



FCC RADIO TEST REPORT

FCC ID : UZ7WT0
Equipment : Wearable Computer
Brand Name : Zebra
Model Name : WT0
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. 23, 2024 and testing was performed from Mar. 04, 2024 to Apr. 12, 2024. 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.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test.....	5
1.2 Product Specification of Equipment Under Test.....	8
1.3 Modification of EUT	11
1.4 Testing Location	11
1.5 Applicable Standards.....	11
2 Test Configuration of Equipment Under Test	12
2.1 Carrier Frequency and Channel	12
2.2 Test Mode.....	13
2.3 Connection Diagram of Test System.....	14
2.4 Support Unit used in test configuration and system	16
2.5 EUT Operation Test Setup	16
2.6 Measurement Results Explanation Example.....	16
3 Test Result	17
3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement	17
3.2 Maximum Conducted Output Power Measurement	18
3.3 Power Spectral Density Measurement	19
3.4 Unwanted Emissions Measurement	21
3.5 AC Conducted Emission Measurement.....	26
3.6 Antenna Requirements	28
4 List of Measuring Equipment.....	29
5 Measurement Uncertainty	30
Appendix A. Conducted Test Results	
Appendix B. AC Conducted Emission Test Result	
Appendix C. Radiated Spurious Emission	
Appendix D. Radiated Spurious Emission Plots	
Appendix E. Duty Cycle Plots	
Appendix F. Setup Photographs	



History of this test report

Report No.	Version	Description	Issue Date
FR422224F	01	Initial issue of report	Apr. 25, 2024

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	1.50 dB under the limit at 5649.05 MHz
3.5	15.207	AC Conducted Emission	Pass	4.75 dB under the limit at 13.56 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/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

Disclaimer:

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

Reviewed by: Wei Chen

Report Producer: Wilda Wei



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wearable Computer
Brand Name	Zebra
Model Name	WT0
FCC ID	UZ7WT0
Sample 1	Premium sku
Sample 2	Base sku
EUT supports Radios application	NFC 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	EV1.1
SW Version	13-14-19.00-TG-U00-PRD-NEM-04
OS Version	Android 13
FW Version	V03
MFD	30JAN24
EUT Stage	Engineering Sample

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



Specification of Accessories				
AC Adapter	Brand Name	Zebra	Part Number	PWR-WUA5V12W0US
Corded Adapter 1	Brand Name	Zebra	Part Number	CBL-RS5X6-ADPWT-01
Corded Adapter 2	Brand Name	Zebra	Part Number	CBL-RS5X6-ADPCT-01
Battery 1	Brand Name	Zebra	Part Number	BT-000490-1020
Battery 2	Brand Name	Zebra	Part Number	BT-000490-1820
USB Cable	Brand Name	Zebra	Part Number	CBL-NGWT-USBCHG-01
Vibrating Cable	Brand Name	Zebra	Part Number	CBL-NGWT-HDVBAP-01
Type-C cable	Brand Name	Zebra	Part Number	CBL-EC5X-USBC3A-01
Type-A to Type-C cable	Brand Name	Zebra	Part Number	CBL-TC5X-USBC2A-01
Audio Cable 1	Brand Name	Zebra	Part Number	CBL-HS2100-12S1-01
Audio Cable 2	Brand Name	Zebra	Part Number	CBL-HS3100-CUC1-01
Training cable	Brand Name	Zebra	Part Number	25-129938-02R
Audio Adapter Cable (Short)	Brand Name	Zebra	Part Number	CBL-NGWT-AUQDST-02
Audio Adapter Cable (Long)	Brand Name	Zebra	Part Number	CBL-NGWT-AUQDLG-01
HEADSET QUICK DISCONNECT CABLE	Brand Name	Zebra	Part Number	CBL-HS2100-QDC1-02
Scanner 1	Brand Name	Zebra	Part Number	RS61B0-KESSXWR
			Model Number	RS6100
Scanner 2	Brand Name	Zebra	Part Number	RS51B0-LCFSWR
			Model Number	RS5100
Scanner 3	Brand Name	Zebra	Part Number	RS4000-HPCSWR
			Model Number	RS4000
Scanner 4	Brand Name	Zebra	Part Number	RS4000-HPCLWR
			Model Number	RS4000
Scanner 5	Brand Name	Zebra	Part Number	RS5000-LCBSWR
			Model Number	RS5000
Earphone 1	Brand Name	Zebra	Model Number	HS2100
Earphone 2	Brand Name	Zebra	Model Number	HS3100
Earphone 3	Brand Name	Zebra	Part Number	HDST-USBC-PTT1-01
hip mount 1	Brand Name	Zebra	Part Number	SG-WT5X6-HPMNT-01
hip mount 2	Brand Name	Zebra	Part Number	SG-WT5X6-HPMTX-01



Specification of Accessories				
Wrist moun + Single dial strap (S)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTSS-01
Wrist moun + Single dial strap (L)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTSL-01
Wrist moun + Single dial strap (XL)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTSX-01
Wrist moun + Dual dial strap (S)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTDS-01
Wrist moun + Dual dial strap (L)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTDL-01
Wrist moun + Dual dial strap (XL)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTDX-01
Wrist moun + Velcro strap (S)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTVS-01
Wrist moun + Velcro strap (L)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTVL-01
Wrist moun + Velcro strap (XL)	Brand Name	Zebra	Part Number	SG-WT5X6-WMTVX-01
Dual dial strap (S)	Brand Name	Zebra	Part Number	SG-WT5X6-WSTDs-01
Dual dial strap (L)	Brand Name	Zebra	Part Number	SG-WT5X6-WSTDL-01
Dual dial strap (XL)	Brand Name	Zebra	Part Number	SG-WT5X6-WSTDx-01
Velcro strap (S)	Brand Name	Zebra	Part Number	SG-WT5X6-WSTVS-01
Velcro strap (L)	Brand Name	Zebra	Part Number	SG-WT5X6-WSTVL-01
Velcro strap (XL)	Brand Name	Zebra	Part Number	SG-WT5X6-WSTVX-01
Single dial strap (S)	Brand Name	Zebra	Part Number	SG-NGWT-WSTPST-01
Single dial strap (L)	Brand Name	Zebra	Part Number	SG-NGWT-WSTPLN-01
Single dial strap (XL)	Brand Name	Zebra	Part Number	SG-NGWT-WSTPXL-01
sleeves for wrist mount	Brand Name	Zebra	Part Number	SG-WT4027050-01R
Screen Protector	Brand Name	Zebra	Part Number	MISC-WT5X6-SCRN-05

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. 0+1> 802.11a: 24.41 dBm / 0.2761 W 802.11n HT20: 24.01 dBm / 0.2518 W 802.11n HT40: 23.66 dBm / 0.2323 W 802.11ac VHT20: 24.11 dBm / 0.2576 W 802.11ac VHT40: 23.76 dBm / 0.2377 W 802.11ac VHT80: 22.11 dBm / 0.1626 W 802.11ax HE20: 24.21 dBm / 0.2636 W 802.11ax HE40: 23.86 dBm / 0.2432 W 802.11ax HE80: 22.21 dBm / 0.1663 W										
99% Occupied Bandwidth		MIMO <Ant. 0> 802.11a: 27.82 802.11ac VHT20: 18.13 MHz 802.11ac VHT40: 36.66 MHz 802.11ac VHT80: 75.52 MHz 802.11ax HE20: 25.07 MHz 802.11ax HE40: 38.56 MHz 802.11ax HE80: 77.32 MHz MIMO <Ant. 1> 802.11a: 18.53 MHz 802.11ac VHT20: 17.53 MHz 802.11ac VHT40: 36.26 MHz 802.11ac VHT80: 75.40 MHz 802.11ax HE20: 19.43 MHz 802.11ax HE40: 38.06 MHz 802.11ax HE80: 77.08 MHz										
Antenna Type / Gain		<Ant. 0>: PIFA Antenna with gain 2.05 dBi <Ant. 1>: Monopole Antenna with gain 2.60 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. 0</td><td>Ant. 1</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>			Ant. 0	Ant. 1	802.11a/n/ac/ax MIMO	V	V	802.11ax TXBF	V	V
	Ant. 0	Ant. 1										
802.11a/n/ac/ax MIMO	V	V										
802.11ax TXBF	V	V										

Remark:

1. MIMO Ant. 0+1 Directional Gain is a calculated result from MIMO Ant. 0 and MIMO Ant. 1. The formula used in calculation is documented in section 1.2.1.
2. Power of MIMO Ant. 0 + Ant. 1 is a calculated result from sum of the power MIMO Ant. 0 and MIMO Ant. 1.
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 F2)f)ii)

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

For power measurements on IEEE 802.11 devices,

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

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

For PSD measurements, the directional gain calculation.

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

where

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

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

N_{ANT} = the total number of antennas

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

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

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

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

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

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant 0	Ant 1	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	2.05	2.60	2.60	5.34	0.00	0.00

Calculation example:

If a device has two antenna, $G_{ANT0} = 2.05$ dBi; $G_{ANT1} = 2.60$ dBi

Directional gain of power measurement = $\max(2.05, 2.60) + 0 = 2.60$ dBi

Directional gain of PSD derived from formula which is

$10 \times \log \{ [10^{(2.05 \text{ dBi} / 20)} + 10^{(2.60 \text{ dBi} / 20)}]^2 / 2 \}$

= 5.34 dBi

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

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

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

			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant 0 (dBi)	Ant 1 (dBi)				
Band IV	2.05	2.60	5.34	5.34	0.00	0.00

Calculation example:

Directional gain of PSD derived from formula which is

$$10 \times \log \left\{ \left[10^{\frac{2.05}{20}} + 10^{\frac{2.60}{20}} \right]^2 / 2 \right\}$$

$$= 5.34 \text{ dBi}$$

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. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. CO05-HY (TAF Code: 1190)
Remark	The AC Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory.

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, 03CH20-HY

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

FCC designation No.: TW1190 and 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 26/52/106/242/484/996-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 mode is smaller than 802.11ac mode, so all other conducted test is covered by 802.11ac 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 VHT20)	MCS0
802.11n HT40 (Covered by VHT40)	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	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.

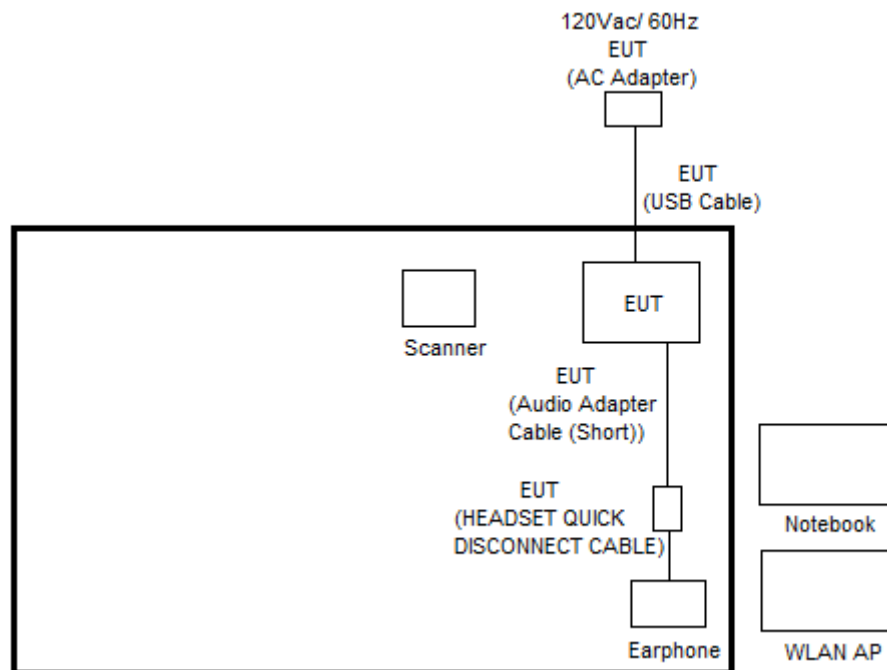
Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + MP3 Play + NFC on + Scan Bar Code + Battery 2 + Scanner 1 Bluetooth Link with EUT + Earphone 1 + HEADSET QUICK DISCONNECT CABLE + Audio Adapter Cable (Short) + USB Cable (Charging from AC Adapter) for Sample 1
Remark: For Radiated Test Cases, the tests were performed with Battery 1, Earphone 1, Audio Cable 1 and Sample 1.	

Ch. #		Band IV : 5725-5850 MHz			
		802.11a	802.11ax HE20	802.11ax HE40	802.11ax HE80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

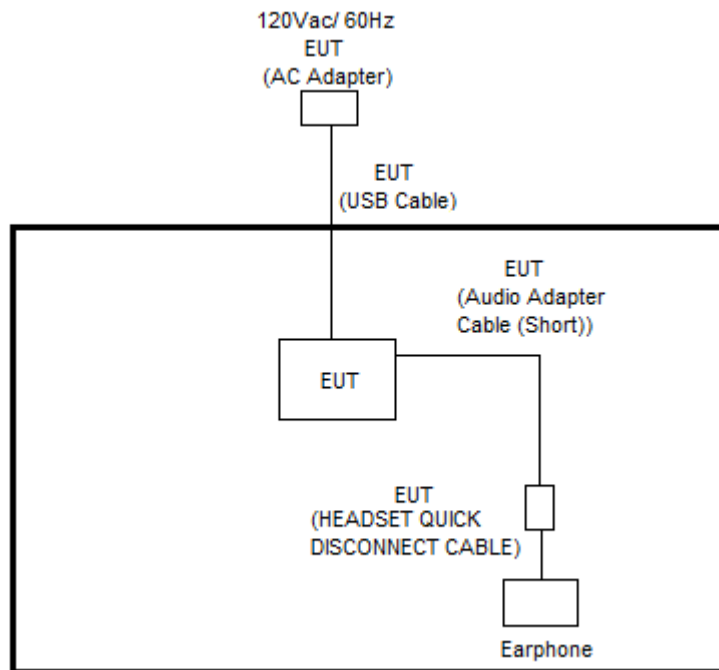
Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.3 Connection Diagram of Test System

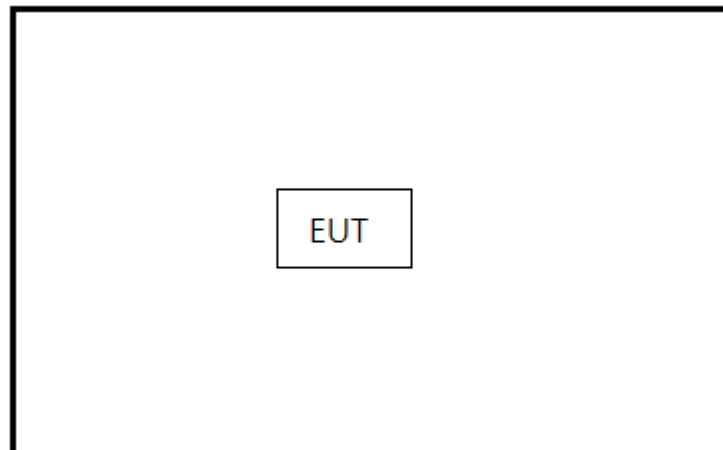
<AC Conducted Emission Mode>



<WLAN Tx with Accessory Mode>



<WLAN Tx without Accessory Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	Latitude 3420	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 4.0.211.0" 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.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.2 + 10 = 14.2 \text{ (dB)}\end{aligned}$$

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.

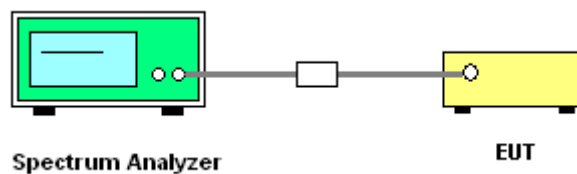
3.1.2 Measuring Instruments

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 $\geq 3 \times$ 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.

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.

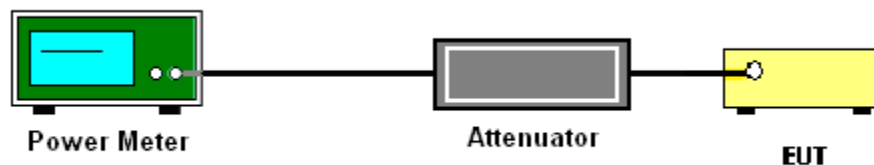
3.2.3 Test Procedures

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

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

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

3.2.4 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-2

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

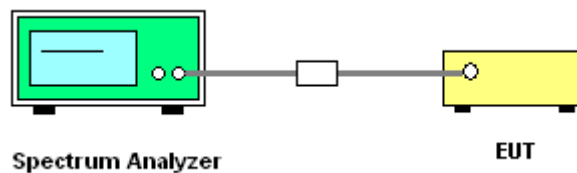
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300kHz.
- Set VBW ≥ 1 MHz.
- Add $10 \log(500 \text{ kHz/RBW})$ to the measured result, whereas RBW ($< 500 \text{ kHz}$) is the reduced resolution bandwidth of the spectrum analyzer set during measurement
- Number of points in sweep $\geq 2 \text{ Span} / \text{RBW}$.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6 \text{ dB}$ if the duty cycle is 25 percent.

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 $10 \log(N_{\text{ANT}})$ 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 $10 \log(N_{\text{ANT}})$ dB is added to each spectrum value before comparing to the emission limit. The addition of $10 \log(N_{\text{ANT}})$ dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{\text{ANT}}^{\text{th}}$ of the PSD limit.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

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.

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

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 $\geq$ 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 $\geq$ 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

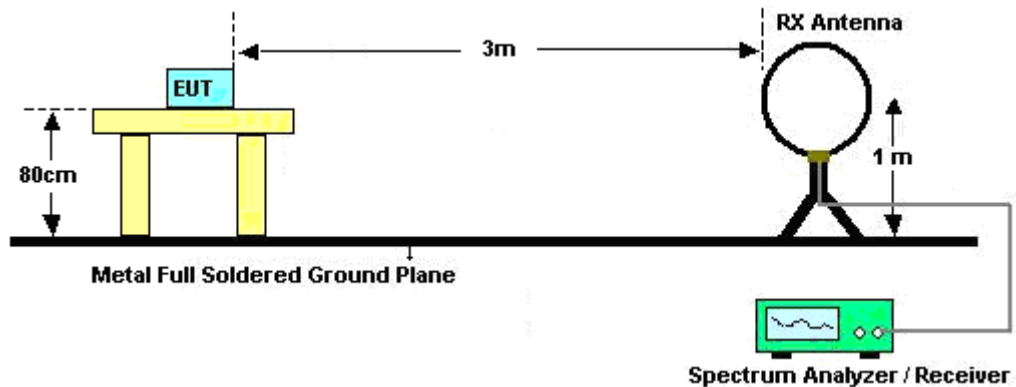
against QP limit line, the position is marked as “-”.

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.

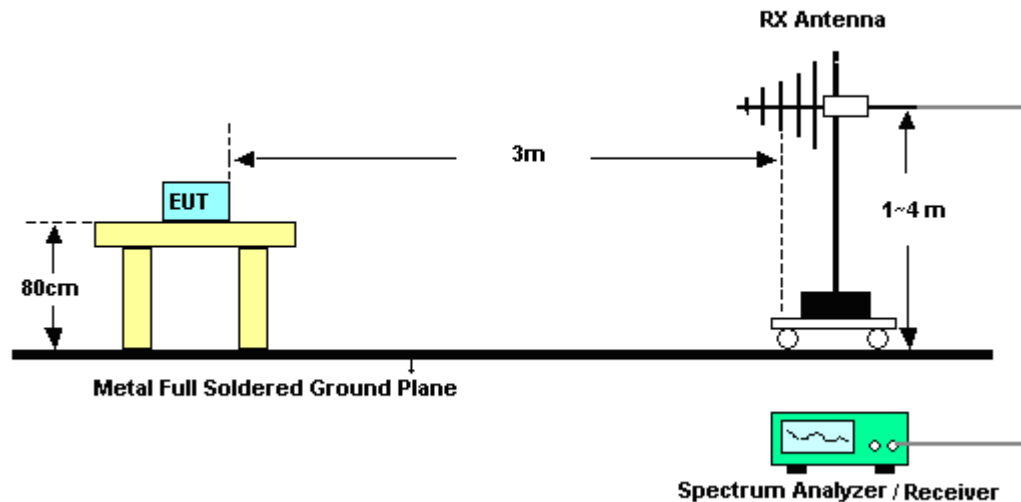
When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-”.

3.4.4 Test Setup

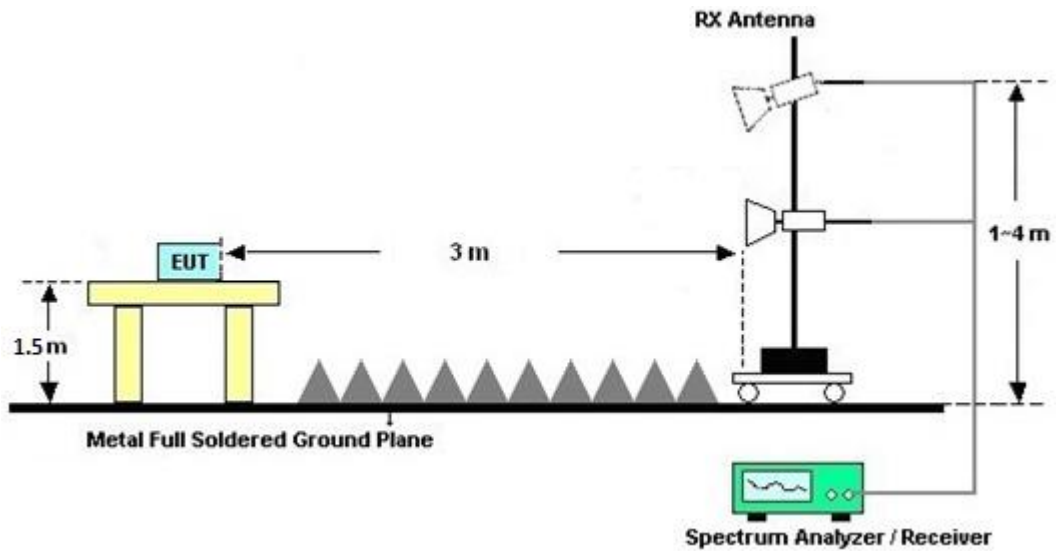
For radiated emissions below 30MHz



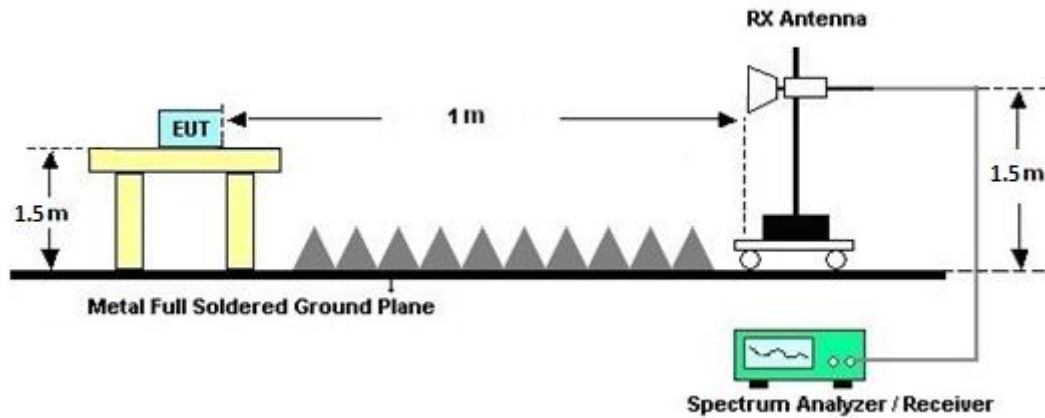
For radiated emissions from 30MHz to 1GHz



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 (dB μ V)	
	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.

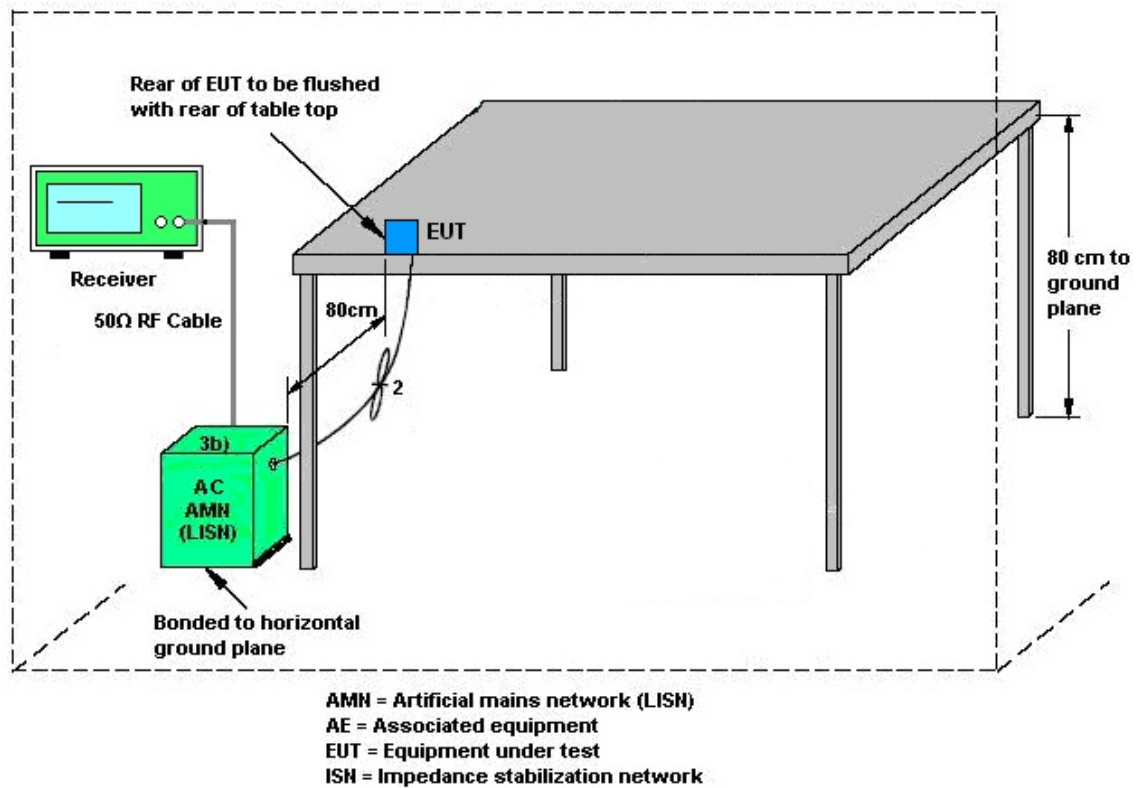
3.5.2 Measuring Instruments

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
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	N/A	Oct. 06, 2023	Mar. 07, 2024~ Apr. 09, 2024	Oct. 05, 2024	Radiation (03CH20-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 12, 2023	Mar. 07, 2024~ Apr. 09, 2024	Sep. 11, 2024	Radiation (03CH20-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 27, 2023	Mar. 07, 2024~ Apr. 09, 2024	Jun. 26, 2024	Radiation (03CH20-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Mar. 07, 2024~ Apr. 09, 2024	N/A	Radiation (03CH20-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar. 07, 2024~ Apr. 09, 2024	N/A	Radiation (03CH20-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar. 07, 2024~ Apr. 09, 2024	N/A	Radiation (03CH20-HY)
Signal Analyzer	Keysight	N9010B	MY60240520	N/A	Dec. 12, 2023	Mar. 07, 2024~ Apr. 09, 2024	Dec. 11, 2024	Radiation (03CH20-HY)
Bilog Antenna	TESEQ	CBL 6111D&00802N 1D01N-06	55606 & 08	30MHz~1GHz	Oct. 20, 2023	Mar. 07, 2024~ Apr. 09, 2024	Oct. 19, 2024	Radiation (03CH20-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	02360	1GHz-18GHz	Oct. 30, 2023	Mar. 07, 2024~ Apr. 09, 2024	Oct. 29, 2024	Radiation (03CH20-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	1224	18GHz-40GHz	Jul. 10, 2023	Mar. 07, 2024~ Apr. 09, 2024	Jul. 09, 2024	Radiation (03CH20-HY)
Preamplifier	COM-POWER	PAM-103	18020201	1MHz-1000MHz	Jan. 01, 2024	Mar. 07, 2024~ Apr. 09, 2024	Dec. 31, 2024	Radiation (03CH20-HY)
Amplifier	EMCI	EMC118A45SE	980792	N/A	Nov. 13, 2023	Mar. 07, 2024~ Apr. 09, 2024	Nov. 12, 2024	Radiation (03CH20-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	519229/2,8040 15/2,804027/2	N/A	Jan. 17, 2024	Mar. 07, 2024~ Apr. 09, 2024	Jan. 16, 2025	Radiation (03CH20-HY)
Hygrometer	TECPEL	DTM-303B	TP200728	N/A	Mar. 28, 2023	Mar. 07, 2024~ Mar. 26, 2024	Mar. 27, 2024	Radiation (03CH20-HY)
Hygrometer	TECPEL	DTM-303A	TP211382	N/A	Mar. 27, 2024	Mar. 27, 2024~ Apr. 09, 2024	Mar. 26, 2025	Radiation (03CH20-HY)
Software	Audix	N/A	RK-002156	N/A	N/A	Mar. 07, 2024~ Apr. 09, 2024	N/A	Radiation (03CH20-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Mar. 30, 2024	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 06, 2023	Mar. 30, 2024	Dec. 05, 2024	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Oct. 26, 2023	Mar. 30, 2024	Oct. 25, 2024	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 22, 2023	Mar. 30, 2024	Nov. 21, 2024	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Mar. 30, 2024	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBE CK	VTSD 9561-F N	00691	N/A	Jul. 28, 2023	Mar. 30, 2024	Jul. 27, 2024	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 28, 2023	Mar. 30, 2024	Dec. 27, 2024	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 07, 2023	Mar. 04, 2024~ Apr. 12, 2024	Nov. 06, 2024	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	17100015SNO 36 (NO:35_ 144)	10MHz~6GHz	Aug. 23, 2023	Mar. 04, 2024~ Apr. 12, 2024	Aug. 22, 2024	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101564	10Hz ~ 40GHz	Sep. 12, 2023	Mar. 04, 2024~ Apr. 12, 2024	Sep. 11, 2024	Conducted (TH05-HY)

5 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.5 dB
--	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.4 dB
--	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.5 dB
--	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.6 dB
--	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.4 dB
--	--------

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Sylvia Li	Temperature:	21~25	°C
Test Date:	2024/03/04~2024/04/12	Relative Humidity:	51~54	%

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

U-NII-3 MIMO												
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	2	149	5745	18.43	16.43	35.51	20.26	15.12	15.06	0.5	Pass
11a	6Mbps	2	157	5785	27.82	18.53	44.06	37.53	15.08	15.11	0.5	Pass
11a	6Mbps	2	165	5825	21.73	16.48	37.70	22.28	15.09	15.09	0.5	Pass
VHT20	MCS0	2	149	5745	17.78	17.53	24.51	20.70	15.05	15.04	0.5	Pass
VHT20	MCS0	2	157	5785	18.03	17.53	27.09	20.73	13.86	13.88	0.5	Pass
VHT20	MCS0	2	165	5825	18.13	17.53	32.30	20.59	13.75	15.11	0.5	Pass
VHT40	MCS0	2	151	5755	36.26	36.26	41.81	41.12	35.90	36.32	0.5	Pass
VHT40	MCS0	2	159	5795	36.66	36.26	62.13	41.47	36.33	36.06	0.5	Pass
VHT80	MCS0	2	155	5775	75.52	75.40	83.62	81.98	75.12	75.06	0.5	Pass

TEST RESULTS DATA
Average Power Table

U-NII-3 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	2	149	5745	21.10	20.70	23.91	30.00		2.60		Pass
11a	6Mbps	2	157	5785	21.30	21.50	24.41	30.00		2.60		Pass
11a	6Mbps	2	165	5825	21.40	20.80	24.12	30.00		2.60		Pass
HT20	MCS0	2	149	5745	20.90	20.50	23.71	30.00		2.60		Pass
HT20	MCS0	2	157	5785	20.80	21.20	24.01	30.00		2.60		Pass
HT20	MCS0	2	165	5825	21.20	20.70	23.97	30.00		2.60		Pass
HT40	MCS0	2	151	5755	20.10	20.00	23.06	30.00		2.60		Pass
HT40	MCS0	2	159	5795	20.80	20.50	23.66	30.00		2.60		Pass
VHT20	MCS0	2	149	5745	21.00	20.60	23.81	30.00		2.60		Pass
VHT20	MCS0	2	157	5785	20.90	21.30	24.11	30.00		2.60		Pass
VHT20	MCS0	2	165	5825	21.30	20.80	24.07	30.00		2.60		Pass
VHT40	MCS0	2	151	5755	20.20	20.10	23.16	30.00		2.60		Pass
VHT40	MCS0	2	159	5795	20.90	20.60	23.76	30.00		2.60		Pass
VHT80	MCS0	2	155	5775	19.00	19.20	22.11	30.00		2.60		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 (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	2	149	5745	2.22		7.67	7.14	10.68	30.00		5.34		Pass
11a	6Mbps	2	157	5785	2.22		7.54	7.81	10.82	30.00		5.34		Pass
11a	6Mbps	2	165	5825	2.22		7.86	7.07	10.87	30.00		5.34		Pass
VHT20	MCS0	2	149	5745	2.22		6.98	6.46	9.99	30.00		5.34		Pass
VHT20	MCS0	2	157	5785	2.22		6.86	6.94	9.95	30.00		5.34		Pass
VHT20	MCS0	2	165	5825	2.22		7.45	6.60	10.46	30.00		5.34		Pass
VHT40	MCS0	2	151	5755	2.22		2.41	1.83	5.42	30.00		5.34		Pass
VHT40	MCS0	2	159	5795	2.22		2.41	2.25	5.42	30.00		5.34		Pass
VHT80	MCS0	2	155	5775	2.22		-2.09	-2.18	0.92	30.00		5.34		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 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1		
HE20	MCS0	2	149	5745	Full	20.08	19.03	38.56	24.86	16.13	15.83	0.5	Pass
HE20	MCS0	2	157	5785	Full	25.07	19.43	43.09	32.40	15.88	13.99	0.5	Pass
HE20	MCS0	2	165	5825	Full	23.83	19.18	42.84	27.38	15.24	14.64	0.5	Pass
HE40	MCS0	2	151	5755	Full	38.06	37.96	43.52	41.55	37.53	37.25	0.5	Pass
HE40	MCS0	2	159	5795	Full	38.56	38.06	65.39	42.26	37.85	37.13	0.5	Pass
HE80	MCS0	2	155	5775	Full	77.32	77.08	82.82	83.14	77.49	76.24	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 (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
HE20	MCS0	2	149	5745	Full	21.10	20.70	23.91	30.00		2.60		Pass
HE20	MCS0	2	149	5745	26/0	12.90	12.90	15.91	30.00		2.60		Pass
HE20	MCS0	2	149	5745	52/37	15.80	15.90	18.86	30.00		2.60		Pass
HE20	MCS0	2	149	5745	106/53	17.40	17.00	20.21	30.00		2.60		Pass
HE20	MCS0	2	157	5785	Full	21.00	21.40	24.21	30.00		2.60		Pass
HE20	MCS0	2	157	5785	26/4	12.80	13.30	16.07	30.00		2.60		Pass
HE20	MCS0	2	157	5785	52/38	15.80	16.40	19.12	30.00		2.60		Pass
HE20	MCS0	2	157	5785	106/53	18.80	19.50	22.17	30.00		2.60		Pass
HE20	MCS0	2	165	5825	Full	21.40	20.90	24.17	30.00		2.60		Pass
HE20	MCS0	2	165	5825	26/8	13.40	12.60	16.03	30.00		2.60		Pass
HE20	MCS0	2	165	5825	52/40	16.20	15.60	18.92	30.00		2.60		Pass
HE20	MCS0	2	165	5825	106/54	16.90	16.10	19.53	30.00		2.60		Pass
HE40	MCS0	2	151	5755	Full	20.30	20.20	23.26	30.00		2.60		Pass
HE40	MCS0	2	151	5755	242/61	17.30	17.40	20.36	30.00		2.60		Pass
HE40	MCS0	2	159	5795	Full	21.00	20.70	23.86	30.00		2.60		Pass
HE40	MCS0	2	159	5795	242/62	17.40	17.50	20.46	30.00		2.60		Pass
HE80	MCS0	2	155	5775	Full	19.10	19.30	22.21	30.00		2.60		Pass
HE80	MCS0	2	155	5775	484/65	15.90	15.40	18.67	30.00		2.60		Pass
HE80	MCS0	2	155	5775	484/66	15.70	15.20	18.47	30.00		2.60		Pass

TEST RESULTS DATA
Power Spectral Density

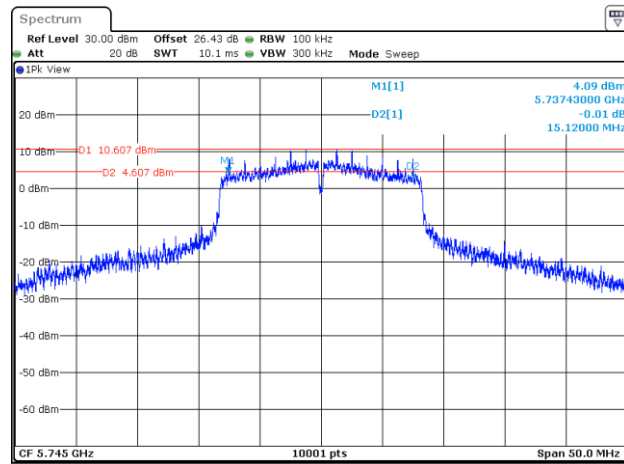
U-NII-3 MIMO															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config	10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
						Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
HE20	MCS0	2	149	5745	Full	2.22		7.02	6.49	10.03	30.00		5.34		Pass
HE20	MCS0	2	149	5745	26/0	2.22		6.25	6.24	9.26	30.00		5.34		Pass
HE20	MCS0	2	149	5745	52/37	2.22		6.43	6.37	9.44	30.00		5.34		Pass
HE20	MCS0	2	149	5745	106/53	2.22		4.81	4.07	7.82	30.00		5.34		Pass
HE20	MCS0	2	157	5785	Full	2.22		6.75	7.02	10.03	30.00		5.34		Pass
HE20	MCS0	2	157	5785	26/4	2.22		6.12	6.58	9.59	30.00		5.34		Pass
HE20	MCS0	2	157	5785	52/38	2.22		6.28	6.82	9.83	30.00		5.34		Pass
HE20	MCS0	2	157	5785	106/53	2.22		6.15	6.92	9.93	30.00		5.34		Pass
HE20	MCS0	2	165	5825	Full	2.22		7.14	6.74	10.15	30.00		5.34		Pass
HE20	MCS0	2	165	5825	26/8	2.22		6.99	6.19	10.00	30.00		5.34		Pass
HE20	MCS0	2	165	5825	52/40	2.22		6.86	6.12	9.87	30.00		5.34		Pass
HE20	MCS0	2	165	5825	106/54	2.22		4.14	3.22	7.15	30.00		5.34		Pass
HE40	MCS0	2	151	5755	Full	2.22		2.18	1.67	5.19	30.00		5.34		Pass
HE40	MCS0	2	151	5755	242/61	2.22		1.36	1.29	4.37	30.00		5.34		Pass
HE40	MCS0	2	159	5795	Full	2.22		2.30	1.98	5.31	30.00		5.34		Pass
HE40	MCS0	2	159	5795	242/62	2.22		1.49	1.22	4.50	30.00		5.34		Pass
HE80	MCS0	2	155	5775	Full	2.22		-2.47	-2.41	0.60	30.00		5.34		Pass
HE80	MCS0	2	155	5775	484/65	2.22		-3.06	-3.67	-0.05	30.00		5.34		Pass
HE80	MCS0	2	155	5775	484/66	2.22		-3.05	-3.84	-0.04	30.00		5.34		Pass

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

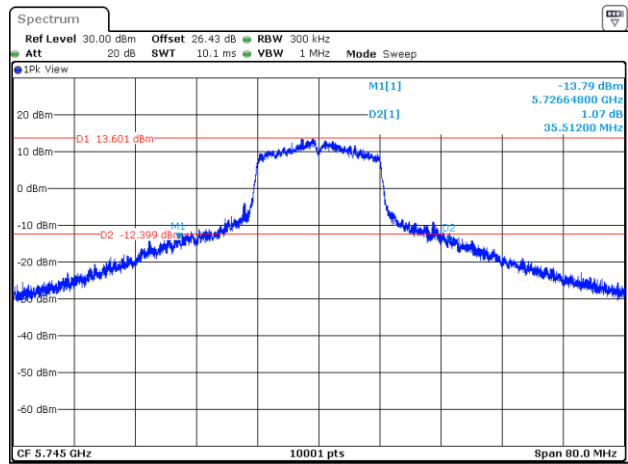
**Test Result of 6dB and 26dB and 99% Occupied Bandwidth**

MIMO <Ant. 0+1>

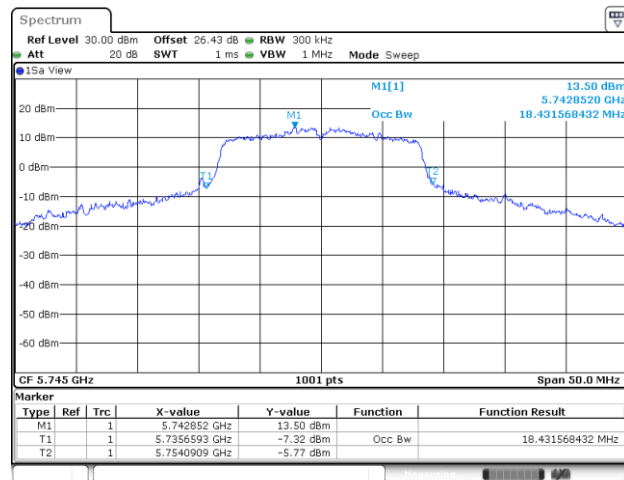
<802.11a>

6dB Bandwidth

Date: 31.MAR.2024 11:24:51

26dB Bandwidth

Date: 31.MAR.2024 11:25:10

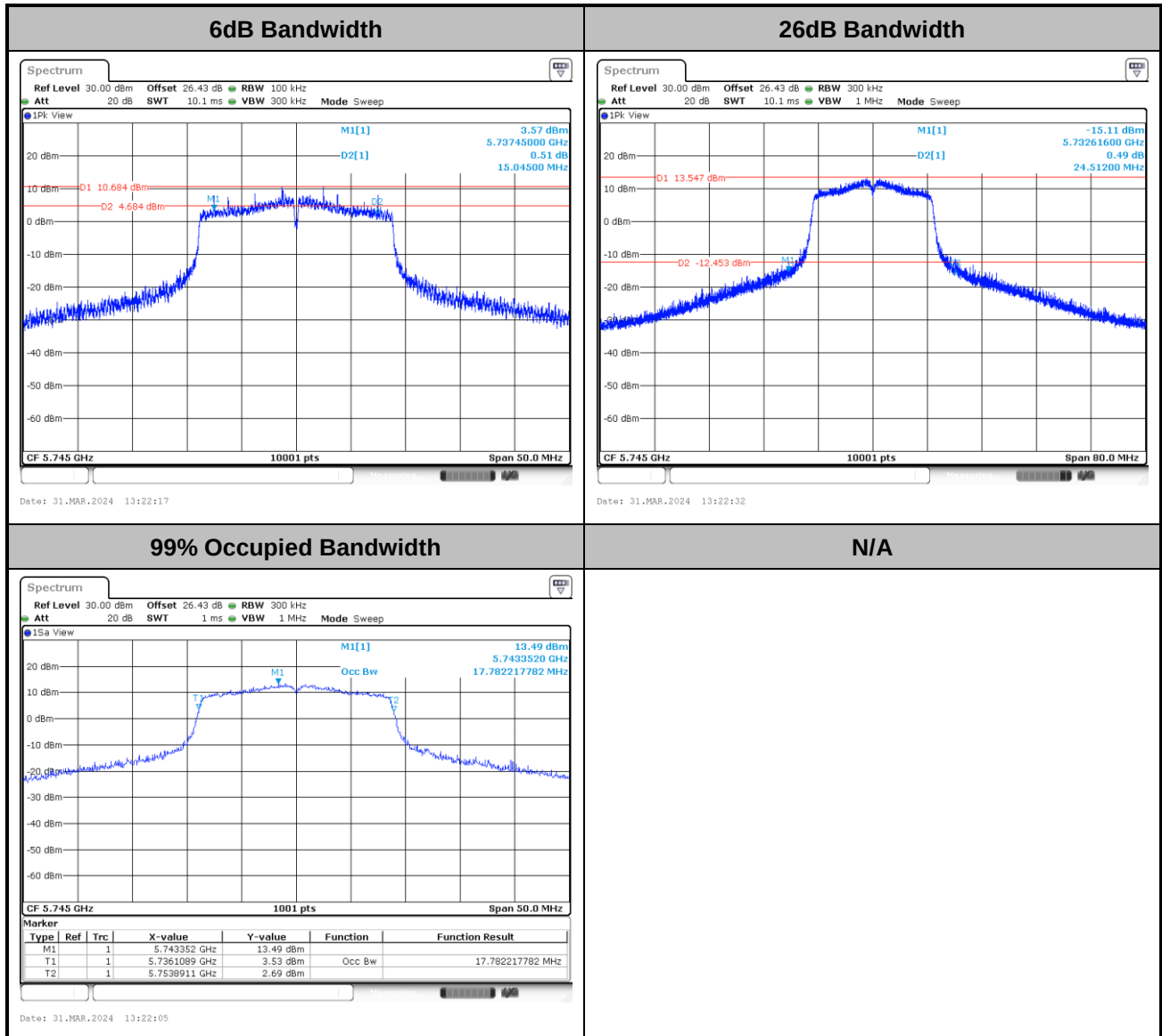
99% Occupied Bandwidth

Date: 31.MAR.2024 11:18:37

N/A

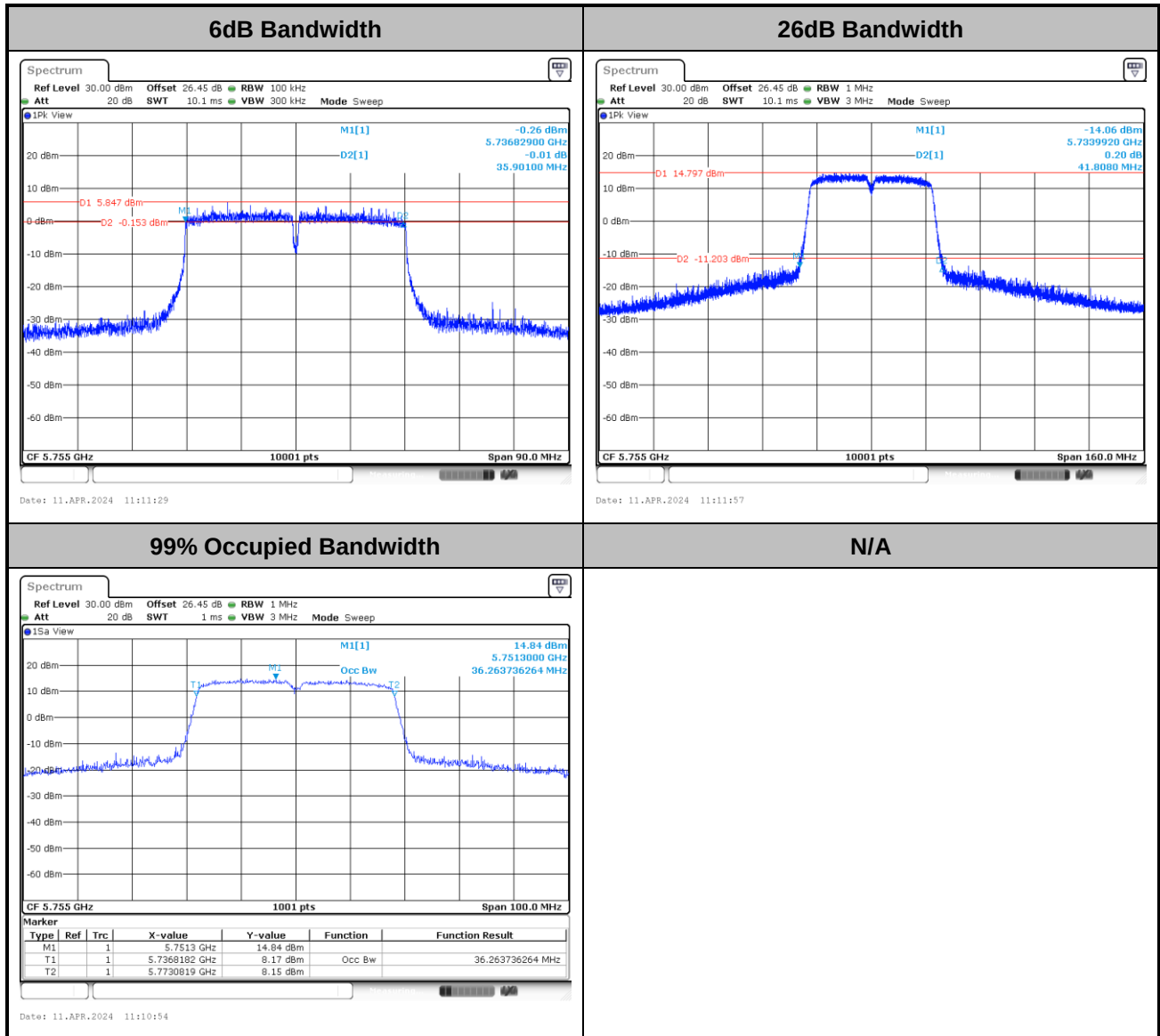


<802.11ac VHT20>





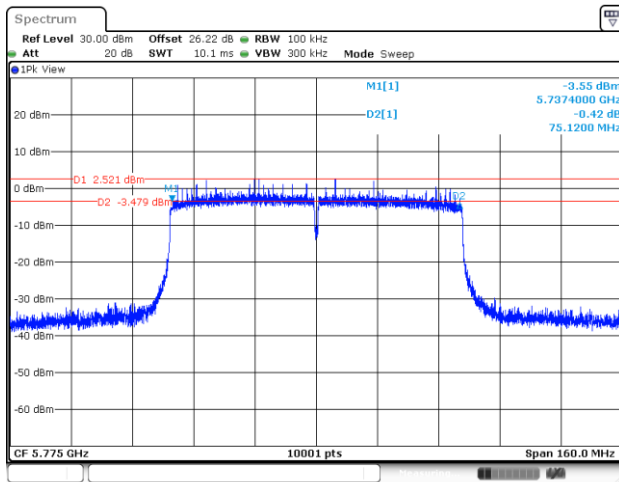
<802.11ac VHT40>



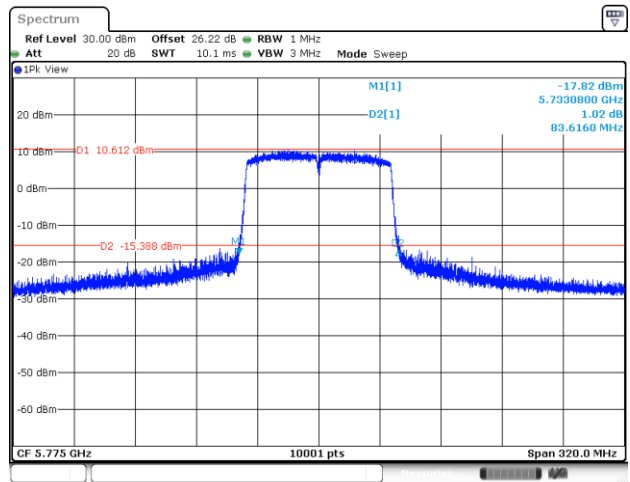


<802.11ac VHT80>

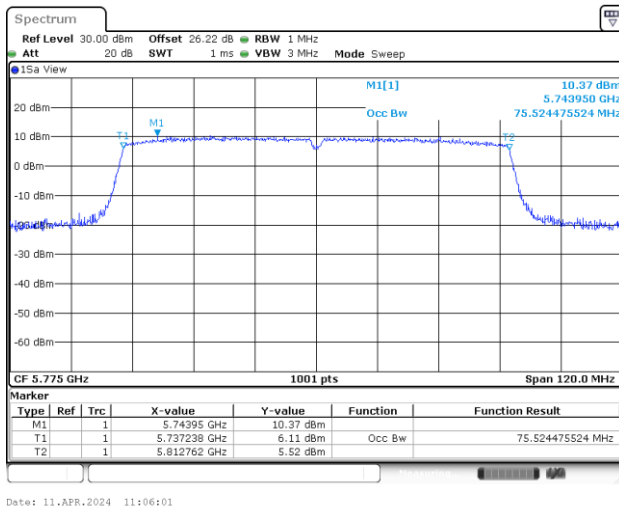
6dB Bandwidth



26dB Bandwidth



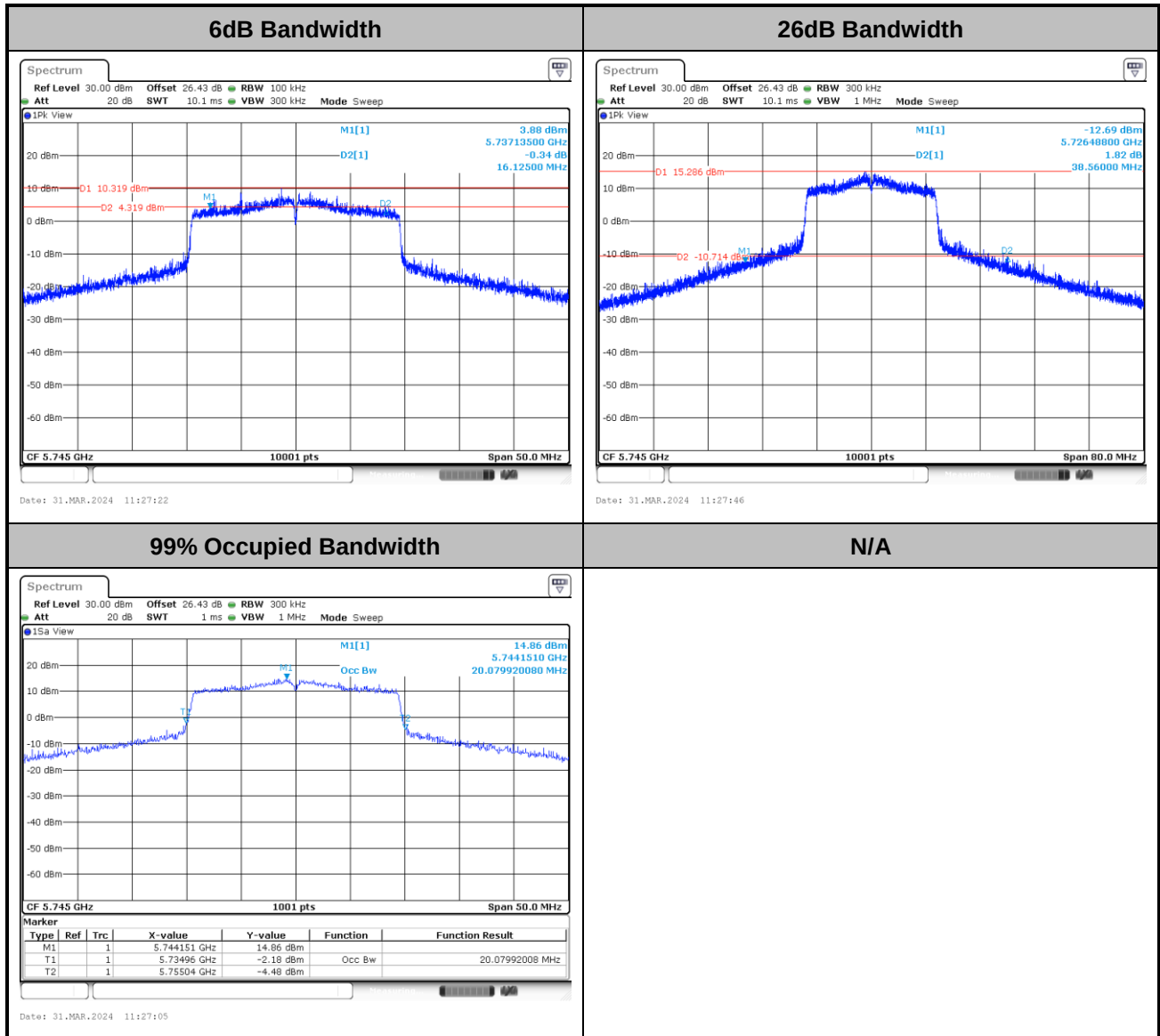
99% Occupied Bandwidth



N/A

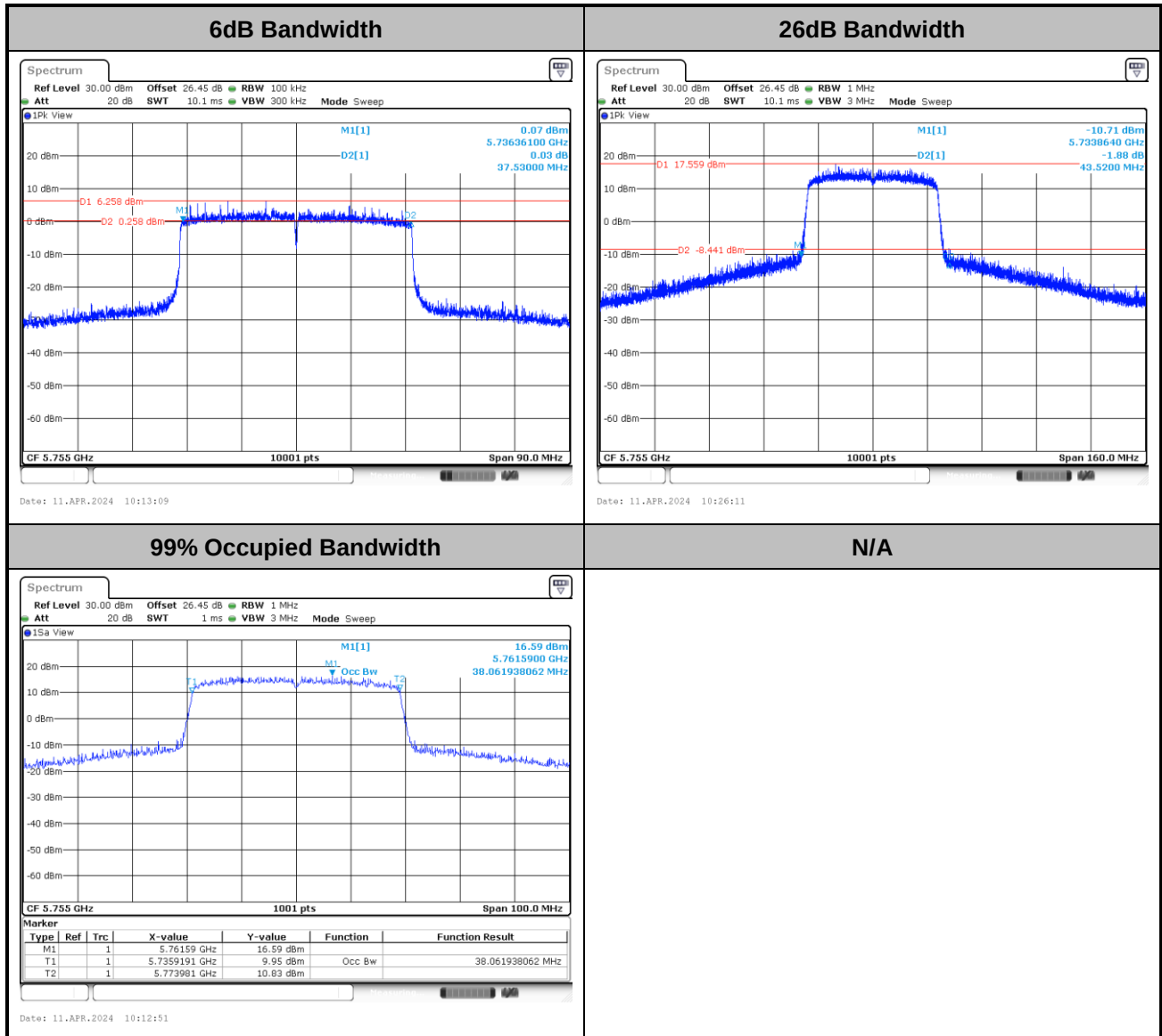


<802.11ax HE20>



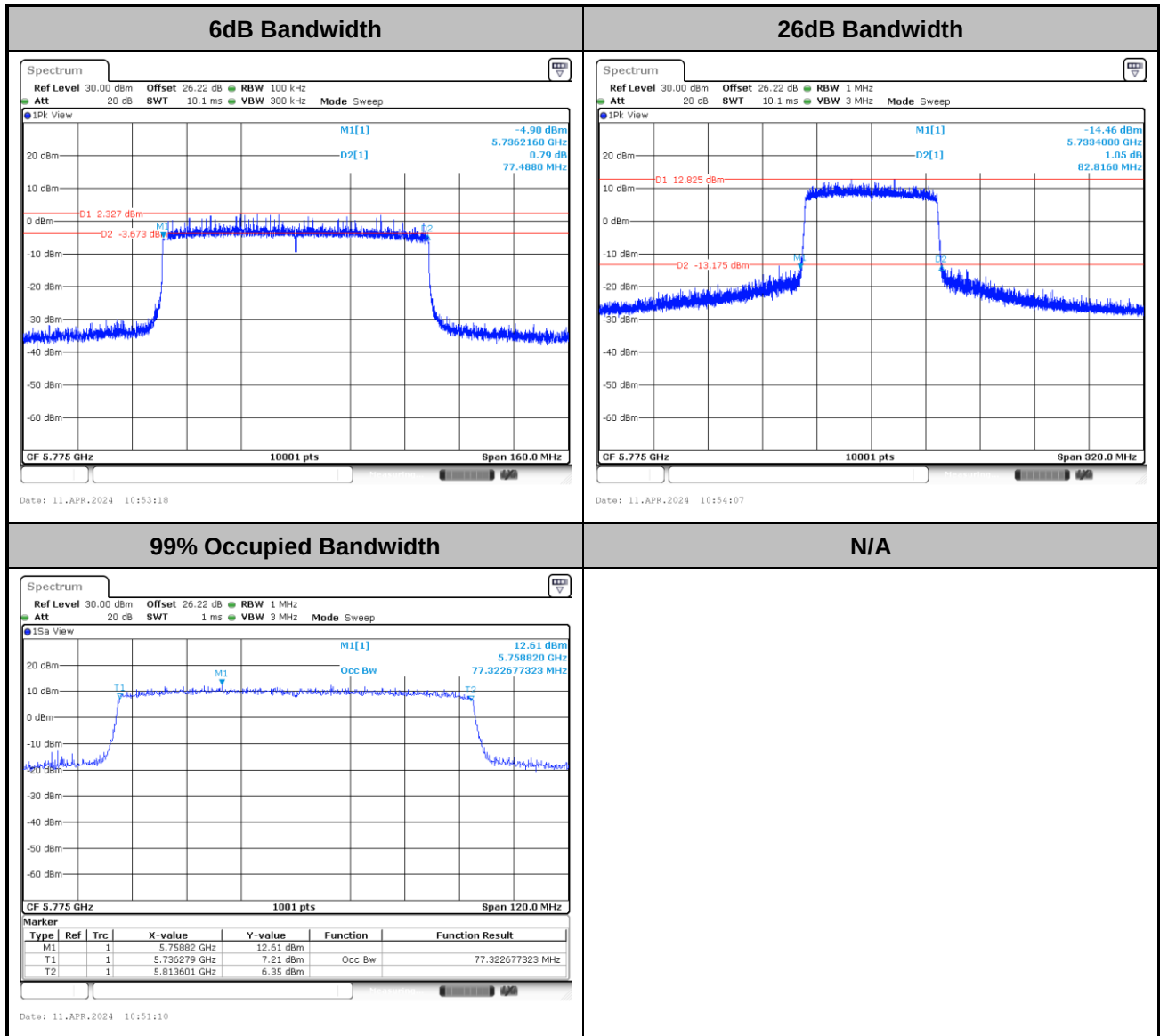


<802.11ax HE40>





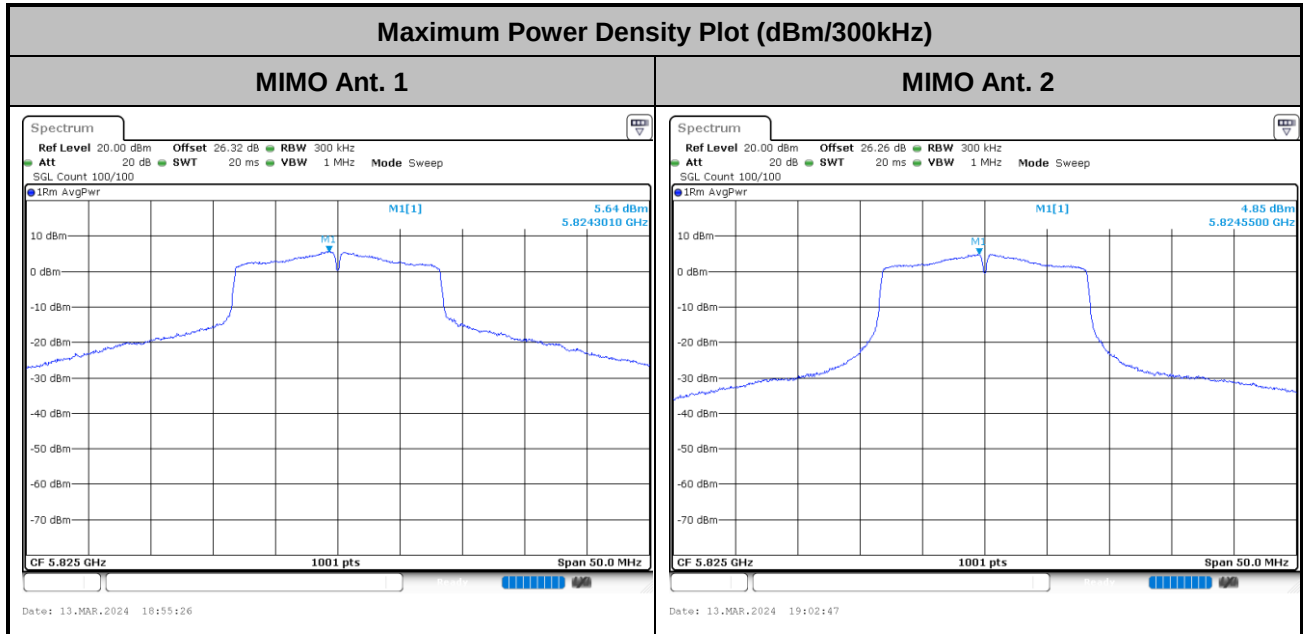
<802.11ax HE80>



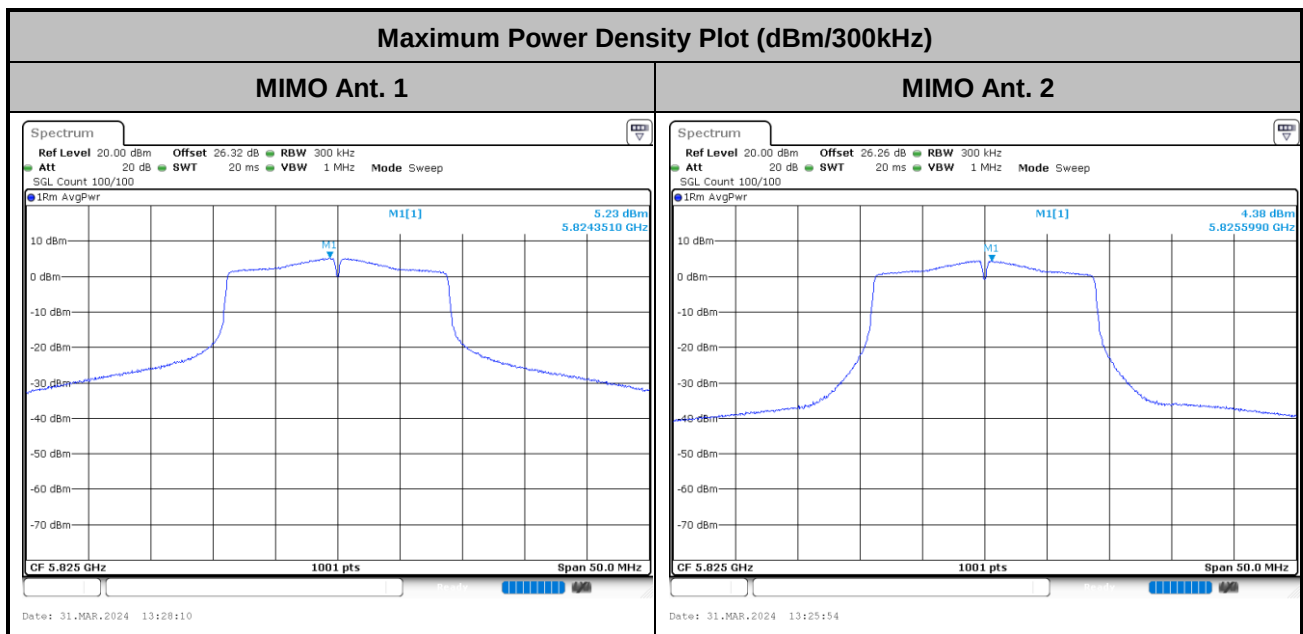


Test Result of Power Spectral Density

<802.11a>

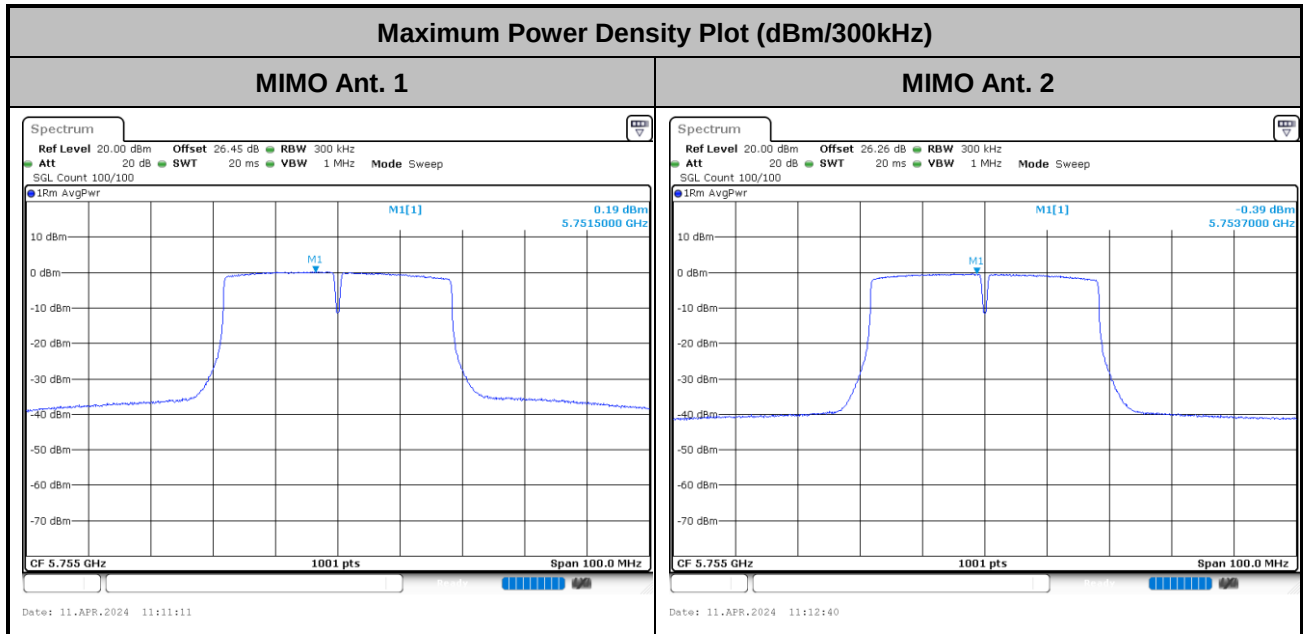


<802.11ac VHT20>

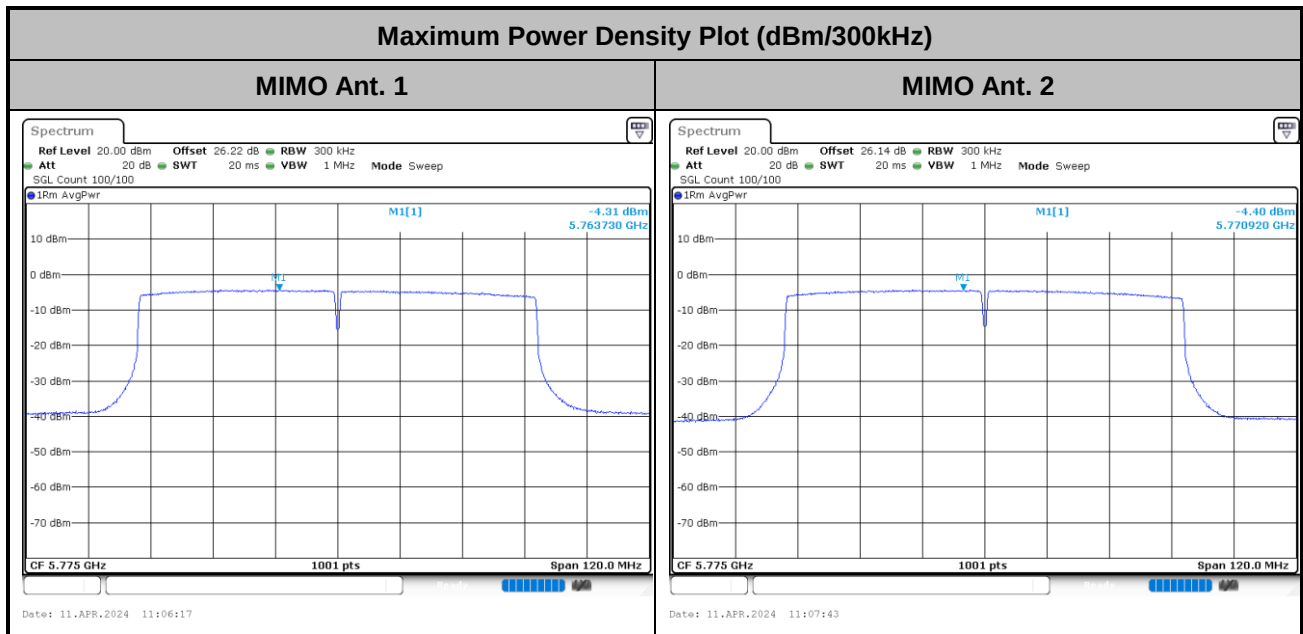




<802.11ac VHT40>

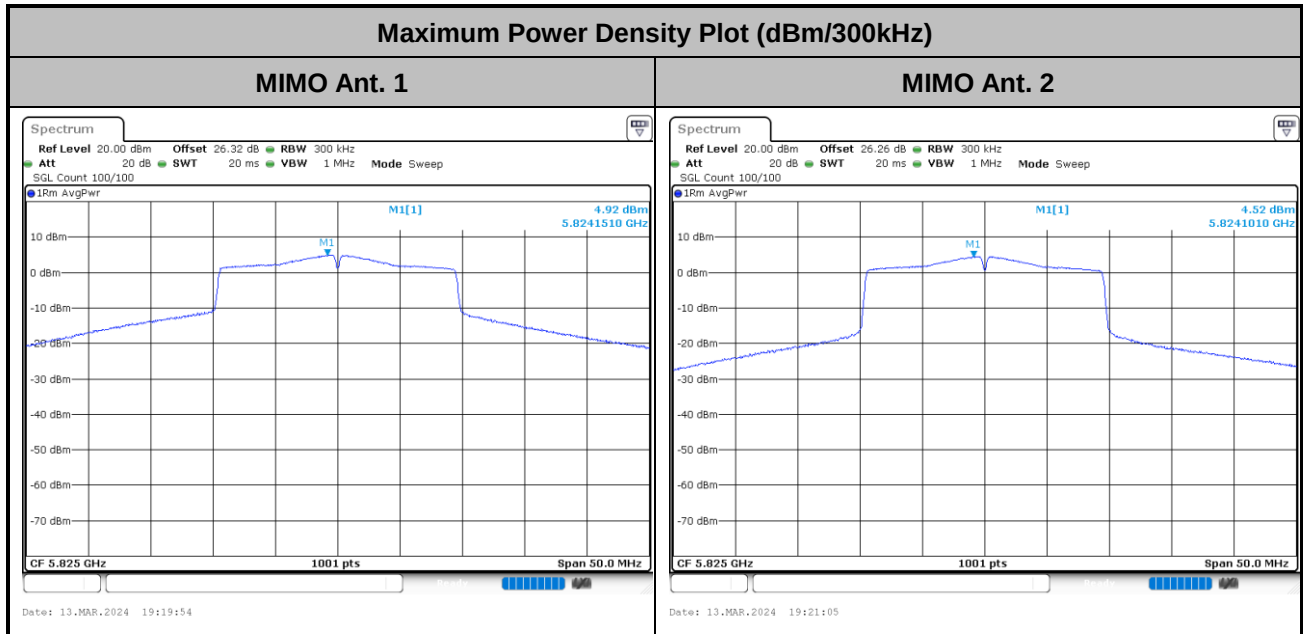


<802.11ac VHT80>

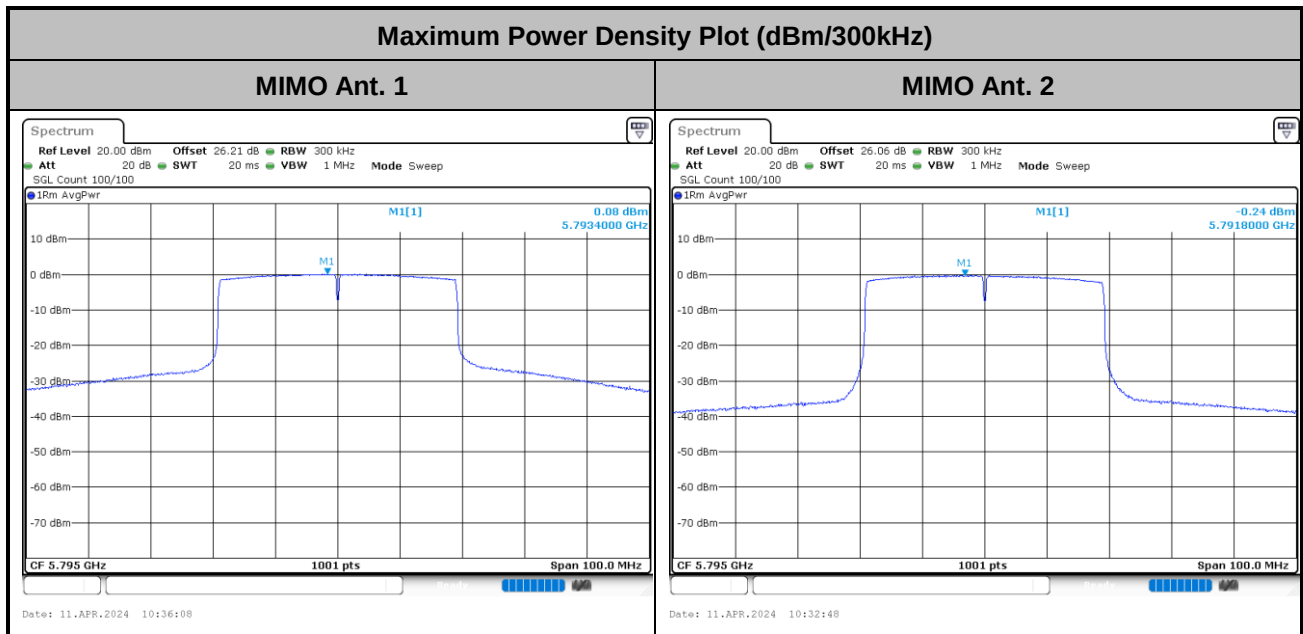




<802.11ax HE20>

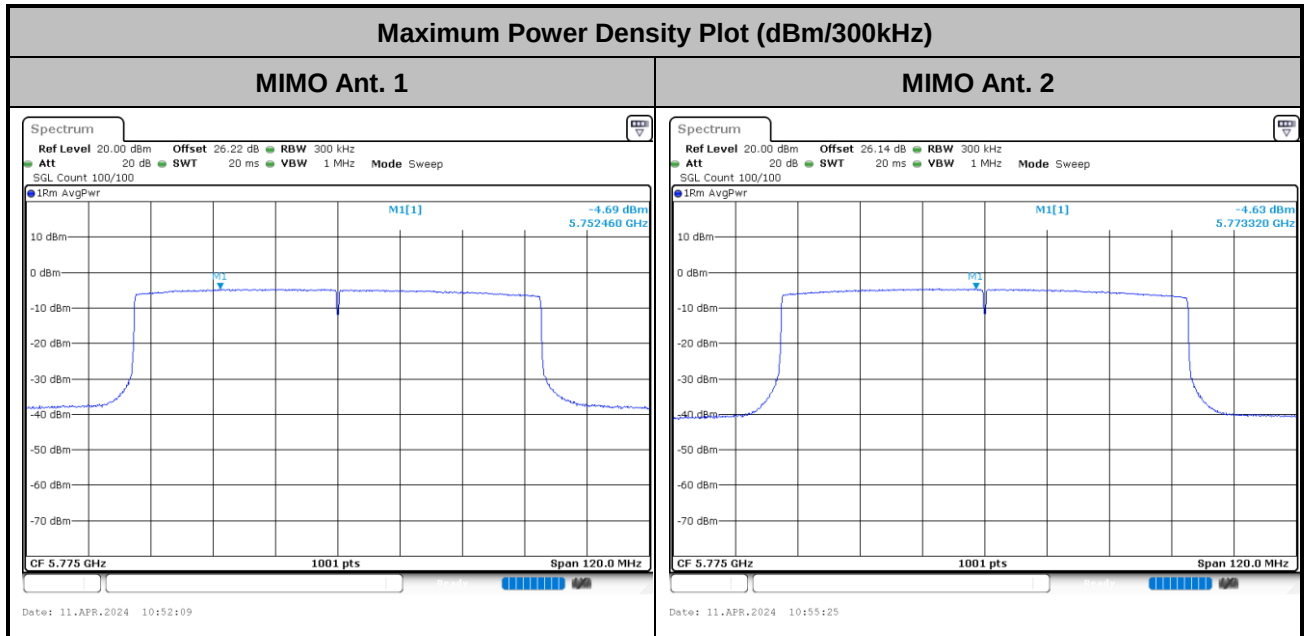


<802.11ax HE40>





<802.11ax HE80>





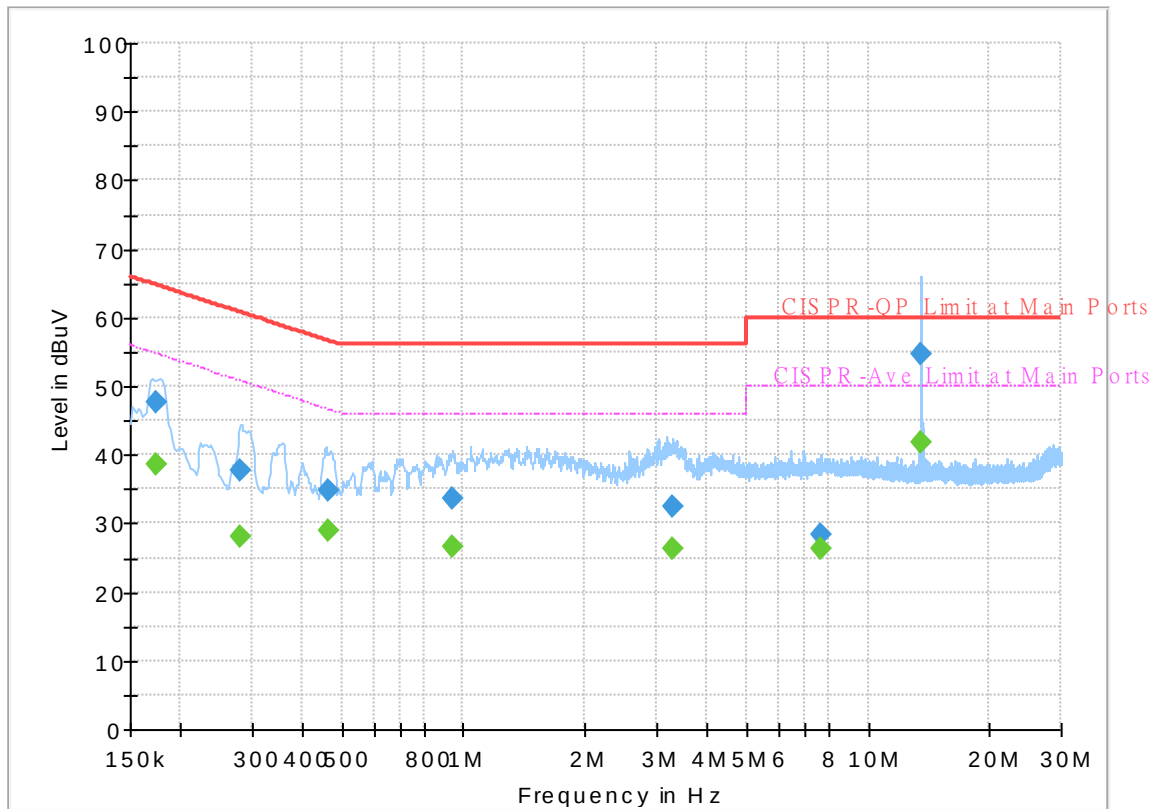
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	Temperature :	23~26°C
		Relative Humidity :	45~55%

EUT Information

Report NO : 422224
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



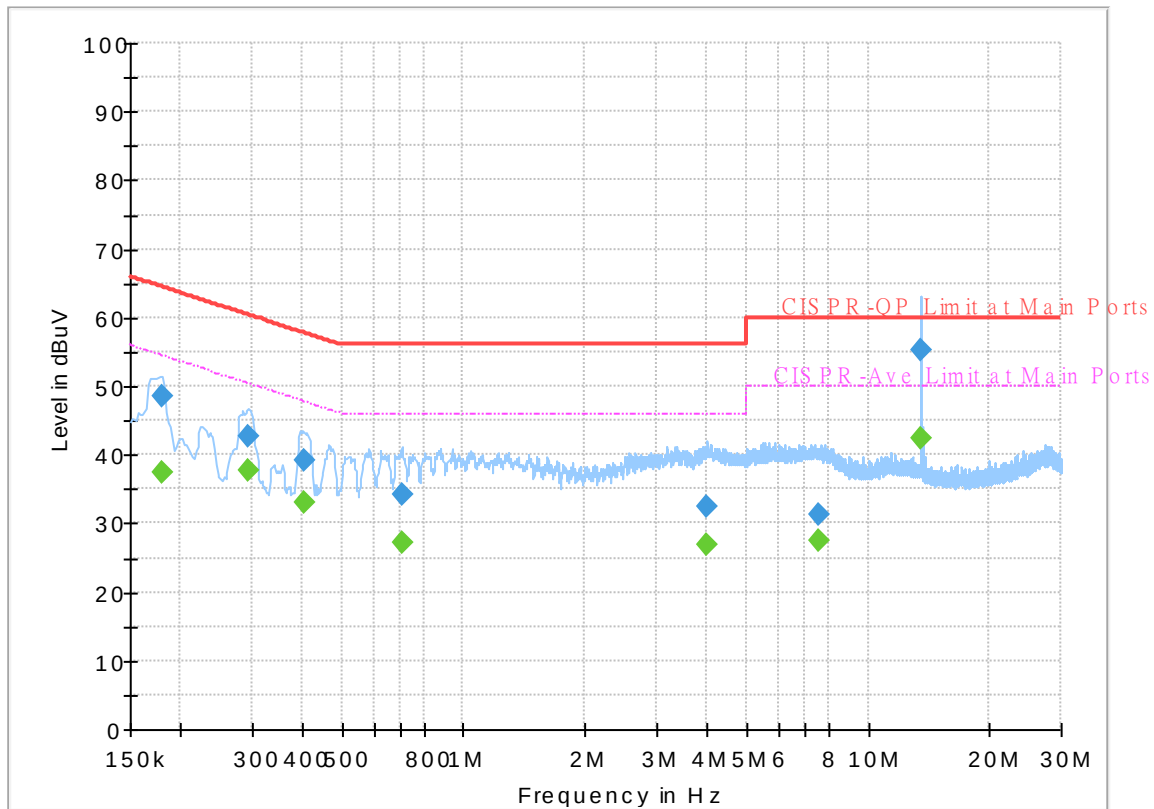
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.174750	---	38.51	54.73	16.22	L1	OFF	19.8
0.174750	47.70	---	64.73	17.03	L1	OFF	19.8
0.280500	---	27.99	50.80	22.81	L1	OFF	19.8
0.280500	37.72	---	60.80	23.08	L1	OFF	19.8
0.462750	---	28.87	46.64	17.77	L1	OFF	19.8
0.462750	34.82	---	56.64	21.82	L1	OFF	19.8
0.937500	---	26.60	46.00	19.40	L1	OFF	19.8
0.937500	33.53	---	56.00	22.47	L1	OFF	19.8
3.291000	---	26.26	46.00	19.74	L1	OFF	19.9
3.291000	32.48	---	56.00	23.52	L1	OFF	19.9
7.647000	---	26.26	50.00	23.74	L1	OFF	20.1
7.647000	28.41	---	60.00	31.59	L1	OFF	20.1
13.560000	---	41.90	50.00	8.10	L1	OFF	20.2
13.560000	54.66	---	60.00	5.34	L1	OFF	20.2

EUT Information

Report NO : 422224
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)
0.179250	---	37.29	54.52	17.23	N	OFF	19.8
0.179250	48.41	---	64.52	16.11	N	OFF	19.8
0.294000	---	37.84	50.41	12.57	N	OFF	19.8
0.294000	42.67	---	60.41	17.74	N	OFF	19.8
0.404250	---	33.01	47.77	14.76	N	OFF	19.8
0.404250	39.26	---	57.77	18.51	N	OFF	19.8
0.703500	---	27.25	46.00	18.75	N	OFF	19.8
0.703500	34.18	---	56.00	21.82	N	OFF	19.8
4.011000	---	27.01	46.00	18.99	N	OFF	20.0
4.011000	32.55	---	56.00	23.45	N	OFF	20.0
7.559250	---	27.48	50.00	22.52	N	OFF	20.1
7.559250	31.38	---	60.00	28.62	N	OFF	20.1
13.560000	---	42.47	50.00	7.53	N	OFF	20.3
13.560000	55.25	---	60.00	4.75	N	OFF	20.3



Appendix C. Radiated Spurious Emission

Test Engineer :	John Chung and David Dai	Temperature :	19.6~23.4°C
		Relative Humidity :	65.8~70.6%

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.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5637.8	55.26	-12.94	68.2	46.52	33.2	13.54	38	350	103	P	H
		5698.55	67.02	-37.11	104.13	57.99	33.39	13.62	37.98	350	103	P	H
		5716.55	72.92	-36.92	109.84	63.72	33.53	13.65	37.98	350	103	P	H
		5723.3	74.82	-43.5	118.32	65.55	33.59	13.66	37.98	350	103	P	H
	*	5745	113.98	-	-	104.5	33.76	13.69	37.97	350	103	P	H
	*	5745	107.23	-	-	97.75	33.76	13.69	37.97	350	103	A	H
													H
													H
		5647.925	59.14	-9.06	68.2	50.38	33.2	13.55	37.99	100	123	P	V
		5696.525	73.5	-29.14	102.64	64.47	33.39	13.62	37.98	100	123	P	V
		5717	77.71	-32.25	109.96	68.5	33.54	13.65	37.98	100	123	P	V
		5725.1	82.35	-51.85	134.2	73.07	33.6	13.66	37.98	100	123	P	V
	*	5745	117.87	-	-	108.39	33.76	13.69	37.97	100	123	P	V
	*	5745	111.29	-	-	101.81	33.76	13.69	37.97	100	123	A	V
													V
													V



WIFI Ant. 0+1	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)
802.11a CH 157 5785MHz		5644.5	49.64	-18.56	68.2	40.89	33.2	13.55	38	350	73	P	H
		5699	54.5	-49.96	104.46	45.46	33.4	13.62	37.98	350	73	P	H
		5717.5	57.09	-53.01	110.1	47.88	33.54	13.65	37.98	350	73	P	H
		5722.75	58.71	-58.36	117.07	49.45	33.58	13.66	37.98	350	73	P	H
	*	5785	114.61	-	-	104.89	33.94	13.74	37.96	350	73	P	H
	*	5785	108.1	-	-	98.38	33.94	13.74	37.96	350	73	A	H
		5851.25	60.89	-58.46	119.35	50.7	34.3	13.84	37.95	350	73	P	H
		5856.75	59.31	-51	110.31	49.1	34.3	13.85	37.94	350	73	P	H
		5901.25	53.85	-31.89	85.74	43.56	34.3	13.92	37.93	350	73	P	H
		5925.25	50.91	-17.29	68.2	40.58	34.3	13.96	37.93	350	73	P	H
													H
													H
		5648	54.68	-13.52	68.2	45.92	33.2	13.55	37.99	100	124	P	V
		5700	59.94	-45.26	105.2	50.9	33.4	13.62	37.98	100	124	P	V
		5715.25	67.21	-42.26	109.47	58.02	33.52	13.65	37.98	100	124	P	V
		5723.25	68.48	-49.73	118.21	59.21	33.59	13.66	37.98	100	124	P	V
	*	5785	116.99	-	-	107.27	33.94	13.74	37.96	100	124	P	V
	*	5785	112.18	-	-	102.46	33.94	13.74	37.96	100	124	A	V
		5850.5	67.51	-53.55	121.06	57.32	34.3	13.84	37.95	100	124	P	V
		5857.75	64.83	-45.2	110.03	54.62	34.3	13.85	37.94	100	124	P	V
		5875.5	60.79	-44.04	104.83	50.55	34.3	13.88	37.94	100	124	P	V
		5925	53.05	-15.15	68.2	42.72	34.3	13.96	37.93	100	124	P	V
													V
													V



WIFI Ant. 0+1	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)
802.11a CH 165 5825MHz	*	5825	114.5	-	-	104.5	34.15	13.8	37.95	400	77	P	H
	*	5825	107.09	-	-	97.09	34.15	13.8	37.95	400	77	A	H
		5850.8	76.82	-43.56	120.38	66.63	34.3	13.84	37.95	400	77	P	H
		5855	72.85	-37.95	110.8	62.64	34.3	13.85	37.94	400	77	P	H
		5877	64.39	-39.32	103.71	54.15	34.3	13.88	37.94	400	77	P	H
		5939.4	51.05	-17.15	68.2	40.69	34.3	13.98	37.92	400	77	P	H
													H
													H
	*	5825	118.21	-	-	108.21	34.15	13.8	37.95	100	121	P	V
	*	5825	111.75	-	-	101.75	34.15	13.8	37.95	100	121	A	V
		5851	81.22	-38.7	119.92	71.03	34.3	13.84	37.95	100	121	P	V
		5857.8	77.47	-32.54	110.01	67.26	34.3	13.85	37.94	100	121	P	V
		5877.4	71.4	-32.02	103.42	61.16	34.3	13.88	37.94	100	121	P	V
		5930.6	57.79	-10.41	68.2	47.45	34.3	13.97	37.93	100	121	P	V
													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. 0+1	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)
802.11a CH 149 5745MHz		11490	51.39	-22.61	74	34.97	39.13	19.93	42.64	400	304	P	H
		11490	40.91	-13.09	54	24.49	39.13	19.93	42.64	400	304	A	H
		17235	52.42	-15.78	68.2	34.64	37.97	24.58	44.77	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11490	51.43	-22.57	74	35.01	39.13	19.93	42.64	100	151	P	V
		11490	40.93	-13.07	54	24.51	39.13	19.93	42.64	100	151	A	V
		17235	52.29	-15.91	68.2	34.51	37.97	24.58	44.77	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 0+1	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)
802.11a CH 157 5785MHz		11570	51.29	-22.71	74	34.97	39.03	20	42.71	200	39	P	H
		11570	40.58	-13.42	54	24.26	39.03	20	42.71	200	39	A	H
		17355	51.68	-16.52	68.2	33.69	38.21	24.66	44.88	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11570	53.29	-20.71	74	36.97	39.03	20	42.71	102	161	P	V
		11570	42.46	-11.54	54	26.14	39.03	20	42.71	102	161	A	V
		17355	52.15	-16.05	68.2	34.16	38.21	24.66	44.88	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

[illegible]



Band 4 5725~5850MHz

WIFI 802.11ax HE20_Full (Band Edge @ 3m)

WIFI Ant. 0+1	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)
802.11ax HE20 Full CH 149 5745MHz		5645.9	53.69	-14.51	68.2	44.93	33.2	13.55	37.99	395	78	P	H
		5698.775	60.48	-43.82	104.3	51.44	33.4	13.62	37.98	395	78	P	H
		5718.8	71.75	-38.71	110.46	62.53	33.55	13.65	37.98	395	78	P	H
		5724.425	78.6	-42.29	120.89	69.32	33.6	13.66	37.98	395	78	P	H
	*	5745	114.51	-	-	105.03	33.76	13.69	37.97	395	78	P	H
	*	5745	107.46	-	-	97.98	33.76	13.69	37.97	395	78	A	H
													H
													H
		5649.5	56.97	-11.23	68.2	48.2	33.2	13.56	37.99	100	124	P	V
		5699.225	71.1	-33.53	104.63	62.06	33.4	13.62	37.98	100	124	P	V
		5719.925	78.91	-31.87	110.78	69.68	33.56	13.65	37.98	100	124	P	V
		5725.1	84.79	-49.41	134.2	75.51	33.6	13.66	37.98	100	124	P	V
	*	5745	119.87	-	-	110.39	33.76	13.69	37.97	100	124	P	V
	*	5745	112	-	-	102.52	33.76	13.69	37.97	100	124	A	V
													V
													V



WIFI Ant. 0+1	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)
802.11ax HE20 Full CH 157 5785MHz		5649.5	55.42	-12.78	68.2	46.65	33.2	13.56	37.99	100	120	P	H
		5692.75	61.96	-37.9	99.86	52.95	33.37	13.62	37.98	100	120	P	H
		5709.5	66.7	-41.16	107.86	57.56	33.48	13.64	37.98	100	120	P	H
		5721.75	67.61	-47.18	114.79	58.37	33.57	13.65	37.98	100	120	P	H
	*	5785	113.98	-	-	104.26	33.94	13.74	37.96	100	120	P	H
	*	5785	106.75	-	-	97.03	33.94	13.74	37.96	100	120	A	H
		5852.5	68.83	-47.67	116.5	58.64	34.3	13.84	37.95	100	120	P	H
		5856.25	68.15	-42.3	110.45	57.94	34.3	13.85	37.94	100	120	P	H
		5880	64.23	-37.26	101.49	53.98	34.3	13.89	37.94	100	120	P	H
		5937.25	53.61	-14.59	68.2	43.26	34.3	13.98	37.93	100	120	P	H
													H
													H
		5642.75	58.75	-9.45	68.2	50	33.2	13.55	38	100	122	P	V
		5696	71.49	-30.76	102.25	62.47	33.38	13.62	37.98	100	122	P	V
		5717.75	75.39	-34.78	110.17	66.18	33.54	13.65	37.98	100	122	P	V
		5724	74.97	-44.95	119.92	65.7	33.59	13.66	37.98	100	122	P	V
	*	5785	118.27	-	-	108.55	33.94	13.74	37.96	100	122	P	V
	*	5785	112.39	-	-	102.67	33.94	13.74	37.96	100	122	A	V
		5851.5	77.28	-41.5	118.78	67.09	34.3	13.84	37.95	100	122	P	V
		5863	69.89	-38.67	108.56	59.67	34.3	13.86	37.94	100	122	P	V
		5876.5	66.97	-37.12	104.09	56.73	34.3	13.88	37.94	100	122	P	V
		5945.25	56.79	-11.41	68.2	46.42	34.3	13.99	37.92	100	122	P	V
													V
													V



WIFI Ant. 0+1	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)
802.11ax HE20 Full CH 165 5825MHz	*	5825	116.3	-	-	106.3	34.15	13.8	37.95	100	241	P	H
	*	5825	107.66	-	-	97.66	34.15	13.8	37.95	100	241	A	H
		5851.8	81.28	-36.82	118.1	71.09	34.3	13.84	37.95	100	241	P	H
		5855	78.17	-32.63	110.8	67.96	34.3	13.85	37.94	100	241	P	H
		5875.4	69.14	-35.76	104.9	58.9	34.3	13.88	37.94	100	241	P	H
		5941.8	57.79	-10.41	68.2	47.42	34.3	13.99	37.92	100	241	P	H
													H
													H
	*	5825	120.55	-	-	110.55	34.15	13.8	37.95	102	121	P	V
	*	5825	112.55	-	-	102.55	34.15	13.8	37.95	102	121	A	V
		5852	85.42	-32.22	117.64	75.23	34.3	13.84	37.95	102	121	P	V
		5856.2	83.66	-26.8	110.46	73.45	34.3	13.85	37.94	102	121	P	V
		5879.2	72.41	-29.67	102.08	62.16	34.3	13.89	37.94	102	121	P	V
		5925	60.9	-7.3	68.2	50.57	34.3	13.96	37.93	102	121	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. 0+1	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)
802.11ax HE20 Full CH 149 5745MHz		11490	51.21	-22.79	74	34.79	39.13	19.93	42.64	300	352	P	H
		11490	40.78	-13.22	54	24.36	39.13	19.93	42.64	300	352	A	H
		17235	51.36	-16.84	68.2	33.58	37.97	24.58	44.77	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11490	51.88	-22.12	74	35.46	39.13	19.93	42.64	100	312	P	V
		11490	40.82	-13.18	54	24.4	39.13	19.93	42.64	100	312	A	V
		17235	51.41	-16.79	68.2	33.63	37.97	24.58	44.77	-	-	P	V
													V
													V
													V
													V
													V
													V



WIFI Ant. 0+1	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)
802.11ax HE20 Full CH 157 5785MHz		11570	51.16	-22.84	74	34.84	39.03	20	42.71	200	357	P	H
		11570	40.56	-13.44	54	24.24	39.03	20	42.71	200	357	A	H
		17355	51.87	-16.33	68.2	33.88	38.21	24.66	44.88	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11570	51.2	-22.8	74	34.88	39.03	20	42.71	300	226	P	V
		11570	40.6	-13.4	54	24.28	39.03	20	42.71	300	226	A	V
		17355	51.84	-16.36	68.2	33.85	38.21	24.66	44.88	-	-	P	V
													V
													V
													V
													V
													V
													V

[illegible]



Band 4 5725~5850MHz

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

WIFI Ant. 0+1	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)
802.11ax HE20 Partial 106/53 CH 149 5745MHz		5649.05	66.7	-1.5	68.2	58.07	33.2	13.42	37.99	205	334	P	H
		5694.05	80.64	-20.17	100.81	71.76	33.38	13.48	37.98	205	334	P	H
		5712.5	89.6	-19.1	108.7	80.57	33.5	13.51	37.98	205	334	P	H
		5720.375	89.25	-22.41	111.66	80.15	33.56	13.52	37.98	205	334	P	H
	*	5745	118.94	-	-	109.6	33.76	13.55	37.97	205	334	P	H
	*	5745	110.49	-	-	101.15	33.76	13.55	37.97	205	334	A	H
													H
													H
		5635.775	57.37	-10.83	68.2	48.77	33.2	13.4	38	299	334	P	V
		5699.45	74.79	-30	104.79	65.88	33.4	13.49	37.98	299	334	P	V
		5717.45	86.46	-23.63	110.09	77.39	33.54	13.51	37.98	299	334	P	V
		5723.075	82.22	-35.59	117.81	73.1	33.58	13.52	37.98	299	334	P	V
	*	5745	114.64	-	-	105.3	33.76	13.55	37.97	299	334	P	V
	*	5745	106.9	-	-	97.56	33.76	13.55	37.97	299	334	A	V
													V
													V



WIFI Ant. 0+1	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)
802.11ax HE20 Partial 106/54 CH 165 5825MHz	*	5825	117.78	-	-	107.92	34.15	13.66	37.95	100	65	P	H
	*	5825	112.38	-	-	102.52	34.15	13.66	37.95	100	65	A	H
		5853.6	92.58	-21.41	113.99	82.53	34.3	13.7	37.95	100	65	P	H
		5855.4	90.11	-20.58	110.69	80.05	34.3	13.7	37.94	100	65	P	H
		5876.8	82.2	-21.66	103.86	72.11	34.3	13.73	37.94	100	65	P	H
		5936.2	64.6	-3.6	68.2	54.42	34.3	13.81	37.93	100	65	P	H
													H
													H
	*	5825	114.77	-	-	104.91	34.15	13.66	37.95	100	92	P	V
	*	5825	108.54	-	-	98.68	34.15	13.66	37.95	100	92	A	V
		5851.2	90.33	-29.13	119.46	80.28	34.3	13.7	37.95	100	92	P	V
		5862.2	86.74	-22.04	108.78	76.67	34.3	13.71	37.94	100	92	P	V
		5877.2	77.45	-26.12	103.57	67.36	34.3	13.73	37.94	100	92	P	V
		5931.2	60.82	-7.38	68.2	50.65	34.3	13.8	37.93	100	92	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. 0+1	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)
802.11ax HE40 Full CH 151 5755MHz		5632.75	61.04	-7.16	68.2	52.31	33.2	13.53	38	100	298	P	H
		5700	69.22	-35.98	105.2	60.18	33.4	13.62	37.98	100	298	P	H
		5719.75	73.46	-37.27	110.73	64.23	33.56	13.65	37.98	100	298	P	H
		5720	72.57	-38.23	110.8	63.34	33.56	13.65	37.98	100	298	P	H
	*	5755	110.68	-	-	101.13	33.82	13.7	37.97	100	298	P	H
	*	5755	103.52	-	-	93.97	33.82	13.7	37.97	100	298	A	H
		5852	59.79	-57.85	117.64	49.6	34.3	13.84	37.95	100	298	P	H
		5861	59.01	-50.11	109.12	48.79	34.3	13.86	37.94	100	298	P	H
		5894.5	57.75	-32.98	90.73	47.48	34.3	13.91	37.94	100	298	P	H
		5929	53.03	-15.17	68.2	42.69	34.3	13.97	37.93	100	298	P	H
													H
													H
		5625.75	66.64	-1.56	68.2	57.92	33.2	13.52	38	100	122	P	V
		5695	76.09	-25.42	101.51	67.07	33.38	13.62	37.98	100	122	P	V
		5715	81.05	-28.35	109.4	71.86	33.52	13.65	37.98	100	122	P	V
		5723.5	82.91	-35.87	118.78	73.64	33.59	13.66	37.98	100	122	P	V
	*	5755	116.32	-	-	106.77	33.82	13.7	37.97	100	122	P	V
	*	5755	109.35	-	-	99.8	33.82	13.7	37.97	100	122	A	V
		5851.75	63.82	-54.39	118.21	53.63	34.3	13.84	37.95	100	122	P	V
		5861.25	64.4	-44.65	109.05	54.18	34.3	13.86	37.94	100	122	P	V
		5879	65.97	-36.26	102.23	55.72	34.3	13.89	37.94	100	122	P	V
		5925.5	59.27	-8.93	68.2	48.94	34.3	13.96	37.93	100	122	P	V
													V
													V



WIFI Ant. 0+1	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)
802.11ax HE40 Full CH 159 5795MHz		5643.75	62.33	-5.87	68.2	53.58	33.2	13.55	38	100	241	P	H
		5696.5	62.9	-39.72	102.62	53.87	33.39	13.62	37.98	100	241	P	H
		5719.75	67.67	-43.06	110.73	58.44	33.56	13.65	37.98	100	241	P	H
		5723	65.08	-52.56	117.64	55.82	33.58	13.66	37.98	100	241	P	H
	*	5795	111.53	-	-	101.76	33.98	13.75	37.96	100	241	P	H
	*	5795	104.29	-	-	94.52	33.98	13.75	37.96	100	241	A	H
		5850.25	70.42	-51.21	121.63	60.23	34.3	13.84	37.95	100	241	P	H
		5855.5	69.66	-41	110.66	59.45	34.3	13.85	37.94	100	241	P	H
		5890	65.45	-28.62	94.07	55.19	34.3	13.9	37.94	100	241	P	H
		5940	63.14	-5.06	68.2	52.78	34.3	13.98	37.92	100	241	P	H
													H
													H
		5640.75	65.68	-2.52	68.2	56.93	33.2	13.55	38	100	120	P	V
		5699.25	68.27	-36.38	104.65	59.23	33.4	13.62	37.98	100	120	P	V
		5720	70.54	-40.26	110.8	61.31	33.56	13.65	37.98	100	120	P	V
		5723.25	72.5	-45.71	118.21	63.23	33.59	13.66	37.98	100	120	P	V
	*	5795	116.25	-	-	106.48	33.98	13.75	37.96	100	120	P	V
	*	5795	108.93	-	-	99.16	33.98	13.75	37.96	100	120	A	V
		5850.75	74.01	-46.48	120.49	63.82	34.3	13.84	37.95	100	120	P	V
		5856	74.12	-36.4	110.52	63.91	34.3	13.85	37.94	100	120	P	V
		5880.25	69.66	-31.64	101.3	59.41	34.3	13.89	37.94	100	120	P	V
		5930.5	65.2	-3	68.2	54.86	34.3	13.97	37.93	100	120	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)

[illegible]

[illegible]



Band 4 5725~5850MHz

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

WIFI Ant. 0+1	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)
802.11ax HE40 Partial 242/61 CH 151 5755MHz		5636.75	63.52	-4.68	68.2	54.92	33.2	13.4	38	146	331	P	H
		5697.25	78.64	-24.53	103.17	69.74	33.39	13.49	37.98	146	331	P	H
		5719.5	84.02	-26.64	110.66	74.92	33.56	13.52	37.98	146	331	P	H
		5722	83.07	-32.29	115.36	73.95	33.58	13.52	37.98	146	331	P	H
	*	5755	115.02	-	-	105.6	33.82	13.57	37.97	146	331	P	H
	*	5755	106.18	-	-	96.76	33.82	13.57	37.97	146	331	A	H
		5852.75	64.64	-51.29	115.93	54.59	34.3	13.7	37.95	146	331	P	H
		5868.5	64.09	-42.93	107.02	54.01	34.3	13.72	37.94	146	331	P	H
		5877	63.97	-39.74	103.71	53.88	34.3	13.73	37.94	146	331	P	H
		5939.75	56.46	-11.74	68.2	46.27	34.3	13.81	37.92	146	331	P	H
													H
													H
		5638	63.1	-5.1	68.2	54.5	33.2	13.4	38	266	331	P	V
		5695	73.77	-27.74	101.51	64.89	33.38	13.48	37.98	266	331	P	V
		5719.5	79.6	-31.06	110.66	70.5	33.56	13.52	37.98	266	331	P	V
		5723.5	79.85	-38.93	118.78	70.72	33.59	13.52	37.98	266	331	P	V
	*	5755	111.16	-	-	101.74	33.82	13.57	37.97	266	331	P	V
	*	5755	102.12	-	-	92.7	33.82	13.57	37.97	266	331	A	V
		5853.5	58.68	-55.54	114.22	48.63	34.3	13.7	37.95	266	331	P	V
		5855.25	56.49	-54.24	110.73	46.43	34.3	13.7	37.94	266	331	P	V
		5878.25	55.12	-47.67	102.79	45.03	34.3	13.73	37.94	266	331	P	V
		5926.25	49.39	-18.81	68.2	39.23	34.3	13.79	37.93	266	331	P	V
													V
													V



WIFI Ant. 0+1	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)
802.11ax HE40 Partial 242/62 CH 159 5795MHz		5649	59.72	-8.48	68.2	50.95	33.2	13.56	37.99	101	188	P	H
		5663.25	64.42	-13.62	78.04	55.58	33.25	13.58	37.99	101	188	P	H
		5719.5	67.7	-42.96	110.66	58.47	33.56	13.65	37.98	101	188	P	H
		5723.5	68.57	-50.21	118.78	59.3	33.59	13.66	37.98	101	188	P	H
	*	5795	107.61	-	-	97.84	33.98	13.75	37.96	101	188	P	H
	*	5795	100.54	-	-	90.77	33.98	13.75	37.96	101	188	A	H
		5855	79.45	-31.35	110.8	69.24	34.3	13.85	37.94	101	188	P	H
		5855	79.45	-31.35	110.8	69.24	34.3	13.85	37.94	101	188	P	H
		5888.5	73.46	-21.72	95.18	63.2	34.3	13.9	37.94	101	188	P	H
		5949	64.35	-3.85	68.2	53.97	34.3	14	37.92	101	188	P	H
													H
													H
												P	V
		5637.25	64.36	-3.84	68.2	55.62	33.2	13.54	38	100	159	P	V
		5674	69.26	-16.74	86	60.36	33.3	13.59	37.99	100	159	P	V
		5717.5	71.06	-39.04	110.1	61.85	33.54	13.65	37.98	100	159	P	V
		5722.75	73.56	-43.51	117.07	64.3	33.58	13.66	37.98	100	159	P	V
	*	5795	114.21	-	-	104.44	33.98	13.75	37.96	100	159	A	V
	*	5795	105.5	-	-	95.73	33.98	13.75	37.96	100	159	P	V
		5851.25	81.4	-37.95	119.35	71.21	34.3	13.84	37.95	100	159	P	V
		5859.75	81.54	-27.93	109.47	71.32	34.3	13.86	37.94	100	159	P	V
		5882.75	74.75	-24.69	99.44	64.5	34.3	13.89	37.94	100	159	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. 0+1	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)
802.11ax HE80 Full CH 155 5775MHz		5650	61.86	-6.34	68.2	53.09	33.2	13.56	37.99	100	234	P	H
		5694.75	68.38	-32.95	101.33	59.36	33.38	13.62	37.98	100	234	P	H
		5713.5	71.62	-37.36	108.98	62.45	33.51	13.64	37.98	100	234	P	H
		5724.25	74.59	-45.9	120.49	65.32	33.59	13.66	37.98	100	234	P	H
	*	5775	108.23	-	-	98.56	33.9	13.73	37.96	100	234	P	H
	*	5775	100.67	-	-	91	33.9	13.73	37.96	100	234	A	H
		5854.25	66.95	-45.56	112.51	56.74	34.3	13.85	37.94	100	234	P	H
		5856	67.62	-42.9	110.52	57.41	34.3	13.85	37.94	100	234	P	H
		5875.5	63.32	-41.51	104.83	53.08	34.3	13.88	37.94	100	234	P	H
		5935.5	57.17	-11.03	68.2	46.82	34.3	13.98	37.93	100	234	P	H
													H
													H
		5646.5	64.89	-3.31	68.2	56.13	33.2	13.55	37.99	104	121	P	V
		5697.5	73.87	-29.49	103.36	64.84	33.39	13.62	37.98	104	121	P	V
		5714.75	75.55	-33.78	109.33	66.37	33.52	13.64	37.98	104	121	P	V
		5723.5	74.31	-44.47	118.78	65.04	33.59	13.66	37.98	104	121	P	V
	*	5775	112.41	-	-	102.74	33.9	13.73	37.96	104	121	P	V
	*	5775	105.51	-	-	95.84	33.9	13.73	37.96	104	121	A	V
		5854.75	71.17	-40.2	111.37	60.96	34.3	13.85	37.94	104	121	P	V
		5855.5	73.88	-36.78	110.66	63.67	34.3	13.85	37.94	104	121	P	V
		5875.25	67.86	-37.15	105.01	57.62	34.3	13.88	37.94	104	121	P	V
		5939	61	-7.2	68.2	50.64	34.3	13.98	37.92	104	121	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)

[illegible]



Band 4 5725~5850MHz

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

WIFI Ant. 0+1	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)
802.11ax HE80 Partial 484/65 CH 155 5775MHz		5641	59.06	-9.14	68.2	50.31	33.2	13.55	38	100	224	P	H
		5696.25	62.98	-39.46	102.44	53.95	33.39	13.62	37.98	100	224	P	H
		5717.25	66.68	-43.35	110.03	57.47	33.54	13.65	37.98	100	224	P	H
		5721	67.03	-46.05	113.08	57.79	33.57	13.65	37.98	100	224	P	H
	*	5775	100.12	-	-	90.45	33.9	13.73	37.96	100	224	P	H
	*	5775	92.54	-	-	82.87	33.9	13.73	37.96	100	224	A	H
		5853	70.14	-45.22	115.36	59.95	34.3	13.84	37.95	100	224	P	H
		5869.25	69.04	-37.77	106.81	58.81	34.3	13.87	37.94	100	224	P	H
		5878	64.71	-38.26	102.97	54.47	34.3	13.88	37.94	100	224	P	H
		5943	57.04	-11.16	68.2	46.67	34.3	13.99	37.92	100	224	P	H
													H
													H
		5645.75	65.72	-2.48	68.2	56.97	33.2	13.55	38	108	118	P	V
		5699.25	71.06	-33.59	104.65	62.02	33.4	13.62	37.98	108	118	P	V
		5714.5	77.33	-31.93	109.26	68.15	33.52	13.64	37.98	108	118	P	V
		5724	75.6	-44.32	119.92	66.33	33.59	13.66	37.98	108	118	P	V
	*	5775	112.59	-	-	102.92	33.9	13.73	37.96	108	118	P	V
	*	5775	101.21	-	-	91.54	33.9	13.73	37.96	108	118	A	V
		5850.25	72.88	-48.75	121.63	62.69	34.3	13.84	37.95	108	118	P	V
		5870.5	74.7	-31.76	106.46	64.47	34.3	13.87	37.94	108	118	P	V
		5876	71.24	-33.22	104.46	61	34.3	13.88	37.94	108	118	P	V
		5929.75	60.69	-7.51	68.2	50.35	34.3	13.97	37.93	108	118	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 0+1	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)
802.11ax HE80 Partial 484/66 CH 155 5775MHz		5647.25	57.94	-10.26	68.2	49.18	33.2	13.55	37.99	100	295	P	H
		5698.5	69.37	-34.72	104.09	60.34	33.39	13.62	37.98	100	295	P	H
		5712.25	72.89	-35.74	108.63	63.73	33.5	13.64	37.98	100	295	P	H
		5722.75	73.36	-43.71	117.07	64.1	33.58	13.66	37.98	100	295	P	H
	*	5775	106.56	-	-	96.89	33.9	13.73	37.96	100	295	P	H
	*	5775	97.1	-	-	87.43	33.9	13.73	37.96	100	295	A	H
		5851.75	70.87	-47.34	118.21	60.68	34.3	13.84	37.95	100	295	P	H
		5873	72.29	-33.47	105.76	62.05	34.3	13.88	37.94	100	295	P	H
		5877	71.44	-32.27	103.71	61.2	34.3	13.88	37.94	100	295	P	H
		5929.25	57.9	-10.3	68.2	47.56	34.3	13.97	37.93	100	295	P	H
													H
													H
		5650	60.28	-7.92	68.2	51.51	33.2	13.56	37.99	100	156	P	V
		5699.75	73.45	-31.57	105.02	64.41	33.4	13.62	37.98	100	156	P	V
		5717.75	76.49	-33.68	110.17	67.28	33.54	13.65	37.98	100	156	P	V
		5722	77.38	-37.98	115.36	68.13	33.58	13.65	37.98	100	156	P	V
	*	5775	110.1	-	-	100.43	33.9	13.73	37.96	100	156	P	V
	*	5775	101.4	-	-	91.73	33.9	13.73	37.96	100	156	A	V
		5853	77.64	-37.72	115.36	67.45	34.3	13.84	37.95	100	156	P	V
		5867.75	77.05	-30.18	107.23	66.82	34.3	13.87	37.94	100	156	P	V
		5877	75.51	-28.2	103.71	65.27	34.3	13.88	37.94	100	156	P	V
		5942.5	64.44	-3.76	68.2	54.07	34.3	13.99	37.92	100	156	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission above 18GHz

5GHz WIFI 802.11ax HE40 Full (SHF @ 1m)

[illegible]

Emission below 1GHz

5GHz WIFI 802.11ax HE40 Full (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.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE40 Full LF		31.19	24.67	-15.33	40	34.58	24.39	1.29	35.59	-	-	P	H
		85.08	23.72	-16.28	40	43.26	14.2	1.8	35.54	-	-	P	H
		108.71	25.49	-18.01	43.5	41.71	17.22	2.05	35.49	-	-	P	H
		485.6	31.62	-14.38	46	38.5	23.62	4.15	34.65	-	-	P	H
		752	32.49	-13.51	46	32.7	28.33	5.12	33.66	-	-	P	H
		960	35.46	-10.54	46	31.57	31.01	5.81	32.93	-	-	P	H
													H
													H
													H
													H
													H
													H
		31.02	29.81	-10.19	40	39.65	24.45	1.3	35.59	-	-	P	V
		84.06	25.86	-14.14	40	45.54	14.07	1.79	35.54	-	-	P	V
		130.47	23.18	-20.32	43.5	38.62	17.78	2.24	35.46	-	-	P	V
		617.6	29.27	-16.73	46	32.76	26.01	4.68	34.18	-	-	P	V
		778.4	32.55	-13.45	46	32.8	28.1	5.2	33.55	-	-	P	V
		903.2	37.07	-8.93	46	35.66	28.97	5.6	33.16	-	-	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.												



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 Margin line.
P/A	Peak or Average
H/V	Horizontal or Vertical



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.	
0+1		(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. Margin (dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 5650MHz:

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. Margin(dB)
 = Level(dBμV/m) – Limit Line(dBμV/m)
 = 55.45(dBμV/m) – 68.2(dBμV/m)
 = -12.75 (dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.



Appendix D. Radiated Spurious Emission Plots

Test Engineer :	John Chung and David Dai	Temperature :	19.6~23.4°C
		Relative Humidity :	65.8~70.6%

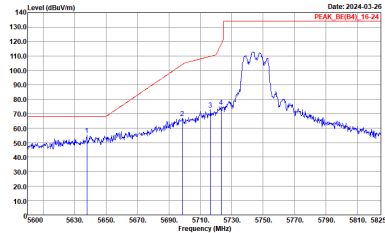
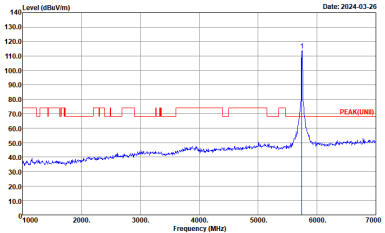
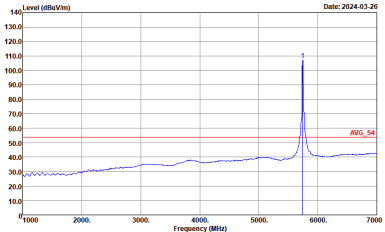
Note symbol

-L	Low channel location
-R	High channel location

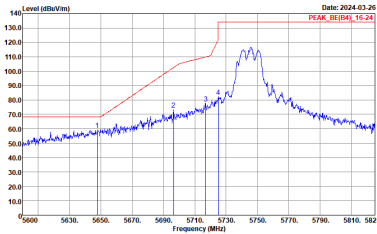
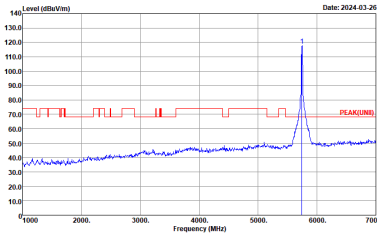
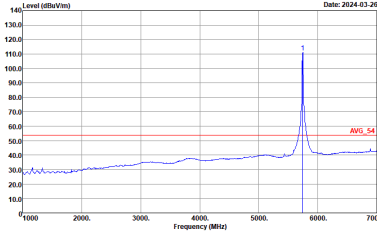


Band 4 - 5725~5850MHz

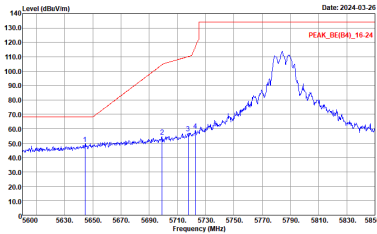
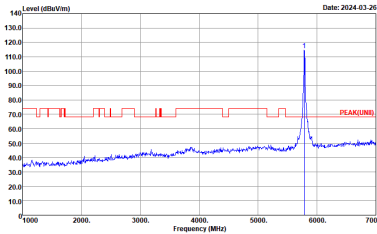
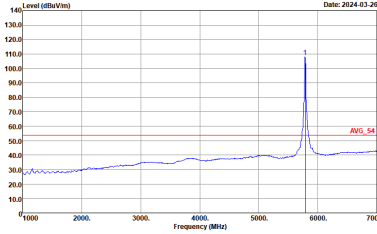
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_R8(04)_16-24 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_LNB8 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

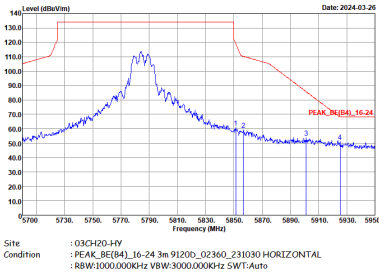


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(FUND) 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

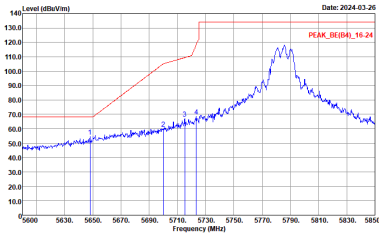
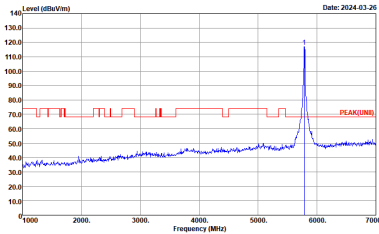
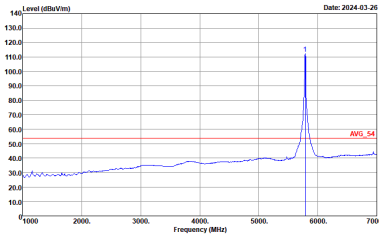


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

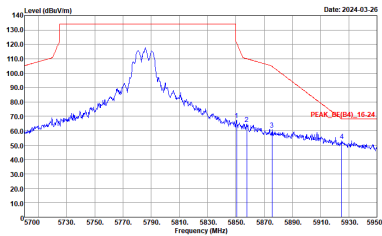


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
0+1	Horizontal	Fundamental
Peak		Left blank

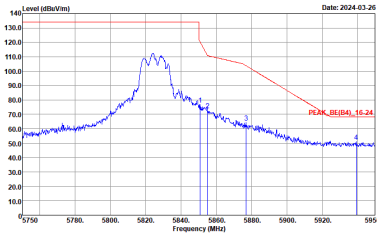
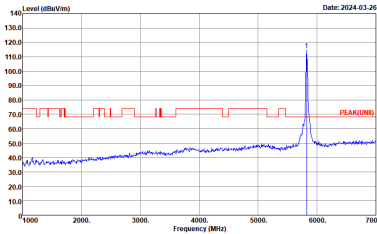
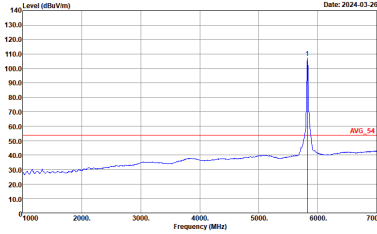


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE[94]_16-24 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE1) 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AV6_54 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

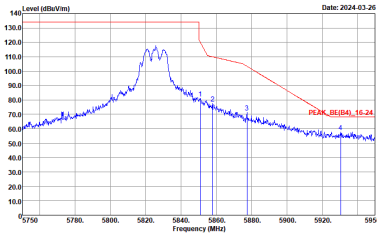
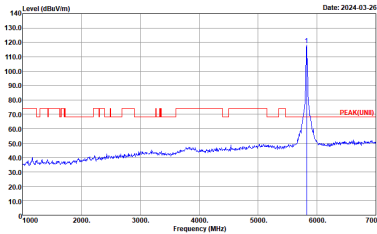
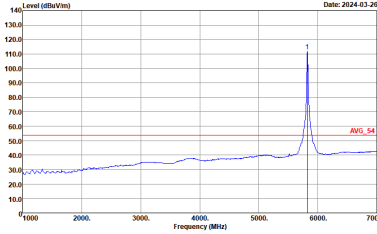


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
0+1	Vertical	Fundamental
Peak	 Site : 09CH20-HY Condition : PEAK_BC[94]_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : : PEAK_BC[94]_16-24 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : : PEAK(LINE1) 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : : AV6_54 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



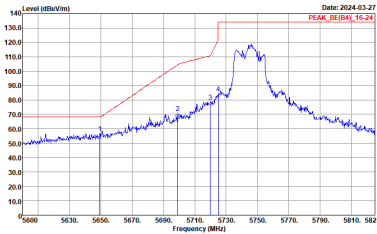
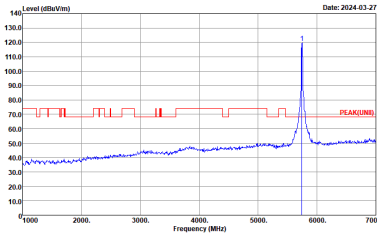
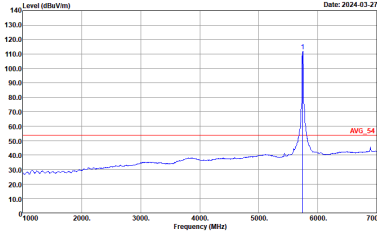
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BC[94]_16-24 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE1) 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Avg Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



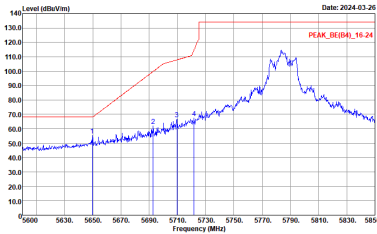
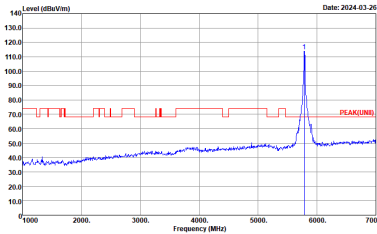
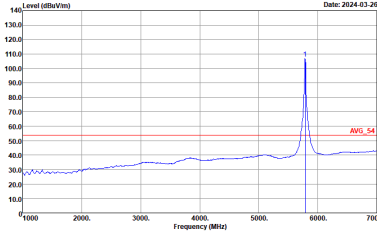
Band 4 5725~5850MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
0+1	Horizontal	Fundamental
Peak	Site : 03CH20-HY Condition : PEAK_BE(84)_16-24 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH20-HY Condition : PEAK(UNII) 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

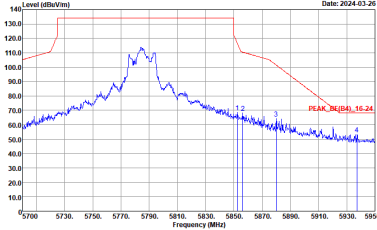


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE[94]_16-24 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK[LINE1] 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Avg Left blank	 Site : 03CH20-HY Condition : AV6_54 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

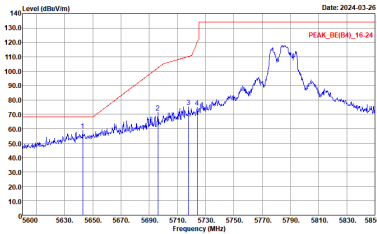
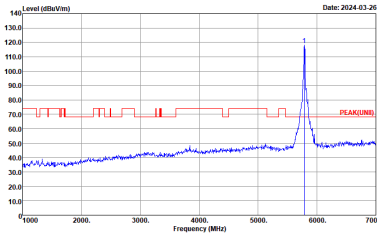
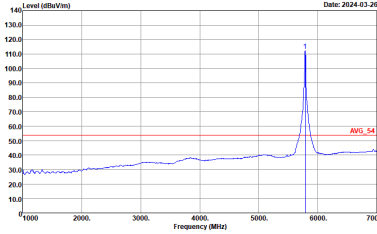


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Avg Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

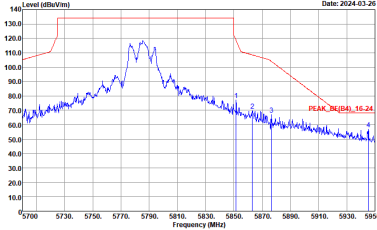


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 09CH20-HV Condition : PEAK_IN(16-24) 3m 91200_02360_231030-HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

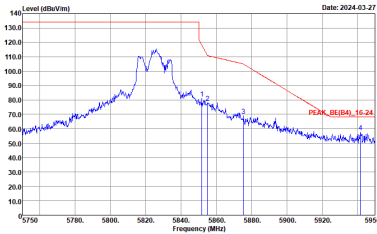
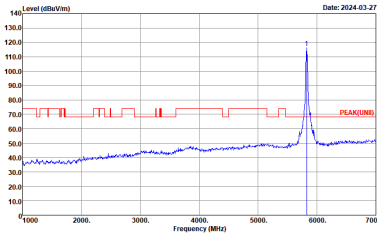
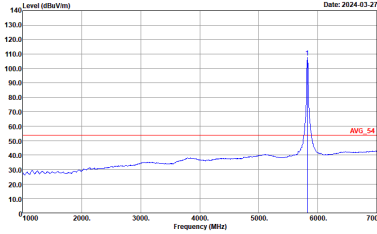


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

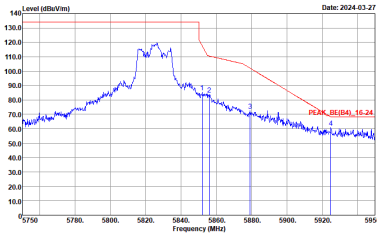
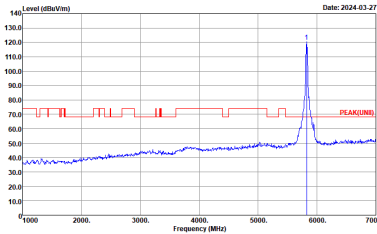
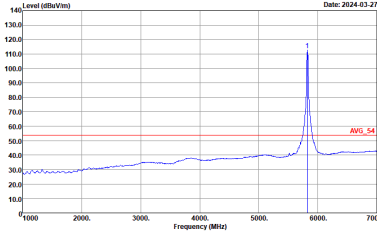


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
0+1	Vertical	Fundamental
Peak	 Site : 09CH20-HV Condition : PEAK_IN(16-24) 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_8C[84]_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK[LINE1] 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AV6_54 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

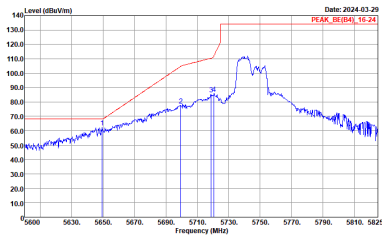
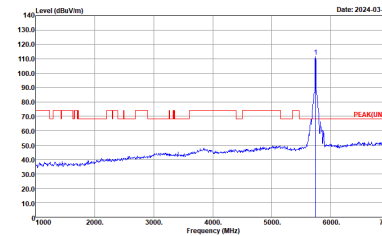


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_8C[94]_16-24 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

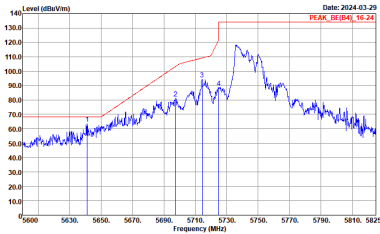
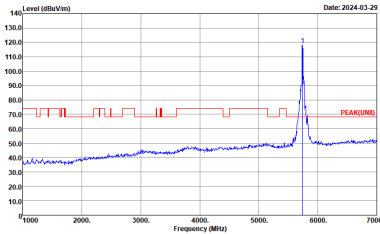
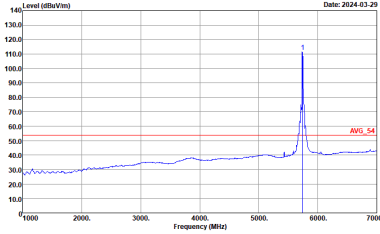


Band 4 5725~5850MHz

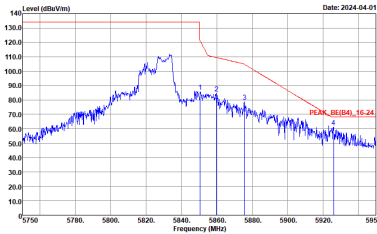
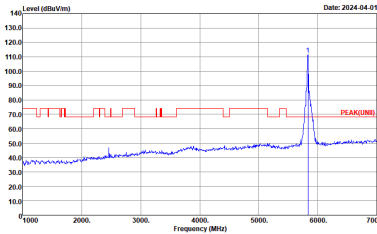
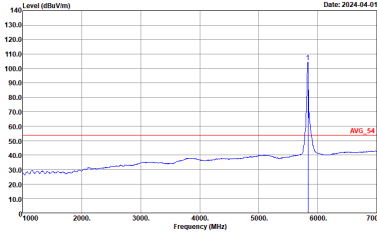
WIFI 802.11ax HE20 Partial 106 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(84)_16-24 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

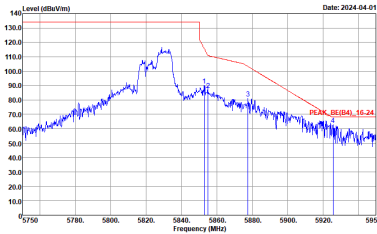
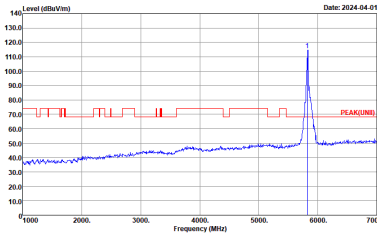
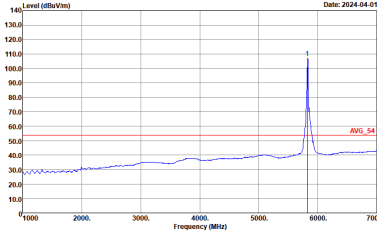


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_8E(B4)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AV6_54 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



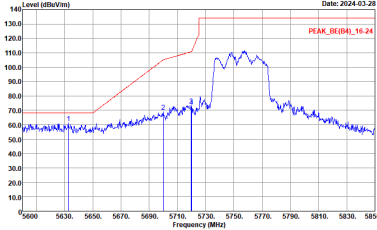
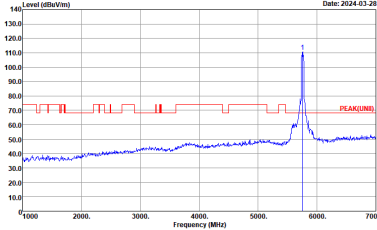
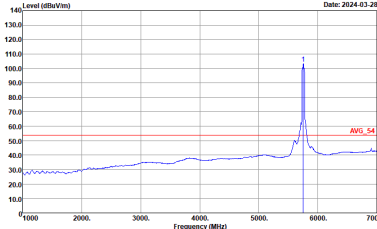
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/54 CH165 5825MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_86(B4)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



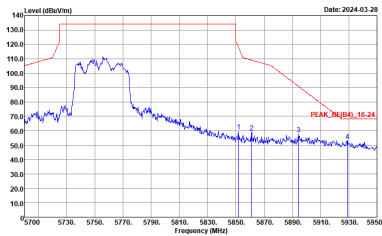
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/54 CH165 5825MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_58(04)_16-24 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



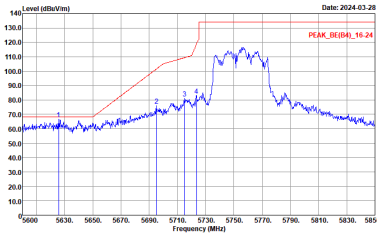
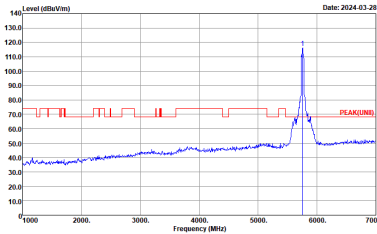
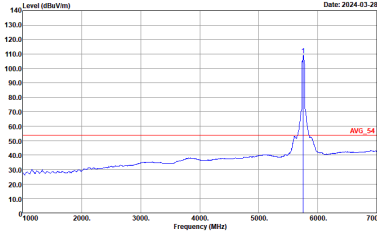
Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNB) 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

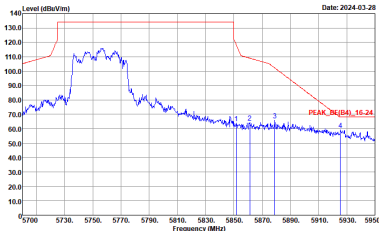


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HV Condition : PEAK_IN(16-24) 3m 91200_02360_231030-HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

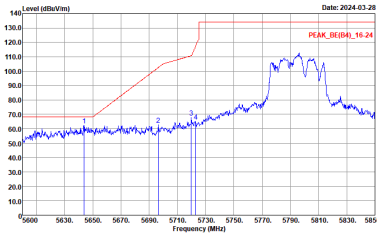
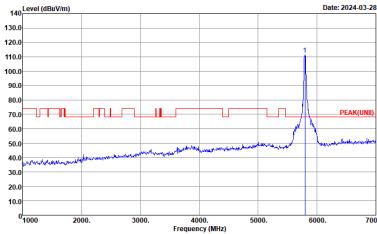
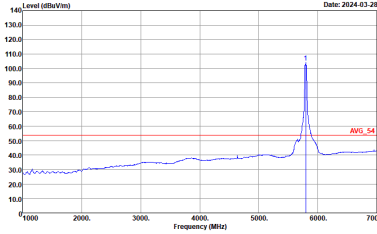


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE[04]_16-24 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK[LINE1] 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Avg	Left blank
		 Site : 03CH20-HY Condition : AV6_54 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

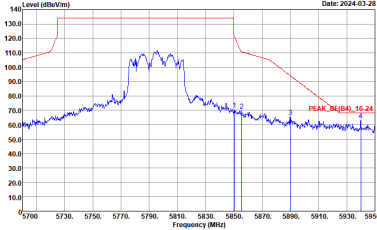


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
0+1	Vertical	Fundamental
Peak	 Site : 09CH20-HV Condition : PEAK_IN(04)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(FUND) 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

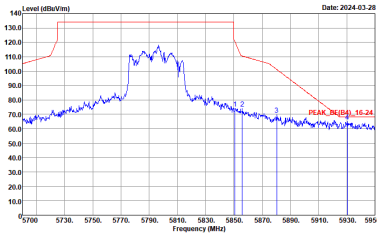


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HV Condition : PEAK_IN[04]_16-24 3m 91200_02360_231030-HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



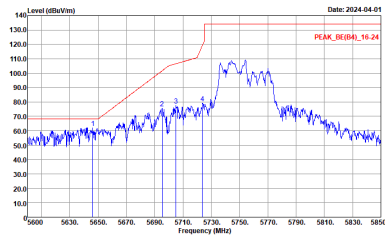
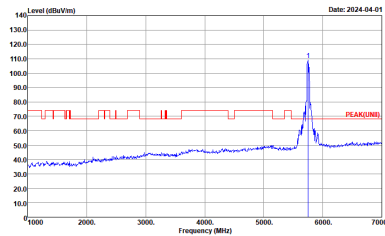
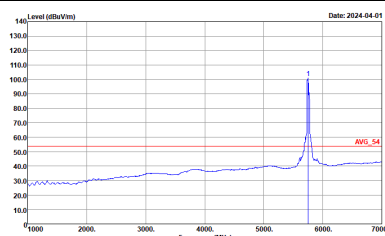
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
0+1	Vertical	Fundamental
Peak	Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



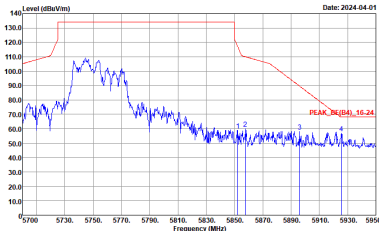
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
0+1	Vertical	Fundamental
Peak	 Site : 09CH20-HV Condition : PFAK_BC[94]_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



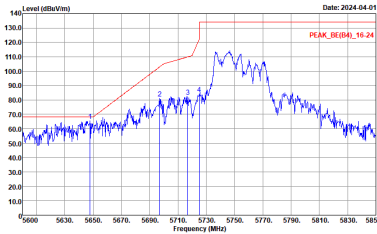
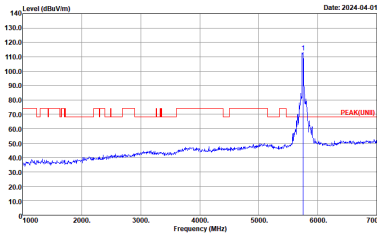
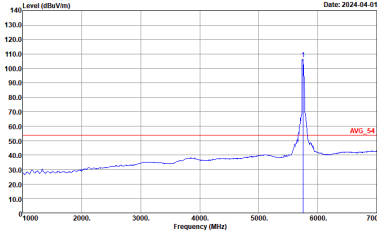
Band 4 5725~5850MHz
WIFI 802.11ax HE40 Partial 242 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(84)_16-24 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNB) 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

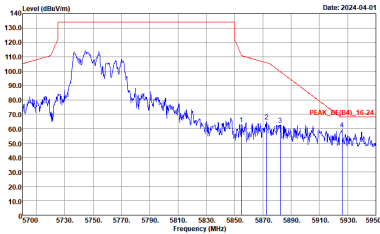


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HV Condition : PEAK_16(04)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

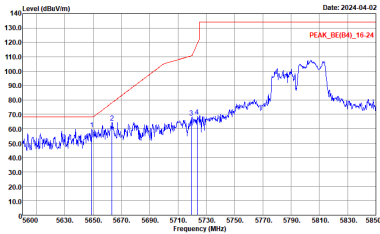
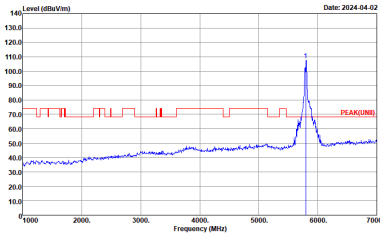
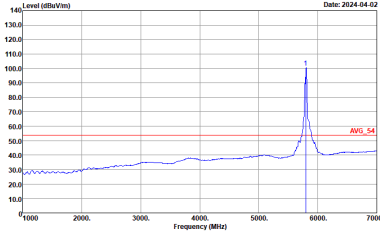


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_RE(04)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

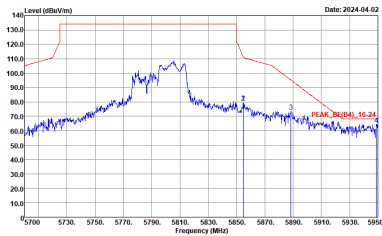


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH151 5755MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_16(04)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

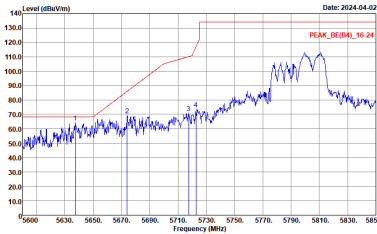
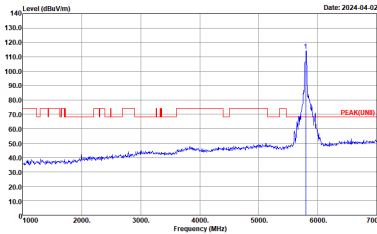
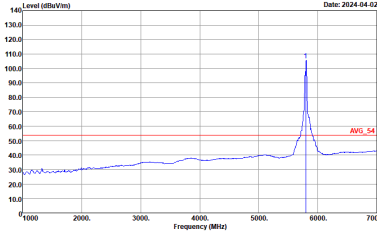


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH159 5795MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_RE(04)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

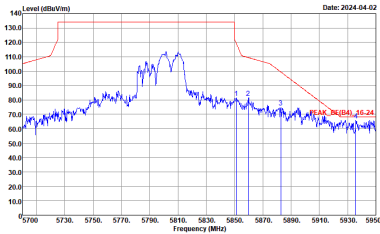


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH159 5795MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HV Condition : PEAK_8C(84)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



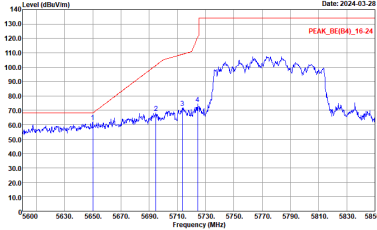
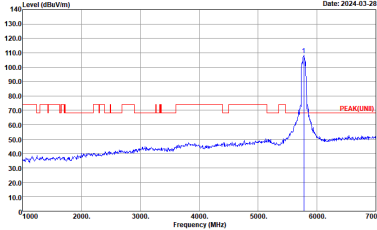
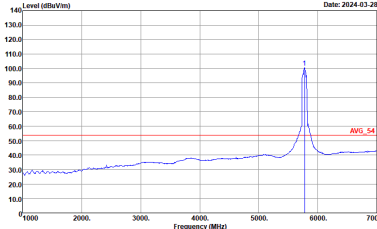
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH159 5795MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_RE(04)_16-24 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



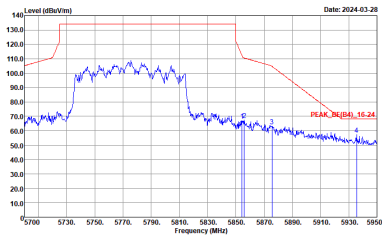
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH159 5795MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_36(0.0)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



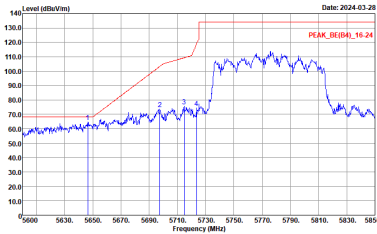
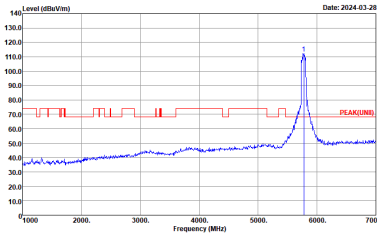
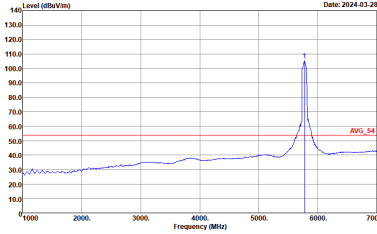
Band 4 5725~5850MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(84)_16-24 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNID) 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

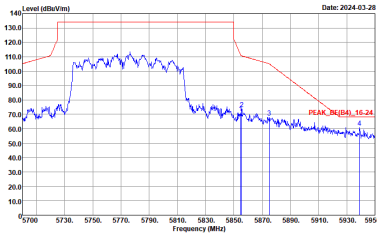


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 09CH20-HV Condition : PEAK_IN(04)_16-24 3m 91200_02360_231030-HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(B4)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

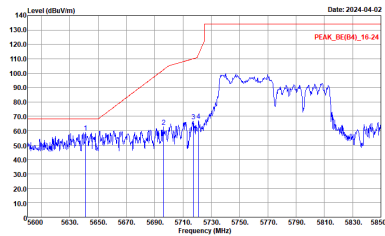
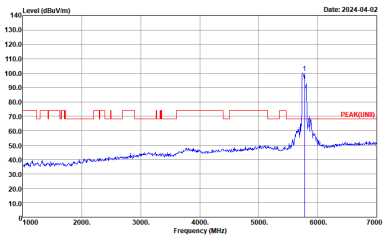
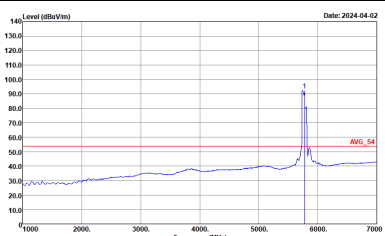


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
0+1	Vertical	Fundamental
Peak	 Site : 09CH20-HV Condition : PEAK_BC[94]_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

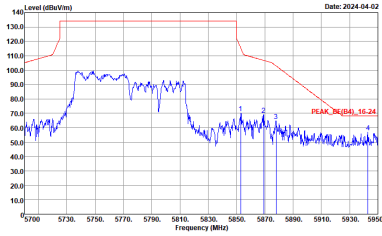


Band 4 5725~5850MHz

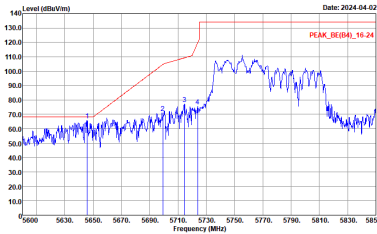
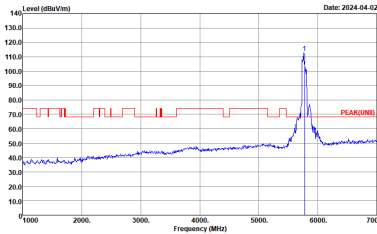
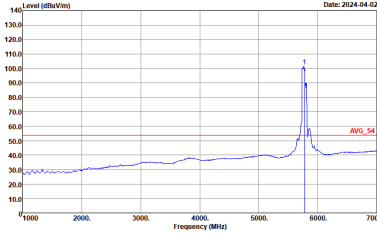
WIFI 802.11ax HE80 Partial 484 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE(84)_16-24 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(UNI) 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

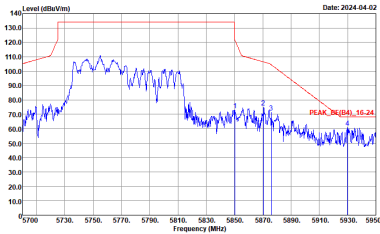


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HV Condition : PEAK_16(16)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

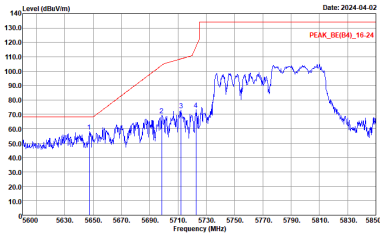
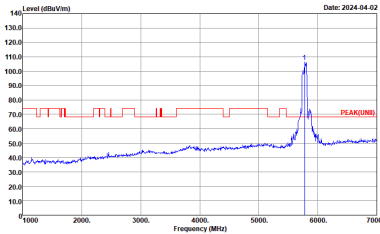
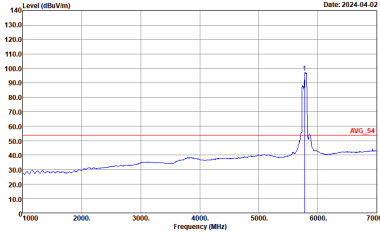


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_RE(04)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

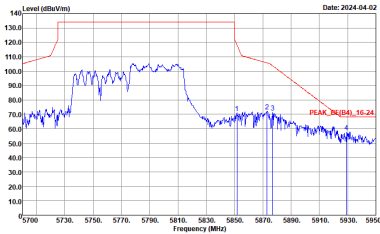


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/65 CH155 5775MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_34(04)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

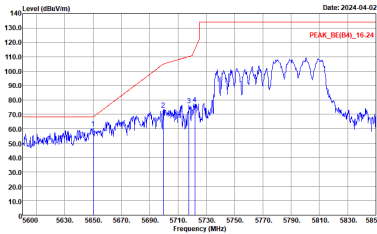
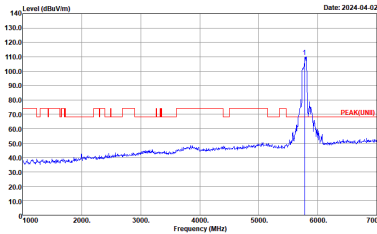
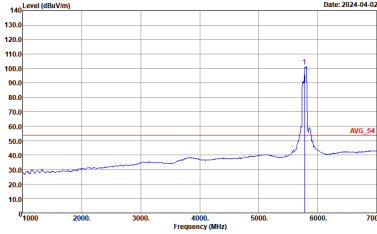


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/66 CH155 5775MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_RE(04)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

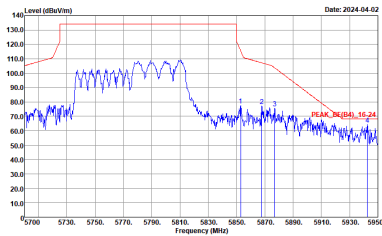


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/66 CH155 5775MHz	
0+1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_36(04)_16-24 3m 91200_02360_231030 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 484/66 CH155 5775MHz	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_RE(04)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK(LINE) 3m 91200_02360_231030 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Left blank	 Site : 03CH20-HY Condition : AVG_54 3m 91200_02360_231030 VERTICAL 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	
0+1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_36(04)_16-24 3m 91200_02360_231030 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

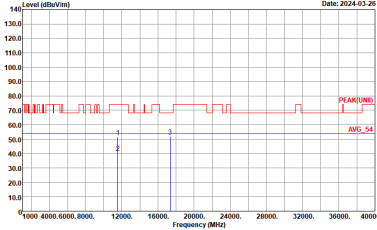
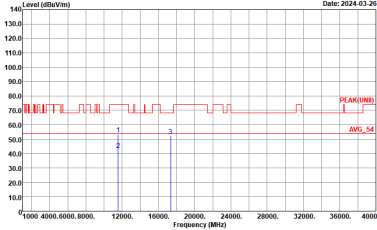


Band 4 - 5725~5850MHz

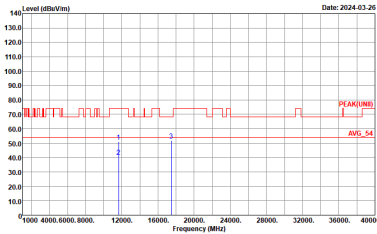
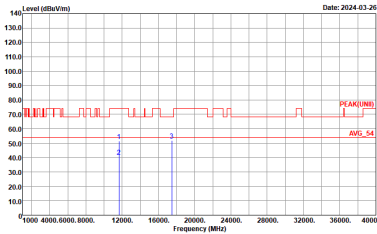
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
0+1	Horizontal	Vertical
Peak Avg.	Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL :	Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 VERTICAL :



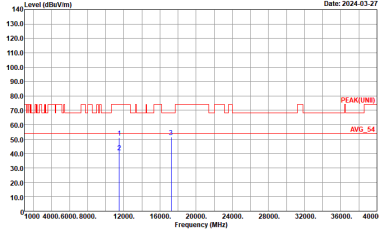
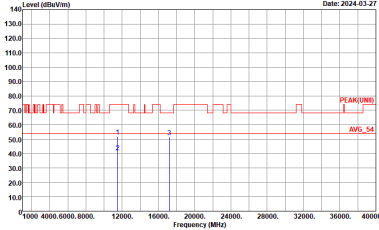
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL :	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 VERTICAL :



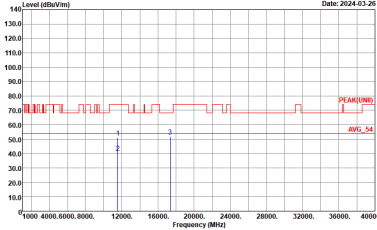
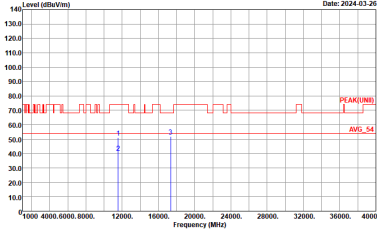
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL :	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 VERTICAL :



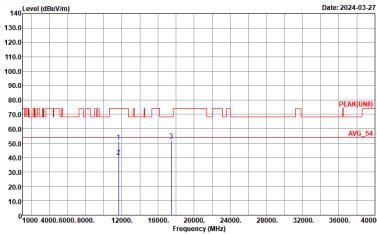
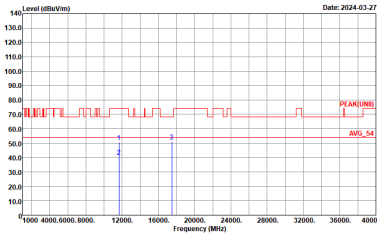
Band 4 5725~5850MHz
WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL :	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 VERTICAL :



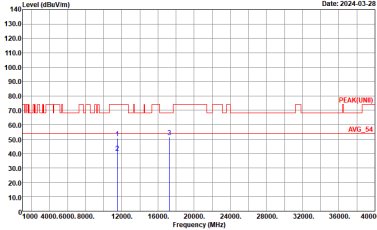
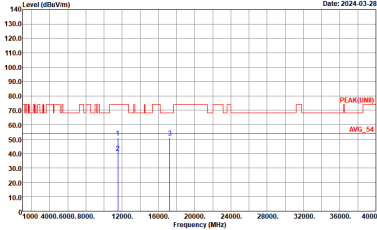
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL :	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 VERTICAL :



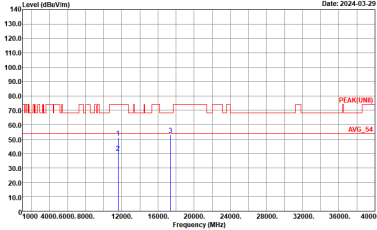
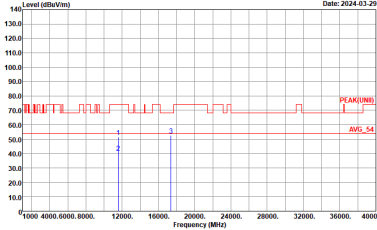
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL :	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 VERTICAL :



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

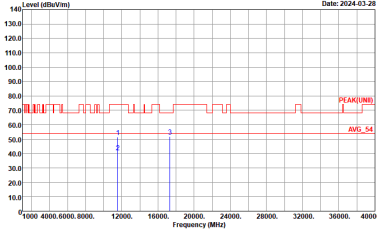
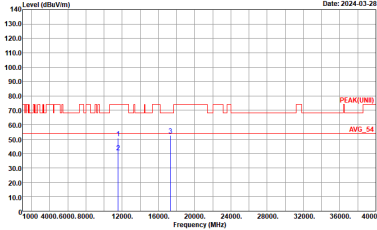
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL :	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 VERTICAL :



WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 HORIZONTAL :	 Site : 03CH20-HY Condition : PEAK(UNIT) 3m 91200_02360_231030 VERTICAL :

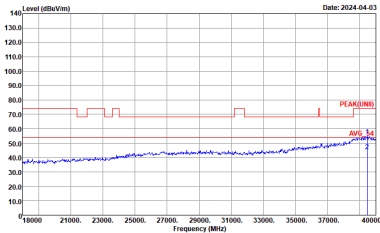
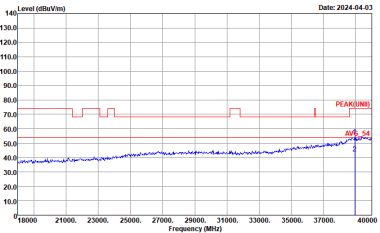


Band 4 5725~5850MHz
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNB) 3m 91200_02360_231030 HORIZONTAL :	 Site : 03CH20-HY Condition : PEAK(UNB) 3m 91200_02360_231030 VERTICAL :



Emission above 18GHz
5GHz WIFI 802.11ax HE40 Full (SHF @ 1m)

WIFI	5GHz WIFI	
ANT	802.11ax HE40 Full SHF	
0+1	Horizontal	Vertical
Peak Avg.	 Site : 03CH20-HY Condition : PEAK(UNI) Im SHF_1224_230710 VERTICAL :	 Site : 03CH20-HY Condition : PEAK(UNI) Im SHF_1224_230710 HORIZONTAL :



Emission below 1GHz
5GHz WIFI 802.11ax HE40 Full (LF @ 3m)

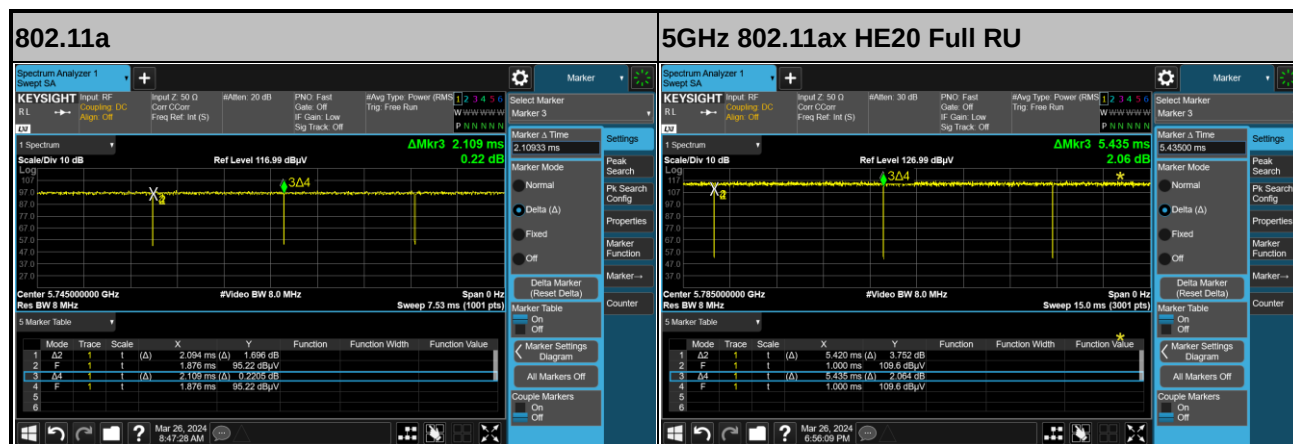
WIFI	5GHz WIFI	
ANT	802.11ax HE40 Full LF	
0+1	Horizontal	Vertical
QP / Peak	Site : 03CH20-HV Condition : QP 3m LF_55606_231020_200 HORIZONTAL	Site : 03CH20-HV Condition : QP 3m LF_55606_231020_200 VERTICAL



Appendix E. Duty Cycle Plots

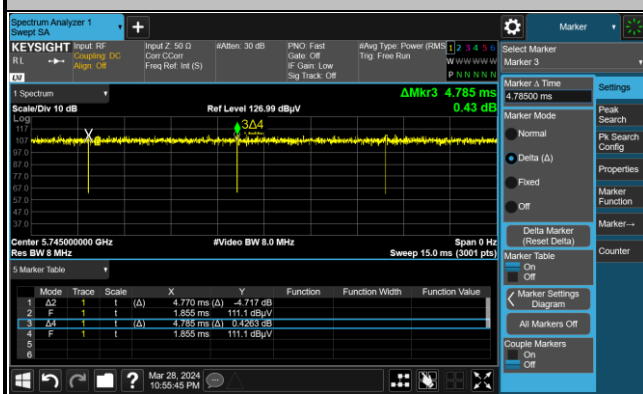
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
0+1	802.11a	99.29	-	-	10Hz
0+1	5GHz 802.11ax HE20 Full RU	99.72	-	-	10Hz
0+1	5GHz 802.11ax HE20 106 RU	99.69	-	-	10Hz
0+1	5GHz 802.11ax HE40 Full RU	99.59	-	-	10Hz
0+1	5GHz 802.11ax HE40 242 RU	99.42	-	-	10Hz
0+1	5GHz 802.11ax HE80 Full RU	99.11	-	-	10Hz
0+1	5GHz 802.11ax HE80 484 RU	98.95	-	-	10Hz

MIMO <Ant. 0+1>

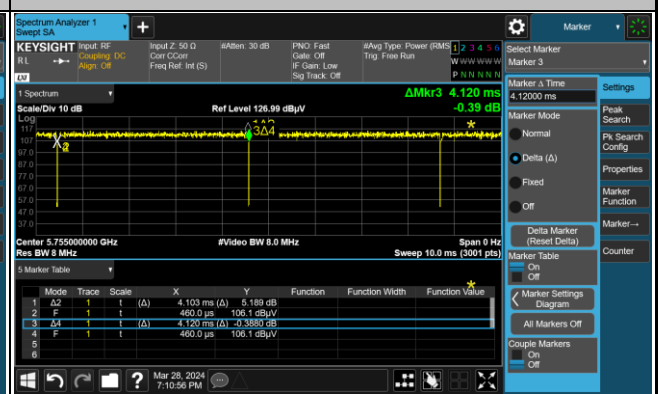




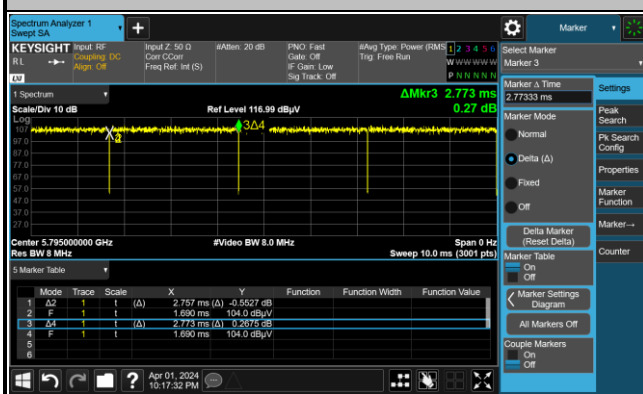
5GHz 802.11ax HE20 106 RU



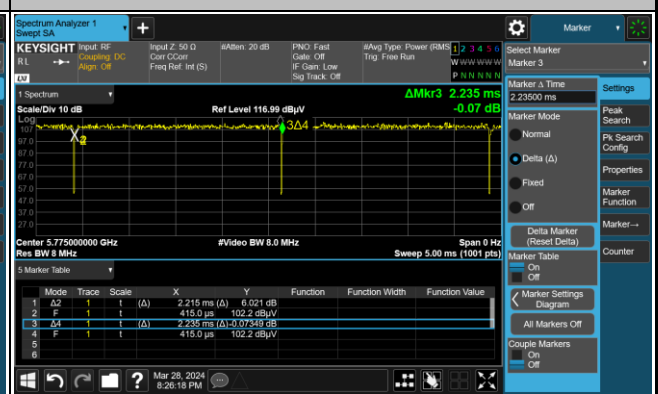
5GHz 802.11ax HE40 Full RU



5GHz 802.11ax HE40 242 RU



5GHz 802.11ax HE80 Full RU



5GHz 802.11ax HE80 484 RU

