FCC RADIO TEST REPORT

FCC ID	:	**QYLBE201NG**
Equipment	:	**Wireless Module**
Model Name	:	**BE201NGW**
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 May 22, 2025 and testing was performed from Jun. 05, 2025 to Aug. 26, 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.

Louis Wu

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
FR552229E	01	Initial issue of report	Aug. 13, 2025
FR552229E	02	Revise Summary and add radiation emission test data This report is an updated version, replacing the report issued on Aug. 13, 2025.	Aug. 27, 2025
FR552229E	03	Revise Summary and Appendix A This report is an updated version, replacing the report issued on Aug. 27, 2025.	Aug. 29, 2025

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
3.2	15.407(b)	Unwanted Emissions	Pass	-
-	15.207	AC Conducted Emission	Pass	See Note
3.3	15.203	Antenna Requirement	Pass	-

Note:
The module has undergone multiple transmissions assessments, and the antenna gain of the host device is lower than that of the module. Therefore, the host device was spot-checked for conducted output power and radiated spurious emissions per band. The conducted output power shows no difference compared to the module (Model: BE201NGW), and the radiated spurious emissions comply with the limits specified in this test report.

Conformity Assessment Condition:

1. 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/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”.

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: Jessie Ho

1 General Description

1.1 Product Feature of Equipment Under Test

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

Antenna Information for Host			
Antenna	**Peak gain (dBi)**	Main Antenna:	Aux. Antenna:
		2.63	2.49

The product was installed into Tablet (Brand Name: Getac, Model Name: F120, F120Y (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.

Sample Information for Host			
DVT SKUs	**SKU A**	**SKU B**	**SKU C**
CPU	ULTRA5-226V	ULTRA5-236V	ULTRA7-268V
DDR	INTEGRATED 16GB	INTEGRATED 16GB	INTEGRATED 32GB
SSD	256GB	512GB	1TB
PANEL	Full FHD AUO	Full FHD AUO	Full FHD AUO
DIGITIZER	Not Support	EMRright Digitizer	EMRright Digitizer
OPTION BAY	LAN	Barcode Reader	Barcode Reader
Expansion Bay	N/A	HID RFID	SMART CARD
Right side option	USB2.0	Fingerprinter	RFID (SN-NSVG7-C01)
WLAN/BT	Intel BE201NGW	Intel BE201NGW	Intel BE201NGW
WWAN	N/A	LN920A12-WW	LN920A12-WW
GNSS	SE868K5-D (L1+L5)	LN920A12-WW	LN920A12-WW
Rear 8M Camera	Support	Support	Support
Webcam FHD	Support	Support	Support
USB3.2 Gen2 x 1 Type-A	Support	Support	Support
Type-C (thunder bolt)	Support	Support	Support

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

1.1.1Antenna Directional Gain

<For CDD Mode>

Follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)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.

Array Gain = 10 log(NANT/NSS) dB.

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

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 kth antenna is being fed by spatial stream j, or zero if it is not;
G_k is the gain in dBi of the kth antenna.

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

Directional gain = $10*\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ dBi

Where G1, G2….GN denote single antenna gain.

The directional gain “DG” is calculated as following table.

UNII-4	Chain A (dBi)	Chain B (dBi)	DG for Power (dBi)	DG for PSD (dBi)
	2.49	2.63	2.63	5.57

Calculation example:

If a device has two antenna, $G_{Chain\ A}$= 2.49dBi; $G_{Chain\ B}$ =2.63dBi

Directional gain of power measurement = max(2.49, 2.63) + 0 = 2.63 dBi

Directional gain of PSD derived from formula which is

10 x log { { [10^ (2.49 dBi / 20) + 10^ (2.63 dBi / 20)] ^ 2 } / 2 }

= 5.57 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, 03CH21-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 414788 D01 Radiated Test Site v01r01.
- 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. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and only the worst case emissions were reported in this report.

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 SISO mode conducted power is covered by MIMO mode per chain, so only the MIMO mode is tested.

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

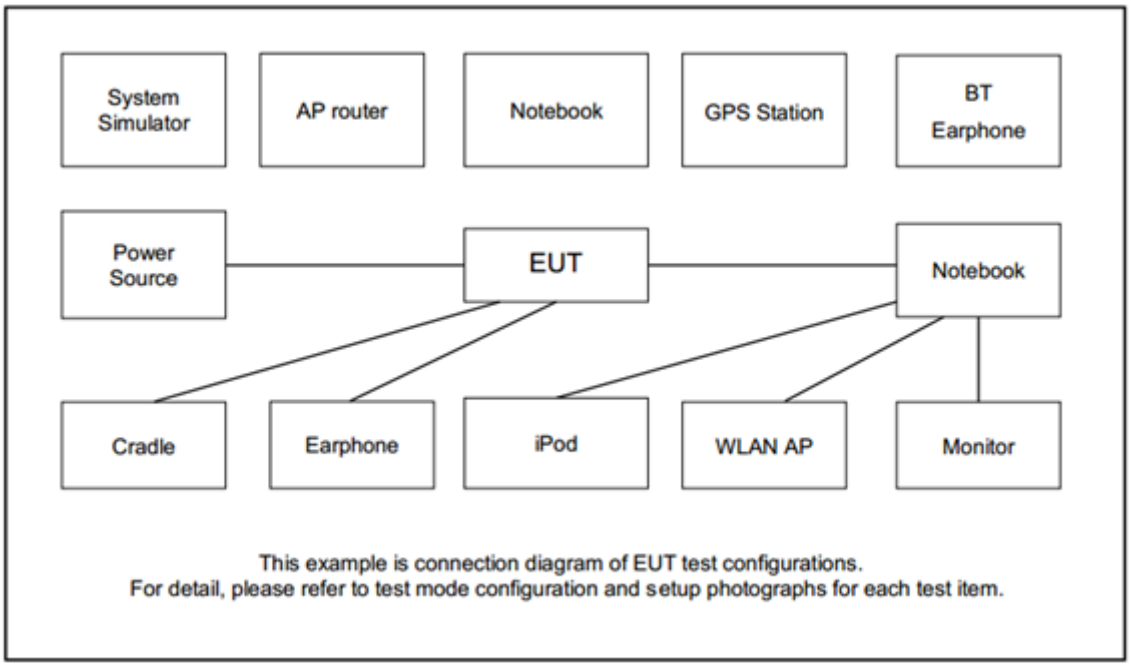
MIMO Mode

Modulation	Data Rate
802.11ac VHT80	**MCS0**

Remark:

1. For Radiated Test Cases, the tests were performed with AC Adapter 1, Battery 1 and SKU B.
2. The detailed Radiated test modes are shown in Appendix B.
3. For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0m	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “DRTU.07983.23.120.0” 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

3.1.1Limit 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.

3.1.2Measuring Instruments

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

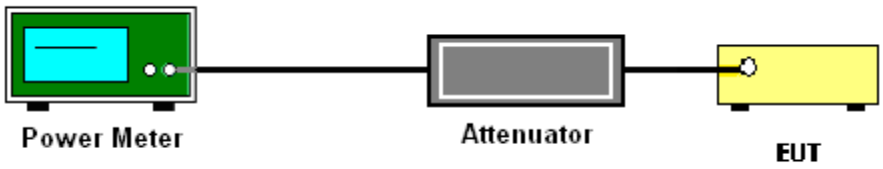
3.1.3Test Procedures

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.

3.1.4Test Setup



3.1.5Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.2 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.2.1 Limit of Unwanted Emissions

(1) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

Note: The following formula is used to convert the EIRP to field strength.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

(2) For transmitters operating solely in the 5.850-5.895 GHz band or operating on a channel that spans across 5.725-5.895 GHz:

15.407(b)(5)(ii), all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of −5 dBm/MHz and shall decrease linearly to an e.i.r.p. of −27 dBm/MHz at or above 5.925 GHz.

All emissions below 5.725 GHz shall not exceed an e.i.r.p. of −27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.

(3) KDB789033 D02 v02r01 G)2)c)

Use guidance in KDB Publication 789033 for all measurements. Unwanted emissions outside of restricted bands are measured with an RMS detector. In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit.

Unwanted band-edge emissions may be measured using the integration method as described in KDB Publication 789033 3. d) (ii). Emissions below 5725 MHz should be measured using peak-detection while emission above 5895 MHz should be measured using average.

Frequency(GHz)	EIRP (dBm)	Field Strength @3m distance (dBuV/m)	Note
Below 5.65	-27dBm/MHz	68.2	Peak
5.7	10dBm/MHz	105.2	Peak
5.72	15.6dBm/MHz	110.8	Peak
5.725	27dBm/MHz	122.2	Peak
5.895	-5dBm/MHz	90.2	Average
5.895	15dBm/MHz	110.2	Peak
Above 5.925	-27dBm/MHz	68.2	Average
Above 5.925	-7dBm/MHz	88.2	Peak

Note: Field strength at 3 m distance is converted to EIRP as the following equation:

EIRP[dBm] = E[dBμV/m]− 95.2

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000 MHz

   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

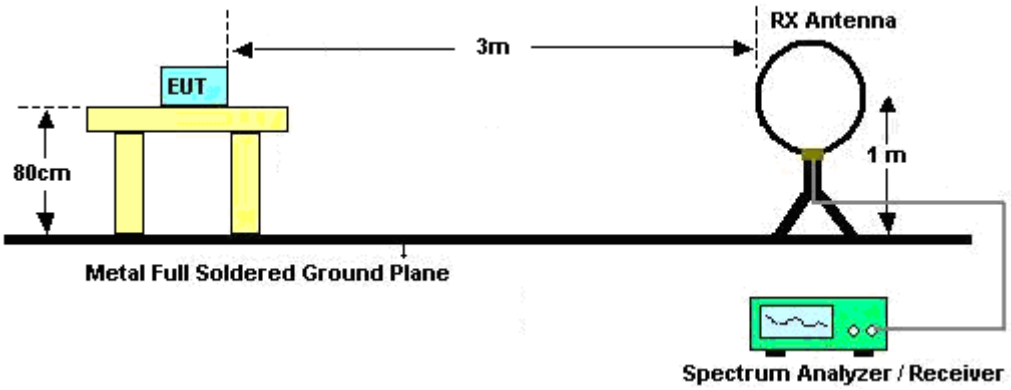
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

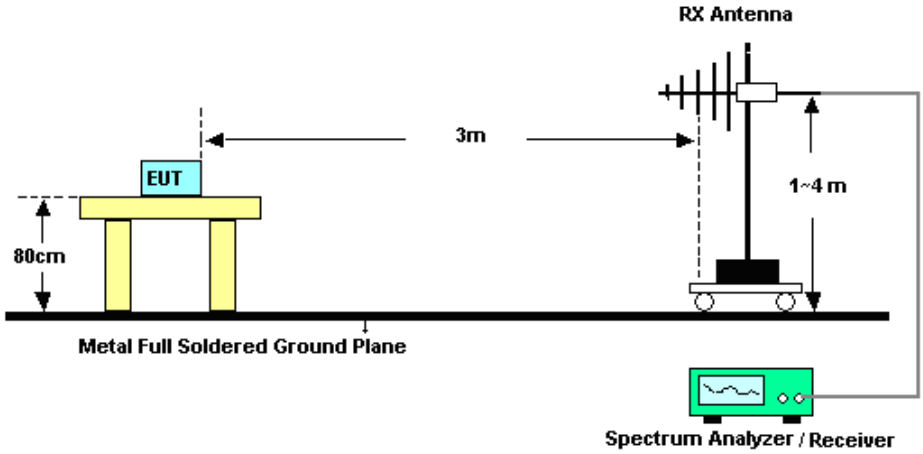
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT was placed at distance 3 meter from measurement antenna which was mounted on the top of a variable height antenna tower.
4. The measurement antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Radiated testing below 1GHz was performed by adjusting the antenna tower from 1m to 4m and by rotating the turn table from 0 degree to 360 degree to find the peak maximum hold reading.
   When there is no suspected emission found and the emission level is with at least 6dB margin against QP limit line, the position is marked as "-".
7. Radiated testing above 1GHz was performed by adjusting the antenna tower from 1m to 4m and by rotating the turn table from 0 degree to 360 degree to find the peak maximum hold reading for scanning all frequencies.
   When there is no suspected emission found and the harmonic emission level is with at least 6dB margin against average limit line, the position is marked as "-".

3.2.4 Test Setup

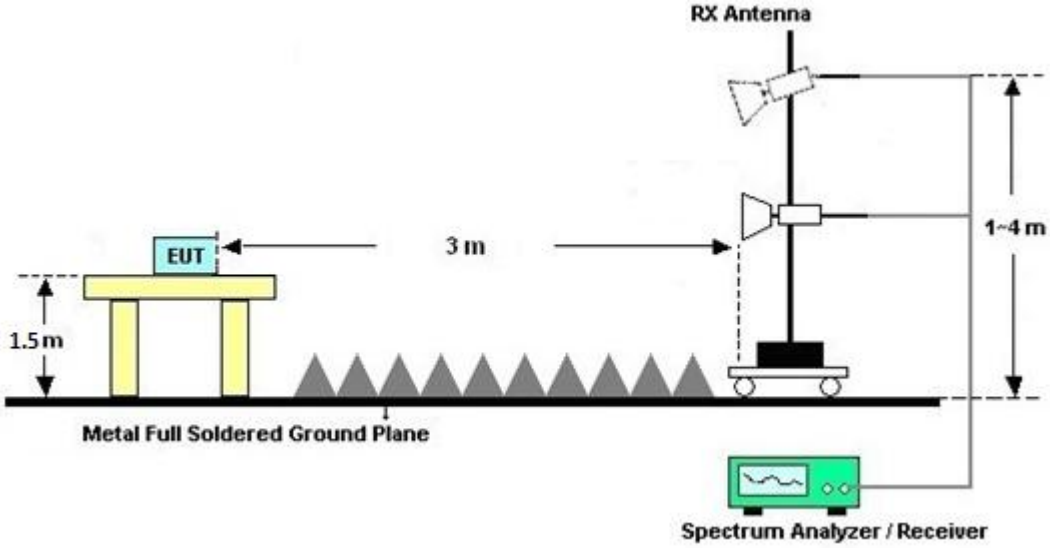
For radiated emissions below 30MHz



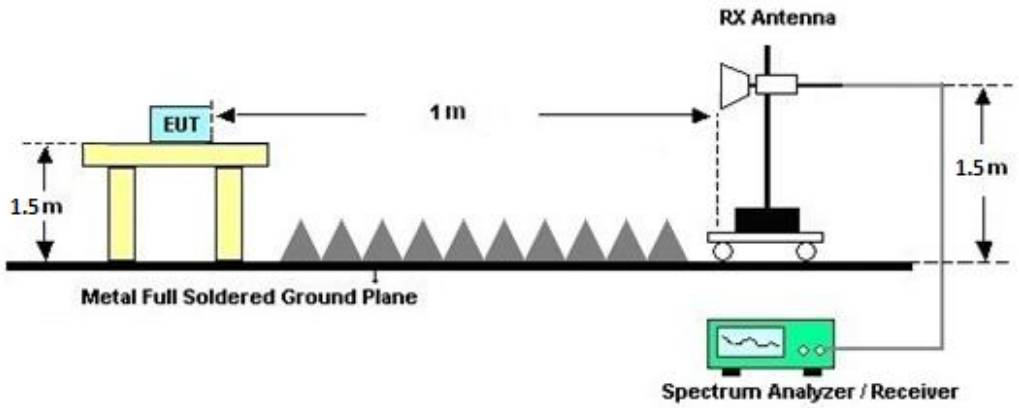
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.2.5 Test Results of Radiated Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site **v01r01**, and the result came out very similar.

3.2.6 Test Results of Radiated Spurious Emissions (above 18 GHz)

For frequency above 18GHz, the pre-scanned result is 20dB lower than the limit line is not reported.

3.2.7 Test Result of Radiated Band Edges

Please refer to Appendix B.

3.2.8 Duty Cycle

Please refer to Appendix C.

3.2.9 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B.

3.3 Antenna Requirements

3.3.1 Standard Applicable

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

3.3.2 Antenna Anti-Replacement Construction

Unique (non-standard) antenna connector.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LOOP Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Aug. 29, 2024	Aug. 25, 2025~ Aug. 26, 2025	Aug. 28, 2025	Radiation (03CH21-HY)
Bilog Antenna	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	63303 & 001	30MHz~1GHz	Dec. 17, 2024	Aug. 25, 2025~ Aug. 26, 2025	Dec. 16, 2025	Radiation (03CH21-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	LE2C03A18EN	1GHz~18GHz	Aug. 07, 2025	Aug. 25, 2025~ Aug. 26, 2025	Aug. 06, 2026	Radiation (03CH21-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1223	18GHz~40GHz	Jul. 02, 2025	Aug. 25, 2025~ Aug. 26, 2025	Jul. 01, 2026	Radiation (03CH21-HY)
Amplifier	SONOMA	310N	421580	30MHz~1GHz	Jul. 13, 2025	Aug. 25, 2025~ Aug. 26, 2025	Jul. 12, 2026	Radiation (03CH21-HY)
Amplifier	EMEC	EM01G18GA	060876	1GHz~18GHz	Sep. 27, 2024	Aug. 25, 2025~ Aug. 26, 2025	Sep. 26, 2025	Radiation (03CH21-HY)
Preamplifier	EMEC	EM18G40G	060873	18GHz~40GHz	Sep. 02, 2024	Aug. 25, 2025~ Aug. 26, 2025	Sep. 01, 2025	Radiation (03CH21-HY)
Spectrum Analyzer	Keysight	N9010B	MY62170358	10Hz~44GHz	Sep. 06, 2024	Aug. 25, 2025~ Aug. 26, 2025	Sep. 05, 2025	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 05, 2025	Aug. 25, 2025~ Aug. 26, 2025	Mar. 04, 2026	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804397/2,804612/2,803954/2	30MHz~40GHz	Aug. 11, 2025	Aug. 25, 2025~ Aug. 26, 2025	Aug. 10, 2026	Radiation (03CH21-HY)
Hygrometer	TECPEL	DTM-303A	TP211568	N/A	Oct. 21, 2024	Aug. 25, 2025~ Aug. 26, 2025	Oct. 20, 2025	Radiation (03CH21-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Aug. 25, 2025~ Aug. 26, 2025	N/A	Radiation (03CH21-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Aug. 25, 2025~ Aug. 26, 2025	N/A	Radiation (03CH21-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Aug. 25, 2025~ Aug. 26, 2025	N/A	Radiation (03CH21-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Aug. 25, 2025~ Aug. 26, 2025	N/A	Radiation (03CH21-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 01, 2024	Jun. 05, 2025~ Aug. 25, 2025	Oct. 30, 2025	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	13I00030SNO31 (NO:182)	9kHz~6GHz	Jan. 09, 2025	Jun. 05, 2025~ Aug. 25, 2025	Jan. 08, 2026	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV3044	101467	10HZ~44GHZ	Jan. 14, 2025	Jun. 05, 2025~ Aug. 25, 2025	Jan. 13, 2026	Conducted (TH05-HY)
Switch Control Mainframe	E-Instument	ETF-1405-0	EC1900157 (BOX6)	N/A	Feb. 10, 2025	Jun. 05, 2025~ Aug. 25, 2025	Feb. 09, 2026	Conducted (TH05-HY)
Software	Sporton	BTWIFI_Final_version_240513	N/A	Conducted Other Test Item	N/A	Jun. 05, 2025~ Aug. 25, 2025	N/A	Conducted (TH05-HY)

5 Measurement Uncertainty

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**6.3 dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.7 dB**

Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0 dB**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.1 dB**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Shiming Liu	Temperature:	21~25	°C
Test Date:	2025/6/5~2025/8/25	Relative Humidity:	51~54	%

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

Report Number : FR552229E

TEST RESULTS DATA
Average Power Table

UNII-4 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	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
HT20	MCS0	2	169	5845	16.20	16.40	19.31	2.63		21.94		30	
VHT80	MCS0	2	171	5855	21.10	21.50	24.31	2.63		26.94		30	

Appendix B. Radiated Spurious Emission Test Data

Test Engineer :	Fred Tseng, Ray Lung and Sky Chang	**Temperature :**	19~24°C
		Relative Humidity :	51~64%

Note symbol

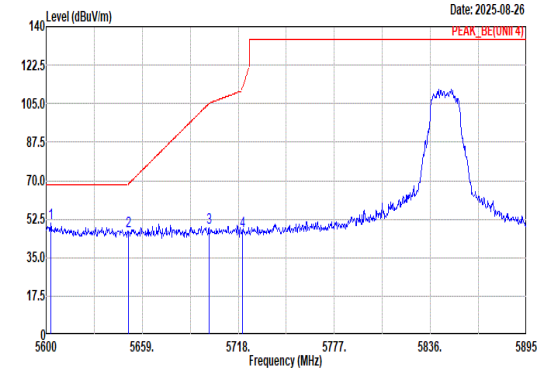
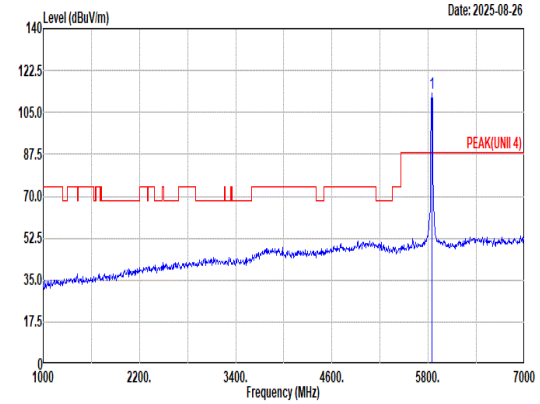
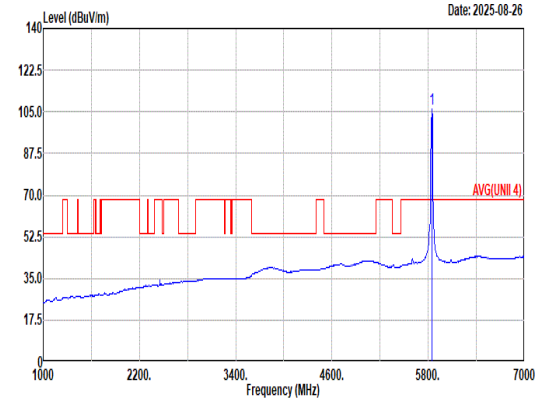
-L	**Low channel location**
-R	**High channel location**

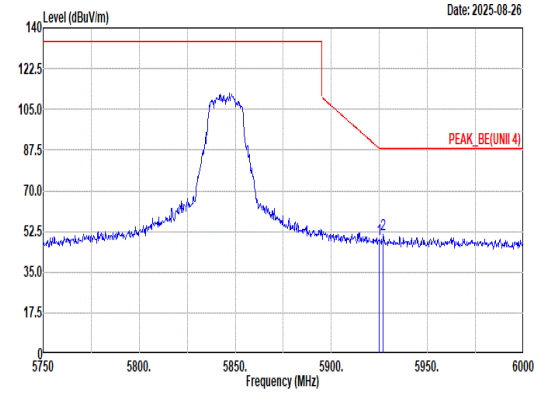
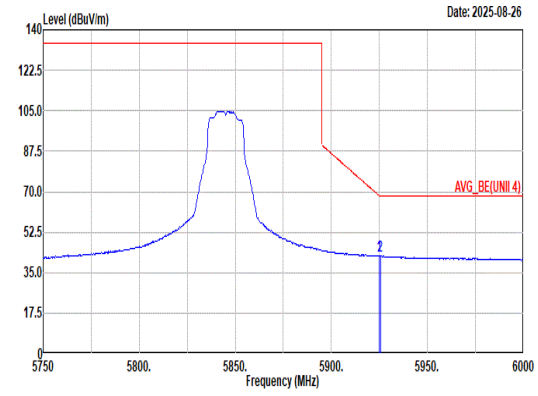
B1.Radiated Spurious Emission Test Modes

Mode	Band	Band (GHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 1	U-NII-4	5.825-5.925	1+2	802.11n HT20	169	5845	MCS0	-	-
Mode 2	U-NII-4	5.825-5.925	1+2	802.11n HT20	169	5845	MCS0	-	SHF
Mode 3	U-NII-4	5.825-5.925	1+2	802.11n HT20	169	5845	MCS0	-	LF

B2.Summary of each worse mode

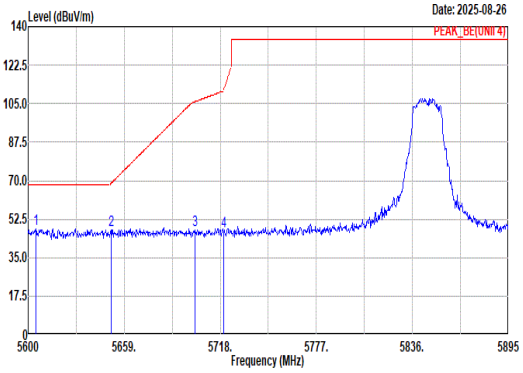
Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	RU	Remark
1	802.11n HT20	169	5602.95	50.69	68.20	-17.51	H	Peak	Pass	-	Band Edge
	802.11n HT20	169	11690.00	40.01	54.00	-13.99	H	Avg.	Pass	-	Harmonic
2	802.11n HT20	169	39486.73	39.10	54.00	-14.90	H	Avg.	Pass	-	SHF
3	802.11n HT20	169	248.25	36.05	46.00	-9.95	H	Peak	Pass	-	LF

Mode	1	
	Band Edge - L	
	U-NII-4_5.825-5.925_802.11n HT20_CH169_5845MHz	
ANT	1+2	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH21-HY Condition: PEAK_BE(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq / Level / Limit Line / Margin / Read Level / Ant Factor / Cable Loss / Preamp Factor / Aux Factor / APos / TPos / Remark 1 5602.95 MHz 50.69 dBuV/m 68.20 dB -17.51 dBuV 39.74 dB/m 32.91 13.35 dB 35.31 0.00 dB 100 cm 88 deg Peak 2 5650.45 MHz 47.05 dBuV/m 68.53 dB -21.48 dBuV 35.86 dB/m 33.10 13.42 dB 35.33 0.00 dB 100 cm 88 deg Peak 3 5700.01 MHz 48.36 dBuV/m 105.20 dB -56.84 dBuV 36.82 dB/m 33.40 13.50 dB 35.36 0.00 dB 100 cm 88 deg Peak 4 5720.36 MHz 46.88 dBuV/m 111.62 dB -64.74 dBuV 35.21 dB/m 33.52 13.52 dB 35.37 0.00 dB 100 cm 88 deg Peak	 Site : 03CH21-HY Condition: PEAK(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq / Level / Limit Line / Margin / Read Level / Ant Factor / Cable Loss / Preamp Factor / Aux Factor / APos / TPos / Remark 1 5845.00 MHz 113.17 dBuV/m ------ dB ------ 101.18 dBuV 33.72 dB/m 13.70 dB 35.43 dB 0.00 dB 100 cm 88 deg Peak
Avg	Blank	 Site : 03CH21-HY Condition: AVG(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Freq / Level / Limit Line / Margin / Read Level / Ant Factor / Cable Loss / Preamp Factor / Aux Factor / APos / TPos / Remark 1 5845.00 MHz 106.17 dBuV/m ------ dB ------ 94.18 dBuV 33.72 dB/m 13.70 dB 35.43 dB 0.00 dB 100 cm 88 deg Average

Mode	1	
	Band Edge - R	
	U-NII-4_5.825-5.925_802.11n HT20_CH169_5845MHz	
ANT	1+2	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH21-HY Condition: PEAK_BE(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 5925.00 49.29 88.20 -38.91 37.31 33.65 13.81 35.48 0.00 100 88 Peak 2 5927.00 51.14 88.20 -37.06 39.16 33.65 13.81 35.48 0.00 100 88 Peak	Blank
Avg	 Site : 03CH21-HY Condition: AVG_BE(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 5925.00 42.11 68.20 -26.09 30.13 33.65 13.81 35.48 0.00 100 88 Average 2 5925.50 42.38 68.20 -25.82 30.40 33.65 13.81 35.48 0.00 100 88 Average	Blank

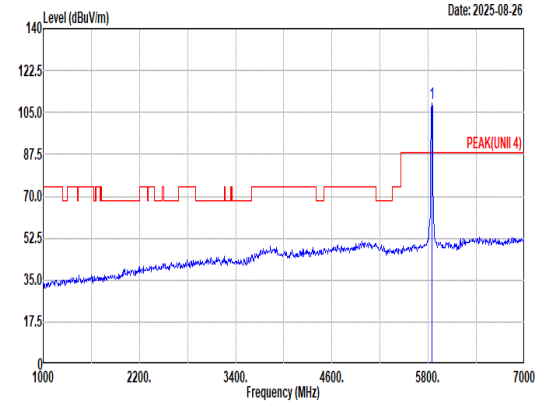
Mode	1	
	Band Edge - L	
	U-NII-4_5.825-5.925_802.11n HT20_CH169_5845MHz	
ANT	1+2	
Pol.	Vertical	Fundamental

Peak



Site : 03CH21-HY
Condition: PEAK_BE(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	5604.72	48.16	68.20	-20.04	37.19	32.92	13.36	35.31	0.00	378	359	Peak
2	5651.04	47.71	68.97	-21.26	36.51	33.11	13.42	35.33	0.00	378	359	Peak
3	5702.37	47.64	105.86	-58.22	36.09	33.41	13.50	35.36	0.00	378	359	Peak
4	5720.07	46.82	110.95	-64.13	35.15	33.52	13.52	35.37	0.00	378	359	Peak

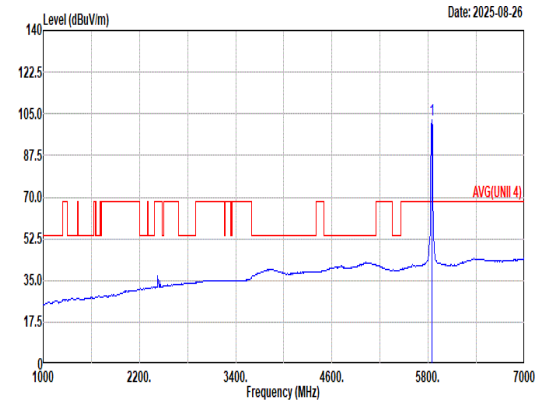


Site : 03CH21-HY
Condition: PEAK(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	5845.00	108.60	------	------	96.64	33.70	13.70	35.44	0.00	378	359	Peak

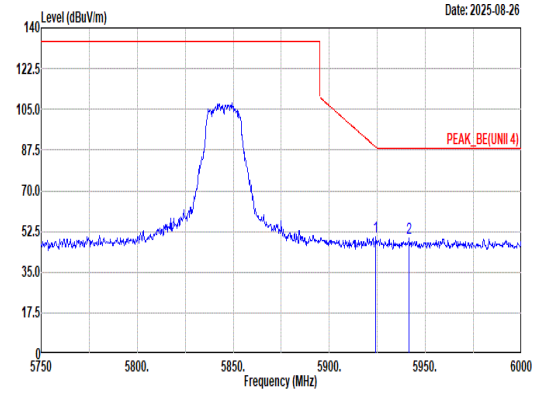
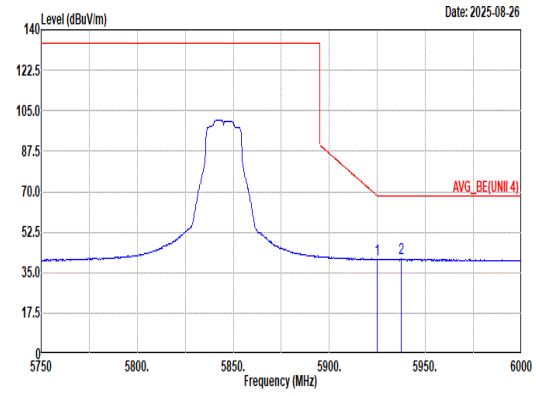
Avg

Blank

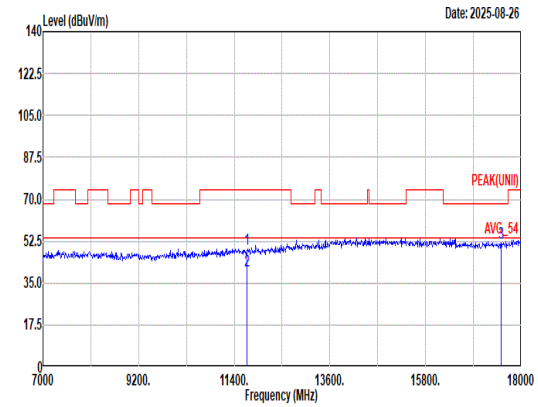
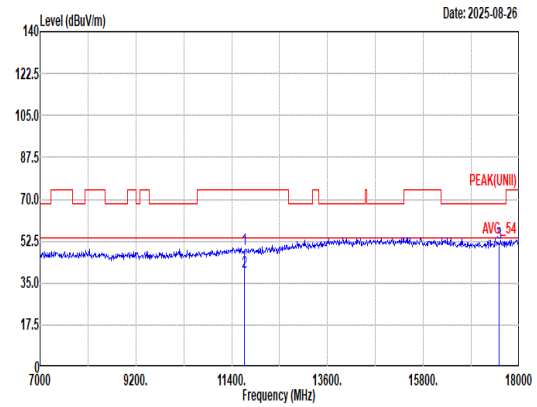
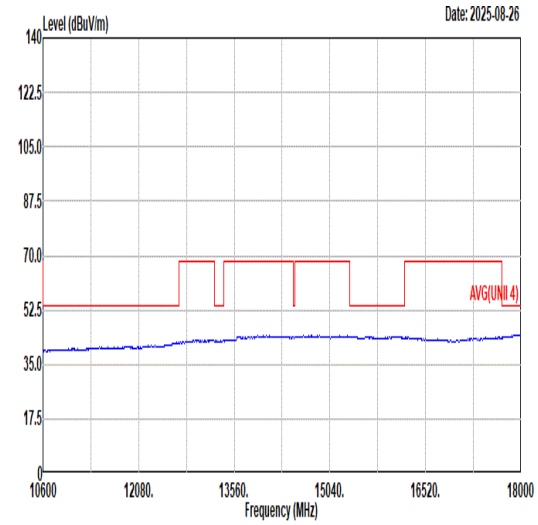
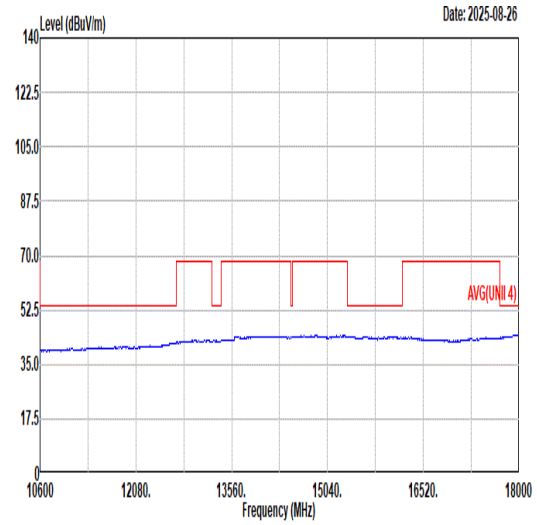


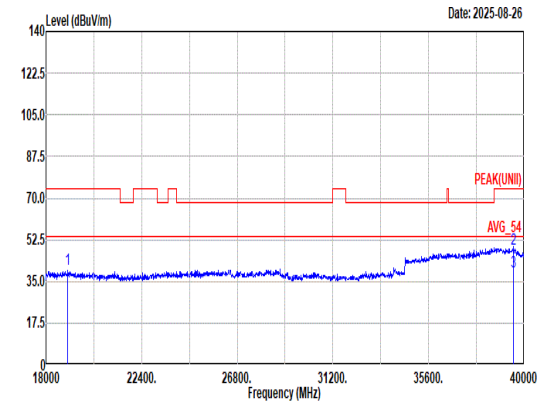
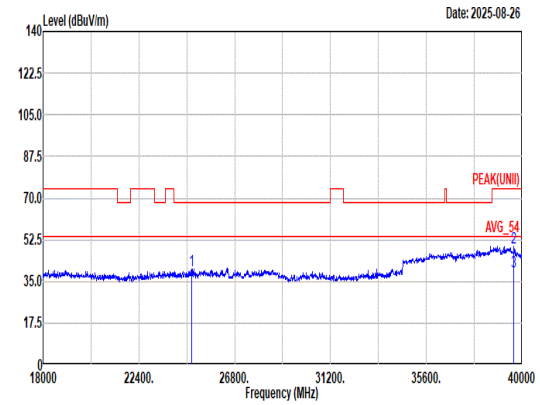
Site : 03CH21-HY
Condition: AVG(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 VERTICAL
: RBW:1000.000kHz VBW:0.010kHz SWT:Auto

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	5845.00	102.30	------	------	90.31	33.72	13.70	35.43	0.00	378	359	Average

Mode	1	
	Band Edge - R	
	U-NII-4_5.825-5.925_802.11n HT20_CH169_5845MHz	
ANT	1+2	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH21-HY Condition: PEAK_BE(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 5924.25 50.36 88.75 -38.39 38.38 33.65 13.81 35.48 0.00 378 359 Peak 2 5941.50 49.42 88.20 -38.78 37.46 33.62 13.83 35.49 0.00 378 359 Peak	Blank
Avg	 Site : 03CH21-HY Condition: AVG_BE(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 5924.75 40.83 68.38 -27.55 28.85 33.65 13.81 35.48 0.00 378 359 Average 2 5937.25 40.94 68.20 -27.26 28.97 33.63 13.83 35.49 0.00 378 359 Average	Blank

Mode	1
	Harmonic
	U-NII-4_5.825-5.925_802.11n HT20_CH169_5845MHz
ANT	1+2

Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH21-HY Condition: PEAK(UNII) 3m DRH18-E_LE2C03A18EN_250807 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 11690.00 49.38 74.00 -24.62 31.78 38.40 19.62 41.16 0.74 -- -- Peak 2 11690.00 40.01 54.00 -13.99 22.41 38.40 19.62 41.16 0.74 -- -- Average 3 17535.00 51.74 68.20 -16.46 33.91 39.83 24.46 47.07 0.61 -- -- Peak	 Site : 03CH21-HY Condition: PEAK(UNII) 3m DRH18-E_LE2C03A18EN_250807 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 11690.00 49.17 74.00 -24.83 31.57 38.40 19.62 41.16 0.74 -- -- Peak 2 11690.00 39.85 54.00 -14.15 22.25 38.40 19.62 41.16 0.74 -- -- Average 3 17535.00 51.87 68.20 -16.33 34.04 39.83 24.46 47.07 0.61 -- -- Peak
10.6G ~18G Avg	 Site : 03CH21-HY Condition: AVG(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 HORIZONTAL	 Site : 03CH21-HY Condition: AVG(UNII 4) 3m DRH18-E_LE2C03A18EN_250807 VERTICAL

Mode	2	
	SHF	
	U-NII-4_5.825-5.925_802.11n HT20_CH169_5845MHz	
ANT	1+2	
Pol.	Horizontal	Vertical
Peak		

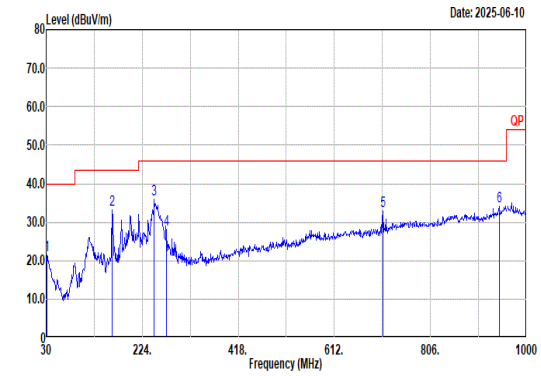
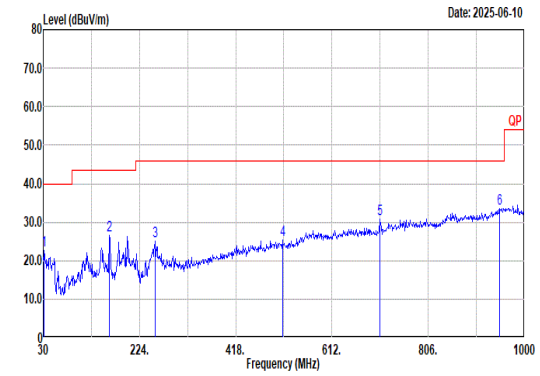
Site : 03CH21-HY
Condition: PEAK(UNII) 1m BBHA9170_1223_250702 HORIZONTAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	18998.91	40.01	74.00	-33.99	50.08	38.30	25.47	64.30	-9.54	--	--	PEAK
2	39486.73	48.80	74.00	-25.20	38.40	45.24	37.58	62.88	-9.54	234	192	PEAK
3	39486.73	39.10	54.00	-14.90	28.93	45.03	37.59	62.91	-9.54	234	192	Average

Site : 03CH21-HY
Condition: PEAK(UNII) 1m BBHA9170_1223_250702 VERTICAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	24827.39	39.42	68.20	-28.78	42.16	39.60	29.10	61.90	-9.54	--	--	PEAK
2	39615.75	49.04	74.00	-24.96	38.99	45.14	37.65	63.20	-9.54	192	360	PEAK
3	39615.75	38.95	54.00	-15.05	28.85	45.18	37.65	63.19	-9.54	192	360	Average

Mode	3
	LF
	U-NII-4_5.825-5.925_802.11n HT20_CH169_5845MHz
ANT	1+2

Pol.	Horizontal	Vertical
QP/ Peak		

Site : 03CH21-HY
Condition: QP 3m LF_63303&001_241217 HORIZONTAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	30.97	21.36	40.00	-18.64	28.55	24.43	0.87	32.51	0.02	--	--	Peak
2	162.89	33.28	43.50	-10.22	47.20	16.20	2.23	32.42	0.07	--	--	Peak
3	248.25	36.05	46.00	-9.95	47.23	18.45	2.76	32.46	0.07	--	--	Peak
4	273.47	28.13	46.00	-17.87	38.73	18.89	2.91	32.47	0.07	--	--	Peak
5	709.97	32.84	46.00	-13.16	33.91	26.80	4.68	32.67	0.12	--	--	Peak
6	944.71	34.12	46.00	-11.88	28.95	30.88	5.38	31.29	0.20	--	--	Peak

Site : 03CH21-HY
Condition: QP 3m LF_63303&001_241217 VERTICAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	31.94	22.68	40.00	-17.32	30.26	24.02	0.89	32.51	0.02	--	--	Peak
2	163.86	26.59	43.50	-16.91	40.59	16.11	2.24	32.42	0.07	--	--	Peak
3	255.04	25.20	46.00	-20.80	35.49	19.31	2.80	32.47	0.07	--	--	Peak
4	512.09	25.39	46.00	-20.61	29.81	24.14	3.98	32.66	0.12	--	--	Peak
5	708.03	30.87	46.00	-15.13	32.00	26.76	4.67	32.68	0.12	--	--	Peak
6	949.56	33.62	46.00	-12.38	28.09	31.17	5.39	31.23	0.20	--	--	Peak

Appendix C. Duty Cycle Plots

Antenna	Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
1+2	5GHz 802.11n HT20	99.45	-	-	10Hz

MIMO <Ant. 1+2>

802.11n HT20