FCC RADIO TEST REPORT

FCC ID	:	**UZ7WCMTB**
Equipment	:	**Touch Computer**
Brand Name	:	**Zebra**
Model Name	:	**WCMTB**
Applicant	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Manufacturer	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Feb. 08, 2023 and testing was performed from Feb. 10, 2023 to Mar. 24, 2023. 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 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
FR311909F	01	Initial issue of report	Mar. 31, 2023
FR311909F	02	1. Add Sample 2 information and data 2. Revise Product Specification of Equipment Under Test 3. This report is an updated version, replacing the report issued on Mar. 31, 2023.	Apr. 06, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	6dB & 26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	2.23 dB under the limit at 5650.000 MHz
3.5	15.207	AC Conducted Emission	Pass	18.42 dB under the limit at 15.646 MHz
3.6	15.203	Antenna Requirement	Pass	-

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. Please refer to the section ” Uncertainty of Evaluation ” for 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: Keven Cheng

Report Producer: Ming Chen

1 General Description

1.1 Product Feature of Equipment Under Test

Product Information	
Equipment	Touch Computer
Brand Name	Zebra
Model Name	WCMTB
Sample 1	Scanner(SE4710)
Sample 2	Scanner(SE5500)
FCC ID	UZ7WCMTB
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/NFC/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
HW Version	DV
SW Version	13-09-16.00-TG-U00-STD-ATH-04
FW Version	FUSION_QA_4_1.0.0.017_T
MFD	16MAR23
EUT Stage	Identical Prototype

Remark: The EUT's information above was declared by manufacturer.

Specification of Accessories				
Battery 1 **Standard Battery (3800mAh)**	**Brand Name**	Zebra	**Model Number**	BT-000473

Support Unit used in test configuration and system				
Battery 2 **Standard BLE Beacon Battery (3800mAh)**	**Brand Name**	Zebra	**Part Number**	BT-000473B
Battery 3 **Extended Battery (5200mAh)**	**Brand Name**	Zebra	**Part Number**	BT-000473E
Adapter **USB Wall Charger**	**Brand Name**	Zebra	**Part Number**	PWR-WUA5V12W0US
Earphone 1 **3.5mm PTT Headset**	**Brand Name**	Zebra	**Part Number**	HDST-35MM-PTT1-01
Earphone 2 **USB-C Audio Headset**	**Brand Name**	Zebra	**Part Number**	HDST-USBC-PTT1-01
USB Cable **(Type C to Type A)**	**Brand Name**	Zebra	**Part Number**	CBL-TC5X-USBC2A-01
Type C-Audio Cable **(Type C to 3.5mm)**	**Brand Name**	Zebra	**Part Number**	ADP-USBC-35MM1-01
Trigger Handle	**Brand Name**	Zebra	**Part Number**	TRG-TC2L-SNP1-01

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx/Rx Frequency Range	5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna	**MIMO <Ant. 7+8>** 802.11a: 22.18 dBm / 0.1652 W 802.11n HT20: 21.89 dBm / 0.1545 W 802.11n HT40: 21.94 dBm / 0.1563 W 802.11ac VHT20: 21.79 dBm / 0.1510 W 802.11ac VHT40: 21.89 dBm / 0.1545 W 802.11ac VHT80: 21.63 dBm / 0.1455 W 802.11ax HE20: 21.94 dBm / 0.1563 W 802.11ax HE40: 21.99 dBm / 0.1581 W 802.11ax HE80: 21.73 dBm / 0.1489 W
99% Occupied Bandwidth	**MIMO <Ant. 7>** 802.11a: 16.68 802.11ax HE20: 19.18 MHz 802.11ax HE40: 38.06 MHz 802.11ax HE80: 77.44 MHz **MIMO <Ant. 8>** 802.11a: 16.53 MHz 802.11ax HE20: 19.03 MHz 802.11ax HE40: 38.16 MHz 802.11ax HE80: 77.32 MHz
Antenna Type / Gain	**<Ant. 7>:** IFA Antenna with gain 0.87 dBi **<Ant. 8>:** IFA Antenna with gain 0.40 dBi
Type of Modulation	802.11a/n: OFDM (BPSK/QPSK/16QAM/64QAM) 802.11ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM) 802.11ax:OFDMA (BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM)
Antenna Function Description	<table><tr><td></td><td>Ant. 7</td><td>Ant. 8</td></tr><tr><td>802.11a/n/ac/ax MIMO</td><td>V</td><td>V</td></tr><tr><td>802.11ax TXBF</td><td>V</td><td>V</td></tr></table>

Remark:

1. MIMO Ant. 7+8 Directional Gain is a calculated result from MIMO Ant. 7 and MIMO Ant. 8. The formula used in calculation is documented in section 1.2.1.
2. Power of MIMO Ant. 7 + Ant. 8 is a calculated result from sum of the power MIMO Ant. 7 and MIMO Ant. 8.
3. 802.11ax Support Tx Beamforming mode, and the manufacturer declares that Tx Beamforming power/EIRP is less than CDD mode 3dbm, so CDD mode cover Tx Beamforming mode.
4. The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.2.1 Antenna 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 $N_{ANT} \le 4$.

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 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.

			DG for Power	DG for PSD	Power Limit Reduction	PSD Limit Reduction
	Ant 7 (dBi)	Ant 8 (dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	0.87	0.40	0.87	3.65	0.00	0.00

Calculation example:

If a device has two antenna, G_{ANT1}= 0.87dBi; G_{ANT2}=0.40dBi

Directional gain of power measurement = max(0.87, 0.40) + 0 = 0.87 dBi

Directional gain of PSD derived from formula which is

10 x log { { [10^ (0.87 dBi / 20) + 10^ (0.40 dBi / 20)] ^ 2 } / 2 }

= 3.65 dBi

Power and PSD limit reduction = Composite gain – 6dBi, (min = 0)

<TXBF Modes>

The EUT supports beamforming modes , then

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

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

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.

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

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant 7	Ant 8	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	0.87	0.40	3.65	3.65	0.00	0.00

Calculation example:

Directional gain is derived from formula which is

10 x log { { [10^ (0.87 dBi / 20) + 10^ (0.40 dBi / 20)] ^ 2 } / 2 }

= 3.65 dBi

Power and PSD limit reduction = Composite gain – 6dBi, (min = 0)

1.3 Modification of EUT

No modifications made to the EUT during the testing.

1.4 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, CO07-HY, 03CH11-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW3786

1.5 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.
- 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.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

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: conduction emission (150 kHz to 30 MHz), 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.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155#	5775	165	5825

Note:

1. The above Frequency and Channel with "*" are 802.11n HT40 and 802.11ac VHT40 and 802.11ax HE40.
2. The above Frequency and Channel with "#" are 802.11ac VHT80 and 802.11ax HE80.

2.2 Test Mode

This device support 26/52/106/242/484-tone RU.

The PSD of partial RU is reduced to be smaller than full RU according to TCB workshop interim guidance Oct. 2018.

The 802.11ax mode is investigated among different tones, full resource units (RU), partial resource units. The partial RU has no higher power than full RU's, thus the full RU is chosen as main test configuration.

The 242-tone RU is covered by 20MHz channel, 484-tone RU is covered by 40MHz channel and 996-tone RU is covered by 80MHz channel.

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

The power for 802.11n and 802.11ac mode is smaller than 802.11ax mode, so all other conducted and radiated test is covered by 802.11ax mode.

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

MIMO Mode

Modulation	Data Rate
802.11a	**6 Mbps**
802.11n HT20 (Covered by HE20)	**MCS0**
802.11n HT40 (Covered by HE40)	**MCS0**
802.11ac VHT20 (Covered by HE20)	**MCS0**
802.11ac VHT40 (Covered by HE40)	**MCS0**
802.11ac VHT80 (Covered by HE80)	**MCS0**
802.11ax HE20	**MCS0**
802.11ax HE40	**MCS0**
802.11ax HE80	**MCS0**

Remark: The conducted power level of each chain in MIMO mode is equal or higher than SISO mode.

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + Camera (Rear) + Battery 1 + USB Cable (Type C to Type A) (Charging from Adapter) for Sample 1

<Sample 1 with Battery 1>

Ch. #		Band IV：5725-5850 MHz			
		802.11a	802.11ax HE20	802.11ax HE40	802.11ac VHT80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

<Sample 1 with Battery 2>

Ch. #		Band IV：5725-5850 MHz
		802.11ax HE80
L	Low	-
M	Middle	155
H	High	-

<Sample 1with Battery 3>

Ch. #		Band IV：5725-5850 MHz
		802.11ax HE80
L	Low	-
M	Middle	155
H	High	-

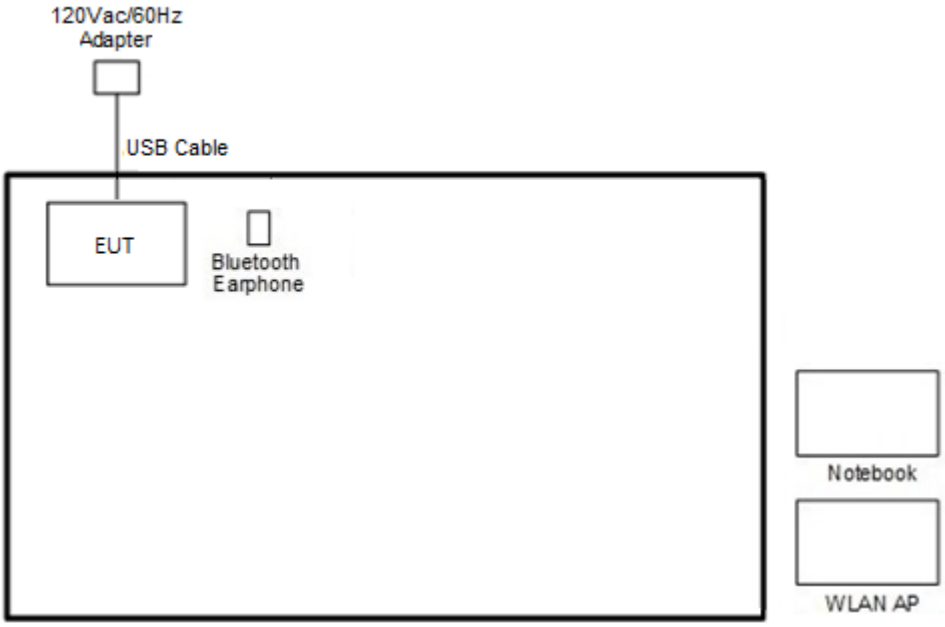
<Sample 2 with Battery 1>

Ch. #		Band IV：5725-5850 MHz
		802.11ax HE80
L	Low	-
M	Middle	155
H	High	-

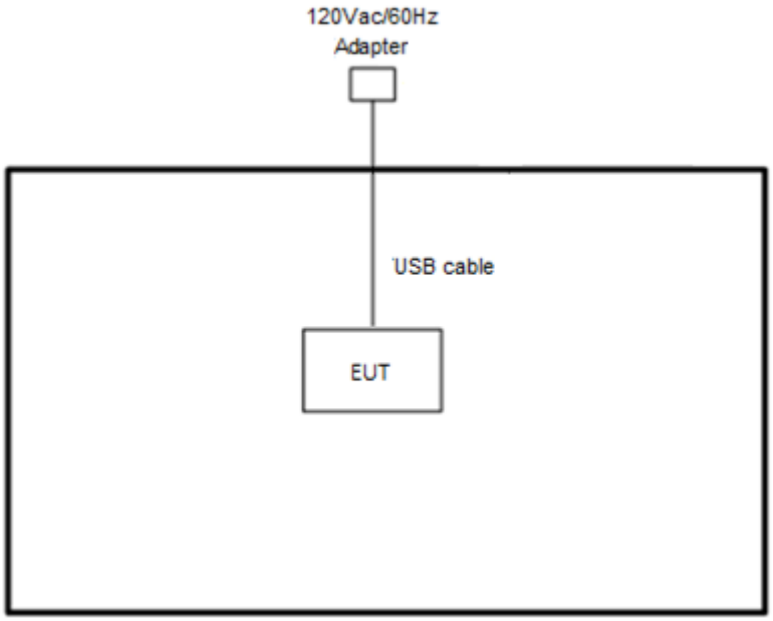
Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WLAN Tx Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Kinyo	BTE-3622	N/A	N/A	N/A
2.	WLAN AP	ASUS	RT-AC52	N/A	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	P79G	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT Version 4.0.00206.0” 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.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10 dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

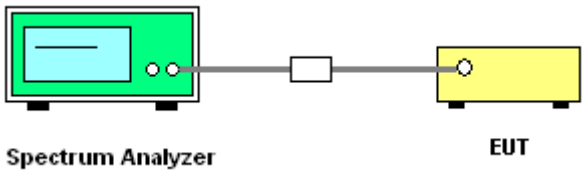
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth for the band 5.725-5.85 GHz
2. Set RBW = 100 kHz.
3. Set the VBW ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

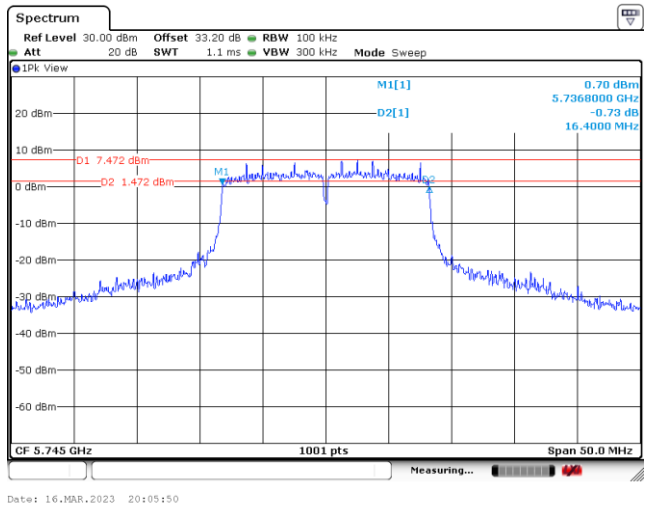
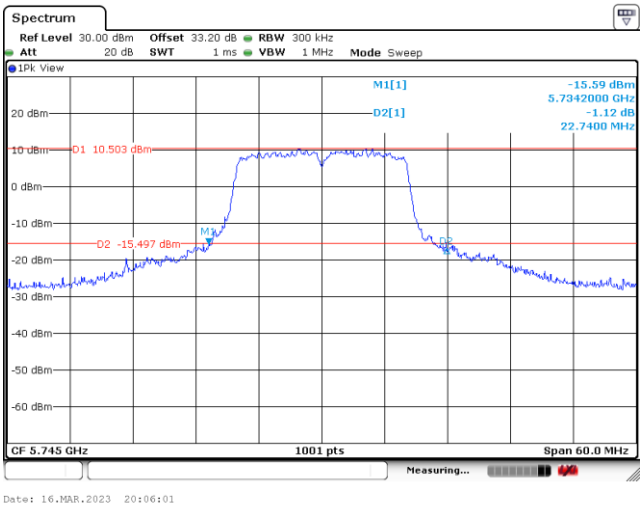
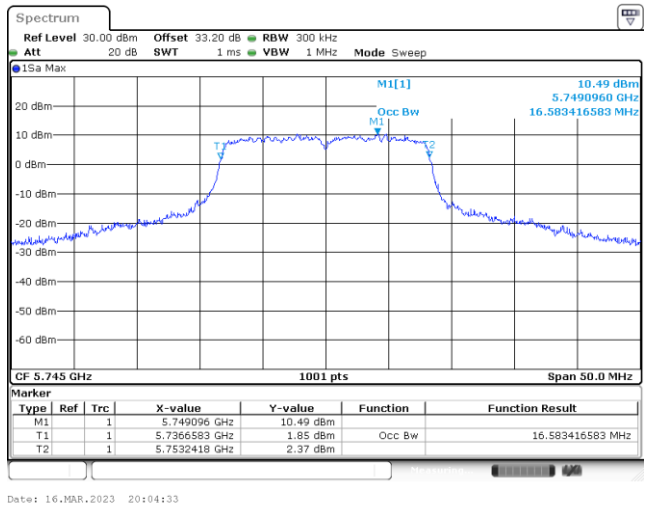
3.1.4 Test Setup



3.1.5 Test Result of 6dB and 26dB and 99% Occupied Bandwidth

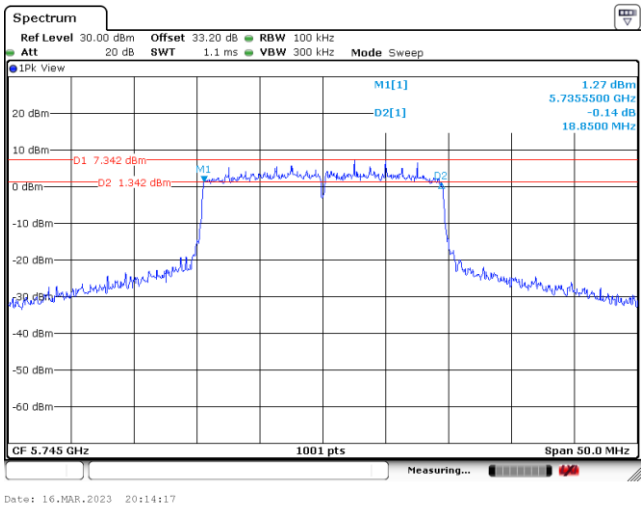
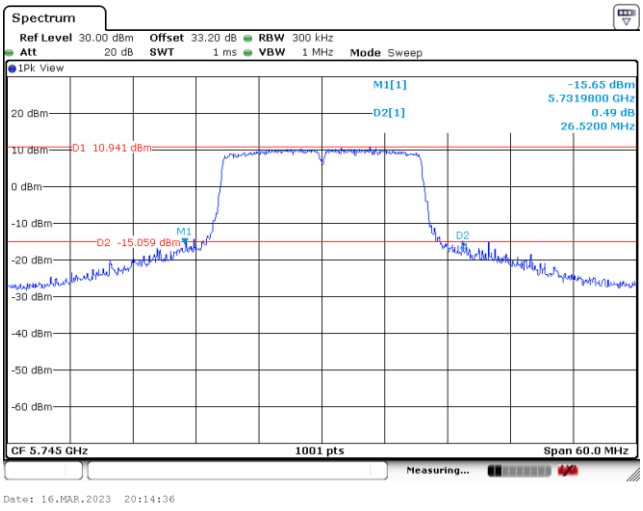
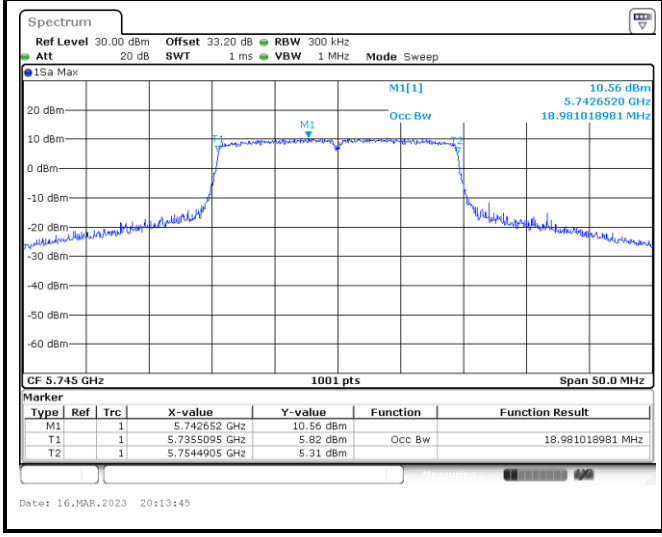
Please refer to Appendix A.

<802.11a>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

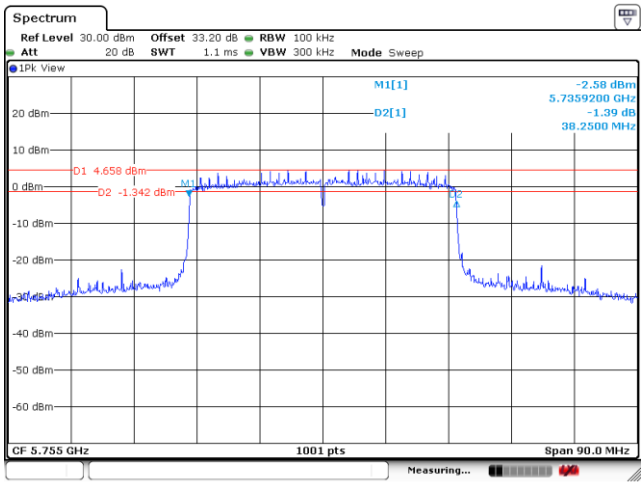
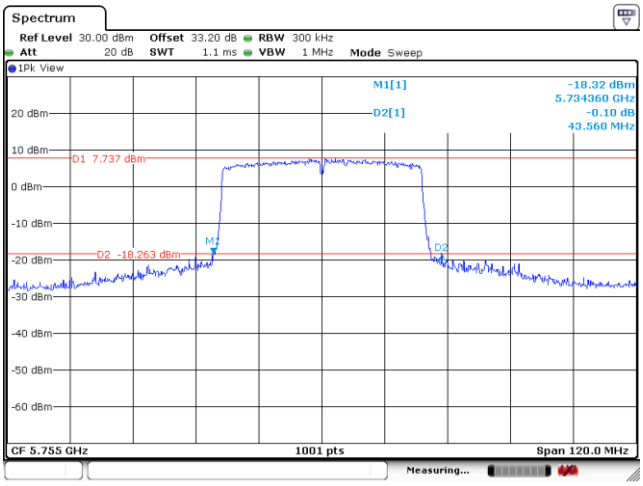
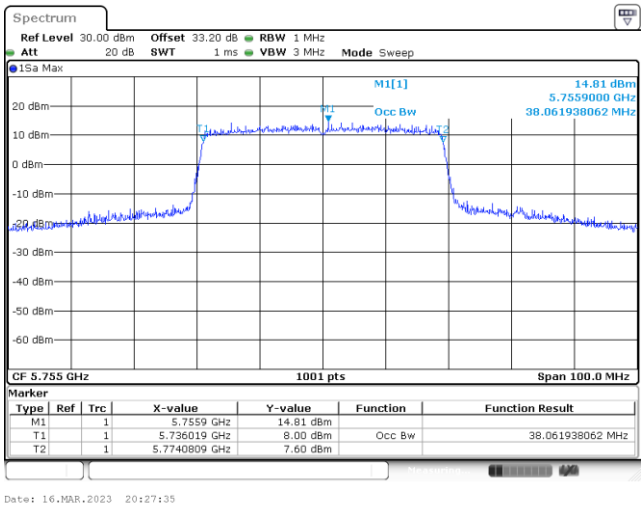
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE20>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

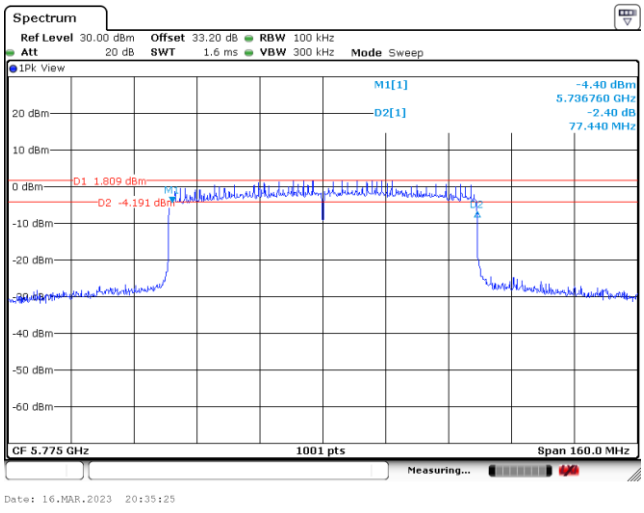
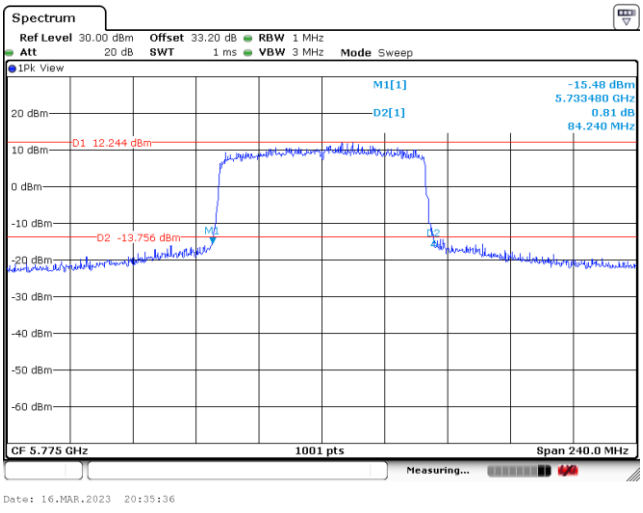
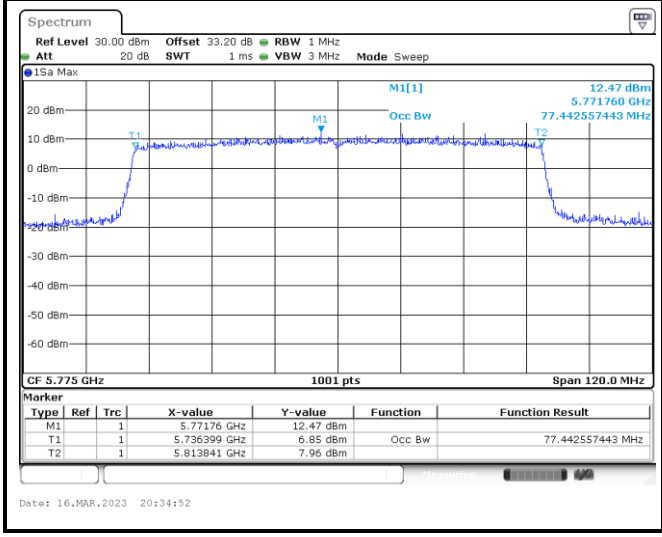
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE40>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE80>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measuring Instruments

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

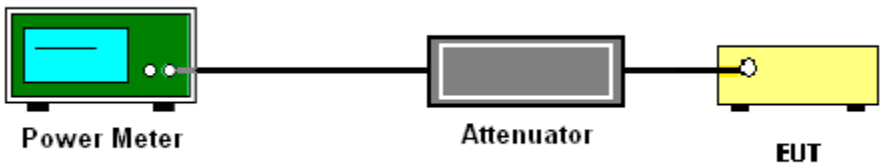
3.2.3 Test Procedures

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

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is the duty cycle.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Section F) Maximum power spectral density.

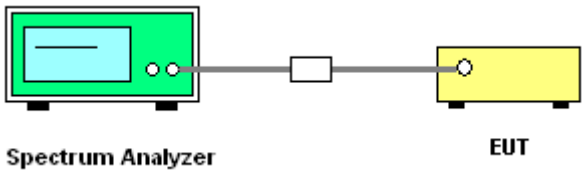
 # Method SA-1 #

(trace averaging with the EUT transmissiing at full power throughout each sweep).

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300kHz.
- Set VBW ≥ 1 MHz.
- Add 10 log (500 kHz/RBW) to the measured result, whereas RBW (<500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.

1. The RF output of EUT is connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
   Method (c): Measure and add 10 log(N_{ANT}) dB.
   With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity 10 log(N_{ANT}) dB is added to each spectrum value before comparing to the emission limit. The addition of 10 log(N_{ANT}) dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than 1/N_{ANT} th of the PSD limit.

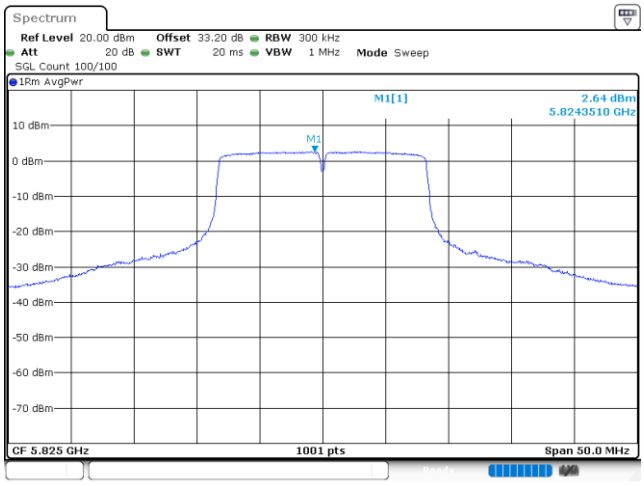
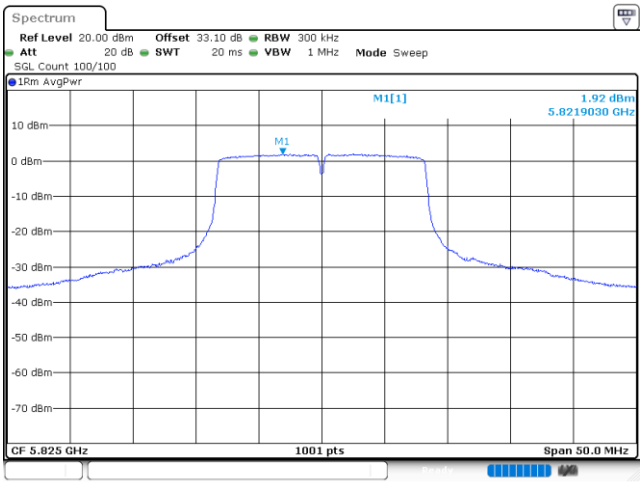
3.3.4 Test Setup



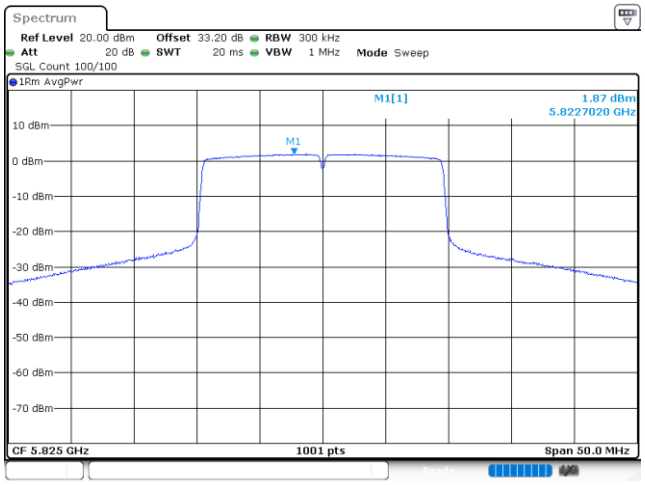
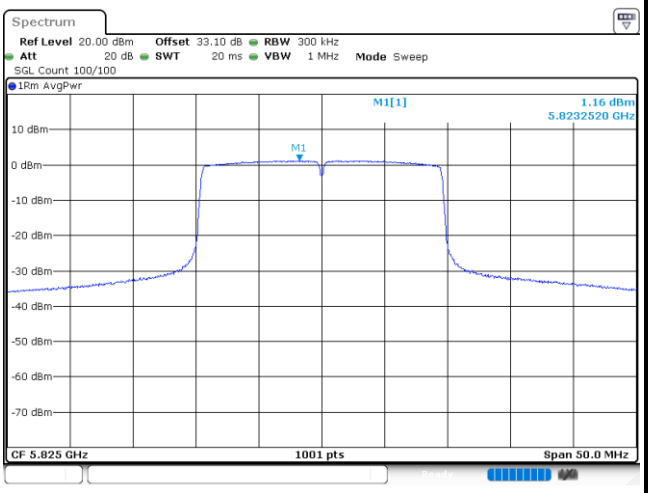
3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

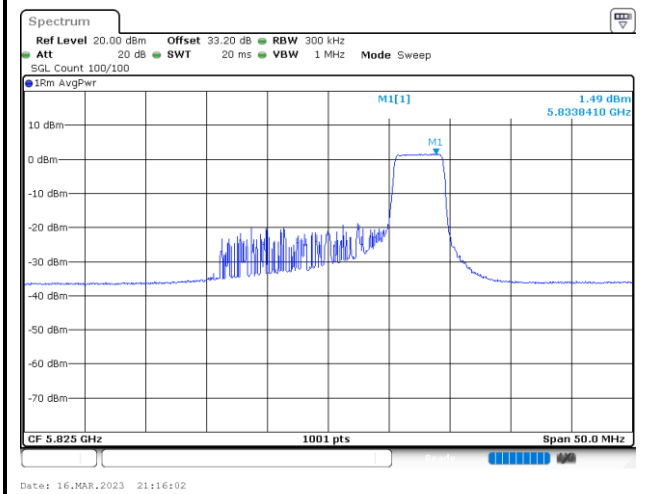
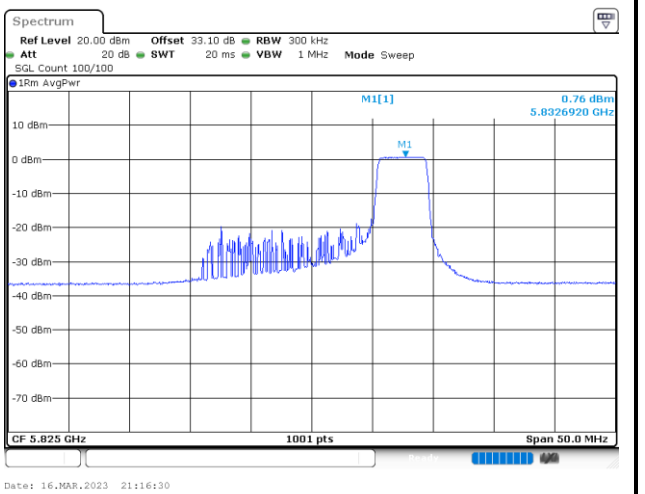
<802.11a>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

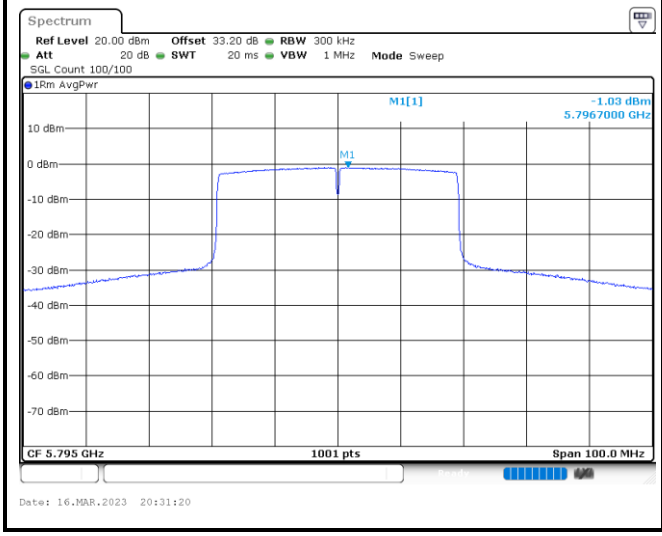
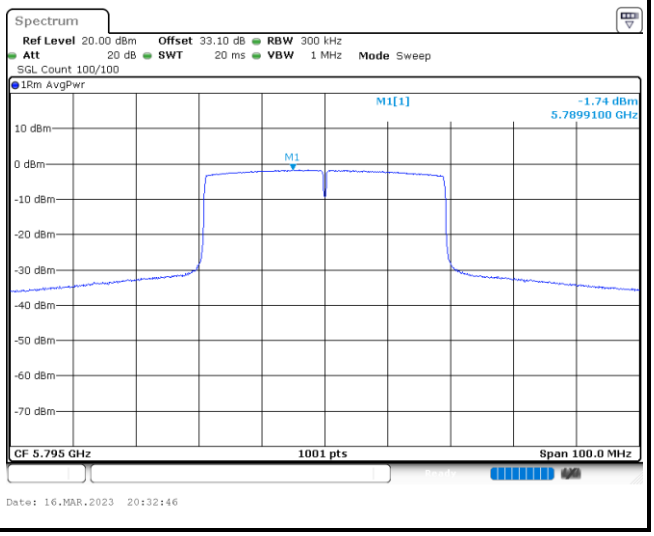
<802.11ax HE20 Full RU>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

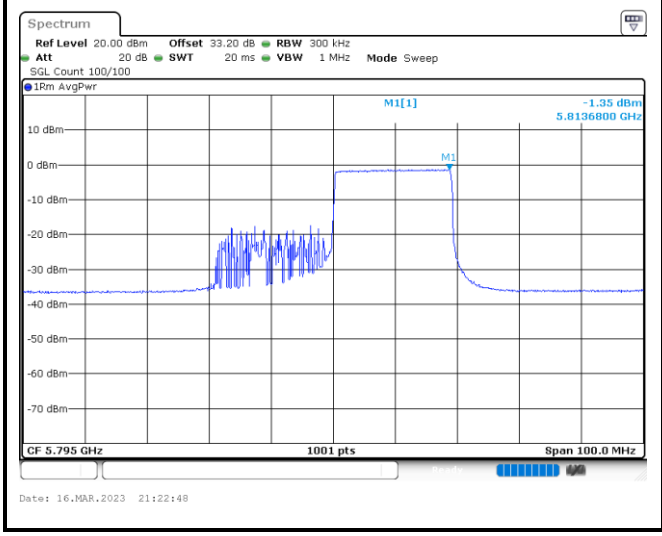
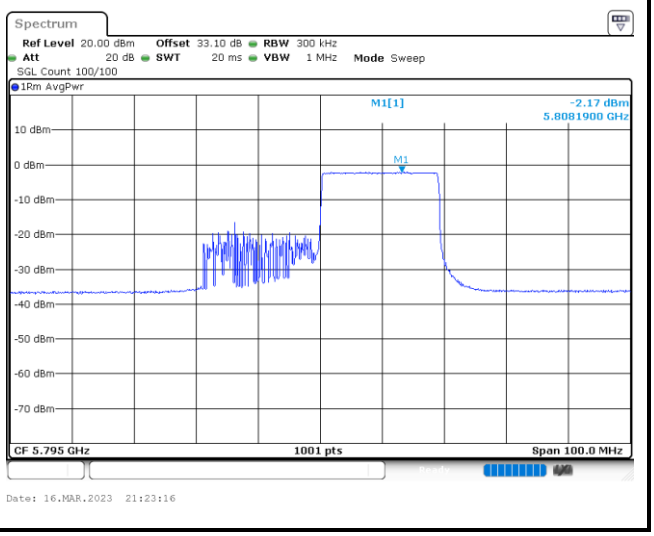
<802.11ax HE20 52RU40>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

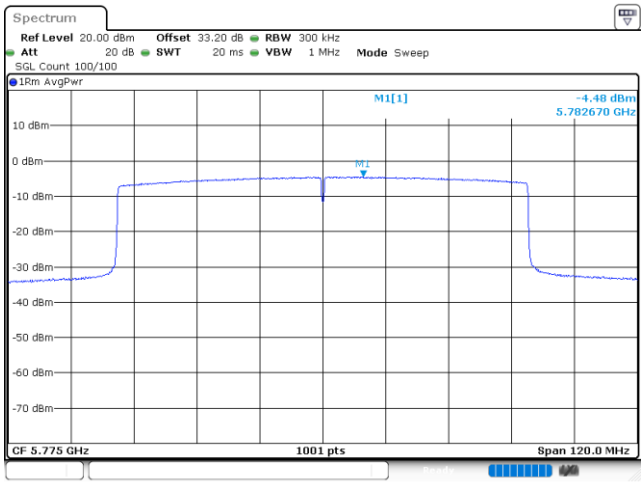
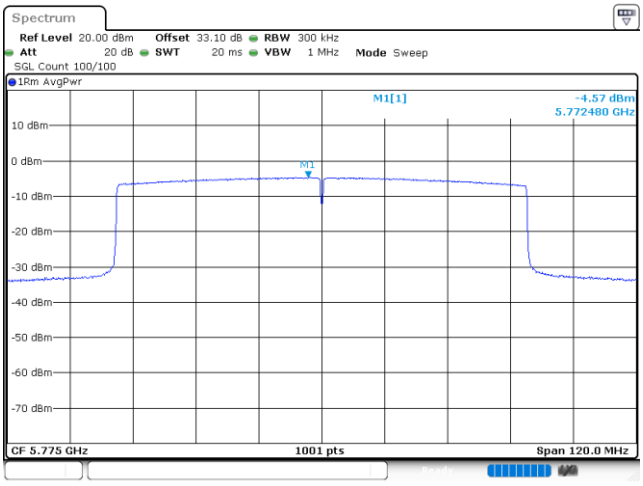
<802.11ax HE40 Full RU>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

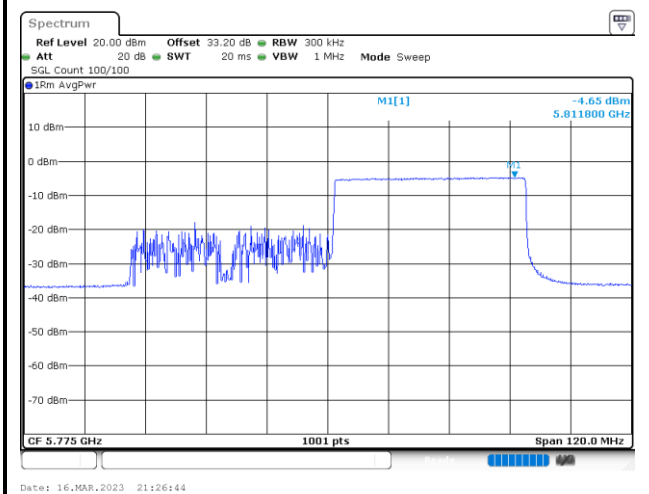
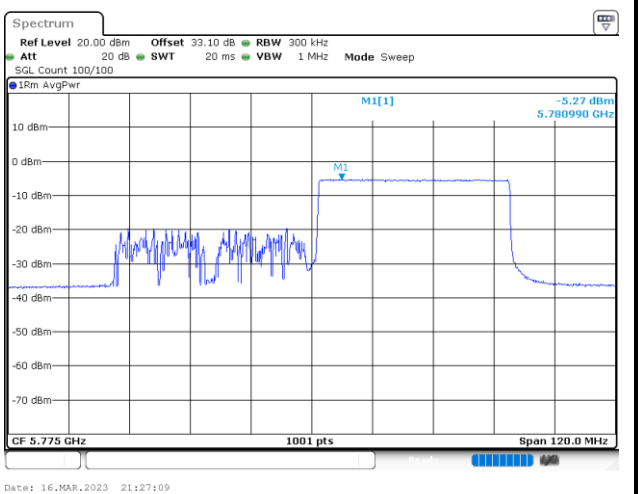
<802.11ax HE40 242RU62>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

<802.11ax HE80 Full RU>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

<802.11ax HE80 484RU66>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 7	**MIMO Ant. 8**
	

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(2) Unwanted spurious emissions falls in restricted bands shall comply with the general field strength limits as below 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)

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.3

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

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of −27 dBm/MHz.

(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

3.4.2 Measuring Instruments

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

3.4.3 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

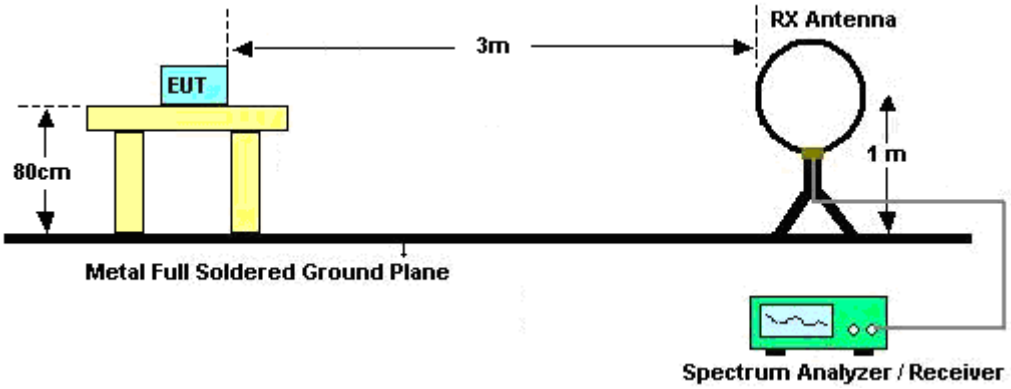
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT is 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 is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The 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 of the antenna.
5. For each suspected emission, the EUT is 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 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin

against QP limit line, the position is marked as "-".

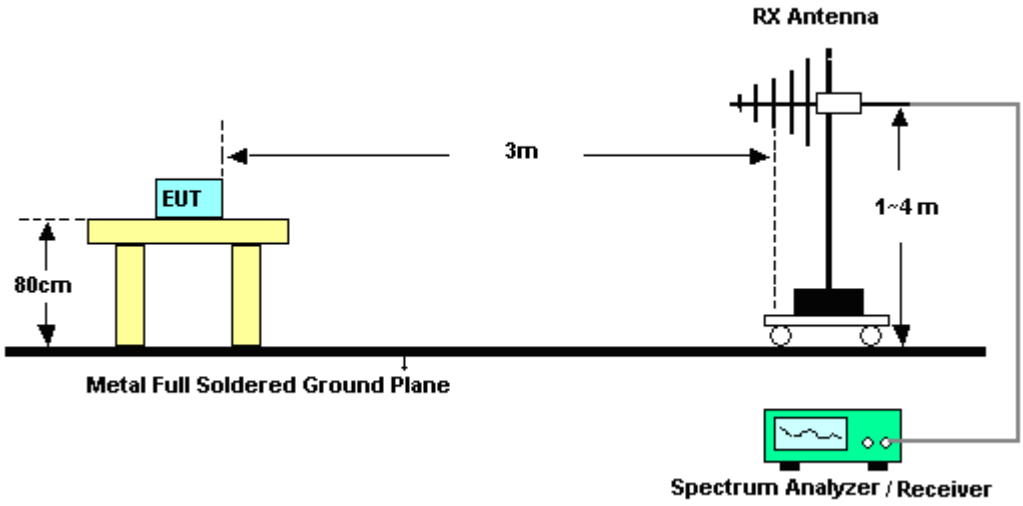
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies.
   When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as "-".

3.4.4 Test Setup

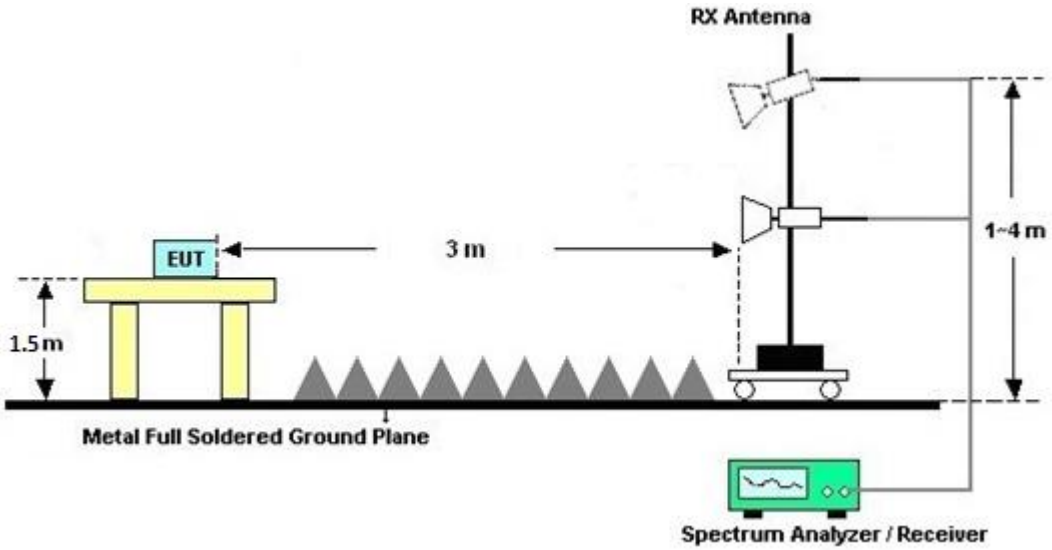
For radiated emissions below 30MHz



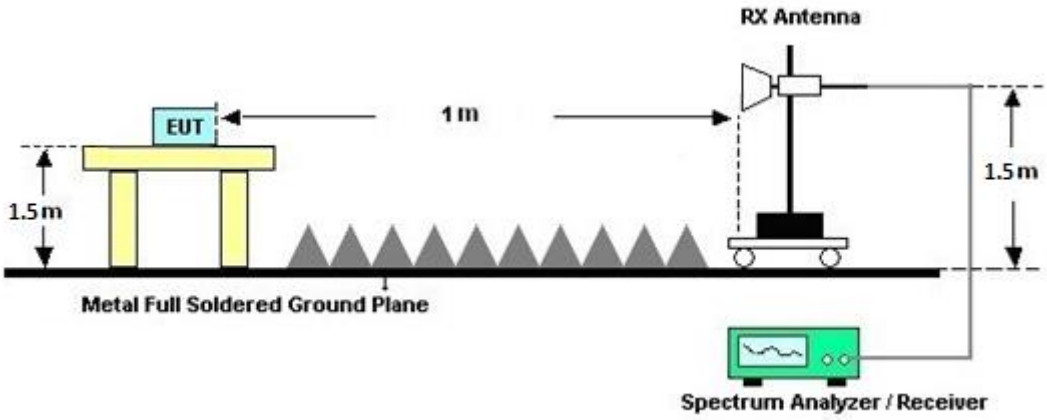
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



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

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is 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.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

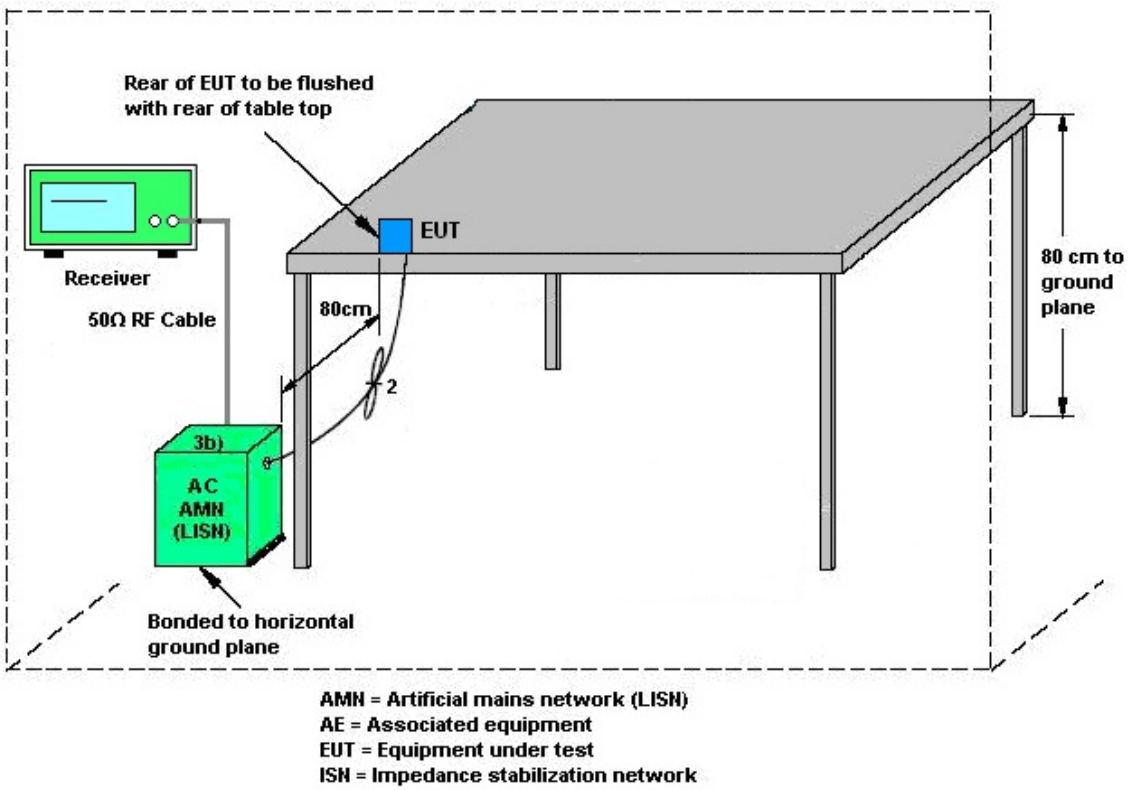
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Antenna Requirements

3.6.1 Standard Applicable

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 rule.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz~18GHz	Mar. 10, 2022	Feb. 22, 2023~ Mar. 06, 2023	Mar. 09, 2023	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz~18GHz	Mar. 23, 2023	Mar. 24, 2023	Mar. 22, 2024	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Aug. 24, 2022	Mar. 07, 2023~ Mar. 24, 2023	Aug. 23, 2023	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz~40GHz	Nov. 24, 2022	Feb. 22, 2023~ Mar. 24, 2023	Nov. 23, 2023	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 09, 2022	Feb. 22, 2023~ Mar. 24, 2023	Nov. 08, 2023	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-303	17100018000 55007	1GHz~18GHz	Jun. 15, 2022	Feb. 22, 2023~ Mar. 24, 2023	Jun. 14, 2023	Radiation (03CH11-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 28, 2022	Feb. 22, 2023~ Mar. 24, 2023	Jun. 27, 2023	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 07, 2022	Feb. 22, 2023~ Mar. 24, 2023	Oct. 06, 2023	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Feb. 22, 2023~ Mar. 24, 2023	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Feb. 22, 2023~ Mar. 24, 2023	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Feb. 22, 2023~ Mar. 24, 2023	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Feb. 22, 2023~ Mar. 24, 2023	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 10, 2022	Feb. 22, 2023~ Mar. 06, 2023	Mar. 09, 2023	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 07, 2023	Mar. 24, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz-30MHz	Mar. 10, 2022	Feb. 22, 2023~ Mar. 06, 2023	Mar. 09, 2023	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz-30MHz	Mar. 07, 2023	Mar. 24, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30MHz-18GHz	Mar. 10, 2022	Feb. 22, 2023~ Mar. 06, 2023	Mar. 09, 2023	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY15539/4	30MHz-18GHz	Dec. 20, 2022	Mar. 24, 2023	Dec. 19, 2023	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801595/2	30MHz-18GHz	Nov. 23, 2022	Feb. 22, 2023~ Mar. 24, 2023	Nov. 22, 2023	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 07, 2023	Mar. 07, 202~ Mar. 11, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 07, 2023	Mar. 24, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801595/2	30MHz-40GHz	Mar. 07, 2023	Mar. 07, 2023~ Mar. 11, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Dec. 20, 2022	Mar. 24, 2023	Dec. 19, 2023	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9K~30M	Mar. 07, 2023	Mar. 07, 2023~ Mar. 11, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9K~30M	Mar. 07, 2023	Mar. 24, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	30MHz-40GHz	Mar. 07, 2023	Mar. 07, 2023~ Mar. 11, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	30MHz-40GHz	Mar. 07, 2023	Mar. 24, 2023	Mar. 06, 2024	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN11	1.53GHz Low Pass Filter	Sep. 12, 2022	Feb. 22, 2023~ Mar. 24, 2023	Sep. 11, 2023	Radiation (03CH11-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40SS	SN3	6.75GHz High Pass Filter	Sep. 12, 2022	Feb. 22, 2023~ Mar. 24, 2023	Sep. 11, 2023	Radiation (03CH11-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303B	TP140325	N/A	Nov. 07, 2022	Feb. 22, 2023~ Mar. 24, 2023	Nov. 06, 2023	Radiation (03CH11-HY)
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Feb. 16, 2023	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Feb. 16, 2023	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Nov. 01, 2022	Feb. 16, 2023	Oct. 31, 2023	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Mar. 16, 2022	Feb. 16, 2023	Mar. 15, 2023	Conduction (CO07-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 01, 2022	Feb. 16, 2023	Nov. 30, 2023	Conduction (CO07-HY)
Four-Line V-Network	TESEQ	NNB 52	36122	N/A	Mar. 04, 2022	Feb. 16, 2023	Mar. 03, 2023	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI7	100724	9kHz~7GHz	Feb. 24, 2022	Feb. 16, 2023	Feb. 23, 2023	Conduction (CO07-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 17, 2022	Feb. 10, 2023~ Mar. 16, 2023	Nov. 16, 2023	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO 12 (NO:113)	10MHz~6GHz	Dec. 13, 2022	Feb. 10, 2023~ Mar. 16, 2023	Dec. 12, 2023	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	0932001	N/A	Sep. 26, 2022	Feb. 10, 2023~ Mar. 16, 2023	Sep. 25, 2023	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 26, 2022	Feb. 10, 2023~ Mar. 16, 2023	Sep. 25, 2023	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101905	10Hz - 40GHz(amp)	Aug. 03, 2022	Feb. 10, 2023~ Mar. 16, 2023	Aug. 02, 2023	Conducted (TH05-HY)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.46 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.30 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.40 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.80 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.30 dB

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu	Temperature:	21~25	°C
Test Date:	2023/2/10~2023/3/16	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

U-NII-3 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
					Ant 7	Ant 8	Ant 7	Ant 8	Ant 7	Ant 8		
11a	6Mbps	2	149	5745	16.58	16.53	22.74	21.78	16.40	16.45	0.5	Pass
11a	6Mbps	2	157	5785	16.58	16.53	21.66	21.12	16.40	16.40	0.5	Pass
11a	6Mbps	2	165	5825	16.68	16.53	24.66	24.42	16.40	16.40	0.5	Pass

TEST RESULTS DATA
Average Power Table

U-NII-3 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power with duty factor (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 7	Ant 8	SUM	Ant 7	Ant 8	Ant 7	Ant 8	
11a	6Mbps	2	149	5745	18.98	18.79	21.90	30.00		0.87		Pass
11a	6Mbps	2	157	5785	18.92	18.69	21.82	30.00		0.87		Pass
11a	6Mbps	2	165	5825	19.48	18.83	22.18	30.00		0.87		Pass
HT20	MCS0	2	149	5745	18.64	18.52	21.59	30.00		0.87		Pass
HT20	MCS0	2	157	5785	18.60	18.45	21.54	30.00		0.87		Pass
HT20	MCS0	2	165	5825	19.23	18.50	21.89	30.00		0.87		Pass
HT40	MCS0	2	151	5755	18.67	18.38	21.54	30.00		0.87		Pass
HT40	MCS0	2	159	5795	19.27	18.55	21.94	30.00		0.87		Pass
VHT20	MCS0	2	149	5745	18.49	18.47	21.49	30.00		0.87		Pass
VHT20	MCS0	2	157	5785	18.45	18.40	21.44	30.00		0.87		Pass
VHT20	MCS0	2	165	5825	19.08	18.45	21.79	30.00		0.87		Pass
VHT40	MCS0	2	151	5755	18.62	18.33	21.49	30.00		0.87		Pass
VHT40	MCS0	2	159	5795	19.22	18.50	21.89	30.00		0.87		Pass
VHT80	MCS0	2	155	5775	18.73	18.50	21.63	30.00		0.87		Pass

TEST RESULTS DATA
Power Spectral Density

U-NII-3 MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	10log (500kHz /RBW) Factor (dB)		Average Power Density with Duty Factor (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 7	Ant 8	Ant 7	Ant 8	SUM	Ant 7	Ant 8	Ant 7	Ant 8	
11a	6Mbps	2	149	5745	2.22		4.40	4.21	7.41	30.00		3.65		Pass
11a	6Mbps	2	157	5785	2.22		4.29	4.17	7.30	30.00		3.65		Pass
11a	6Mbps	2	165	5825	2.22		4.90	4.18	7.91	30.00		3.65		Pass

Note: PSD Sum = Max PSD(Ant. 1, Ant. 2) + 10 log (n)

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

U-NII-3 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
						Ant 7	Ant 8	Ant 7	Ant 8	Ant 7	Ant 8		
HE20	MCS0	2	149	5745	Full	18.98	19.03	26.52	27.06	18.85	19.00	0.5	Pass
HE20	MCS0	2	157	5785	Full	18.98	18.98	24.90	23.40	18.80	18.85	0.5	Pass
HE20	MCS0	2	165	5825	Full	19.18	18.98	28.86	22.80	19.05	18.95	0.5	Pass
HE40	MCS0	2	151	5755	Full	38.06	38.16	43.56	42.48	38.25	37.98	0.5	Pass
HE40	MCS0	2	159	5795	Full	38.06	38.16	60.60	41.52	38.16	37.80	0.5	Pass
HE80	MCS0	2	155	5775	Full	77.44	77.32	84.24	82.56	77.44	76.48	0.5	Pass

TEST RESULTS DATA
Average Power Table

U-NII-3 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power with duty factor (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 7	Ant 8	SUM	Ant 7	Ant 8	Ant 7	Ant 8	
HE20	MCS0	2	149	5745	Full	18.69	18.57	21.64	30.00		0.87		Pass
HE20	MCS0	2	149	5745	26/0	9.76	9.90	12.84	30.00		0.87		Pass
HE20	MCS0	2	149	5745	52/37	12.23	12.31	15.28	30.00		0.87		Pass
HE20	MCS0	2	149	5745	106/53	15.14	15.39	18.28	30.00		0.87		Pass
HE20	MCS0	2	157	5785	Full	18.65	18.50	21.59	30.00		0.87		Pass
HE20	MCS0	2	157	5785	26/4	10.18	10.20	13.20	30.00		0.87		Pass
HE20	MCS0	2	157	5785	52/38	12.51	12.48	15.51	30.00		0.87		Pass
HE20	MCS0	2	157	5785	106/53	15.22	15.22	18.23	30.00		0.87		Pass
HE20	MCS0	2	165	5825	Full	19.28	18.55	21.94	30.00		0.87		Pass
HE20	MCS0	2	165	5825	26/8	10.34	9.92	13.15	30.00		0.87		Pass
HE20	MCS0	2	165	5825	52/40	12.91	12.28	15.62	30.00		0.87		Pass
HE20	MCS0	2	165	5825	106/54	15.42	15.14	18.29	30.00		0.87		Pass
HE40	MCS0	2	151	5755	Full	18.72	18.43	21.59	30.00		0.87		Pass
HE40	MCS0	2	151	5755	242/61	16.02	15.96	19.00	30.00		0.87		Pass
HE40	MCS0	2	159	5795	Full	19.32	18.60	21.99	30.00		0.87		Pass
HE40	MCS0	2	159	5795	242/62	16.28	15.62	18.97	30.00		0.87		Pass
HE80	MCS0	2	155	5775	Full	18.83	18.60	21.73	30.00		0.87		Pass
HE80	MCS0	2	155	5775	484/65	16.05	16.06	19.07	30.00		0.87		Pass
HE80	MCS0	2	155	5775	484/66	15.95	15.50	18.74	30.00		0.87		Pass

Report Number : FR311909F

TEST RESULTS DATA
Power Spectral Density

U-NII-3 MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	10log (500kHz /RBW) Factor (dB)		Average Power Density with Duty Factor (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
						Ant 7	Ant 8	Ant 7	Ant 8	SUM	Ant 7	Ant 8	Ant 7	Ant 8	
HE20	MCS0	2	149	5745	Full	2.22		3.58	3.42	6.59	30.00		3.65		Pass
HE20	MCS0	2	149	5745	26/0	2.22		2.81	3.10	6.11	30.00		3.65		Pass
HE20	MCS0	2	149	5745	52/37	2.22		2.91	3.04	6.05	30.00		3.65		Pass
HE20	MCS0	2	149	5745	106/53	2.22		3.19	3.48	6.49	30.00		3.65		Pass
HE20	MCS0	2	157	5785	Full	2.22		3.49	3.33	6.50	30.00		3.65		Pass
HE20	MCS0	2	157	5785	26/4	2.22		3.40	3.42	6.43	30.00		3.65		Pass
HE20	MCS0	2	157	5785	52/38	2.22		3.23	3.30	6.31	30.00		3.65		Pass
HE20	MCS0	2	157	5785	106/53	2.22		3.25	3.35	6.36	30.00		3.65		Pass
HE20	MCS0	2	165	5825	Full	2.22		4.09	3.38	7.10	30.00		3.65		Pass
HE20	MCS0	2	165	5825	26/8	2.22		3.56	3.05	6.57	30.00		3.65		Pass
HE20	MCS0	2	165	5825	52/40	2.22		3.71	2.98	6.72	30.00		3.65		Pass
HE20	MCS0	2	165	5825	106/54	2.22		3.59	3.22	6.60	30.00		3.65		Pass
HE40	MCS0	2	151	5755	Full	2.22		0.65	0.29	3.66	30.00		3.65		Pass
HE40	MCS0	2	151	5755	242/61	2.22		0.48	0.45	3.49	30.00		3.65		Pass
HE40	MCS0	2	159	5795	Full	2.22		1.19	0.48	4.20	30.00		3.65		Pass
HE40	MCS0	2	159	5795	242/62	2.22		0.87	0.05	3.88	30.00		3.65		Pass
HE80	MCS0	2	155	5775	Full	2.22		-2.26	-2.35	0.75	30.00		3.65		Pass
HE80	MCS0	2	155	5775	484/65	2.22		-2.49	-2.49	0.52	30.00		3.65		Pass
HE80	MCS0	2	155	5775	484/66	2.22		-2.43	-3.05	0.58	30.00		3.65		Pass

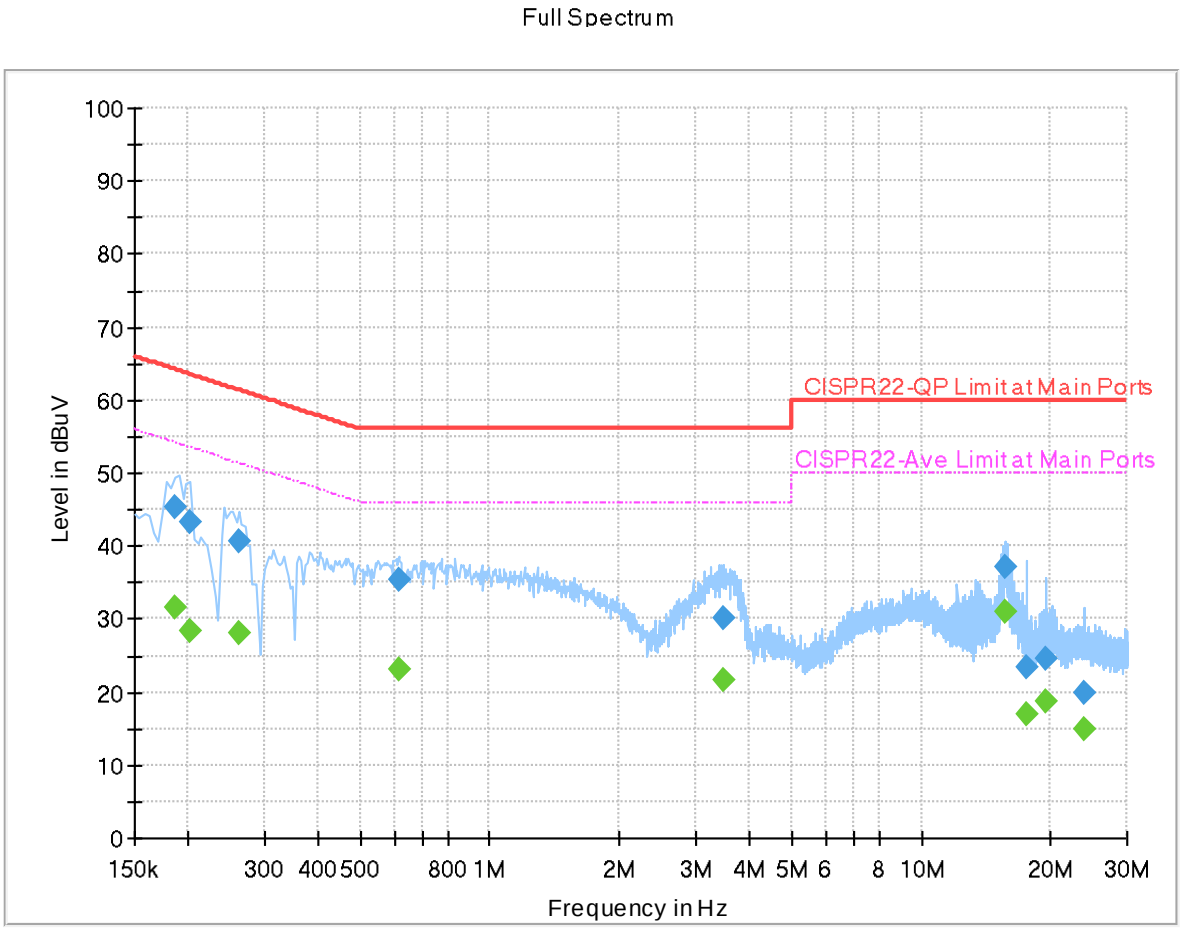
Note: PSD Sum = Max PSD(Ant. 1, Ant. 2) + 10 log (n)

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Louis Chung	**Temperature :**	16.4~24.5℃
		Relative Humidity :	38.6~44.7%

EUT Information

Report NO :	311909
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line



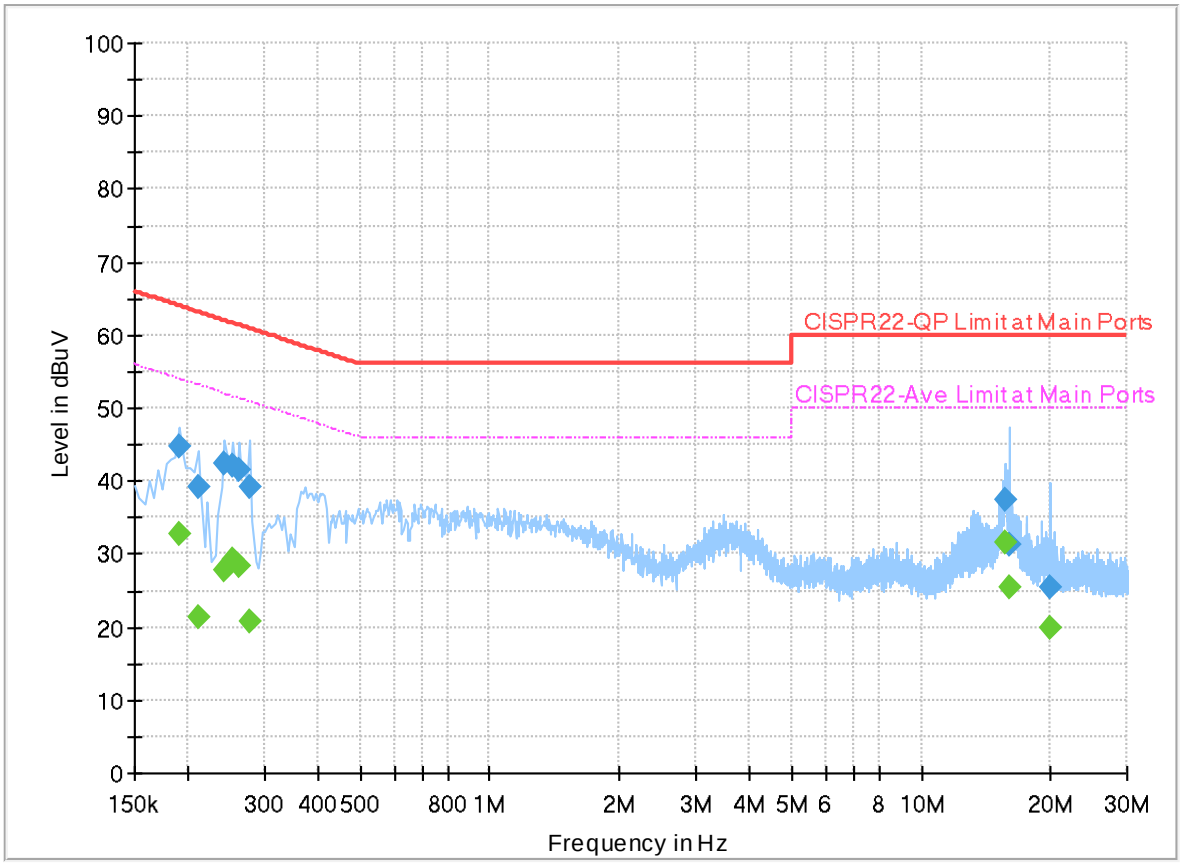
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.186000	---	31.56	54.21	22.65	L1	OFF	19.7
0.186000	45.37	---	64.21	18.84	L1	OFF	19.7
0.202000	---	28.42	53.53	25.11	L1	OFF	19.7
0.202000	43.22	---	63.53	20.31	L1	OFF	19.7
0.262000	---	27.97	51.37	23.40	L1	OFF	19.7
0.262000	40.68	---	61.37	20.69	L1	OFF	19.7
0.614000	---	23.04	46.00	22.96	L1	OFF	19.7
0.614000	35.25	---	56.00	20.75	L1	OFF	19.7
3.494000	---	21.56	46.00	24.44	L1	OFF	19.8
3.494000	30.00	---	56.00	26.00	L1	OFF	19.8
15.746000	---	30.97	50.00	19.03	L1	OFF	19.9
15.746000	37.09	---	60.00	22.91	L1	OFF	19.9
17.650000	---	17.06	50.00	32.94	L1	OFF	19.9
17.650000	23.33	---	60.00	36.67	L1	OFF	19.9
19.442000	---	18.69	50.00	31.31	L1	OFF	19.9
19.442000	24.53	---	60.00	35.47	L1	OFF	19.9
23.990000	---	14.83	50.00	35.17	L1	OFF	19.9
23.990000	19.84	---	60.00	40.16	L1	OFF	19.9

EUT Information

Report NO :	311909
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.190000	---	32.66	54.04	21.38	N	OFF	20.0
0.190000	44.83	---	64.04	19.21	N	OFF	20.0
0.210000	---	21.46	53.21	31.75	N	OFF	20.0
0.210000	39.15	---	63.21	24.06	N	OFF	20.0
0.242000	---	27.87	52.03	24.16	N	OFF	20.0
0.242000	42.54	---	62.03	19.49	N	OFF	20.0
0.254000	---	29.31	51.63	22.32	N	OFF	20.0
0.254000	42.06	---	61.63	19.57	N	OFF	20.0
0.262000	---	28.28	51.37	23.09	N	OFF	20.0
0.262000	41.59	---	61.37	19.78	N	OFF	20.0
0.278000	---	20.74	50.88	30.14	N	OFF	20.0
0.278000	39.17	---	60.88	21.71	N	OFF	20.0
15.646000	---	31.58	50.00	18.42	N	OFF	20.2
15.646000	37.47	---	60.00	22.53	N	OFF	20.2
16.006000	---	25.39	50.00	24.61	N	OFF	20.3
16.006000	31.37	---	60.00	28.63	N	OFF	20.3
20.010000	---	19.76	50.00	30.24	N	OFF	20.3
20.010000	25.34	---	60.00	34.66	N	OFF	20.3

Appendix C. Radiated Spurious Emission

Test Engineer :	Yuan Lee, Bank Lin, Fu Chen and Troye Hsieh	Temperature :	17.9~25.9°C
		Relative Humidity :	35.1~63.6%

<Sample 1 with Battery 1>

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
7+8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5629.4	51.94	-16.26	68.2	41.09	33	11.48	33.63	100	348	P	H
		5697	60.95	-42.04	102.99	49.74	33.38	11.47	33.64	100	348	P	H
		5720	73.94	-36.86	110.8	62.64	33.48	11.46	33.64	100	348	P	H
		5725	85.25	-36.95	122.2	73.93	33.5	11.46	33.64	100	348	P	H
	*	5745	115.96	-	-	104.57	33.58	11.45	33.64	100	348	P	H
	*	5745	109.08	-	-	97.69	33.58	11.45	33.64	100	348	A	H
													H
													H
		5650	51.99	-16.21	68.2	41.14	33	11.48	33.63	100	23	P	V
		5700	57.06	-48.14	105.2	45.83	33.4	11.47	33.64	100	23	P	V
		5719.8	73.25	-37.49	110.74	61.95	33.48	11.46	33.64	100	23	P	V
		5724.4	83.83	-37	120.83	72.51	33.5	11.46	33.64	100	23	P	V
	*	5745	115.55	-	-	104.16	33.58	11.45	33.64	100	23	P	V
	*	5745	108.28	-	-	96.89	33.58	11.45	33.64	100	23	A	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5638.5	52.81	-15.39	68.2	41.96	33	11.48	33.63	100	318	P	H
		5675	53.32	-33.42	86.74	42.28	33.2	11.47	33.63	100	318	P	H
		5709.75	53.98	-53.95	107.93	42.72	33.44	11.46	33.64	100	318	P	H
		5723	54	-63.64	117.64	42.69	33.49	11.46	33.64	100	318	P	H
	*	5785	117.38	-	-	105.77	33.81	11.44	33.64	100	318	P	H
	*	5785	110.32	-	-	98.71	33.81	11.44	33.64	100	318	A	H
		5850.5	54.45	-66.61	121.06	42.73	34.1	11.27	33.65	100	318	P	H
		5858.25	53.49	-56.4	109.89	41.74	34.15	11.25	33.65	100	318	P	H
		5876.75	53.65	-50.25	103.9	41.85	34.26	11.19	33.65	100	318	P	H
		5939.25	52.43	-15.77	68.2	40.79	34.32	10.98	33.66	100	318	P	H
													H
802.11a CH 157 5785MHz													H
		5633.5	52.02	-16.18	68.2	41.17	33	11.48	33.63	103	10	P	V
		5691	53.28	-45.28	98.56	42.12	33.33	11.47	33.64	103	10	P	V
		5716.25	53.77	-55.98	109.75	42.48	33.47	11.46	33.64	103	10	P	V
		5721.5	53.61	-60.61	114.22	42.3	33.49	11.46	33.64	103	10	P	V
	*	5785	117.39	-	-	105.78	33.81	11.44	33.64	103	10	P	V
	*	5785	109.86	-	-	98.25	33.81	11.44	33.64	103	10	A	V
		5851.5	52.83	-65.95	118.78	41.1	34.11	11.27	33.65	103	10	P	V
		5857.25	54.46	-55.71	110.17	42.72	34.14	11.25	33.65	103	10	P	V
		5895.25	53.04	-37.14	90.18	41.19	34.37	11.13	33.65	103	10	P	V
		5931	52.14	-16.06	68.2	40.44	34.34	11.01	33.65	103	10	P	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	5825	116.68	-	-	104.97	34	11.36	33.65	100	321	P	H
	*	5825	110.01	-	-	98.3	34	11.36	33.65	100	321	A	H
		5850	74.92	-47.28	122.2	63.2	34.1	11.27	33.65	100	321	P	H
		5855.2	72.49	-38.25	110.74	60.75	34.13	11.26	33.65	100	321	P	H
		5876.8	61.4	-42.46	103.86	49.6	34.26	11.19	33.65	100	321	P	H
		5946.8	52.48	-15.72	68.2	40.87	34.31	10.96	33.66	100	321	P	H
													H
802.11a													H
CH 165	*	5825	115.17	-	-	103.46	34	11.36	33.65	100	12	P	V
5825MHz	*	5825	107.5	-	-	95.79	34	11.36	33.65	100	12	A	V
		5850.4	72.58	-48.71	121.29	60.86	34.1	11.27	33.65	100	12	P	V
		5855.4	67.99	-42.7	110.69	56.25	34.13	11.26	33.65	100	12	P	V
		5878.4	55.05	-47.62	102.67	43.25	34.27	11.18	33.65	100	12	P	V
		5937.6	52.37	-15.83	68.2	40.72	34.32	10.99	33.66	100	12	P	V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11490	48.81	-25.19	74	53.68	39.1	17.67	61.64	-	-	P	H
		17235	47.4	-20.8	68.2	45.03	38.13	22.14	57.9	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 149 5745MHz													H
		11490	47.62	-26.38	74	52.49	39.1	17.67	61.64	-	-	P	V
		17235	47.77	-20.43	68.2	45.4	38.13	22.14	57.9	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11570	47.52	-26.48	74	52.77	38.82	17.71	61.78	-	-	P	H
		17355	46.71	-21.49	68.2	43.66	38.31	22.25	57.51	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11a CH 157 5785MHz													H
		11570	46.87	-27.13	74	52.12	38.82	17.71	61.78	-	-	P	V
		17355	45.38	-22.82	68.2	42.33	38.31	22.25	57.51	-	-	P	V
													V
													V
													V
													V
													V
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													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11650	46.08	-27.92	74	51.57	38.7	17.74	61.93	-	-	P	H
		17475	46.51	-21.69	68.2	42.79	38.47	22.37	57.12	-	-	P	H
		11650	45.84	-28.16	74	51.33	38.7	17.74	61.93	-	-	P	V
		17475	47.57	-20.63	68.2	43.85	38.47	22.37	57.12	-	-	P	V
													H
													H
													H
													H
													H
													H
													H
802.11a CH 165 5825MHz													H
		11650	46.08	-27.92	74	51.57	38.7	17.74	61.93	-	-	P	H
		17475	46.51	-21.69	68.2	42.79	38.47	22.37	57.12	-	-	P	H
		11650	45.84	-28.16	74	51.33	38.7	17.74	61.93	-	-	P	V
		17475	47.57	-20.63	68.2	43.85	38.47	22.37	57.12	-	-	P	V
													V
													V
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													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Full (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5638	51.79	-16.41	68.2	40.94	33	11.48	33.63	100	348	P	H
		5698.6	66.46	-37.71	104.17	55.24	33.39	11.47	33.64	100	348	P	H
		5719.8	80.24	-30.5	110.74	68.94	33.48	11.46	33.64	100	348	P	H
		5725	88.67	-33.53	122.2	77.35	33.5	11.46	33.64	100	348	P	H
	*	5745	115.82	-	-	104.43	33.58	11.45	33.64	100	348	P	H
	*	5745	108.46	-	-	97.07	33.58	11.45	33.64	100	348	A	H
802.11ax													H
HE20 Full													H
CH 149		5646.4	51.7	-16.5	68.2	40.85	33	11.48	33.63	111	22	P	V
5745MHz		5697.8	60.95	-42.63	103.58	49.74	33.38	11.47	33.64	111	22	P	V
		5718.4	76.38	-33.97	110.35	65.09	33.47	11.46	33.64	111	22	P	V
		5725	86.46	-35.74	122.2	75.14	33.5	11.46	33.64	111	22	P	V
	*	5745	115.16	-	-	103.77	33.58	11.45	33.64	111	22	P	V
	*	5745	107.99	-	-	96.6	33.58	11.45	33.64	111	22	A	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5605.25	52	-16.2	68.2	41.14	33	11.49	33.63	100	322	P	H
		5699.5	52.97	-51.86	104.83	41.74	33.4	11.47	33.64	100	322	P	H
		5710.75	53.84	-54.37	108.21	42.58	33.44	11.46	33.64	100	322	P	H
		5723.5	54.37	-64.41	118.78	43.06	33.49	11.46	33.64	100	322	P	H
	*	5785	117.25	-	-	105.64	33.81	11.44	33.64	100	322	P	H
	*	5785	109.77	-	-	98.16	33.81	11.44	33.64	100	322	A	H
		5850.25	53.92	-67.71	121.63	42.2	34.1	11.27	33.65	100	322	P	H
		5855.25	53.79	-56.94	110.73	42.05	34.13	11.26	33.65	100	322	P	H
		5896.5	53.45	-35.8	89.25	41.6	34.38	11.12	33.65	100	322	P	H
		5937.5	52.49	-15.71	68.2	40.82	34.33	10.99	33.65	100	322	P	H
802.11ax													H
HE20 Full													H
CH 157		5600	52.28	-15.92	68.2	41.42	33	11.49	33.63	100	8	P	V
5785MHz		5696.25	52.67	-49.77	102.44	41.47	33.37	11.47	33.64	100	8	P	V
		5716.5	52.68	-57.14	109.82	41.39	33.47	11.46	33.64	100	8	P	V
		5721.5	53.73	-60.49	114.22	42.42	33.49	11.46	33.64	100	8	P	V
	*	5785	116.49	-	-	104.88	33.81	11.44	33.64	100	8	P	V
	*	5785	108.84	-	-	97.23	33.81	11.44	33.64	100	8	A	V
		5854.5	52.81	-59.13	111.94	41.07	34.13	11.26	33.65	100	8	P	V
		5866.5	52.33	-55.25	107.58	40.56	34.2	11.22	33.65	100	8	P	V
		5898	52.88	-35.26	88.14	41.02	34.39	11.12	33.65	100	8	P	V
		5926.25	52.31	-15.89	68.2	40.59	34.35	11.02	33.65	100	8	P	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	5825	116.03	-	-	104.32	34	11.36	33.65	119	318	P	H
	*	5825	108.27	-	-	96.56	34	11.36	33.65	119	318	A	H
		5850.4	82.36	-38.93	121.29	70.64	34.1	11.27	33.65	119	318	P	H
		5856.2	72.1	-38.36	110.46	60.36	34.14	11.25	33.65	119	318	P	H
		5875	62.33	-42.87	105.2	50.54	34.25	11.19	33.65	119	318	P	H
		5928	52.38	-15.82	68.2	40.67	34.34	11.02	33.65	119	318	P	H
802.11ax													H
HE20 Full													H
CH 165	*	5825	114.65	-	-	102.94	34	11.36	33.65	101	356	P	V
5825MHz	*	5825	106.21	-	-	94.5	34	11.36	33.65	101	356	A	V
		5850.2	78.21	-43.53	121.74	66.49	34.1	11.27	33.65	101	356	P	V
		5860	66.02	-43.38	109.4	54.27	34.16	11.24	33.65	101	356	P	V
		5876.8	55.14	-48.72	103.86	43.34	34.26	11.19	33.65	101	356	P	V
		5926.4	52.63	-15.57	68.2	40.91	34.35	11.02	33.65	101	356	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Band 4 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11490	47.27	-26.73	74	52.14	39.1	17.67	61.64	-	-	P	H
		17235	46.94	-21.26	68.2	44.57	38.13	22.14	57.9	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 149		11490	46.73	-27.27	74	51.6	39.1	17.67	61.64	-	-	P	V
5745MHz		17235	46.57	-21.63	68.2	44.2	38.13	22.14	57.9	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11570	46.31	-27.69	74	51.56	38.82	17.71	61.78	-	-	P	H
		17355	44.44	-23.76	68.2	41.39	38.31	22.25	57.51	-	-	P	H
		11570	45.91	-28.09	74	51.16	38.82	17.71	61.78	-	-	P	V
		17355	44.45	-23.75	68.2	41.4	38.31	22.25	57.51	-	-	P	V
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 157		11570	46.31	-27.69	74	51.56	38.82	17.71	61.78	-	-	P	H
5785MHz		17355	44.44	-23.76	68.2	41.39	38.31	22.25	57.51	-	-	P	H
		11570	45.91	-28.09	74	51.16	38.82	17.71	61.78	-	-	P	V
		17355	44.45	-23.75	68.2	41.4	38.31	22.25	57.51	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11650	45.85	-28.15	74	51.34	38.7	17.74	61.93	-	-	P	H
		17475	46	-22.2	68.2	42.28	38.47	22.37	57.12	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 165		11650	45.01	-28.99	74	50.5	38.7	17.74	61.93	-	-	P	V
5825MHz		17475	46.3	-21.9	68.2	42.58	38.47	22.37	57.12	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Partial 106 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5623.6	52.86	-15.34	68.2	42.01	33	11.48	33.63	100	348	P	H
		5689.4	59.25	-38.13	97.38	48.1	33.32	11.47	33.64	100	348	P	H
		5717.8	74.47	-35.71	110.18	63.18	33.47	11.46	33.64	100	348	P	H
		5725	81.72	-40.48	122.2	70.4	33.5	11.46	33.64	100	348	P	H
	*	5745	119.25	-	-	107.86	33.58	11.45	33.64	100	348	P	H
802.11ax	*	5745	112.66	-	-	101.27	33.58	11.45	33.64	100	348	A	H
HE20													H
Partial													H
106/53		5638.4	52.13	-16.07	68.2	41.28	33	11.48	33.63	100	25	P	V
CH 149		5694.6	56.86	-44.36	101.22	45.67	33.36	11.47	33.64	100	25	P	V
5745MHz		5718.2	70.77	-39.53	110.3	59.48	33.47	11.46	33.64	100	25	P	V
		5725	76.62	-45.58	122.2	65.3	33.5	11.46	33.64	100	25	P	V
	*	5745	117.8	-	-	106.41	33.58	11.45	33.64	100	25	P	V
	*	5745	110.77	-	-	99.38	33.58	11.45	33.64	100	25	A	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	5825	120.77	-	-	109.06	34	11.36	33.65	100	327	P	H
	*	5825	112.75	-	-	101.04	34	11.36	33.65	100	327	A	H
		5850	72.79	-49.41	122.2	61.07	34.1	11.27	33.65	100	327	P	H
		5855.2	68.93	-41.81	110.74	57.19	34.13	11.26	33.65	100	327	P	H
		5875.6	65.41	-39.34	104.75	53.62	34.25	11.19	33.65	100	327	P	H
802.11ax		5934	52.42	-15.78	68.2	40.74	34.33	11	33.65	100	327	P	H
HE20													H
Partial													H
106/54	*	5825	115.63	-	-	103.92	34	11.36	33.65	296	20	P	V
CH 165	*	5825	108.84	-	-	97.13	34	11.36	33.65	296	20	A	V
5825MHz		5852.2	71.45	-45.73	117.18	59.72	34.11	11.27	33.65	296	20	P	V
		5855	67.84	-42.96	110.8	56.1	34.13	11.26	33.65	296	20	P	V
		5876.4	57.27	-46.89	104.16	45.47	34.26	11.19	33.65	296	20	P	V
		5926	53.28	-14.92	68.2	41.56	34.35	11.02	33.65	296	20	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Band 4 5725~5850MHz

WIFI 802.11ax HE40_Full (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5643.25	53.38	-14.82	68.2	42.53	33	11.48	33.63	106	321	P	H
		5698.25	71.21	-32.7	103.91	59.99	33.39	11.47	33.64	106	321	P	H
		5719.75	86.38	-24.35	110.73	75.08	33.48	11.46	33.64	106	321	P	H
		5721.75	87.22	-27.57	114.79	75.91	33.49	11.46	33.64	106	321	P	H
	*	5755	114.43	-	-	102.99	33.63	11.45	33.64	106	321	P	H
	*	5755	106.95	-	-	95.51	33.63	11.45	33.64	106	321	A	H
		5851	57.3	-62.62	119.92	45.57	34.11	11.27	33.65	106	321	P	H
		5857.75	55.15	-54.88	110.03	43.4	34.15	11.25	33.65	106	321	P	H
		5880.75	53.37	-47.56	100.93	41.57	34.28	11.17	33.65	106	321	P	H
		5936	52.35	-15.85	68.2	40.68	34.33	10.99	33.65	106	321	P	H
802.11ax													H
HE40 Full													H
CH 151		5643.5	53.43	-14.77	68.2	42.58	33	11.48	33.63	100	8	P	V
5755MHz		5697.5	70.31	-33.05	103.36	59.1	33.38	11.47	33.64	100	8	P	V
		5718.75	85.29	-25.16	110.45	74	33.47	11.46	33.64	100	8	P	V
		5725	83.24	-38.96	122.2	71.92	33.5	11.46	33.64	100	8	P	V
	*	5755	114.15	-	-	102.71	33.63	11.45	33.64	100	8	P	V
	*	5755	106.26	-	-	94.82	33.63	11.45	33.64	100	8	A	V
		5850.25	55.02	-66.61	121.63	43.3	34.1	11.27	33.65	100	8	P	V
		5860.25	54.14	-55.19	109.33	42.39	34.16	11.24	33.65	100	8	P	V
		5882.25	53.25	-46.57	99.82	41.44	34.29	11.17	33.65	100	8	P	V
		5935	52.83	-15.37	68.2	41.16	34.33	10.99	33.65	100	8	P	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5637.25	52.75	-15.45	68.2	41.9	33	11.48	33.63	100	322	P	H
		5698.25	54.49	-49.42	103.91	43.27	33.39	11.47	33.64	100	322	P	H
		5717	64.57	-45.39	109.96	53.28	33.47	11.46	33.64	100	322	P	H
		5721.25	65.46	-48.19	113.65	54.15	33.49	11.46	33.64	100	322	P	H
	*	5795	114.6	-	-	102.93	33.87	11.44	33.64	100	322	P	H
	*	5795	106.65	-	-	94.98	33.87	11.44	33.64	100	322	A	H
		5850.25	68.4	-53.23	121.63	56.68	34.1	11.27	33.65	100	322	P	H
		5856.25	66.79	-43.66	110.45	55.05	34.14	11.25	33.65	100	322	P	H
		5878.75	60.57	-41.84	102.41	48.77	34.27	11.18	33.65	100	322	P	H
		5925	53.19	-15.01	68.2	41.46	34.35	11.03	33.65	100	322	P	H
802.11ax													H
HE40 Full													H
CH 159		5648.75	52.33	-15.87	68.2	41.48	33	11.48	33.63	103	10	P	V
5795MHz		5698.5	54.92	-49.17	104.09	43.7	33.39	11.47	33.64	103	10	P	V
		5718	60.68	-49.56	110.24	49.39	33.47	11.46	33.64	103	10	P	V
		5721.75	61.05	-53.74	114.79	49.74	33.49	11.46	33.64	103	10	P	V
	*	5795	114.69	-	-	103.02	33.87	11.44	33.64	103	10	P	V
	*	5795	105.81	-	-	94.14	33.87	11.44	33.64	103	10	A	V
		5850	65.62	-56.58	122.2	53.9	34.1	11.27	33.65	103	10	P	V
		5860	63.4	-46	109.4	51.65	34.16	11.24	33.65	103	10	P	V
		5878	56.47	-46.5	102.97	44.67	34.27	11.18	33.65	103	10	P	V
		5939.5	53.36	-14.84	68.2	41.72	34.32	10.98	33.66	103	10	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Band 4 5725~5850MHz

WIFI 802.11ax HE40_Full (Harmonic @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11510	46.39	-27.61	74	51.33	39.06	17.67	61.67	-	-	P	H
		17265	48.29	-19.91	68.2	45.76	38.17	22.17	57.81	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 151		11510	45.99	-28.01	74	50.93	39.06	17.67	61.67	-	-	P	V
5755MHz		17265	46.82	-21.38	68.2	44.29	38.17	22.17	57.81	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11590	46.17	-27.83	74	51.53	38.74	17.72	61.82	-	-	P	H
		17385	45.43	-22.77	68.2	42.19	38.37	22.28	57.41	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 159		11590	45.71	-28.29	74	51.07	38.74	17.72	61.82	-	-	P	V
5795MHz		17385	45.39	-22.81	68.2	42.15	38.37	22.28	57.41	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE40_Partial 242 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5637.25	61.12	-7.08	68.2	50.27	33	11.48	33.63	100	320	P	H
		5698.5	70.81	-33.28	104.09	59.59	33.39	11.47	33.64	100	320	P	H
		5719.5	83.57	-27.09	110.66	72.27	33.48	11.46	33.64	100	320	P	H
		5721.25	86.29	-27.36	113.65	74.98	33.49	11.46	33.64	100	320	P	H
	*	5755	117.31	-	-	105.87	33.63	11.45	33.64	100	320	P	H
	*	5755	109.13	-	-	97.69	33.63	11.45	33.64	100	320	A	H
		5852.75	61.87	-54.06	115.93	50.13	34.12	11.27	33.65	100	320	P	H
		5867.75	63.66	-43.57	107.23	51.88	34.21	11.22	33.65	100	320	P	H
		5876.25	58.59	-45.68	104.27	46.79	34.26	11.19	33.65	100	320	P	H
802.11ax		5938.25	53.52	-14.68	68.2	41.88	34.32	10.98	33.66	100	320	P	H
HE40													H
Partial													H
242/61		5642.25	57.7	-10.5	68.2	46.85	33	11.48	33.63	100	10	P	V
CH 151		5690.25	68.03	-29.98	98.01	56.88	33.32	11.47	33.64	100	10	P	V
5755MHz		5716.25	83.87	-25.88	109.75	72.58	33.47	11.46	33.64	100	10	P	V
		5725	87.88	-34.32	122.2	76.56	33.5	11.46	33.64	100	10	P	V
	*	5755	116.93	-	-	105.49	33.63	11.45	33.64	100	10	P	V
	*	5755	108.4	-	-	96.96	33.63	11.45	33.64	100	10	A	V
		5852	59.88	-57.76	117.64	48.15	34.11	11.27	33.65	100	10	P	V
		5857	58.58	-51.66	110.24	46.84	34.14	11.25	33.65	100	10	P	V
		5876.5	54.86	-49.23	104.09	43.06	34.26	11.19	33.65	100	10	P	V
		5940.25	52.94	-15.26	68.2	41.3	34.32	10.98	33.66	100	10	P	V
													V
													V

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5624.25	53.41	-14.79	68.2	42.56	33	11.48	33.63	100	323	P	H
		5697.25	63.64	-39.53	103.17	52.43	33.38	11.47	33.64	100	323	P	H
		5710.5	64.92	-43.22	108.14	53.66	33.44	11.46	33.64	100	323	P	H
		5724.25	65.23	-55.26	120.49	53.91	33.5	11.46	33.64	100	323	P	H
	*	5795	116.31	-	-	104.64	33.87	11.44	33.64	100	323	P	H
	*	5795	109.37	-	-	97.7	33.87	11.44	33.64	100	323	A	H
		5851	73.59	-46.33	119.92	61.86	34.11	11.27	33.65	100	323	P	H
		5872	65.47	-40.57	106.04	53.69	34.23	11.2	33.65	100	323	P	H
		5877.75	66.31	-36.85	103.16	54.51	34.27	11.18	33.65	100	323	P	H
802.11ax		5933	53.5	-14.7	68.2	41.82	34.33	11	33.65	100	323	P	H
HE40													H
Partial													H
242/62		5645.5	53.24	-14.96	68.2	42.39	33	11.48	33.63	104	11	P	V
CH 159		5697.5	62.3	-41.06	103.36	51.09	33.38	11.47	33.64	104	11	P	V
5795MHz		5706.75	64.59	-42.5	107.09	53.34	33.43	11.46	33.64	104	11	P	V
		5724.75	63.95	-57.68	121.63	52.63	33.5	11.46	33.64	104	11	P	V
	*	5795	116.9	-	-	105.23	33.87	11.44	33.64	104	11	P	V
	*	5795	107.79	-	-	96.12	33.87	11.44	33.64	104	11	A	V
		5851.75	73.02	-45.19	118.21	61.29	34.11	11.27	33.65	104	11	P	V
		5861.5	68.89	-40.09	108.98	57.13	34.17	11.24	33.65	104	11	P	V
		5877.5	63.2	-40.14	103.34	51.41	34.26	11.18	33.65	104	11	P	V
		5942.5	53.01	-15.19	68.2	41.39	34.31	10.97	33.66	104	11	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5648.25	64.68	-3.52	68.2	53.83	33	11.48	33.63	100	321	P	H
		5698.5	79.2	-24.89	104.09	67.98	33.39	11.47	33.64	100	321	P	H
		5718	84.06	-26.18	110.24	72.77	33.47	11.46	33.64	100	321	P	H
		5722.5	82.26	-34.24	116.5	70.95	33.49	11.46	33.64	100	321	P	H
	*	5775	112.08	-	-	100.52	33.75	11.45	33.64	100	321	P	H
	*	5775	103.29	-	-	91.73	33.75	11.45	33.64	100	321	A	H
		5850	77.84	-44.36	122.2	66.12	34.1	11.27	33.65	100	321	P	H
		5856.75	76.42	-33.89	110.31	64.68	34.14	11.25	33.65	100	321	P	H
		5877.5	70.05	-33.29	103.34	58.26	34.26	11.18	33.65	100	321	P	H
		5930	56.86	-11.34	68.2	45.16	34.34	11.01	33.65	100	321	P	H
802.11ax													H
HE80 Full													H
CH 155		5646	64.11	-4.09	68.2	53.26	33	11.48	33.63	100	9	P	V
5775MHz		5696.75	76.84	-25.96	102.8	65.64	33.37	11.47	33.64	100	9	P	V
		5718.75	80.79	-29.66	110.45	69.5	33.47	11.46	33.64	100	9	P	V
		5720	78.37	-32.43	110.8	67.07	33.48	11.46	33.64	100	9	P	V
	*	5775	110.24	-	-	98.68	33.75	11.45	33.64	100	9	P	V
	*	5775	102.44	-	-	90.88	33.75	11.45	33.64	100	9	A	V
		5850	76.37	-45.83	122.2	64.65	34.1	11.27	33.65	100	9	P	V
		5858.25	75.01	-34.88	109.89	63.26	34.15	11.25	33.65	100	9	P	V
		5878.5	67.53	-35.07	102.6	55.73	34.27	11.18	33.65	100	9	P	V
		5938.5	54.4	-13.8	68.2	42.76	34.32	10.98	33.66	100	9	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Harmonic @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11550	45.55	-28.45	74	50.69	38.9	17.7	61.74	-	-	P	H
		17325	44.77	-23.43	68.2	41.9	38.25	22.23	57.61	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE80 Full													H
CH 155		11550	45.62	-28.38	74	50.76	38.9	17.7	61.74	-	-	P	V
5775MHz		17325	44.35	-23.85	68.2	41.48	38.25	22.23	57.61	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Partial 484 (Band Edge @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5628	64.11	-4.09	68.2	53.26	33	11.48	33.63	100	320	P	H
		5686.25	81.81	-13.25	95.06	70.68	33.29	11.47	33.63	100	320	P	H
		5718.25	87.37	-22.94	110.31	76.08	33.47	11.46	33.64	100	320	P	H
		5725	88.49	-33.71	122.2	77.17	33.5	11.46	33.64	100	320	P	H
	*	5775	113.75	-	-	102.19	33.75	11.45	33.64	100	320	P	H
	*	5775	105.95	-	-	94.39	33.75	11.45	33.64	100	320	A	H
		5850.5	73.83	-47.23	121.06	62.11	34.1	11.27	33.65	100	320	P	H
		5857.25	79.34	-30.83	110.17	67.6	34.14	11.25	33.65	100	320	P	H
		5875	68.46	-36.74	105.2	56.67	34.25	11.19	33.65	100	320	P	H
802.11ax		5927.75	58.26	-9.94	68.2	46.55	34.34	11.02	33.65	100	320	P	H
HE80													H
Partial													H
484/65		5650	64.89	-3.31	68.2	54.04	33	11.48	33.63	108	11	P	V
CH 155		5686.75	81.44	-13.99	95.43	70.31	33.29	11.47	33.63	108	11	P	V
5775MHz		5717.75	86.5	-23.67	110.17	75.21	33.47	11.46	33.64	108	11	P	V
		5721.25	84.82	-28.83	113.65	73.51	33.49	11.46	33.64	108	11	P	V
	*	5775	113.23	-	-	101.67	33.75	11.45	33.64	108	11	P	V
	*	5775	105.33	-	-	93.77	33.75	11.45	33.64	108	11	A	V
		5851	75.58	-44.34	119.92	63.85	34.11	11.27	33.65	108	11	P	V
		5857.25	77.97	-32.2	110.17	66.23	34.14	11.25	33.65	108	11	P	V
		5886.75	68.57	-27.91	96.48	56.75	34.32	11.15	33.65	108	11	P	V
		5926.5	59.8	-8.4	68.2	48.08	34.35	11.02	33.65	108	11	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5649.75	64.87	-3.33	68.2	54.02	33	11.48	33.63	100	322	P	H
		5686.5	82.81	-12.43	95.24	71.68	33.29	11.47	33.63	100	322	P	H
		5706	81.5	-25.38	106.88	70.26	33.42	11.46	33.64	100	322	P	H
		5721.75	86.9	-27.89	114.79	75.59	33.49	11.46	33.64	100	322	P	H
	*	5775	114.13	-	-	102.57	33.75	11.45	33.64	100	322	P	H
	*	5775	106.12	-	-	94.56	33.75	11.45	33.64	100	322	A	H
		5850	74.21	-47.99	122.2	62.49	34.1	11.27	33.65	100	322	P	H
		5873	77.65	-28.11	105.76	65.86	34.24	11.2	33.65	100	322	P	H
		5882.5	68.81	-30.82	99.63	56.99	34.3	11.17	33.65	100	322	P	H
802.11ax		5930.5	57.25	-10.95	68.2	45.55	34.34	11.01	33.65	100	322	P	H
HE80													H
Partial													H
484/66		5650	63.61	-4.59	68.2	52.76	33	11.48	33.63	102	9	P	V
CH 155		5686.5	81.28	-13.96	95.24	70.15	33.29	11.47	33.63	102	9	P	V
5775MHz		5717.25	84.14	-25.89	110.03	72.85	33.47	11.46	33.64	102	9	P	V
		5721.25	85.18	-28.47	113.65	73.87	33.49	11.46	33.64	102	9	P	V
	*	5775	113.23	-	-	101.67	33.75	11.45	33.64	102	9	P	V
	*	5775	105.36	-	-	93.8	33.75	11.45	33.64	102	9	A	V
		5853.25	76.37	-38.42	114.79	64.64	34.12	11.26	33.65	102	9	P	V
		5866.5	77.02	-30.56	107.58	65.25	34.2	11.22	33.65	102	9	P	V
		5877.5	69.05	-34.29	103.34	57.26	34.26	11.18	33.65	102	9	P	V
		5926.75	56.35	-11.85	68.2	44.63	34.35	11.02	33.65	102	9	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

<Sample 1 with Battery 2>

Band 4 - 5725~5850MHz

WIFI 802.11ax HE80_Partial 484 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 7+8		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5649.25	64.28	-3.92	68.2	53.43	33	11.48	33.63	100	346	P	H
		5691.25	82.56	-16.19	98.75	71.4	33.33	11.47	33.64	100	346	P	H
		5715.75	86.54	-23.07	109.61	75.26	33.46	11.46	33.64	100	346	P	H
		5723.75	90.76	-28.59	119.35	79.45	33.49	11.46	33.64	100	346	P	H
	*	5775	112.79	-	-	101.23	33.75	11.45	33.64	100	346	P	H
	*	5775	105.17	-	-	93.61	33.75	11.45	33.64	100	346	A	H
		5850.5	75.92	-45.14	121.06	64.2	34.1	11.27	33.65	100	346	P	H
		5871	76.97	-29.35	106.32	65.18	34.23	11.21	33.65	100	346	P	H
		5880	70.6	-30.89	101.49	58.79	34.28	11.18	33.65	100	346	P	H
802.11ax		5932	58.78	-9.42	68.2	47.09	34.34	11	33.65	100	346	P	H
HE80													H
Partial													H
484/65		5650	65.97	-2.23	68.2	55.12	33	11.48	33.63	101	11	P	V
CH 155		5681.5	81.78	-9.77	91.55	70.69	33.25	11.47	33.63	101	11	P	V
5775MHz		5718.75	85.44	-25.01	110.45	74.15	33.47	11.46	33.64	101	11	P	V
		5721.5	84.99	-29.23	114.22	73.68	33.49	11.46	33.64	101	11	P	V
	*	5775	113.5	-	-	101.94	33.75	11.45	33.64	101	11	P	V
	*	5775	105.13	-	-	93.57	33.75	11.45	33.64	101	11	A	V
		5852.75	75.87	-40.06	115.93	64.13	34.12	11.27	33.65	101	11	P	V
		5861.75	77.9	-31.01	108.91	66.14	34.17	11.24	33.65	101	11	P	V
		5877.5	67.61	-35.73	103.34	55.82	34.26	11.18	33.65	101	11	P	V
		5926.5	57.81	-10.39	68.2	46.09	34.35	11.02	33.65	101	11	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Partial 484 (Harmonic @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11550	47.05	-26.95	74	52.19	38.9	17.16	61.74	-	-	P	H
		17325	44.93	-23.27	68.2	42.06	38.25	21.61	57.61	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE80													H
Partial													H
484/65		11550	46.27	-27.73	74	51.41	38.9	17.16	61.74	-	-	P	V
CH 155		17325	45.08	-23.12	68.2	42.21	38.25	21.61	57.61	-	-	P	V
5775MHz													V
													V
													V
													V
													V
													V
													V
													V
													V

Emission below 1GHz

5GHz WIFI 802.11ax HE80_Partial 484 (LF @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
7+8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE80 Partial 484/65 LF		30	28.26	-11.74	40	35.65	23.92	0.84	32.15	-	-	P	H
		91.02	30.3	-13.2	43.5	46.09	14.76	1.58	32.13	-	-	P	H
		149.07	26.42	-17.08	43.5	39.74	16.87	1.94	32.13	-	-	P	H
		918.8	32.37	-13.63	46	30.26	28.69	4.49	31.07	-	-	P	H
		948.9	33.02	-12.98	46	29.06	30.11	4.66	30.81	-	-	P	H
		957.3	33.14	-12.86	46	28.65	30.54	4.68	30.73	-	-	P	H
													H
													H
													H
													H
													H
													H
		30	33.17	-6.83	40	40.56	23.92	0.84	32.15	-	-	P	V
		43.23	29.98	-10.02	40	43.52	17.58	1.11	32.23	105	32	QP	V
		61.32	30.08	-9.92	40	49.47	11.58	1.27	32.24	-	-	P	V
		926.5	32.51	-13.49	46	29.92	29.07	4.53	31.01	-	-	P	V
		952.4	33.93	-12.07	46	29.74	30.3	4.67	30.78	-	-	P	V
		958.7	34.12	-11.88	46	29.52	30.62	4.69	30.71	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.

<Sample 1 with Battery 3>

Band 4 - 5725~5850MHz

WIFI 802.11ax HE80_Partial 484 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 7+8		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5620	64.79	-3.41	68.2	53.94	33	11.48	33.63	100	346	P	H
		5684	81.79	-11.61	93.4	70.68	33.27	11.47	33.63	100	346	P	H
		5717.25	85.9	-24.13	110.03	74.61	33.47	11.46	33.64	100	346	P	H
		5724.75	87.99	-33.64	121.63	76.67	33.5	11.46	33.64	100	346	P	H
	*	5775	112.9	-	-	101.34	33.75	11.45	33.64	100	346	P	H
	*	5775	105.5	-	-	93.94	33.75	11.45	33.64	100	346	A	H
		5850.5	76.01	-45.05	121.06	64.29	34.1	11.27	33.65	100	346	P	H
		5861.5	80.33	-28.65	108.98	68.57	34.17	11.24	33.65	100	346	P	H
		5876.25	70.07	-34.2	104.27	58.27	34.26	11.19	33.65	100	346	P	H
802.11ax		5926.75	59.64	-8.56	68.2	47.92	34.35	11.02	33.65	100	346	P	H
HE80													H
Partial													H
484/65		5646.25	65.14	-3.06	68.2	54.29	33	11.48	33.63	100	359	P	V
CH 155		5686.75	82.21	-13.22	95.43	71.08	33.29	11.47	33.63	100	359	P	V
5775MHz		5719.75	86.68	-24.05	110.73	75.38	33.48	11.46	33.64	100	359	P	V
		5721.25	85.2	-28.45	113.65	73.89	33.49	11.46	33.64	100	359	P	V
	*	5775	112.49	-	-	100.93	33.75	11.45	33.64	100	359	P	V
	*	5775	105.25	-	-	93.69	33.75	11.45	33.64	100	359	A	V
		5853	77.21	-38.15	115.36	65.47	34.12	11.27	33.65	100	359	P	V
		5857.25	77.32	-32.85	110.17	65.58	34.14	11.25	33.65	100	359	P	V
		5877.25	64.03	-39.5	103.53	52.23	34.26	11.19	33.65	100	359	P	V
		5927	56.25	-11.95	68.2	44.53	34.35	11.02	33.65	100	359	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Partial 484 (Harmonic @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11550	47.61	-26.39	74	52.75	38.9	17.16	61.74	-	-	P	H
		17325	44.7	-23.5	68.2	41.83	38.25	21.61	57.61	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE80													H
Partial													H
484/65		11550	45.71	-28.29	74	50.85	38.9	17.16	61.74	-	-	P	V
CH 155		17325	45.58	-22.62	68.2	42.71	38.25	21.61	57.61	-	-	P	V
5775MHz													V
													V
													V
													V
													V
													V
													V
													V
													V

<Sample 2 with Battery 1>

Band 4 - 5725~5850MHz

WIFI 802.11ax HE80_Partial 484 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 7+8		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		5629.5	65.48	-2.72	68.2	54.83	33.06	11.22	33.63	300	345	P	H
		5686.5	82.14	-13.1	95.24	71.11	33.39	11.27	33.63	300	345	P	H
		5715	85.17	-24.23	109.4	73.93	33.59	11.29	33.64	300	345	P	H
		5725	87.25	-34.95	122.2	75.94	33.65	11.3	33.64	300	345	P	H
	*	5775	117.05	-	-	105.39	33.95	11.35	33.64	300	345	P	H
	*	5775	107.86	-	-	96.2	33.95	11.35	33.64	300	345	A	H
		5851.5	83.12	-35.66	118.78	71.33	34.11	11.33	33.65	300	345	P	H
		5866.5	80.38	-27.2	107.58	68.54	34.17	11.32	33.65	300	345	P	H
		5876.75	71.69	-32.21	103.9	59.82	34.21	11.31	33.65	300	345	P	H
802.11ax		5928	62.7	-5.5	68.2	50.78	34.3	11.27	33.65	300	345	P	H
HE80													H
Partial													H
484/65		5650	65.72	-2.48	68.2	55.02	33.1	11.23	33.63	100	16	P	V
CH 155		5690.75	81	-17.38	98.38	69.94	33.43	11.27	33.64	100	16	P	V
5775MHz		5718.25	85.08	-25.23	110.31	73.81	33.61	11.3	33.64	100	16	P	V
		5721.5	85.67	-28.55	114.22	74.38	33.63	11.3	33.64	100	16	P	V
	*	5775	113.05	-	-	101.39	33.95	11.35	33.64	100	16	P	V
	*	5775	104.9	-	-	93.24	33.95	11.35	33.64	100	16	A	V
		5851	79.94	-39.98	119.92	68.16	34.1	11.33	33.65	100	16	P	V
		5857.5	77.36	-32.74	110.1	65.55	34.13	11.33	33.65	100	16	P	V
		5877.75	68.11	-35.05	103.16	56.24	34.21	11.31	33.65	100	16	P	V
		5933	57.88	-10.32	68.2	45.96	34.3	11.27	33.65	100	16	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Partial 484 (Harmonic @ 3m)

WIFI Ant. 7+8	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11550	47.06	-26.94	74	51.26	39.05	18.49	61.74	-	-	P	H
		17325	45.51	-22.69	68.2	41.53	38.3	23.29	57.61	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE80													H
Partial													H
484/65		11550	47.78	-26.22	74	51.98	39.05	18.49	61.74	-	-	P	V
CH 155		17325	45.45	-22.75	68.2	41.47	38.3	23.29	57.61	-	-	P	V
5775MHz													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
7+8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5650	55.45	-12.75	68.2	54.51	32.22	4.58	35.86	103	308	P	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 68.2(dBμV/m)

= -12.75 (dB)

Peak measured complies with the limit line, so test result is “PASS”.

Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Yuan Lee, Bank Lin, Fu Chen and Troye Hsieh	**Temperature :**	17.9~25.9°C
		Relative Humidity :	35.1~63.6%

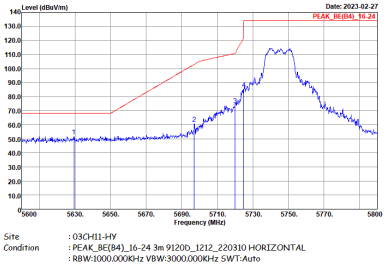
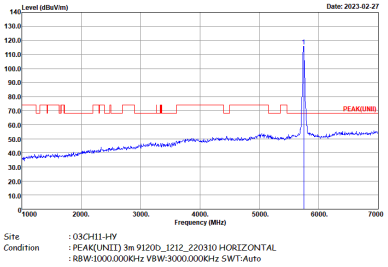
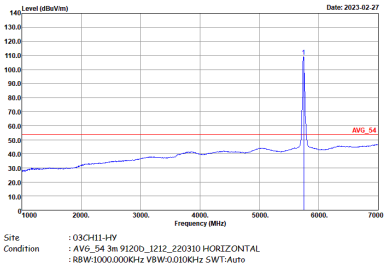
Note symbol

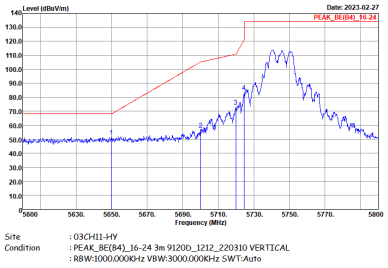
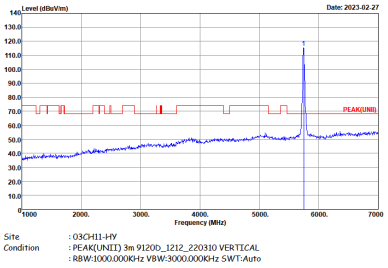
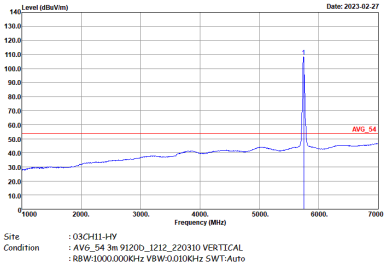
-L	**Low channel location**
-R	**High channel location**

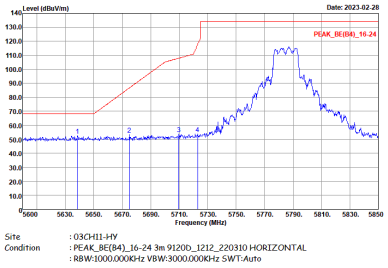
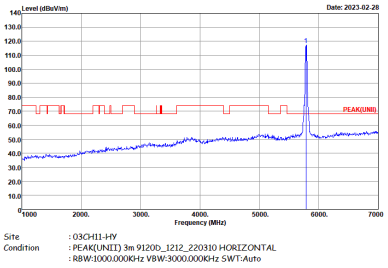
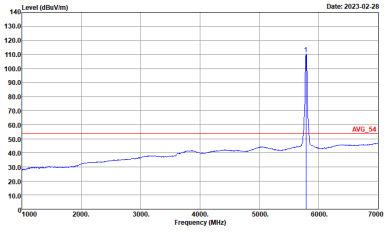
<Sample 1 with Battery 1>

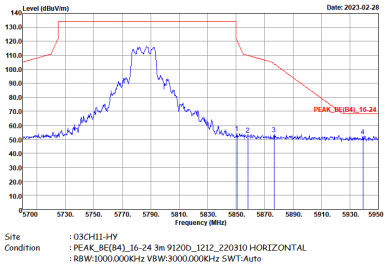
Band 4 - 5725~5850MHz

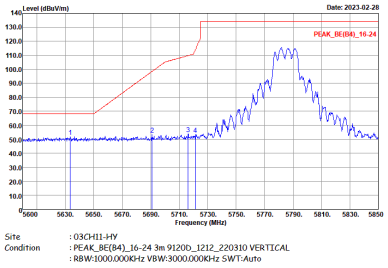
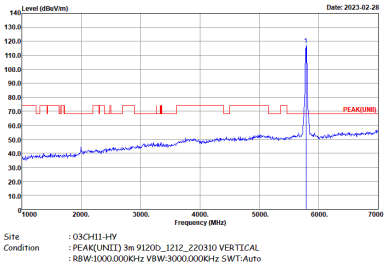
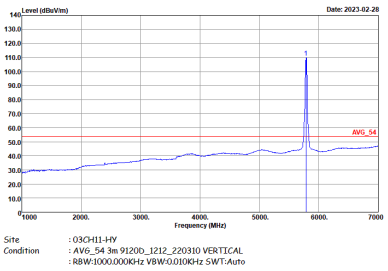
WIFI 802.11a (Band Edge @ 3m)

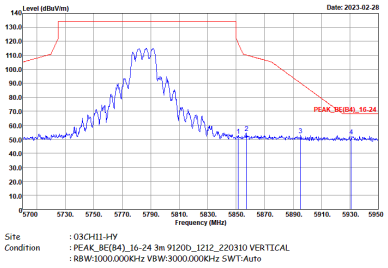
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank		

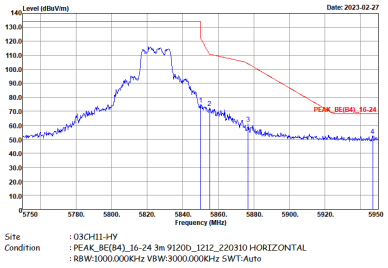
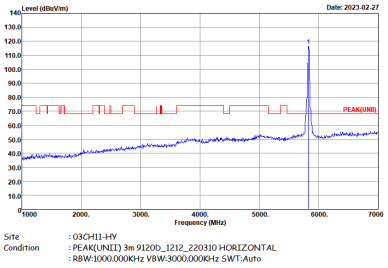
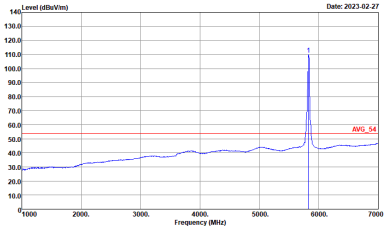
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

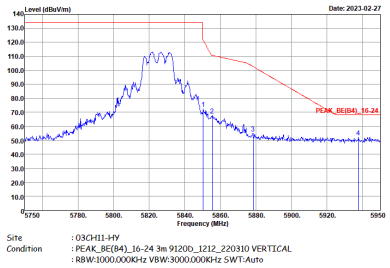
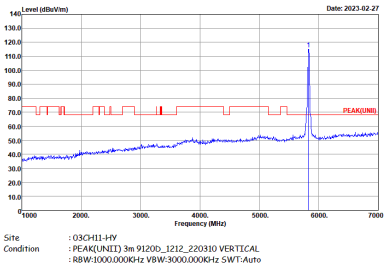
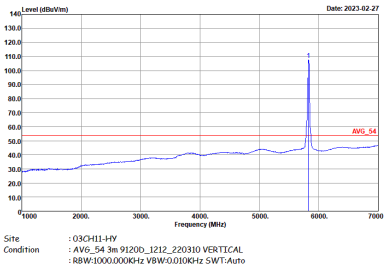
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
7+8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_8E(84)_16-24 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK(UNII) 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
7+8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_8E(84)_16-24 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

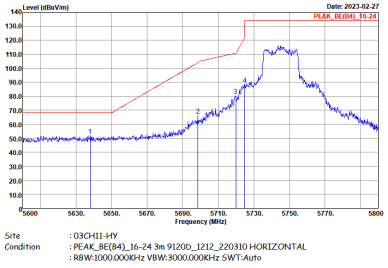
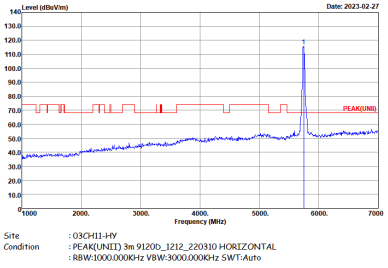
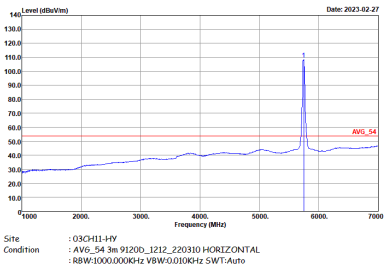
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

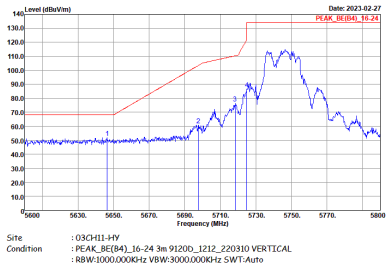
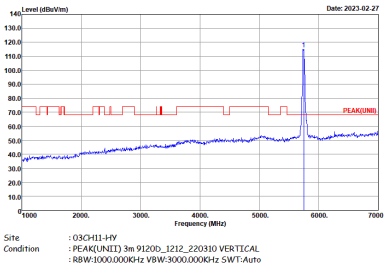
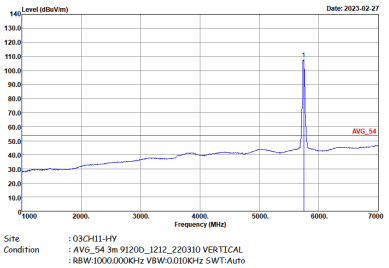
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
7+8	Vertical	Fundamental
Peak		Left blank

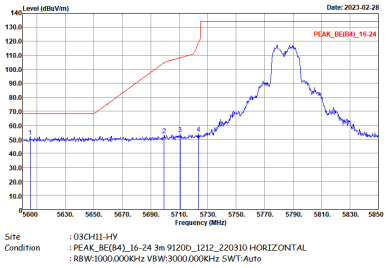
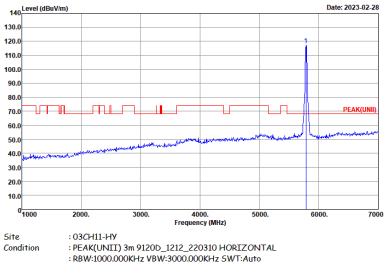
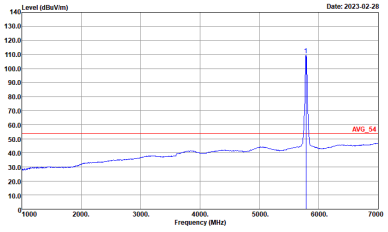
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
7+8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK(UNII) 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

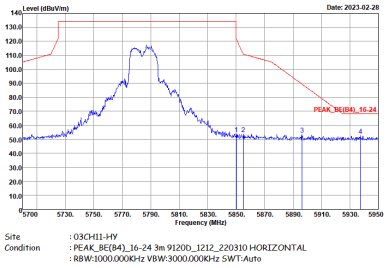
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

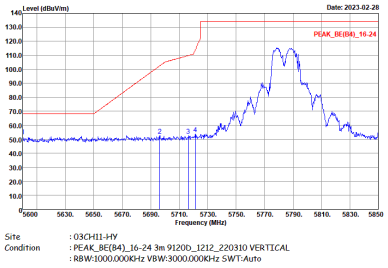
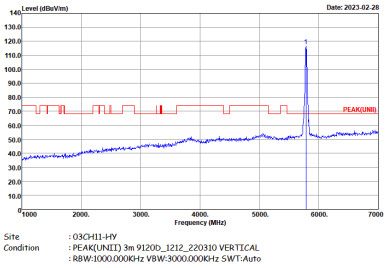
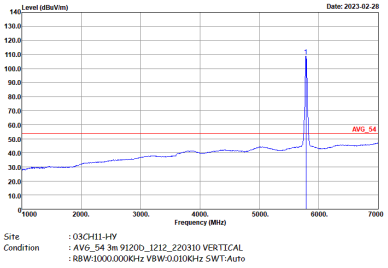
Band 4 5725~5850MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

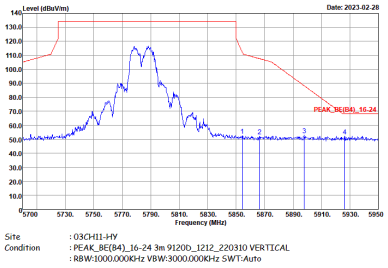
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank	

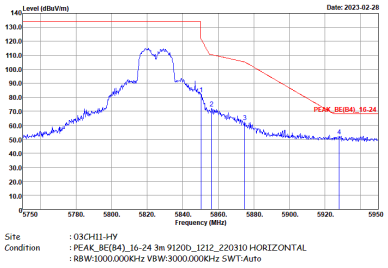
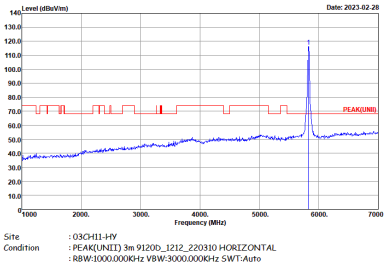
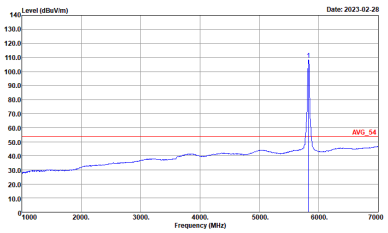
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank		

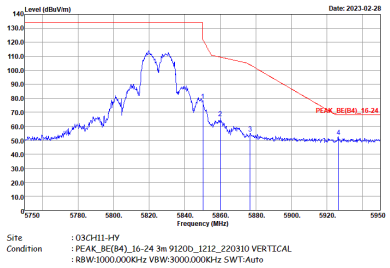
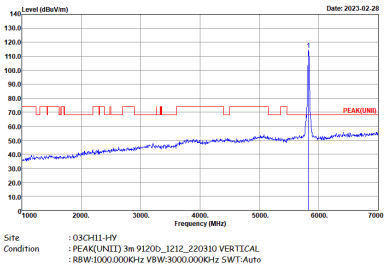
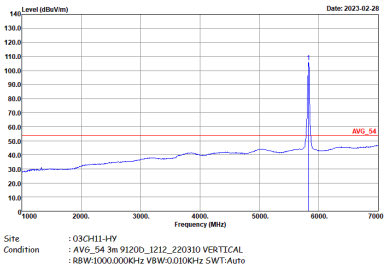
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
7+8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK(UNII) 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

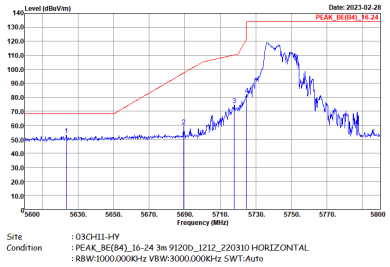
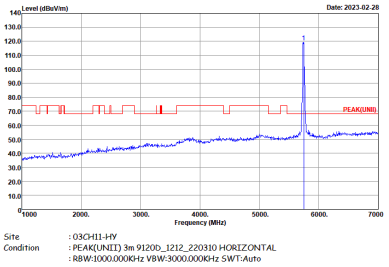
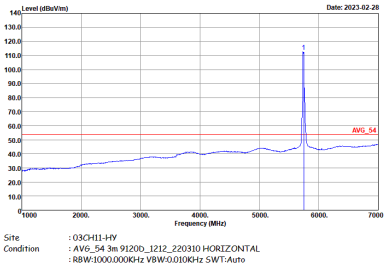
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
7+8	Vertical	Fundamental
Peak		Left blank

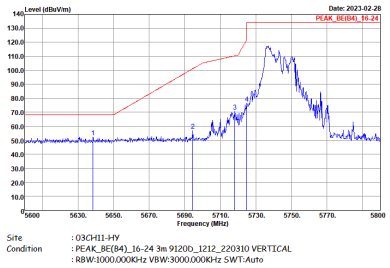
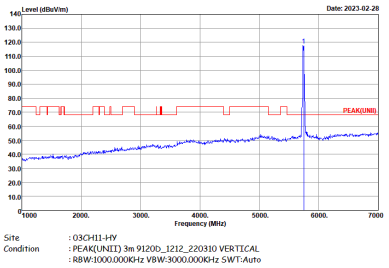
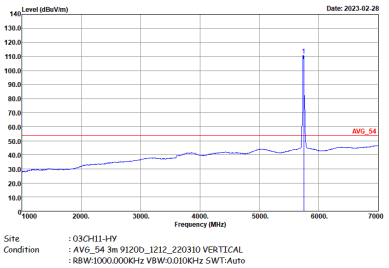
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
7+8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK(UNII) 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

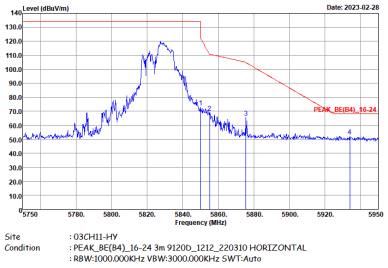
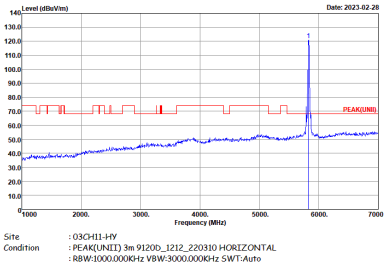
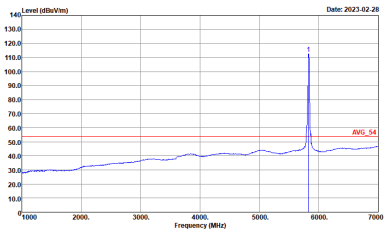
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

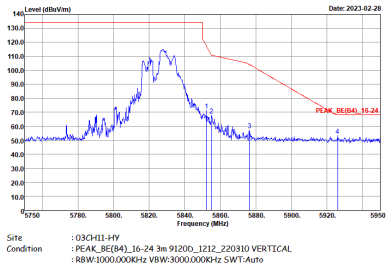
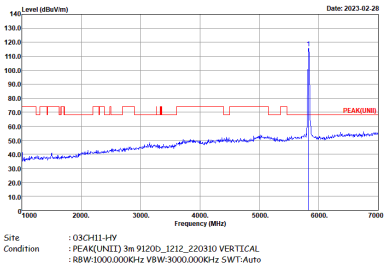
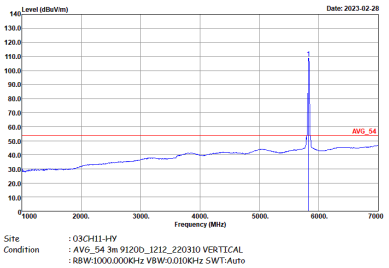
Band 4 5725~5850MHz

WIFI 802.11ax HE20 Partial 106 (Band Edge @ 3m)

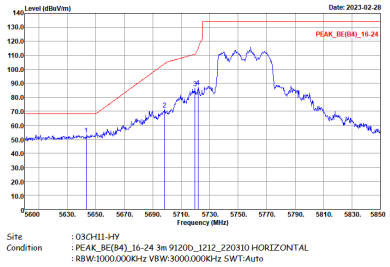
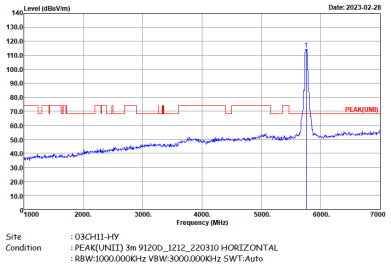
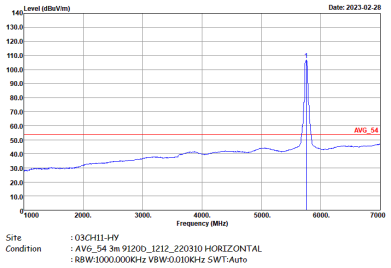
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank		

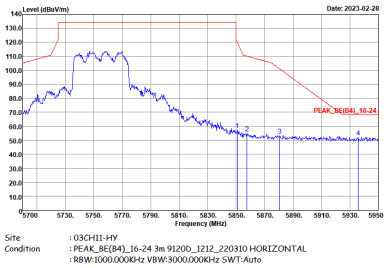
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank		

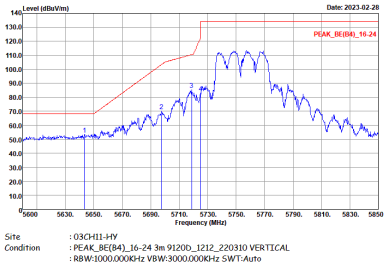
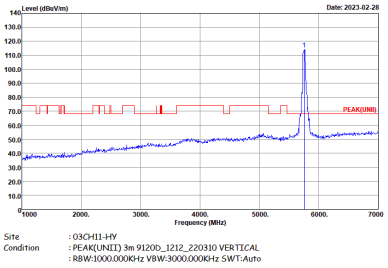
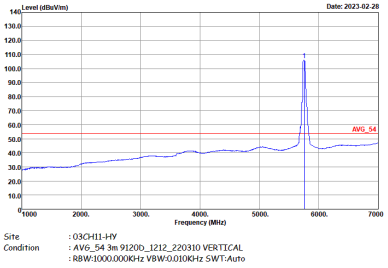
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/54 CH165 5825MHz	
7+8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK(UNII) 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

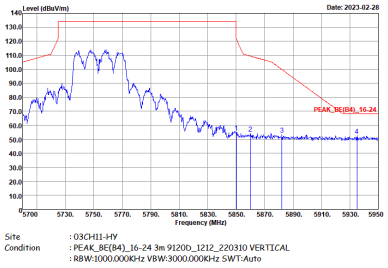
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/54 CH165 5825MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

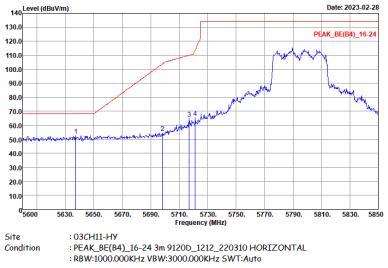
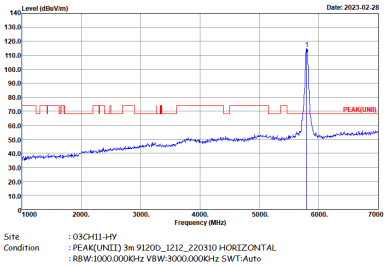
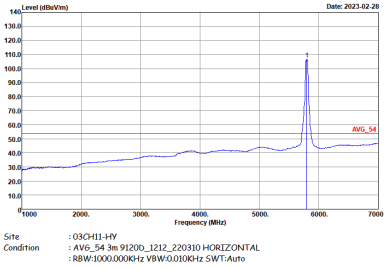
Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

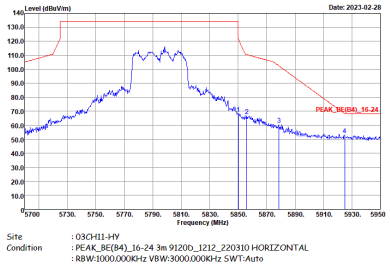
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank	

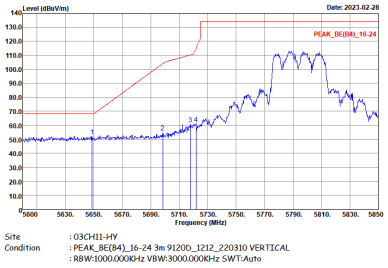
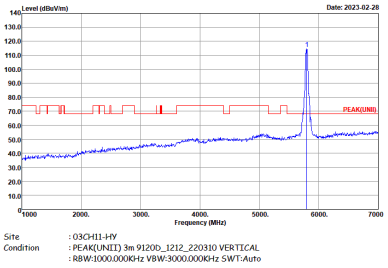
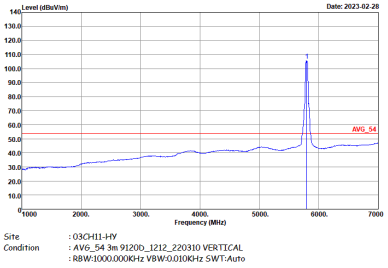
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

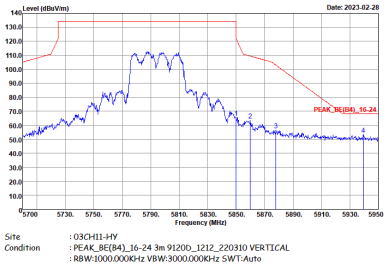
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
7+8	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_8E(84)_16-24 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank	

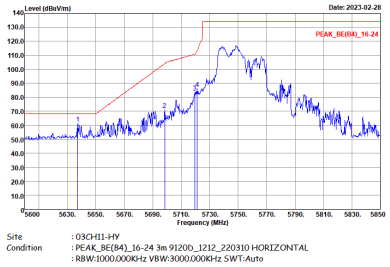
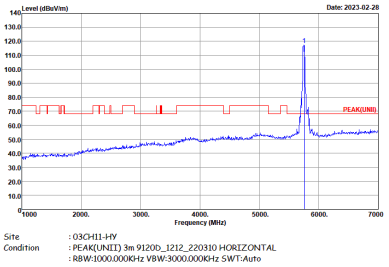
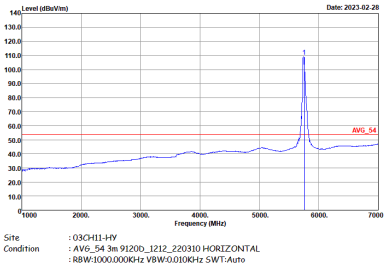
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

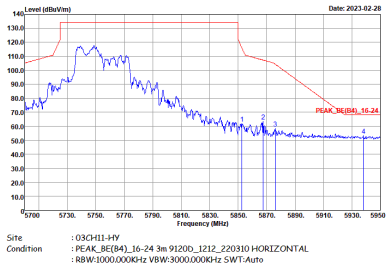
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

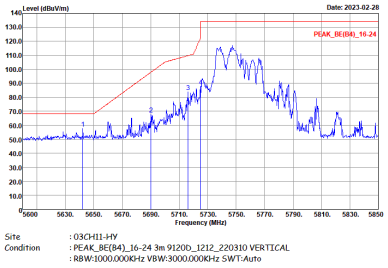
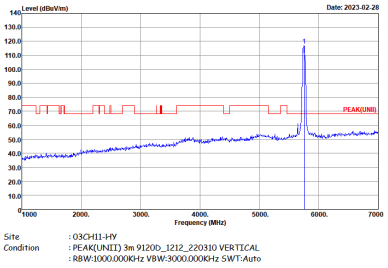
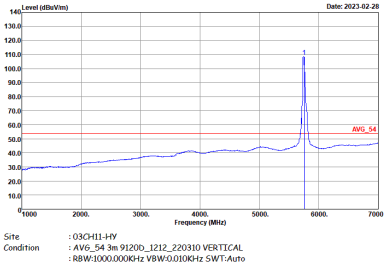
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
7+8	Vertical	Fundamental
Peak		Left blank

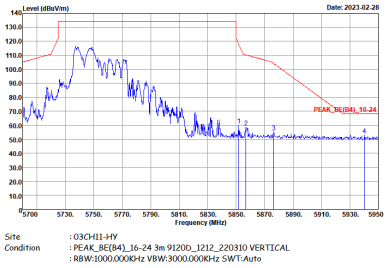
Band 4 5725~5850MHz

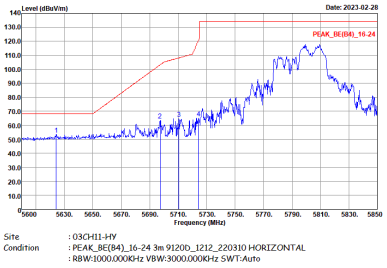
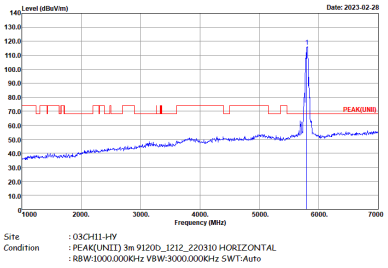
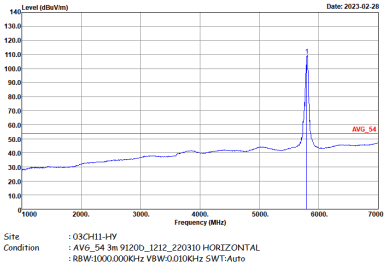
WIFI 802.11ax HE40 Partial 242 (Band Edge @ 3m)

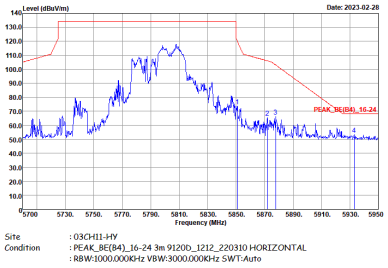
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank		

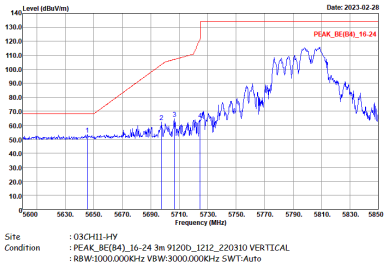
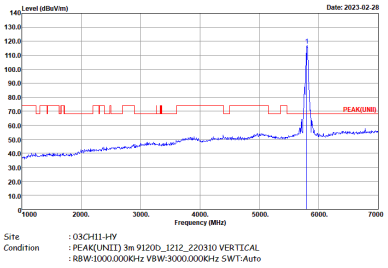
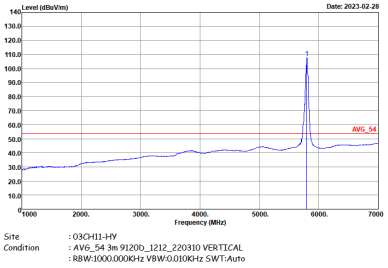
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

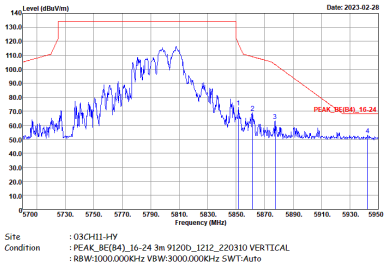
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
7+8	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_8E(84)_16-24 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

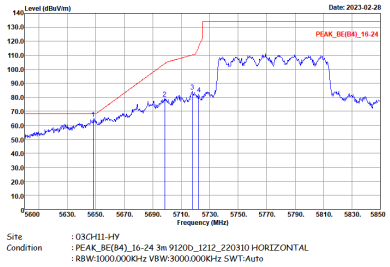
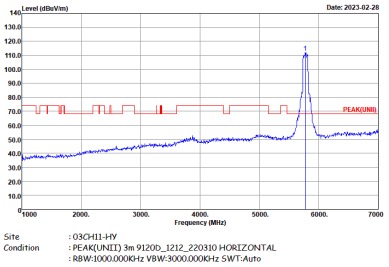
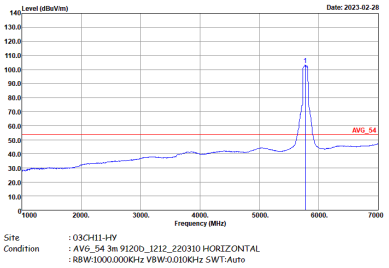
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH159 5795MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank	

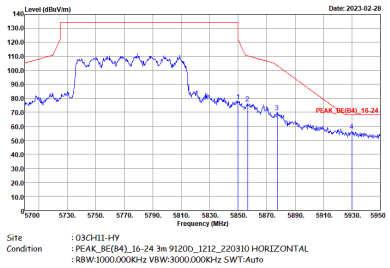
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH159 5795MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

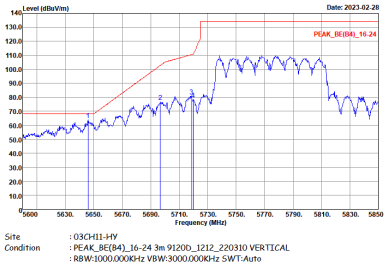
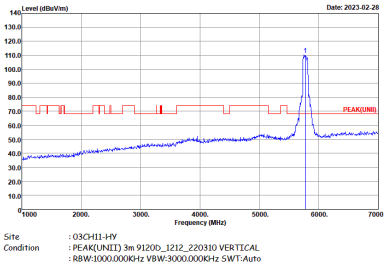
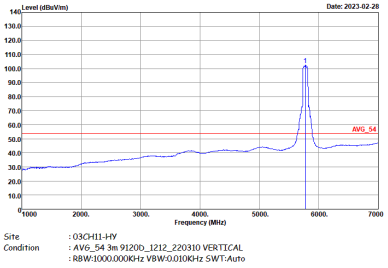
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH159 5795MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

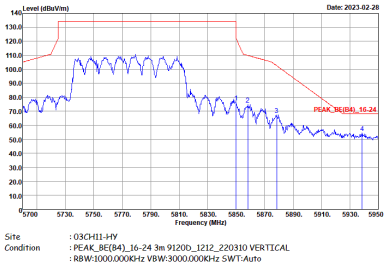
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH159 5795MHz	
7+8	Vertical	Fundamental
Peak		Left blank

Band 4 5725~5850MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank	

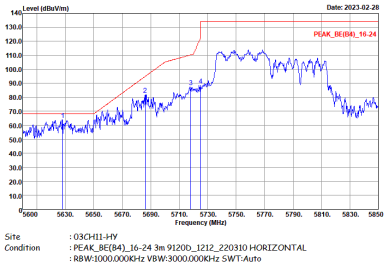
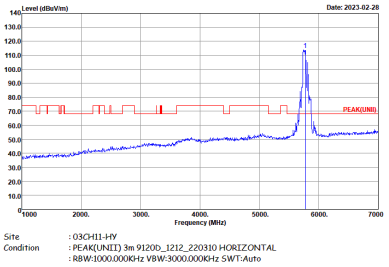
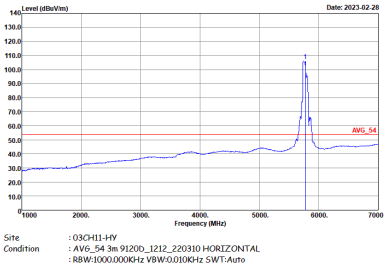
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

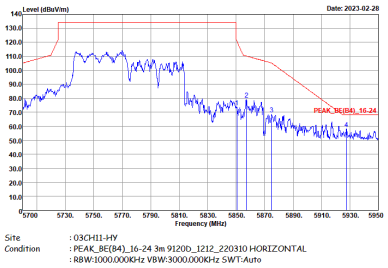
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

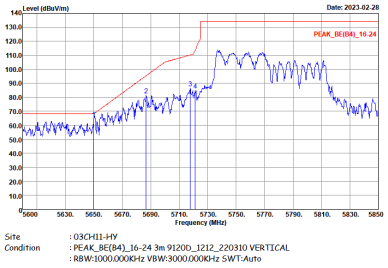
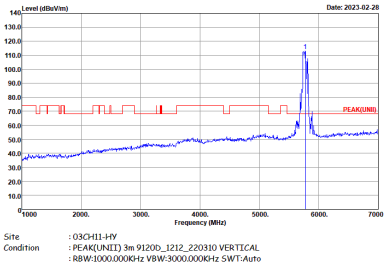
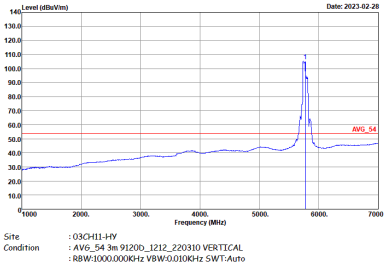
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		Left blank

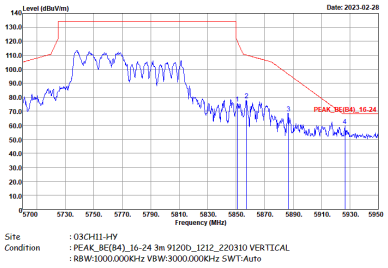
Band 4 5725~5850MHz

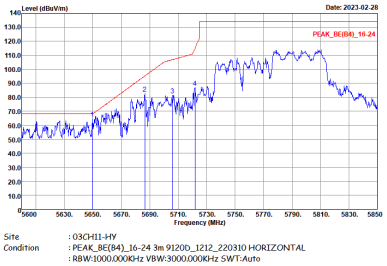
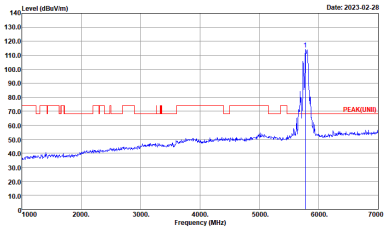
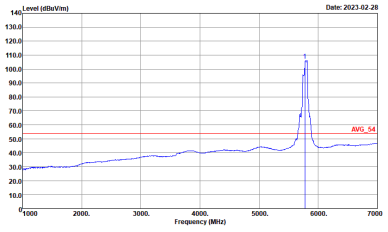
WIFI 802.11ax HE80 Partial 484 (Band Edge @ 3m)

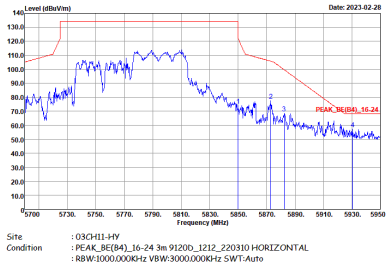
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank		

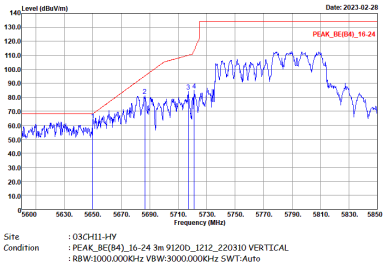
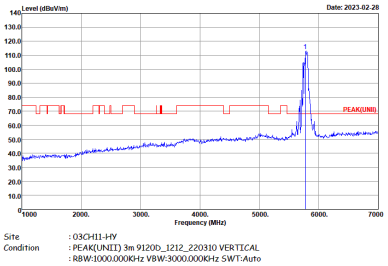
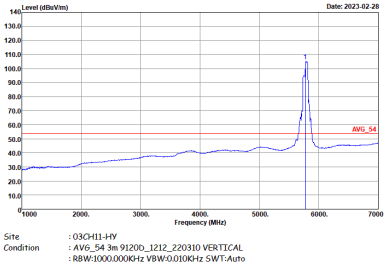
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

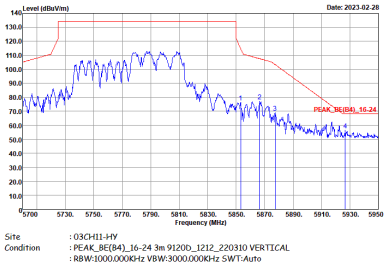
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/66 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK(UNII) 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

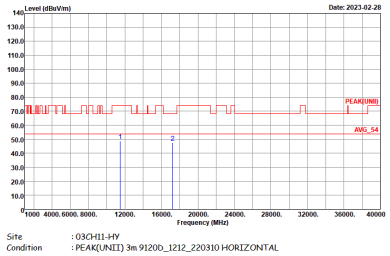
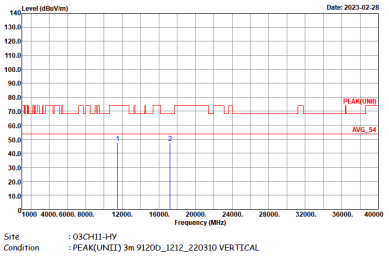
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/66 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

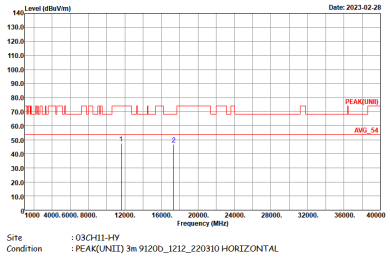
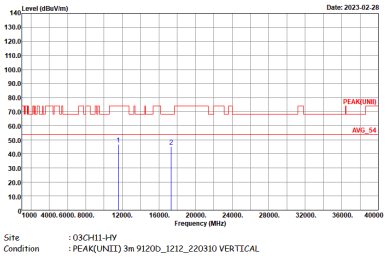
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/66 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

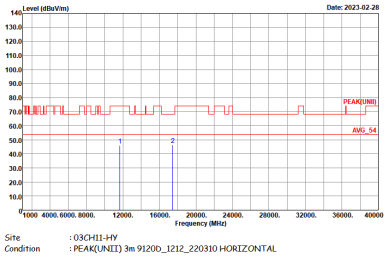
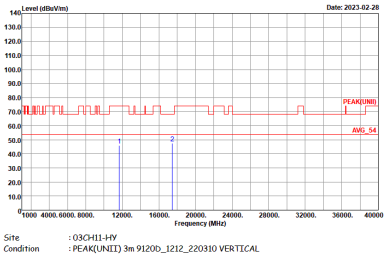
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/66 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

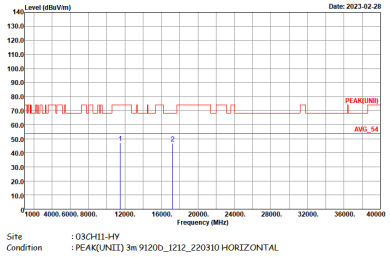
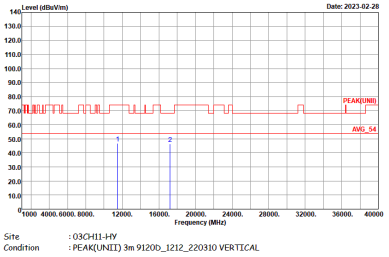
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
7+8	Horizontal	Vertical
Peak Avg.		

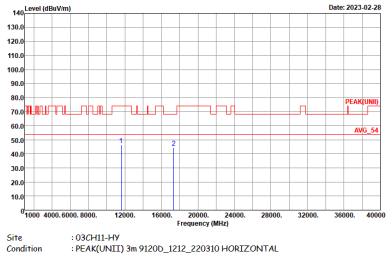
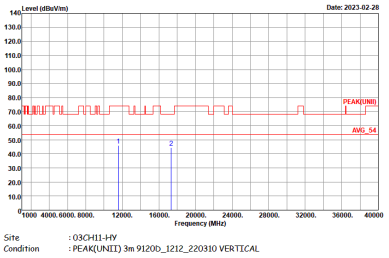
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
7+8	Horizontal	Vertical
Peak Avg.		

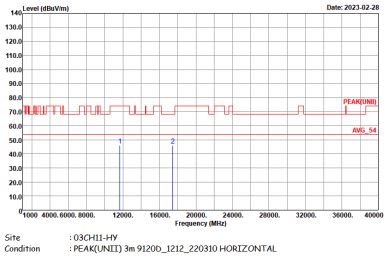
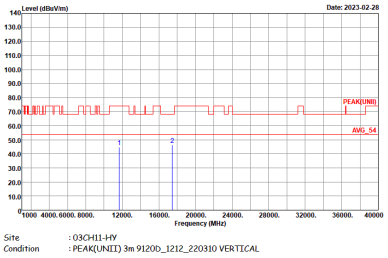
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
7+8	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

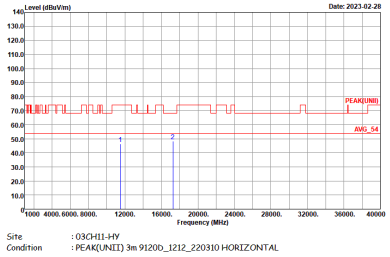
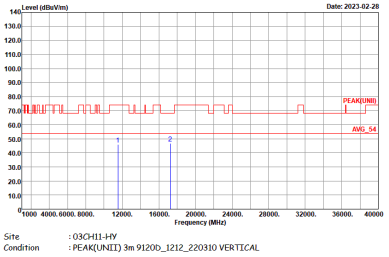
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
7+8	Horizontal	Vertical
Peak Avg.		

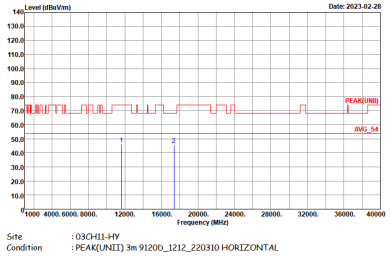
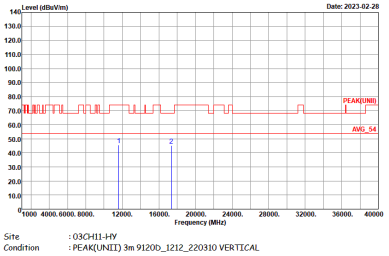
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
7+8	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
7+8	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

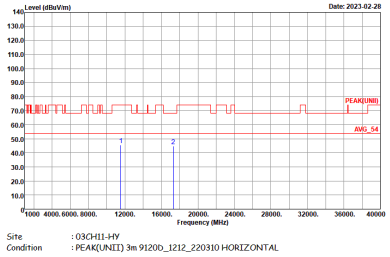
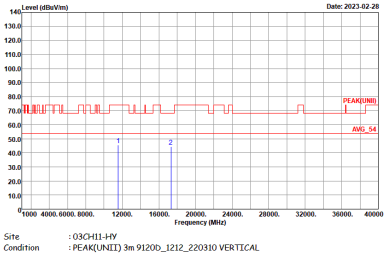
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
7+8	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
7+8	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

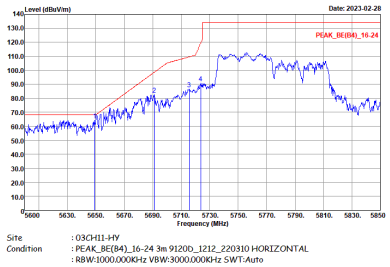
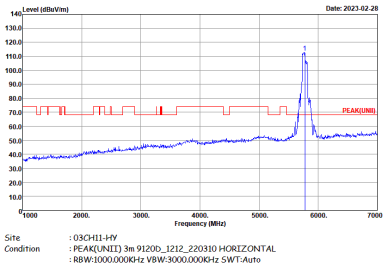
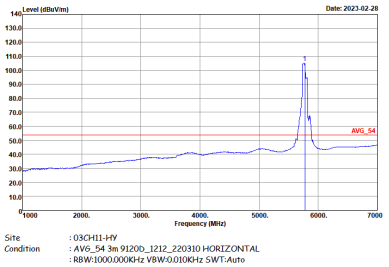
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

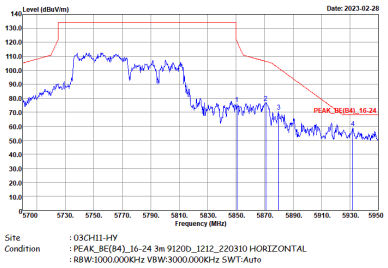
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
7+8	Horizontal	Vertical
Peak Avg.		

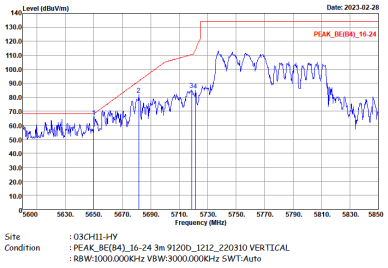
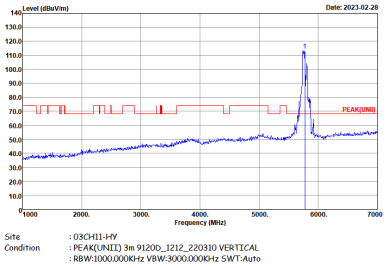
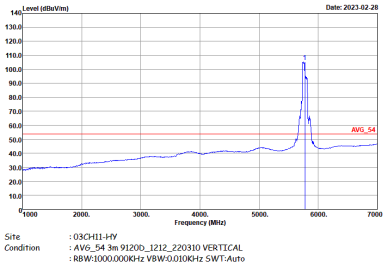
<Sample 2 with Battery 1>

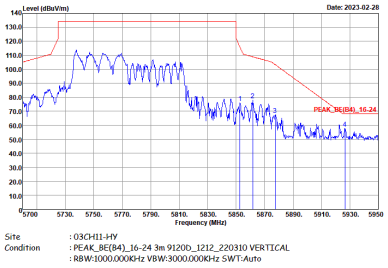
Band 4 - 5725~5850MHz

WIFI 802.11ax HE80 Partial 484 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank	

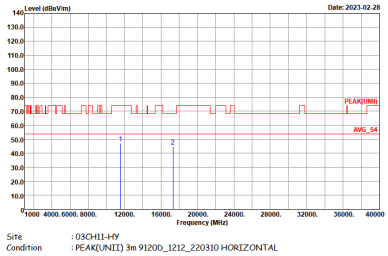
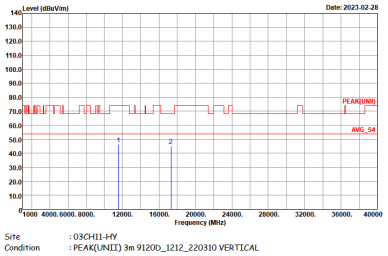
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		Left blank

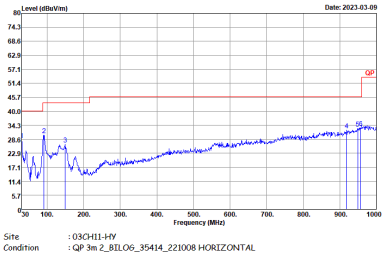
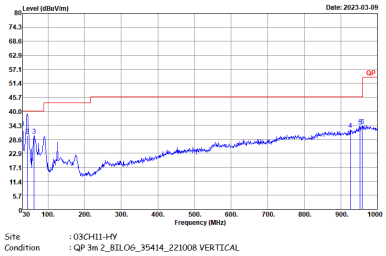
Band 4 - 5725~5850MHz

WIFI 802.11ax HE80 Partial 484 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

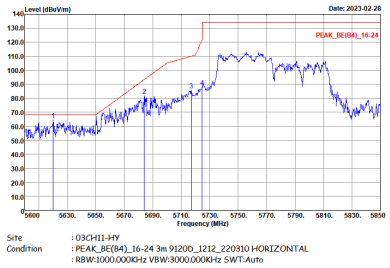
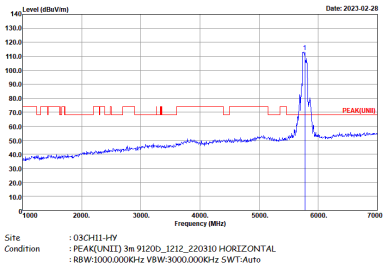
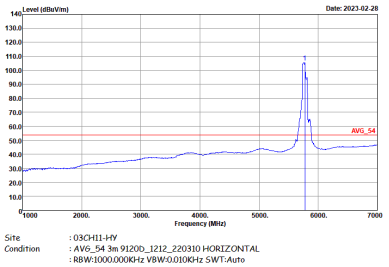
5GHz WIFI 802.11ax HE80 Partial 484 (LF @ 3m)

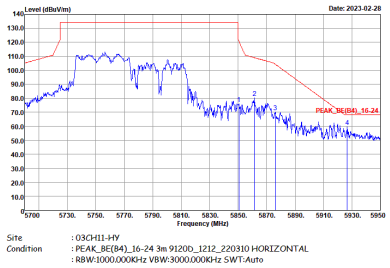
WIFI	5GHz WIFI	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Vertical
QP / Peak		

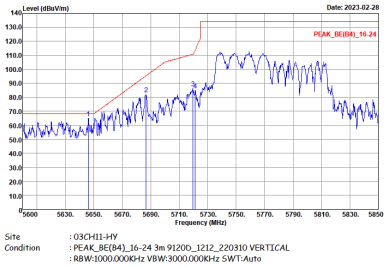
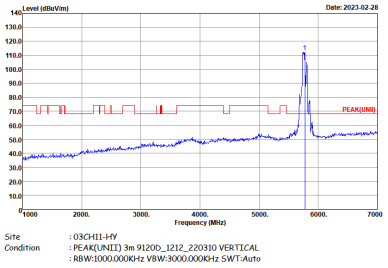
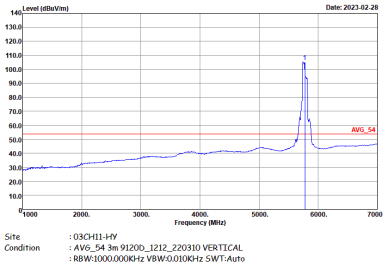
<Sample 1 with Battery 3>

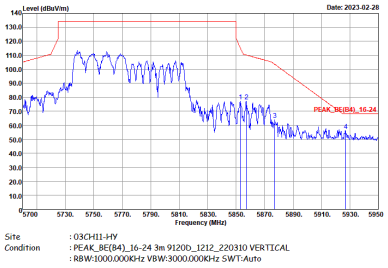
Band 4 - 5725~5850MHz

WIFI 802.11ax HE80 Partial 484 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank		

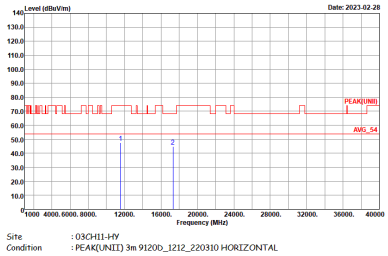
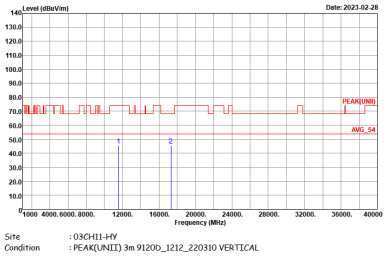
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		Left blank

Band 4 - 5725~5850MHz

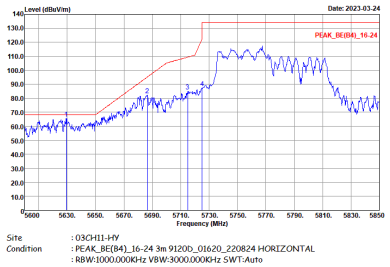
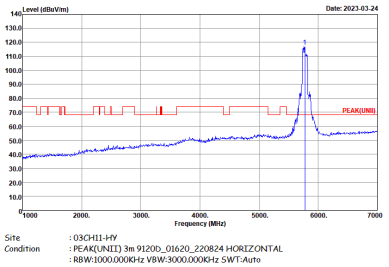
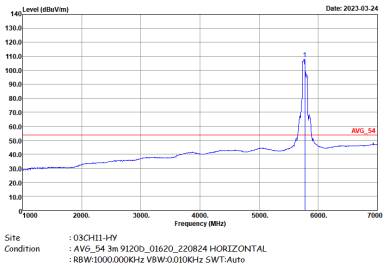
WIFI 802.11ax HE80 Partial 484 (Harmonic @ 3m)

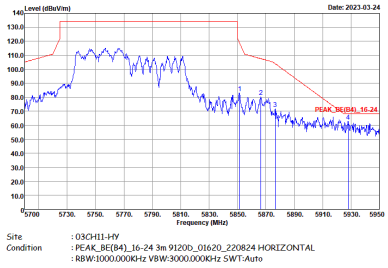
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Vertical
Peak Avg.		

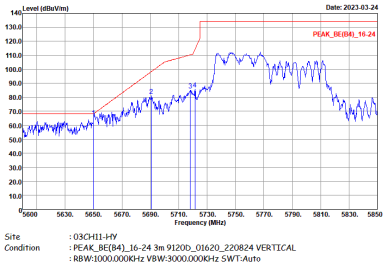
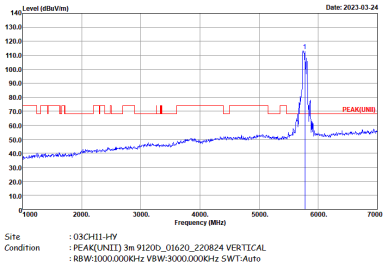
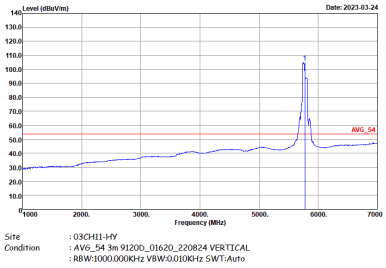
<Sample 2 with Battery 1>

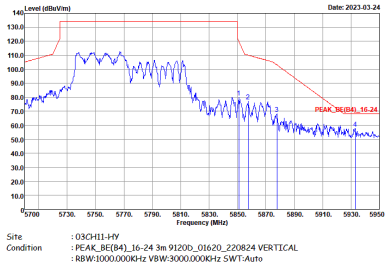
Band 4 - 5725~5850MHz

WIFI 802.11ax HE80 Partial 484 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		
Avg	Left blank		

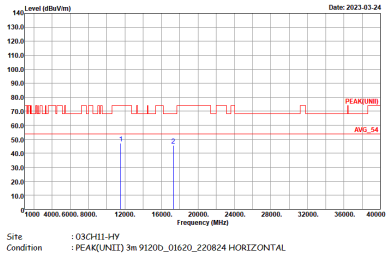
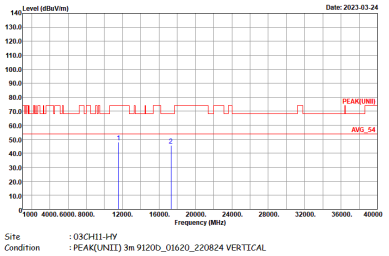
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		
Avg	Left blank	

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Vertical	Fundamental
Peak		Left blank

Band 4 - 5725~5850MHz

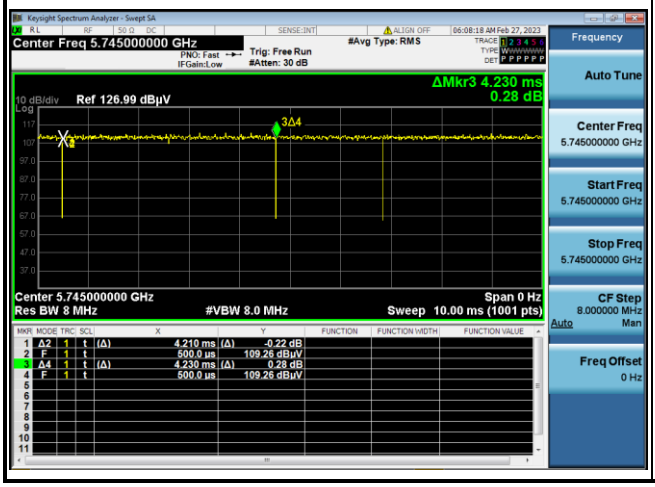
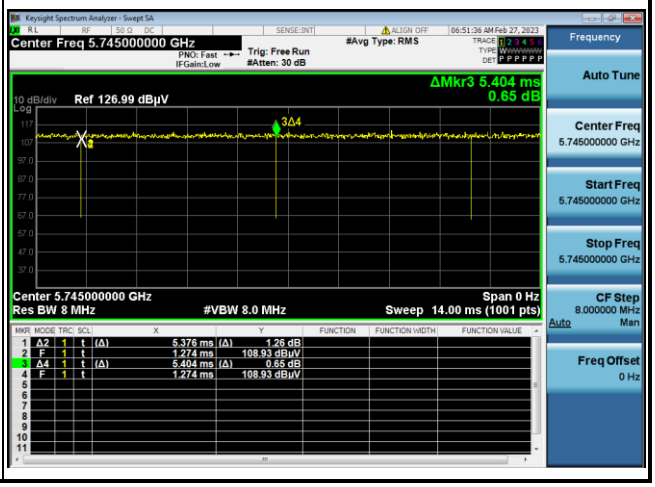
WIFI 802.11ax HE80 Partial 484 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
7+8	Horizontal	Vertical
Peak Avg.		

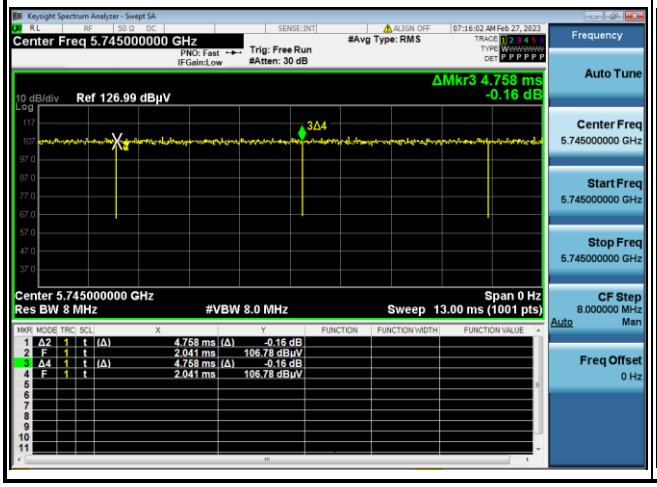
Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
7+8	5GHz 802.11a	99.53	-	-	0.01KHz
7+8	5GHz 802.11ax HE20 Full RU	99.48	-	-	0.01KHz
7+8	5GHz 802.11ax HE20 106 RU	100.00	-	-	0.01KHz
7+8	5GHz 802.11ax HE40 Full RU	100.00	-	-	0.01KHz
7+8	5GHz 802.11ax HE40 242 RU	100.00	-	-	0.01KHz
7+8	5GHz 802.11ax HE80 Full RU	99.11	-	-	0.01KHz
7+8	5GHz 802.11ax HE80 484 RU	99.11	-	-	0.01KHz

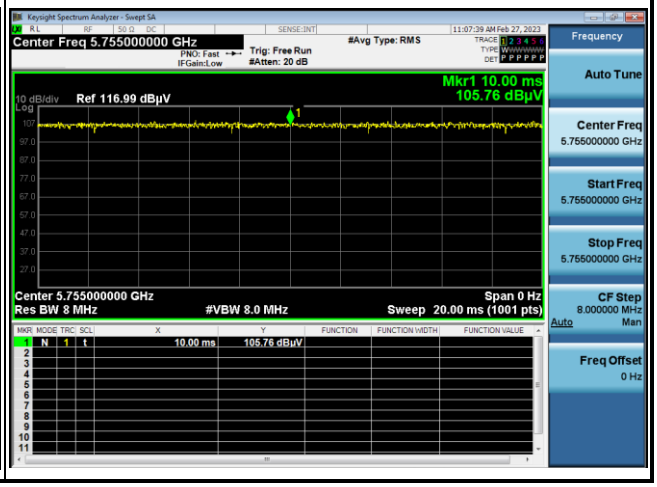
<MIMO. 7+8>

802.11a	802.11ax HE20 Full RU
	

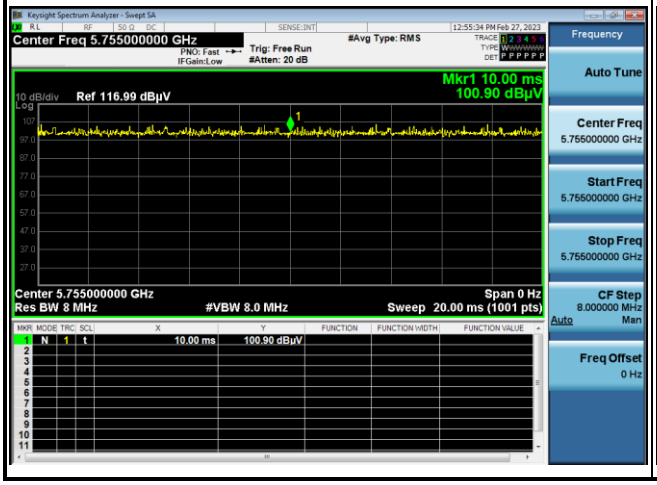
802.11ax HE20 106 RU



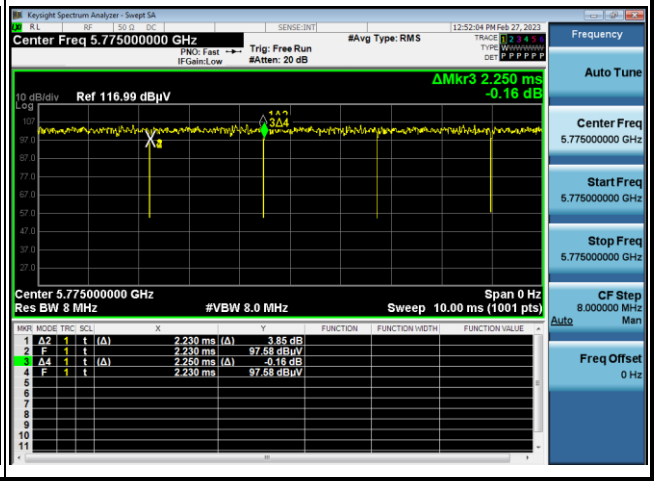
802.11ax HE40 Full RU



802.11ax HE40 242 RU



802.11ax HE80 Full RU



802.11ax HE80 484 RU