Rate | NTX | CH. | Freq. (MHz) | RU Config | Average Conducted Power (dBm) | | | DG (dBi) | | EIRP Power (dBm) | | EIRP Power Limit (dBm) | |
| | | | | | | Ant 1 | Ant 2 | SUM | Ant 1 | Ant 2 | Ant 1 | Ant 2 | Ant 1 | Ant 2 |
| HE80 | MCS0 | 2 | 171 | 5855 | Full | 20.20 | 20.10 | 23.16 | 2.97 | | 26.13 | | 30 | |

————THE END————