



FCC RADIO TEST REPORT

FCC ID : U8G-P1AX13
Equipment : Peplink Pepwave Wireless Product
Brand Name : 
PEPWAVE
Model Name : MAX HD1 Dome Pro
MAX-HD1-DOM-PRO-5GH
MAX HD2 Dome Pro
MAX-HD2-DOM-PRO-LTEA-Q
Applicant : PISMO LABS TECHNOLOGY LIMITED
A8, 5/F, HK SPINNERS INDUSTRIAL BUILDING,
PHASE 6, 481 CASTLE PEAK ROAD, CHEUNG SHA
WAN, HONG KONG
Manufacturer : PISMO LABS TECHNOLOGY LIMITED
A8, 5/F, HK SPINNERS INDUSTRIAL BUILDING,
PHASE 6, 481 CASTLE PEAK ROAD, CHEUNG SHA
WAN, HONG KONG
Standard : FCC Part 15 Subpart C §15.247

The product was received on Jul. 05, 2022 and testing was performed from Jul. 11, 2022 to Apr. 11, 2023. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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



Approved by: Louis Wu



Sporton International Inc. Wensan Laboratory

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



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History of this test report

Report No.	Version	Description	Issue Date
FR261637A	01	Initial issue of report	May 09, 2023



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(a)(2)	6dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.247(b)	Power Output Measurement	Pass	-
3.3	15.247(e)	Power Spectral Density	Pass	-
3.4	15.247(d)	Conducted Band Edges	Pass	-
		Conducted Spurious Emission	Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass	1.15 dB under the limit at 2483.520 MHz
3.6	15.207	AC Conducted Emission	Pass	8.24 dB under the limit at 23.127 MHz
3.7	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:

1. 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.
2. The purpose of different model name is for marketing purpose.

Reviewed by: Lewis Ho**Report Producer: Ming Chen**



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature		
General Specs LTE/5G NR, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, and GPS		
Antenna Type WWAN: Omni-directional Antenna WLAN: Omni-directional Antenna GPS: Directional Antenna		
Sample information Sample 1: MAX HD1 Dome Pro and MAX-HD1-DOM-PRO-5GH with WWAN Module 1 (EM9191) Sample 2: MAX HD2 Dome Pro and MAX-HD2-DOM-PRO-LTEA-Q with WWAN Module 2 (LN920A12-WW)		
Integrated WWAN Module 1	Brand Name: Sierra Model Name: EM9191 FCC ID: N7NEM91	
Integrated WWAN Module 2	Brand Name: Telit Model Name: LN920A12-WW FCC ID: RI7LN920	
Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	Ant. 1: 4.50 Ant. 2: 3.90

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

1.1.1 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 for Power	DG for PSD	Power Limit Reduction	PSD Limit Reduction
	Ant 5 (dBi)	Ant 6 (dBi)	(dBi)	(dBi)	(dB)	(dB)
2.4GHz	4.50	3.90	4.50	7.22	0.00	1.22

Calculation example:

If a device has two antenna, $G_{ANT1} = 4.5\text{dBi}$; $G_{ANT2} = 3.9\text{dBi}$

Directional gain of power measurement = $\max(4.5, 3.9) + 0 = 4.5$ dBi

Directional gain of PSD derived from formula which is

$$10 \times \log \left\{ \left[10^{(4.5 \text{ dBi} / 20)} + 10^{(3.9 \text{ dBi} / 20)} \right]^2 / 2 \right\}$$

$$= 7.22 \text{ dBi}$$

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



1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 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

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

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, 03CH16-HY

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

FCC designation No.: TW1190 and TW3786

1.4 Applicable Standards

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

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 D01 15.247 Meas Guidance v05r02
- ♦ 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)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		

2.2 Test Mode

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

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

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

MIMO Antenna

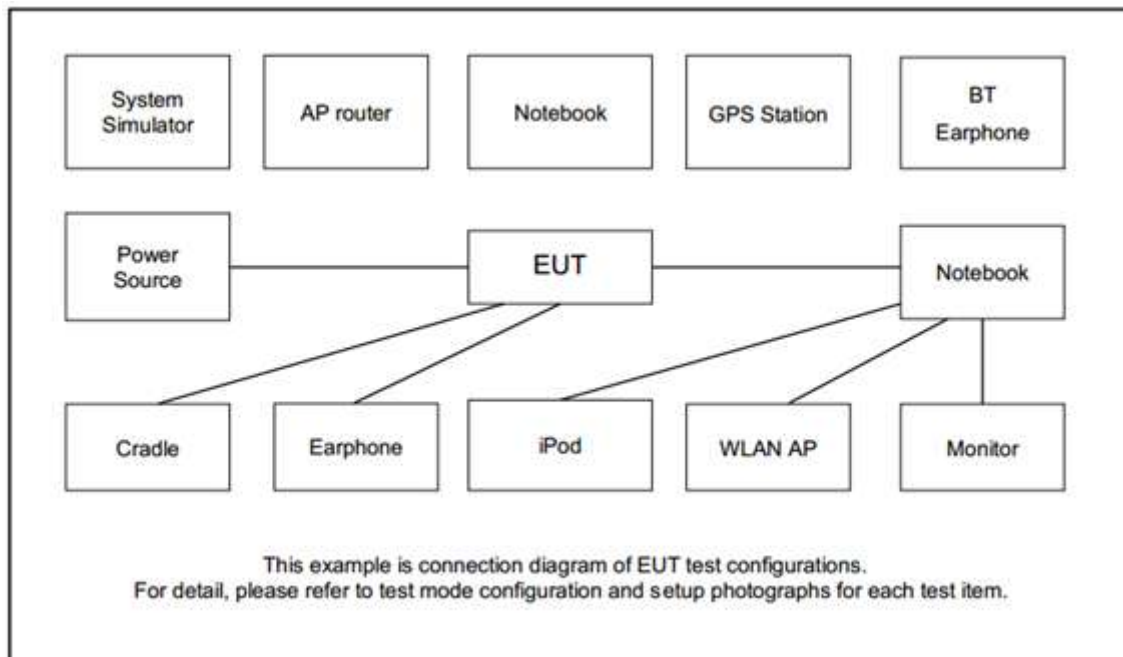
Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20 (Covered by HE20)	MCS0
802.11n HT40 (Covered by HE40)	MCS0
802.11ac VHT20 (Covered by HE20)	MCS0
802.11ac VHT40 (Covered by HE40)	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0

Test Cases	
AC Conducted Emission	Mode 1 :WLAN (2.4GHz) Link + With PoE Box+ PoE Adapter for Sample 1 Mode 2 WLAN (2.4GHz) Link + With PoE Box+ PoE Adapter for Sample 2
Remark: 1. The worst case of Conducted Emission is mode 1; only the test data of it was reported. 2. For Radiated Test Cases, the tests were performed with Sample 1	

Ch. #	2400-2483.5 MHz			
	802.11b	802.11g	802.11ax HE20	802.11ax HE40
Low	01	01	01	03
Middle	06	06	06	06
High	11	11	11	09

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



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Device	PEPWAVE	MAX BR1 Mini R6	N/A	N/A	N/A
3.	POE Adapter	Billion	BP035-560054QAX	FCC DoC	N/A	N/A



2.5 EUT Operation Test Setup

The RF test items, utility “QSRP Version 5.0-00199” 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 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

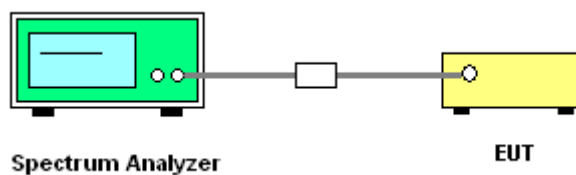
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) $\geq 3 * RBW$.
6. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.

3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna with directional gain greater than 6 dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

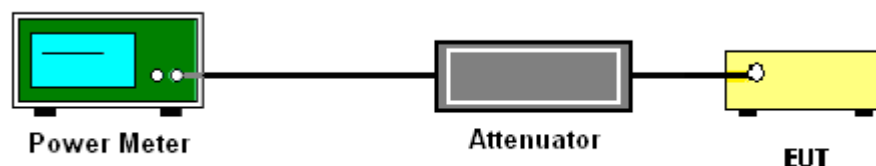
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

1. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
2. The RF output of EUT is connected to the power meter by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Measure the conducted output power and record the results in the test report.
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 Average Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band at any time interval of continuous transmission.

3.3.2 Measuring Instruments

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

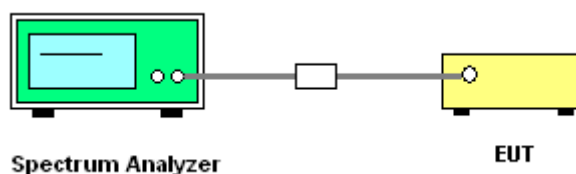
3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. 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 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement.

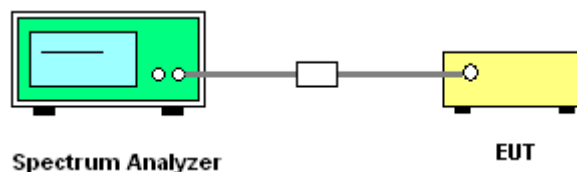
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup



3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Please refer to Appendix A.



3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device is measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

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

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. 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.
4. The EUT is set 3 meters away from the receiving antenna, which is mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
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 “-”.

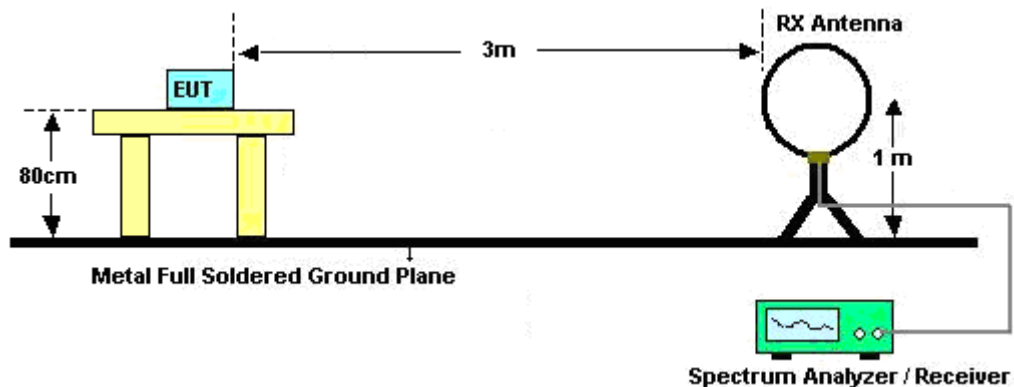
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-”.
8. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW = 100 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW = 3 MHz for $f \geq 1$ GHz for peak measurement.

For average measurement:

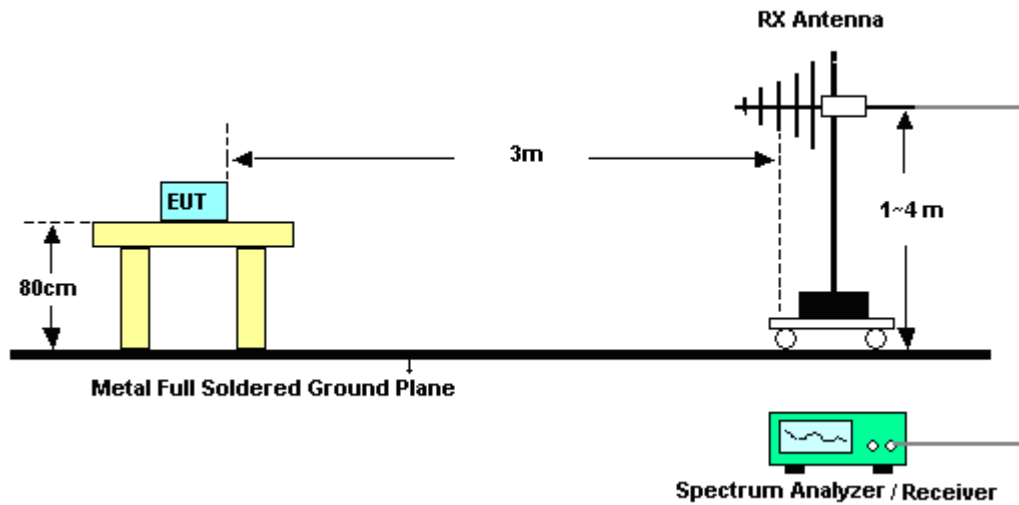
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

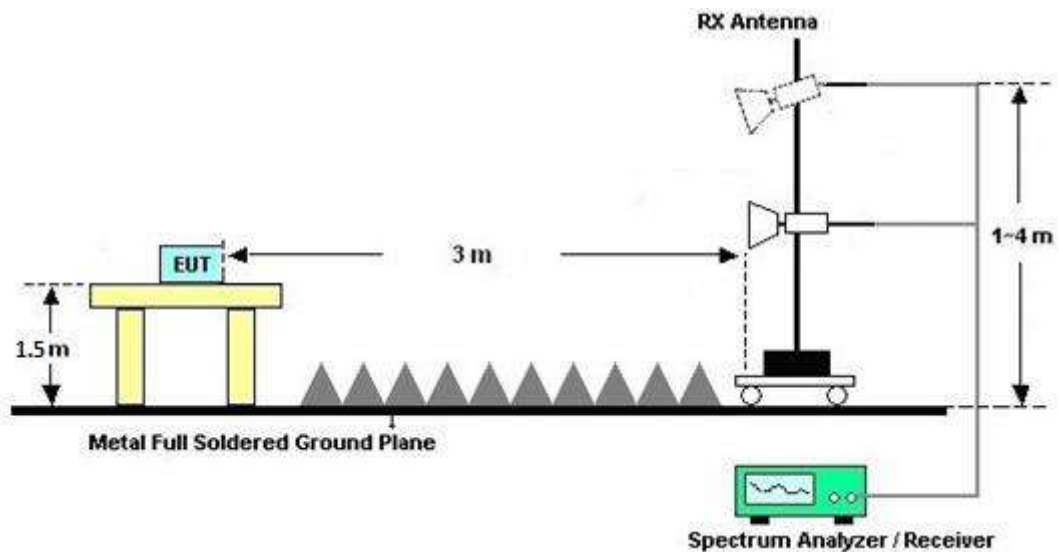
For radiated emissions below 30MHz



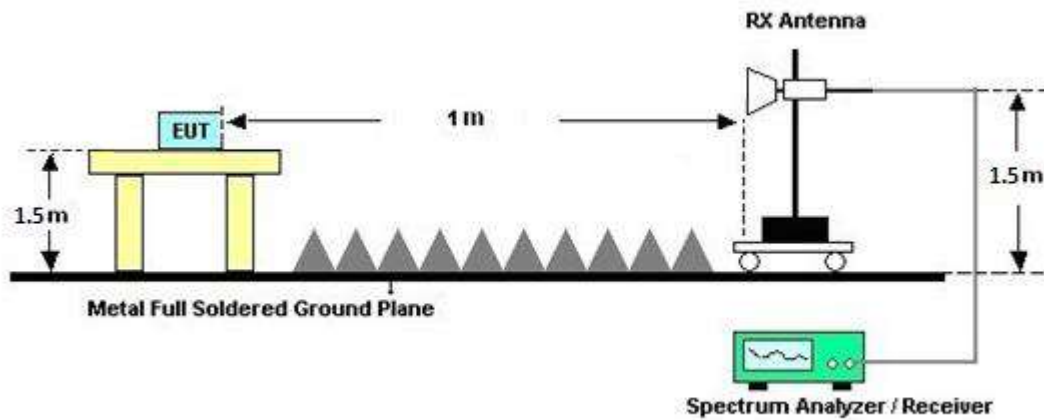
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



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

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 comes out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

3.6 AC Conducted Emission Measurement

3.6.1 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.

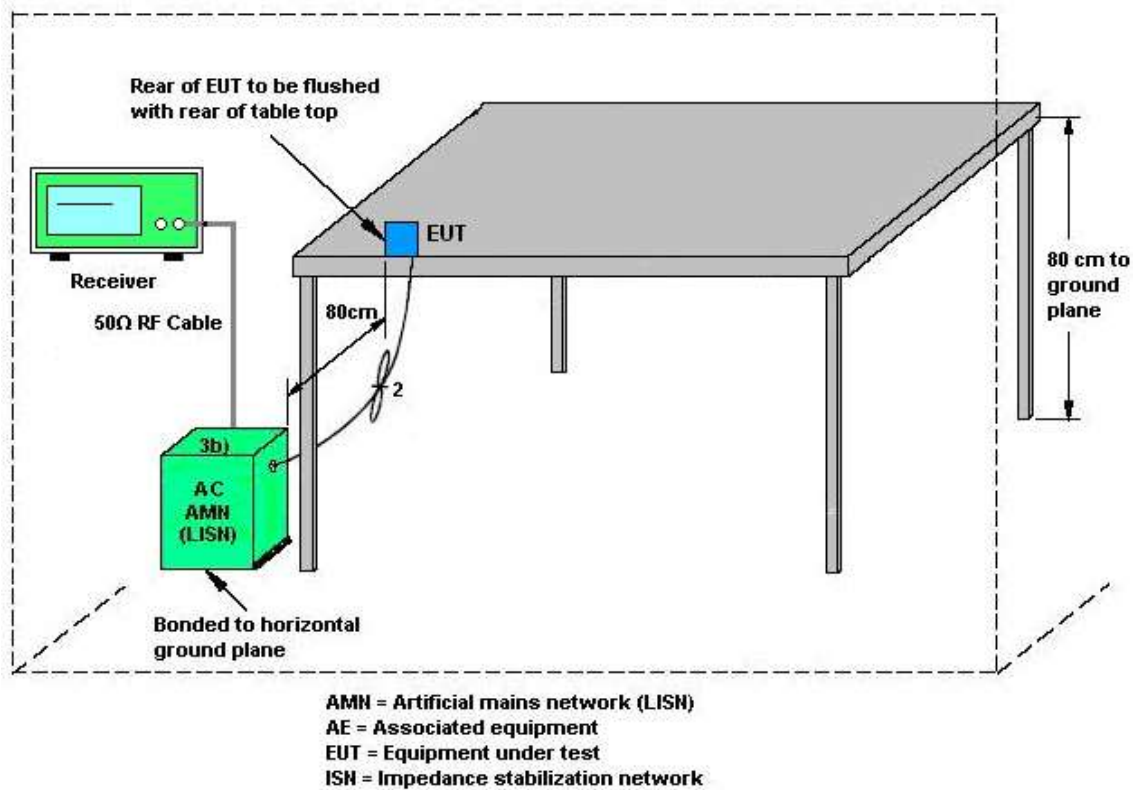
3.6.2 Measuring Instruments

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

3.6.3 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 (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



3.7 Antenna Requirements

3.7.1 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.

3.7.2 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
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jul. 11, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2021	Jul. 11, 2022	Nov. 30, 2022	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2021	Jul. 11, 2022	Nov. 16, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 03, 2021	Jul. 11, 2022	Dec. 02, 2022	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Jul. 11, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	00691	N/A	Jul. 28, 2021	Jul. 11, 2022	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	Jul. 11, 2022	Dec. 29, 2022	Conduction (CO05-HY)
Hygrometer	TECEPIL	DTM-303A	TP201996	N/A	Nov. 17, 2022	Mar. 23, 2023~Apr. 08, 2023	Nov. 16, 2023	Conducted (TH05-HY)
USB Power Sensor	DARE	RPR3006W	15I00041SNO10 (NO:248)	10MHz~6GHz	Jan. 05, 20223	Mar. 23, 2023~Apr. 08, 2023	Jan. 04, 2024	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Sep. 01, 2022	Mar. 23, 2023~Apr. 08, 2023	Aug. 31, 2023	Conducted (TH05-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02038	1GHz~18GHz	Aug. 09, 2022	Mar. 09, 2023~Apr. 11, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	SCHWARZBECK	BBHA 9120 D	9120D-1522	Mar. 10, 2022	Mar. 07, 2023~Mar. 08, 2023	Mar. 09, 2023	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz~40GHz	Nov. 24, 2022	Mar. 07, 2023~Apr. 11, 2023	Nov. 23, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N-06	47020 & 06	30MHz~1GHz	Oct. 08, 2022	Mar. 07, 2023~Apr. 11, 2023	Oct. 07, 2023	Radiation (03CH16-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Seo. 20, 2022	Mar. 07, 2023~Apr. 11, 2023	Sep. 19, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 28, 2022	Mar. 07, 2023~Apr. 11, 2023	Jun. 27, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 26, 2022	Mar. 07, 2023~Apr. 11, 2023	Dec. 25, 2023	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2022	Mar. 07, 2023~Apr. 11, 2023	Dec. 08, 2023	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 04, 2022	Mar. 07, 2023~Apr. 11, 2023	Jul. 03, 2023	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2022	Mar. 07, 2023~Apr. 11, 2023	Dec. 14, 2023	Radiation (03CH16-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Jan. 10, 2023	Mar. 07, 2023~Apr. 11, 2023	Jan. 09, 2024	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	805935/4	N/A	Aug. 09, 2022	Mar. 07, 2023~Apr. 11, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	802434/4	N/A	Aug. 09, 2022	Mar. 07, 2023~Apr. 11, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5757	N/A	Aug. 09, 2022	Mar. 07, 2023~Apr. 11, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Mar. 07, 2023~Apr. 11, 2023	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Mar. 07, 2023~Apr. 11, 2023	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar. 07, 2023~Apr. 11, 2023	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar. 07, 2023~Apr. 11, 2023	N/A	Radiation (03CH16-HY)



5 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.1 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.5 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.6 dB
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Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.5 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.6 dB
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu / Sylvia Li	Temperature:	21~25	°C
Test Date:	2023/3/23~2023/04/08	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band MIMO										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant5	Ant6	Ant5	Ant6		
11b	1Mbps	2	1	2412	13.09	13.34	8.08	7.60	0.50	Pass
11b	1Mbps	2	6	2437	13.34	13.19	7.12	8.08	0.50	Pass
11b	1Mbps	2	11	2462	13.14	13.29	7.60	7.62	0.50	Pass
11g	6Mbps	2	1	2412	16.88	17.13	15.50	15.76	0.50	Pass
11g	6Mbps	2	6	2437	17.03	17.03	16.10	15.94	0.50	Pass
11g	6Mbps	2	11	2462	16.98	17.03	15.78	15.50	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant5	Ant6	SUM	Ant5	Ant6	Ant5	Ant6	Ant5	Ant6	Ant5	Ant6	
11b	1Mbps	2	1	2412	23.20	20.90	25.21	30.00		4.50		29.71		36.00		Pass
11b	1Mbps	2	6	2437	22.60	21.90	25.27	30.00		4.50		29.77		36.00		Pass
11b	1Mbps	2	11	2462	22.90	21.50	25.27	30.00		4.50		29.77		36.00		Pass
11g	6Mbps	2	1	2412	21.20	19.40	23.40	30.00		4.50		27.90		36.00		Pass
11g	6Mbps	2	6	2437	22.50	21.60	25.08	30.00		4.50		29.58		36.00		Pass
11g	6Mbps	2	11	2462	20.00	18.70	22.41	30.00		4.50		26.91		36.00		Pass
HT20	MCS0	2	1	2412	19.40	17.60	21.60	30.00		4.50		26.10		36.00		Pass
HT20	MCS0	2	6	2437	22.30	21.30	24.84	30.00		4.50		29.34		36.00		Pass
HT20	MCS0	2	11	2462	15.30	13.80	17.62	30.00		4.50		22.12		36.00		Pass
HT40	MCS0	2	3	2422	17.40	16.20	19.85	30.00		4.50		24.35		36.00		Pass
HT40	MCS0	2	6	2437	17.00	15.70	19.41	30.00		4.50		23.91		36.00		Pass
HT40	MCS0	2	9	2452	15.20	13.60	17.48	30.00		4.50		21.98		36.00		Pass
VHT20	MCS0	2	1	2412	19.50	17.70	21.70	30.00		4.50		26.20		36.00		Pass
VHT20	MCS0	2	6	2437	22.40	21.40	24.94	30.00		4.50		29.44		36.00		Pass
VHT20	MCS0	2	11	2462	15.40	13.90	17.72	30.00		4.50		22.22		36.00		Pass
VHT40	MCS0	2	3	2422	17.50	16.30	19.95	30.00		4.50		24.45		36.00		Pass
VHT40	MCS0	2	6	2437	17.10	15.80	19.51	30.00		4.50		24.01		36.00		Pass
VHT40	MCS0	2	9	2452	15.30	13.70	17.58	30.00		4.50		22.08		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant5	Ant6	Worse + 3.01	Ant5	Ant6	Ant5	Ant6	
11b	1Mbps	2	1	2412	0.91	-1.38	3.92	7.22		6.78		Pass
11b	1Mbps	2	6	2437	1.03	0.73	4.04	7.22		6.78		Pass
11b	1Mbps	2	11	2462	1.44	0.93	4.45	7.22		6.78		Pass
11g	6Mbps	2	1	2412	-6.34	-7.50	-3.33	7.22		6.78		Pass
11g	6Mbps	2	6	2437	-4.35	-5.18	-1.34	7.22		6.78		Pass
11g	6Mbps	2	11	2462	-7.24	-9.09	-4.23	7.22		6.78		Pass

Measured power density (dBm) has offset with cable loss.

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band MIMO											
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	RU Config	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
						Ant5	Ant6	Ant5	Ant6		
HE20	MCS0	2	1	2412	Full	19.23	19.38	16.43	16.63	0.50	Pass
HE20	MCS0	2	6	2437	Full	19.33	19.33	18.40	15.93	0.50	Pass
HE20	MCS0	2	11	2462	Full	19.33	19.33	17.68	15.95	0.50	Pass
HE40	MCS0	2	3	2422	Full	37.76	37.86	36.16	37.32	0.50	Pass
HE40	MCS0	2	6	2437	Full	37.96	37.96	37.76	37.76	0.50	Pass
HE40	MCS0	2	9	2452	Full	37.76	38.06	36.80	38.04	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band MIMO																	
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	RU Config	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant5	Ant6	SUM	Ant5	Ant6	Ant5	Ant6	Ant5	Ant6	Ant5	Ant6	
HE20	MCS0	2	1	2412	Full	19.60	17.80	21.80	30.00		4.50		26.30		36.00		Pass
HE20	MCS0	2	6	2437	Full	22.50	21.50	25.04	30.00		4.50		29.54		36.00		Pass
HE20	MCS0	2	11	2462	Full	15.50	14.00	17.82	30.00		4.50		22.32		36.00		Pass
HE40	MCS0	2	3	2422	Full	17.60	16.40	20.05	30.00		4.50		24.55		36.00		Pass
HE40	MCS0	2	6	2437	Full	17.20	15.90	19.61	30.00		4.50		24.11		36.00		Pass
HE40	MCS0	2	9	2452	Full	15.40	13.80	17.68	30.00		4.50		22.18		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

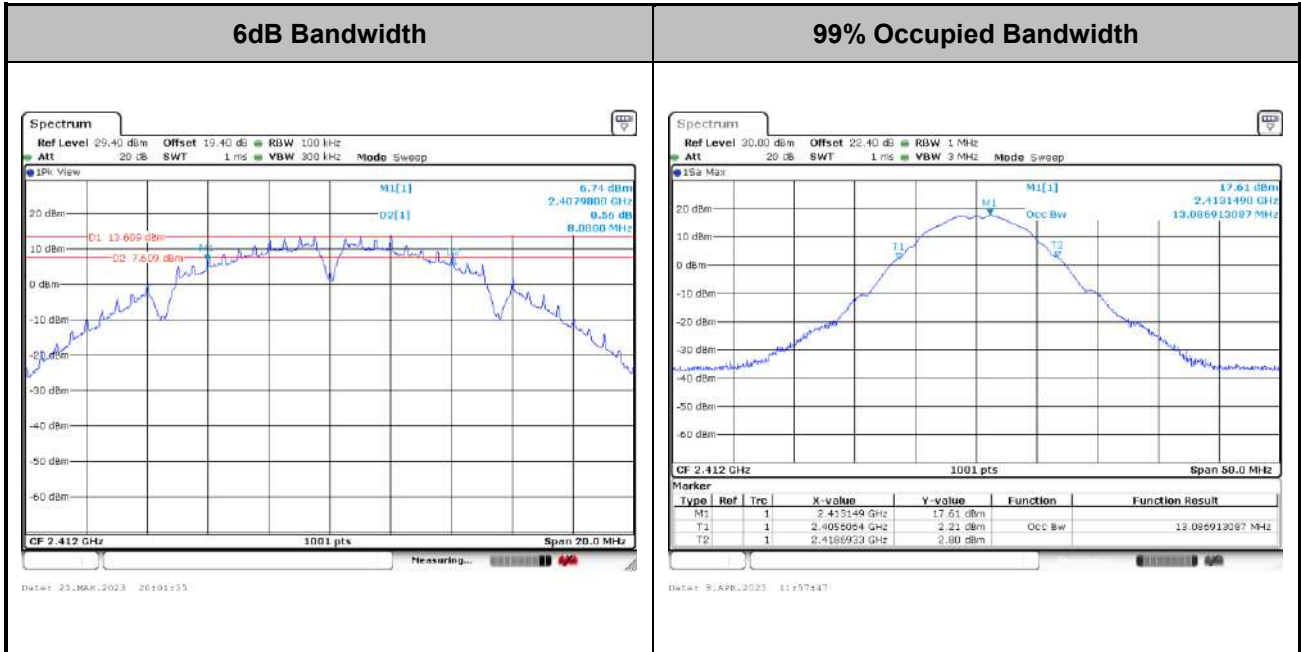
TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band MIMO													
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	RU Config	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
						Ant5	Ant6	Worse + 3.01	Ant5	Ant6	Ant5	Ant6	
HE20	MCS0	2	1	2412	Full	-6.89	-8.69	-3.88	7.22		6.78		Pass
HE20	MCS0	2	6	2437	Full	-3.84	-4.59	-0.83	7.22		6.78		Pass
HE20	MCS0	2	11	2462	Full	-10.49	-11.27	-7.48	7.22		6.78		Pass
HE40	MCS0	2	3	2422	Full	-11.89	-12.23	-8.88	7.22		6.78		Pass
HE40	MCS0	2	6	2437	Full	-11.74	-13.20	-8.73	7.22		6.78		Pass
HE40	MCS0	2	9	2452	Full	-13.94	-14.96	-10.93	7.22		6.78		Pass

Measured power density (dBm) has offset with cable loss.

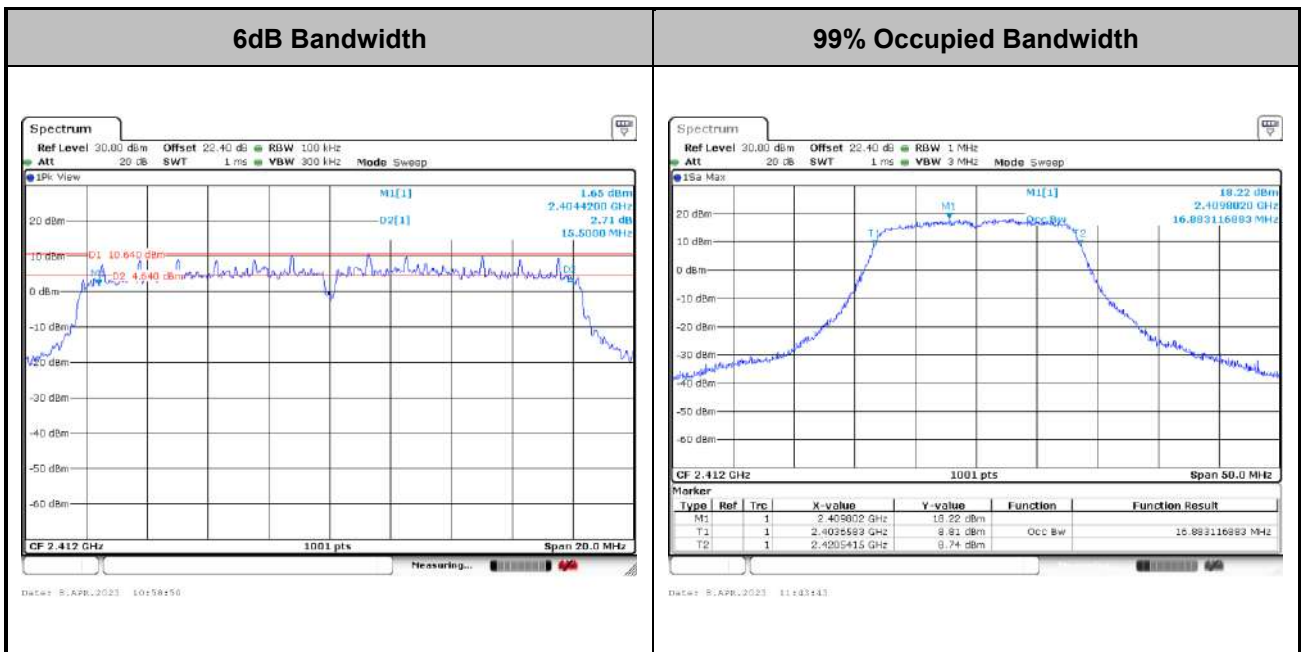
**6dB and 99% Occupied Bandwidth**

<802.11b>



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

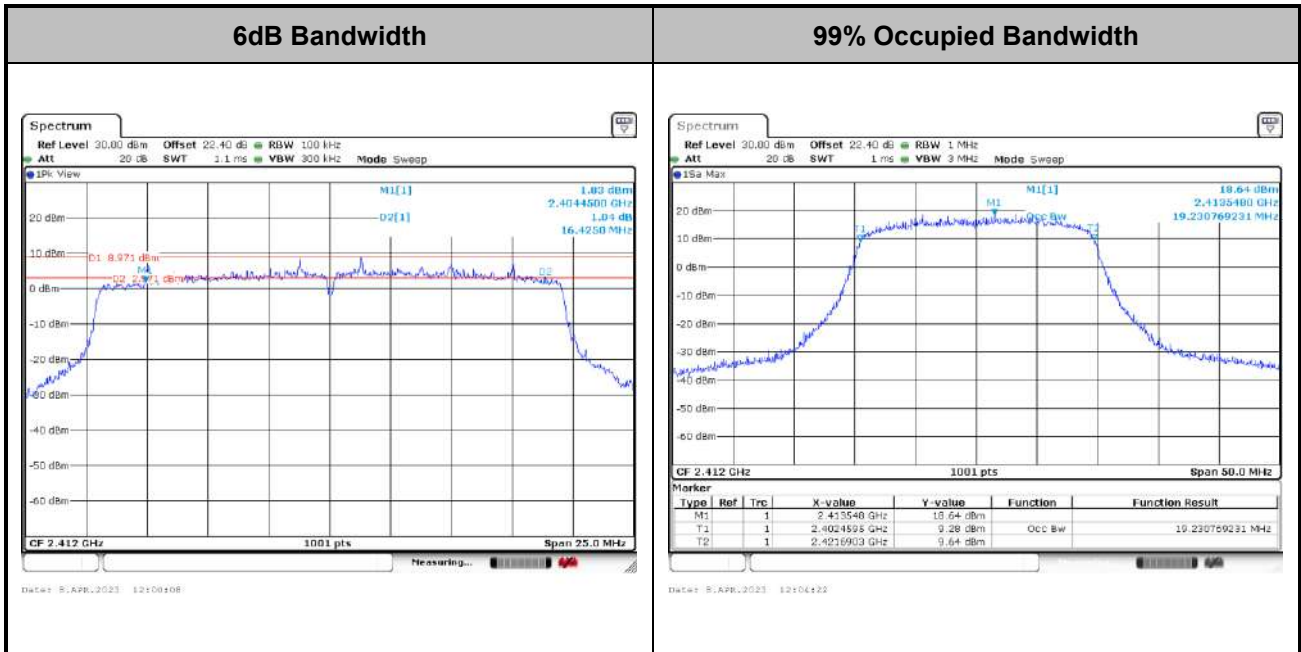
<802.11g>



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

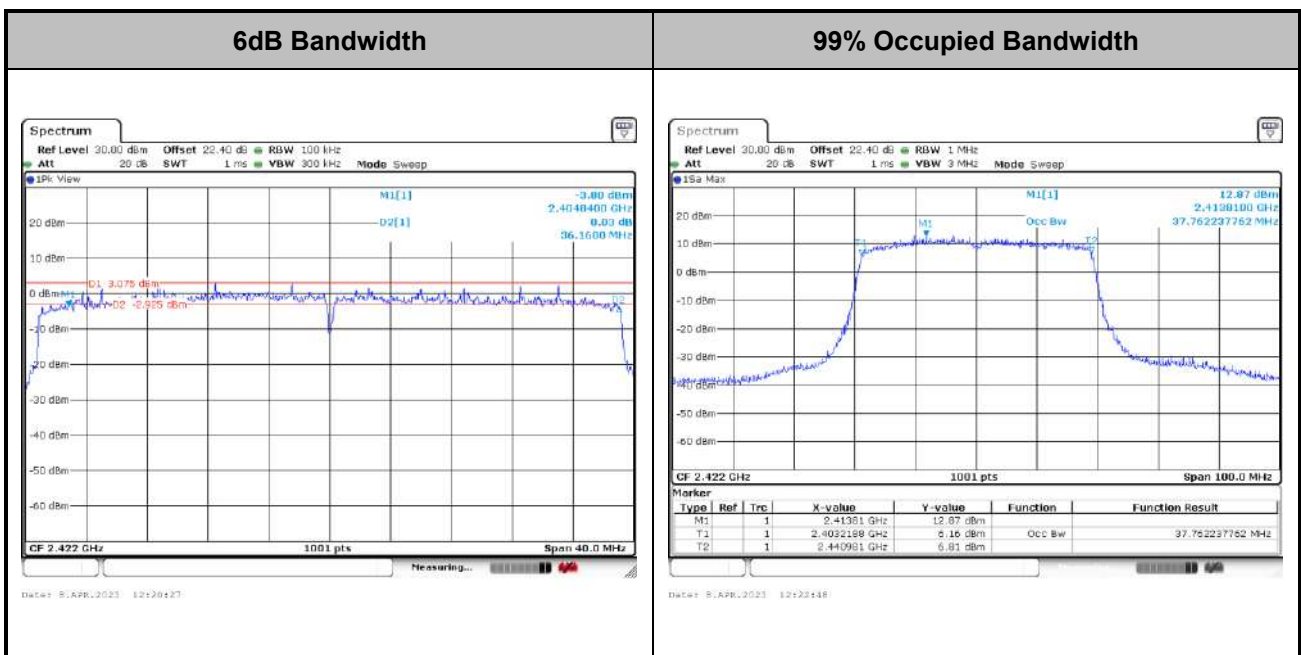


<802.11ax HE20>



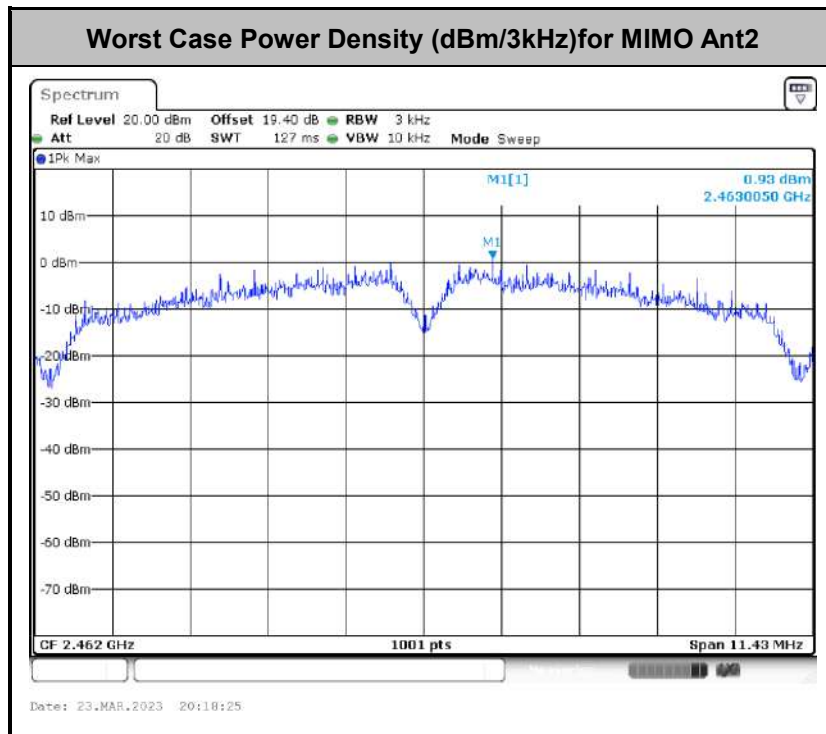
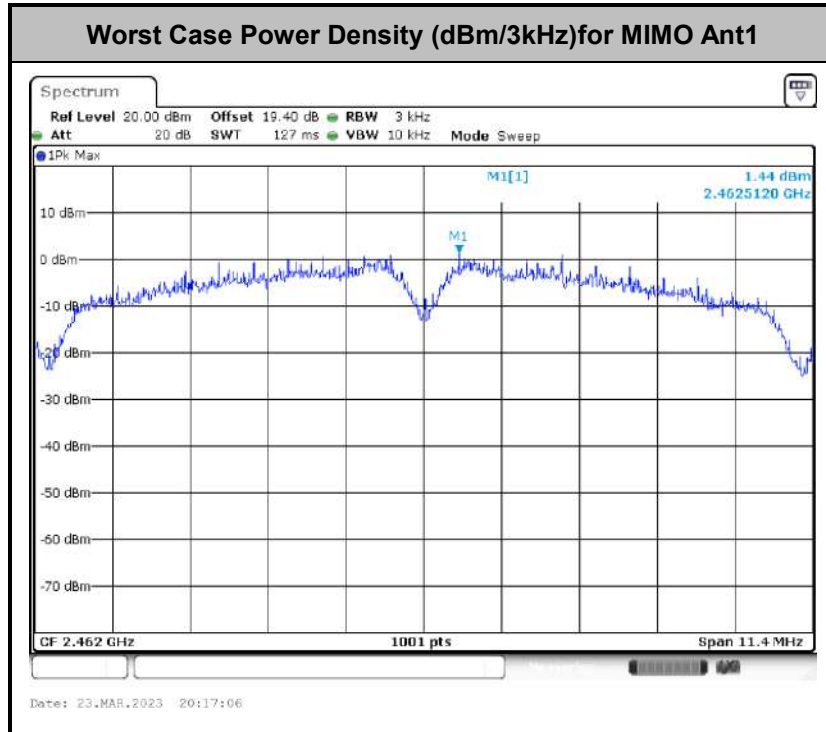
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE40>



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

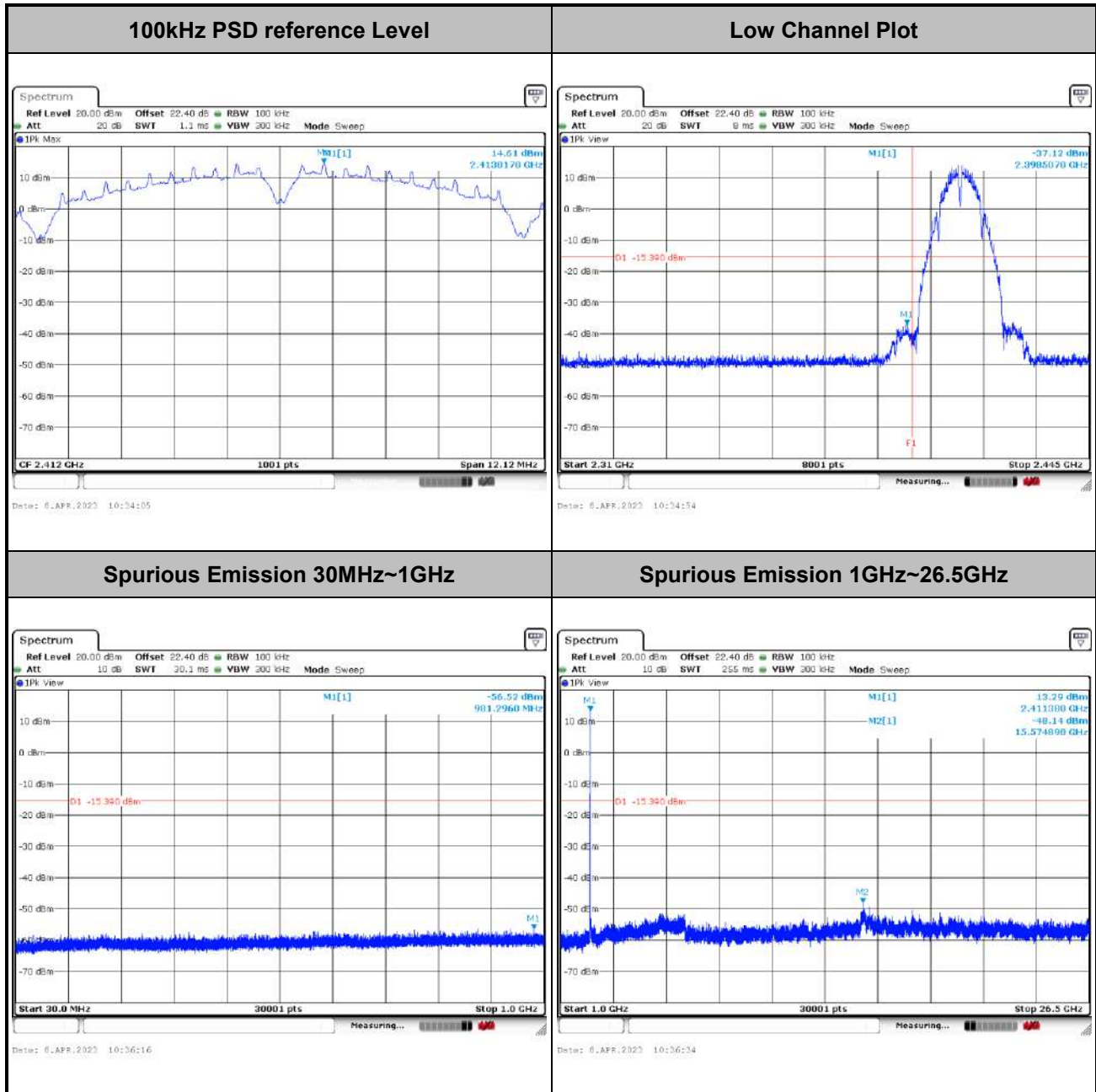
Power Spectral Density(dBm/3kHz)





Number of TX = 2, Ant. 1 (Measured)

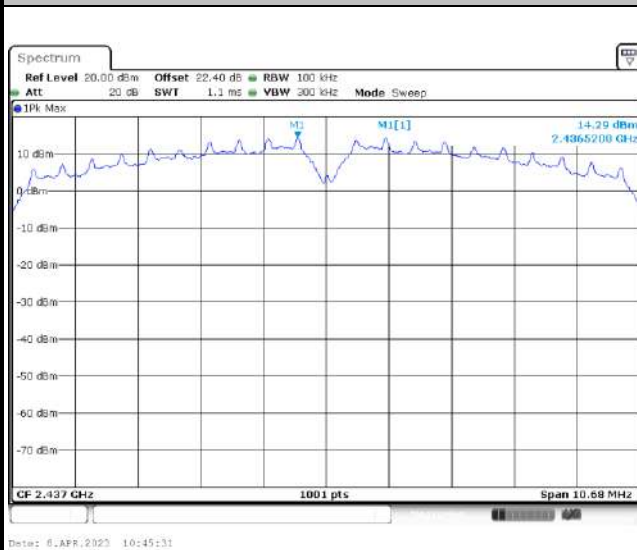
Test Mode :	802.11b	Test Channel :	01
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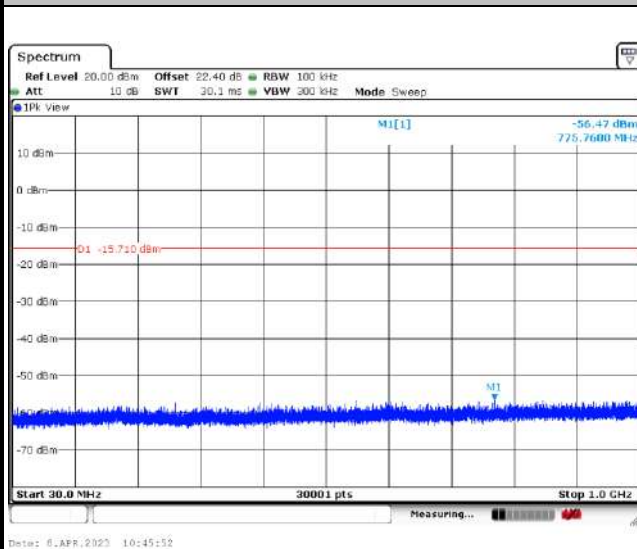
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100kHz PSD reference Level

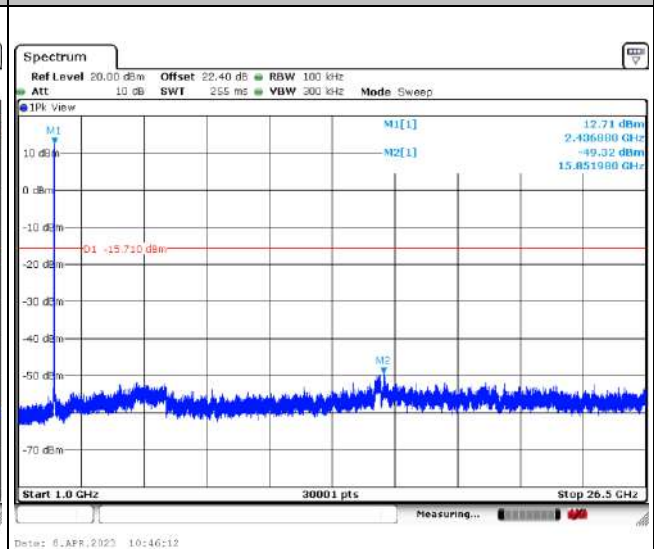


Mid Channel Plot

Spurious Emission 30MHz~1GHz



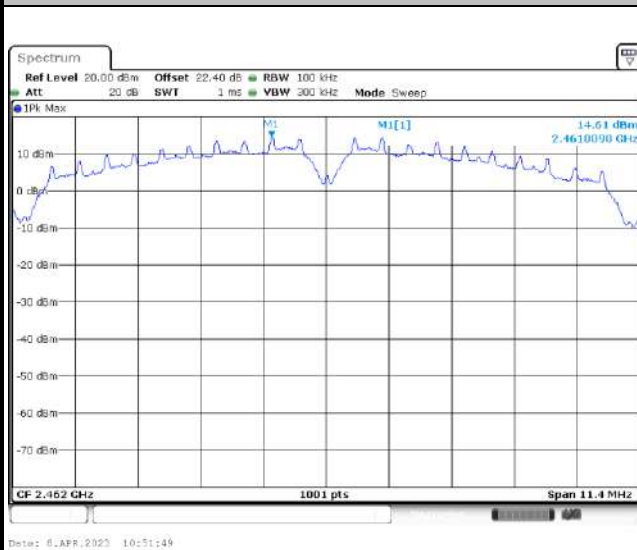
Spurious Emission 1GHz~26.5GHz



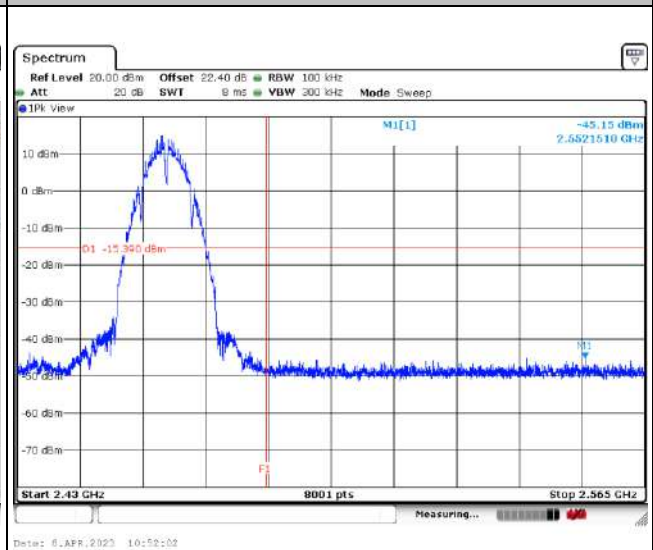


Test Mode :	802.11b	Test Channel :	11
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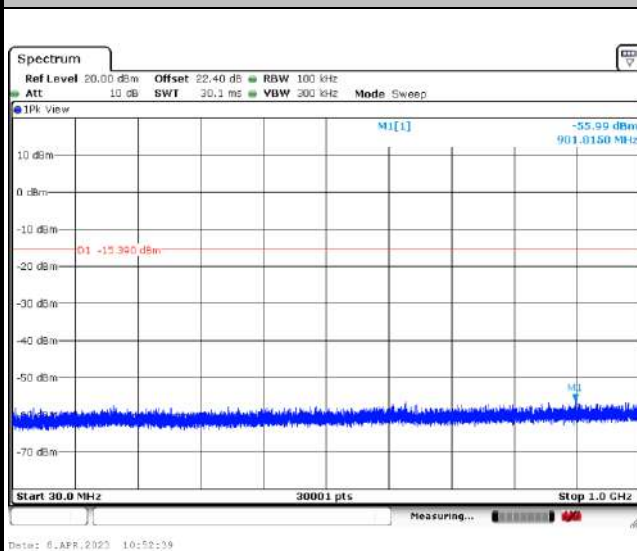
100kHz PSD reference Level



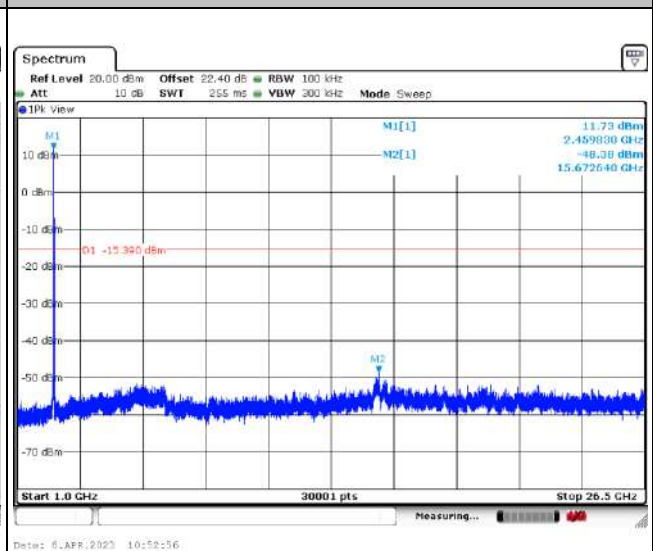
High Channel Plot



Spurious Emission 30MHz~1GHz



Spurious Emission 1GHz~26.5GHz



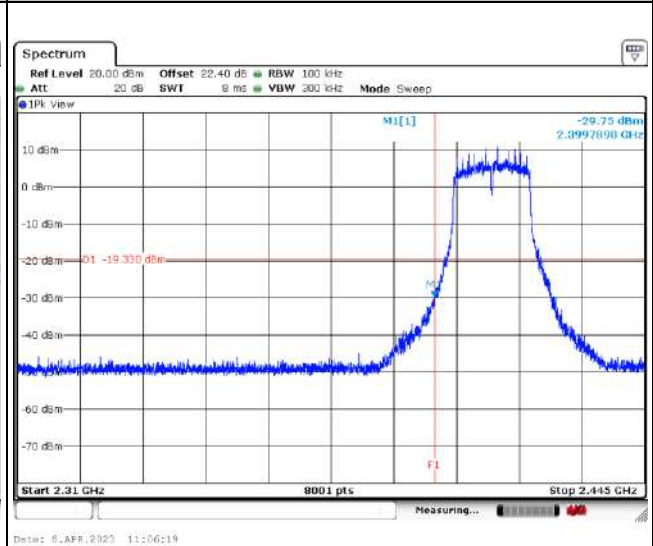


Test Mode :	802.11g	Test Channel :	01
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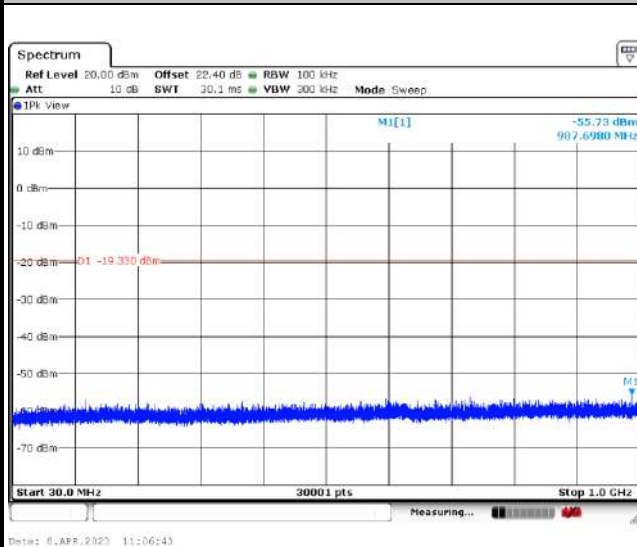
100kHz PSD reference Level



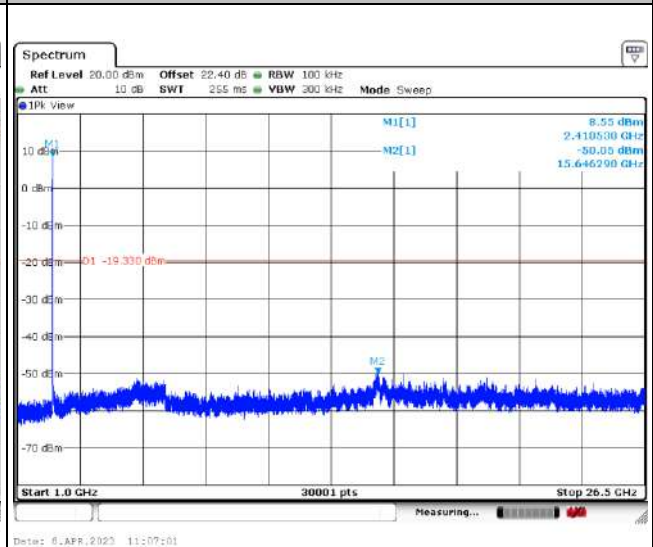
Low Channel Plot



Spurious Emission 30MHz~1GHz

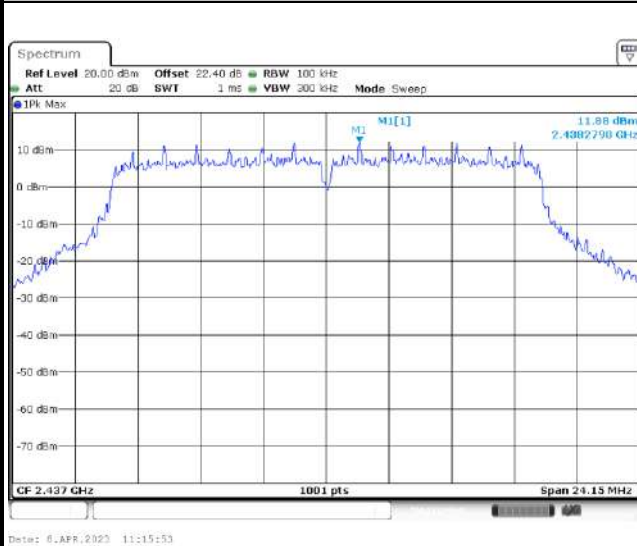
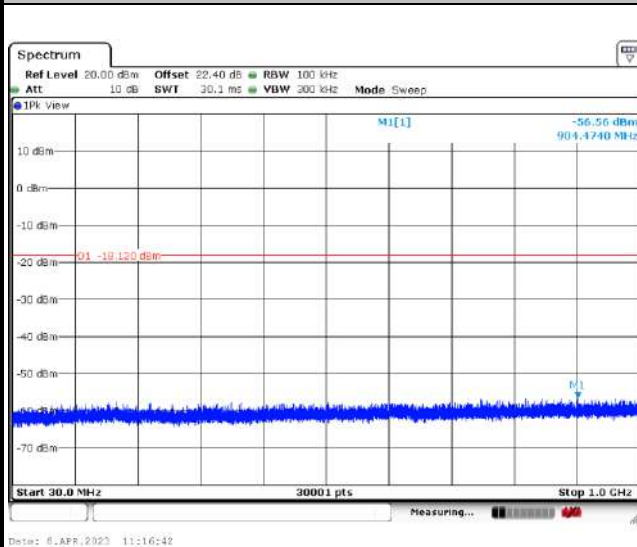
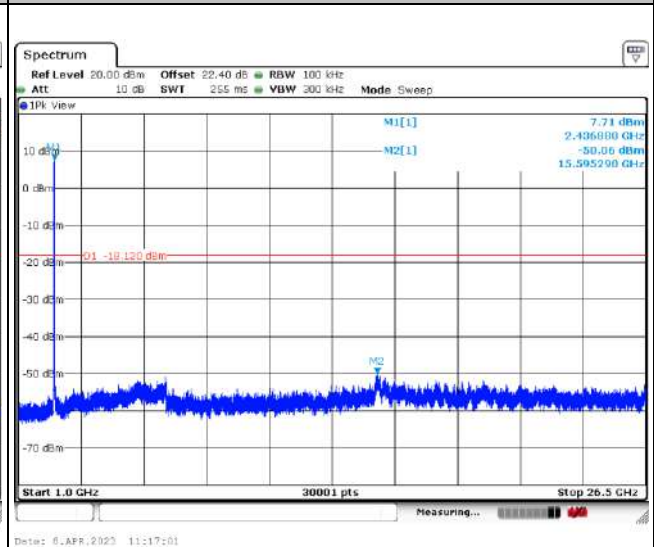


Spurious Emission 1GHz~26.5GHz



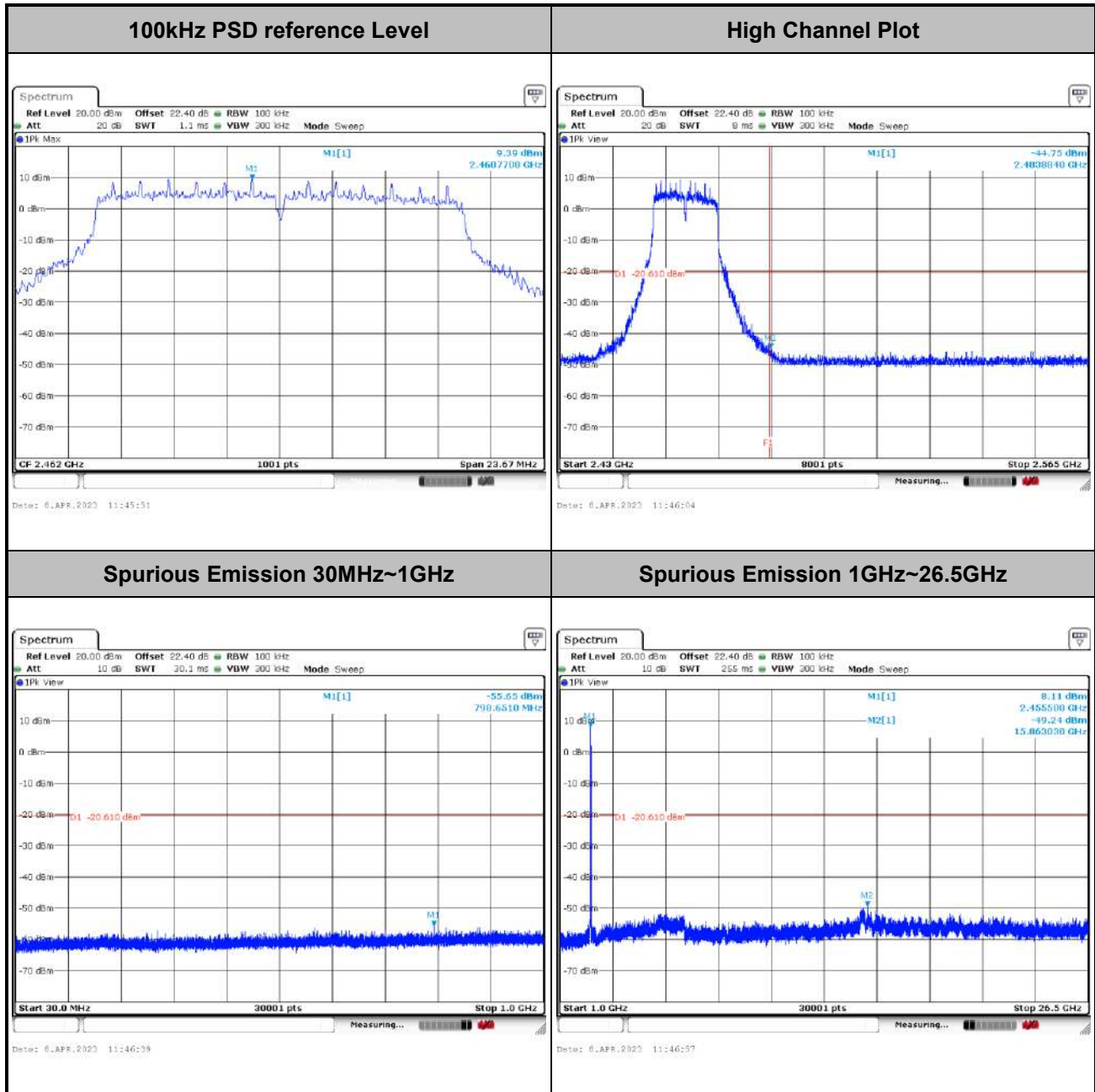


Test Mode :	802.11g	Test Channel :	06
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100kHz PSD reference Level**Mid Channel Plot****Spurious Emission 30MHz~1GHz****Spurious Emission 1GHz~26.5GHz**

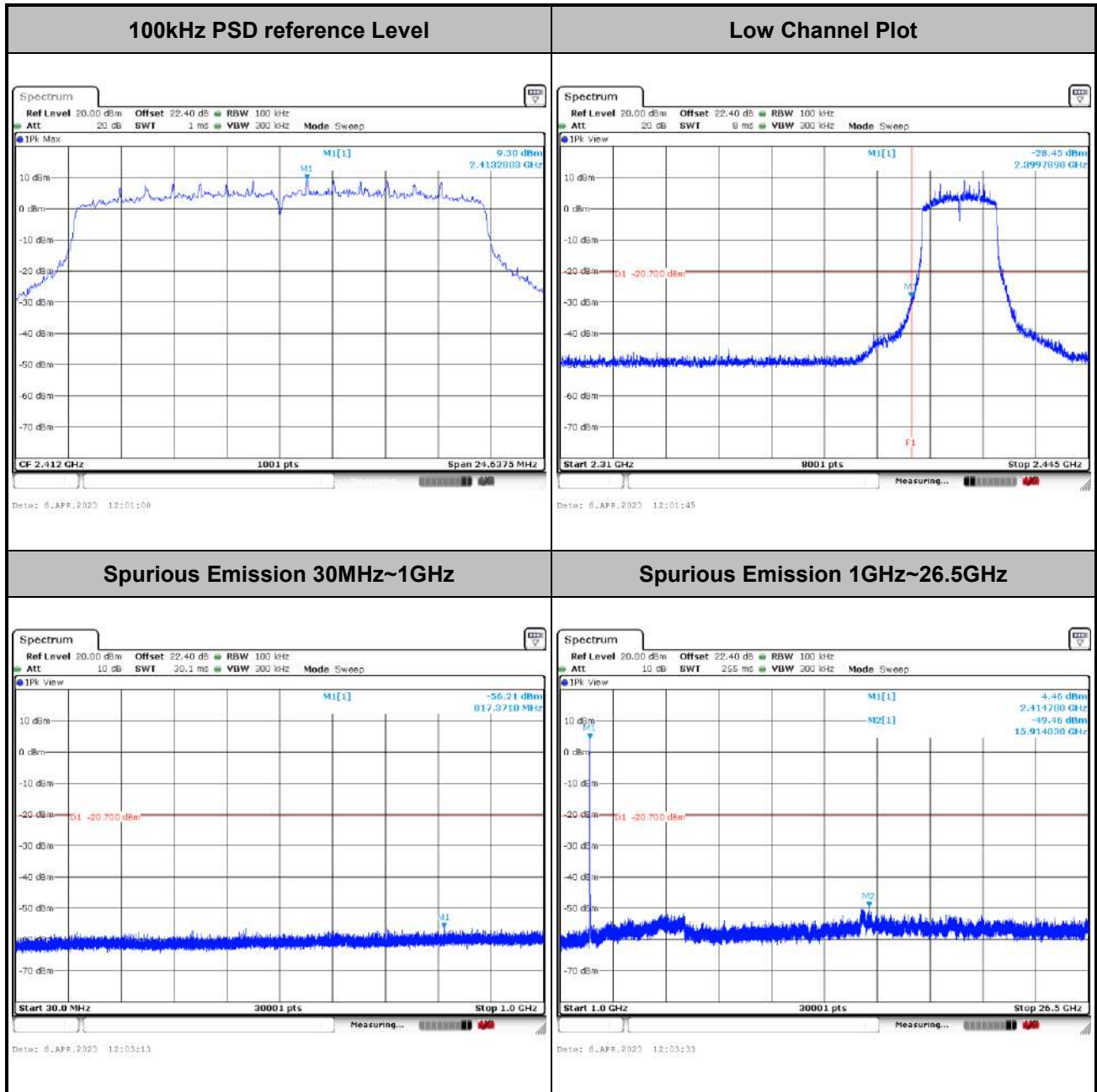


Test Mode :	802.11g	Test Channel :	11
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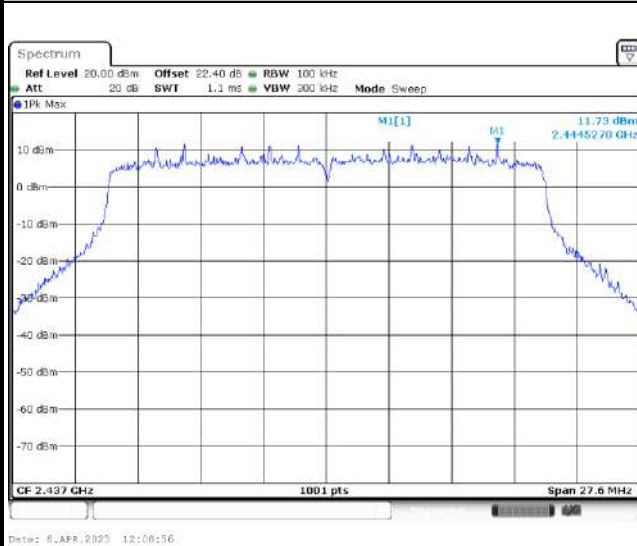
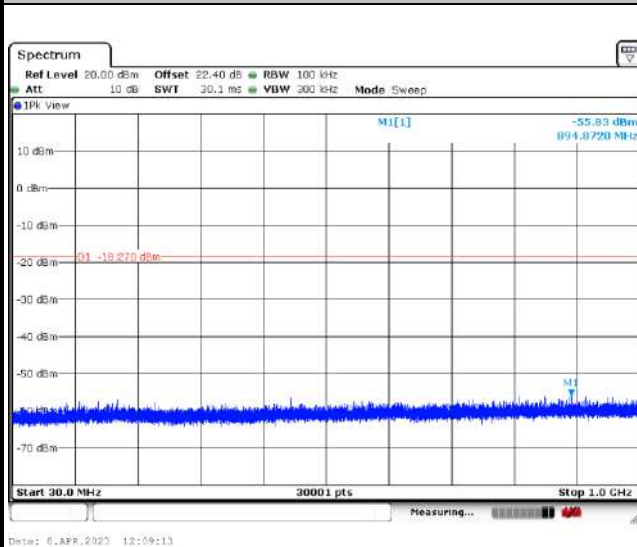
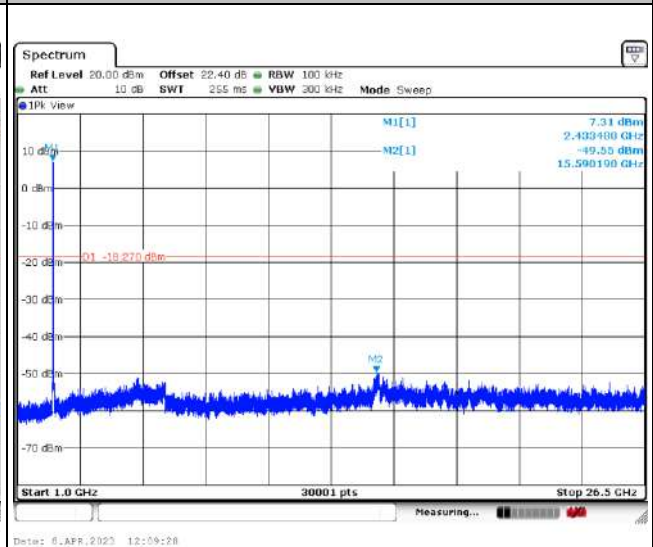


Test Mode :	802.11ax HE20	Test Channel :	01 Full RU
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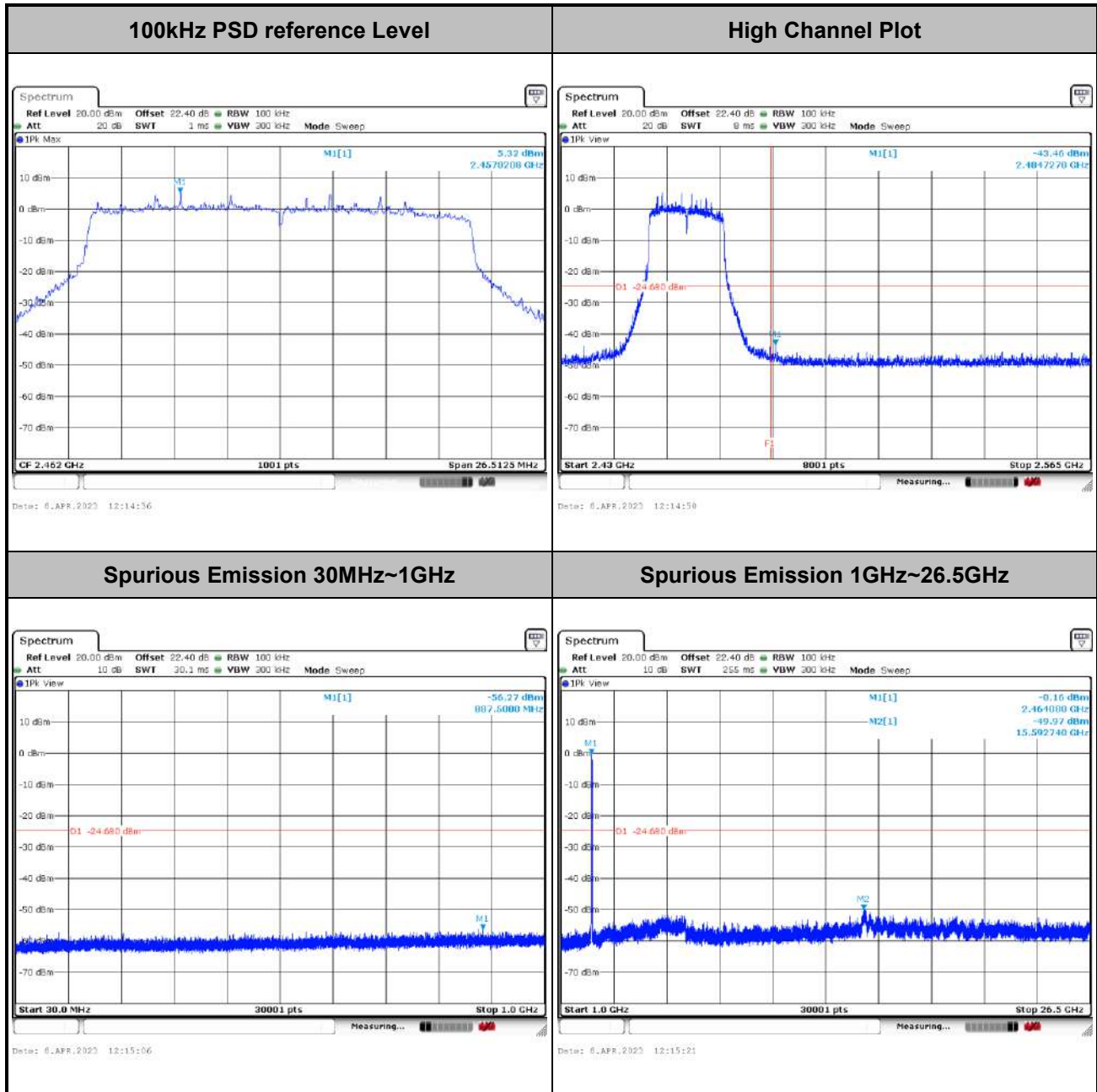


Test Mode :	802.11ax HE20	Test Channel :	06 Full RU
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100kHz PSD reference Level**Mid Channel Plot****Spurious Emission 30MHz~1GHz****Spurious Emission 1GHz~26.5GHz**

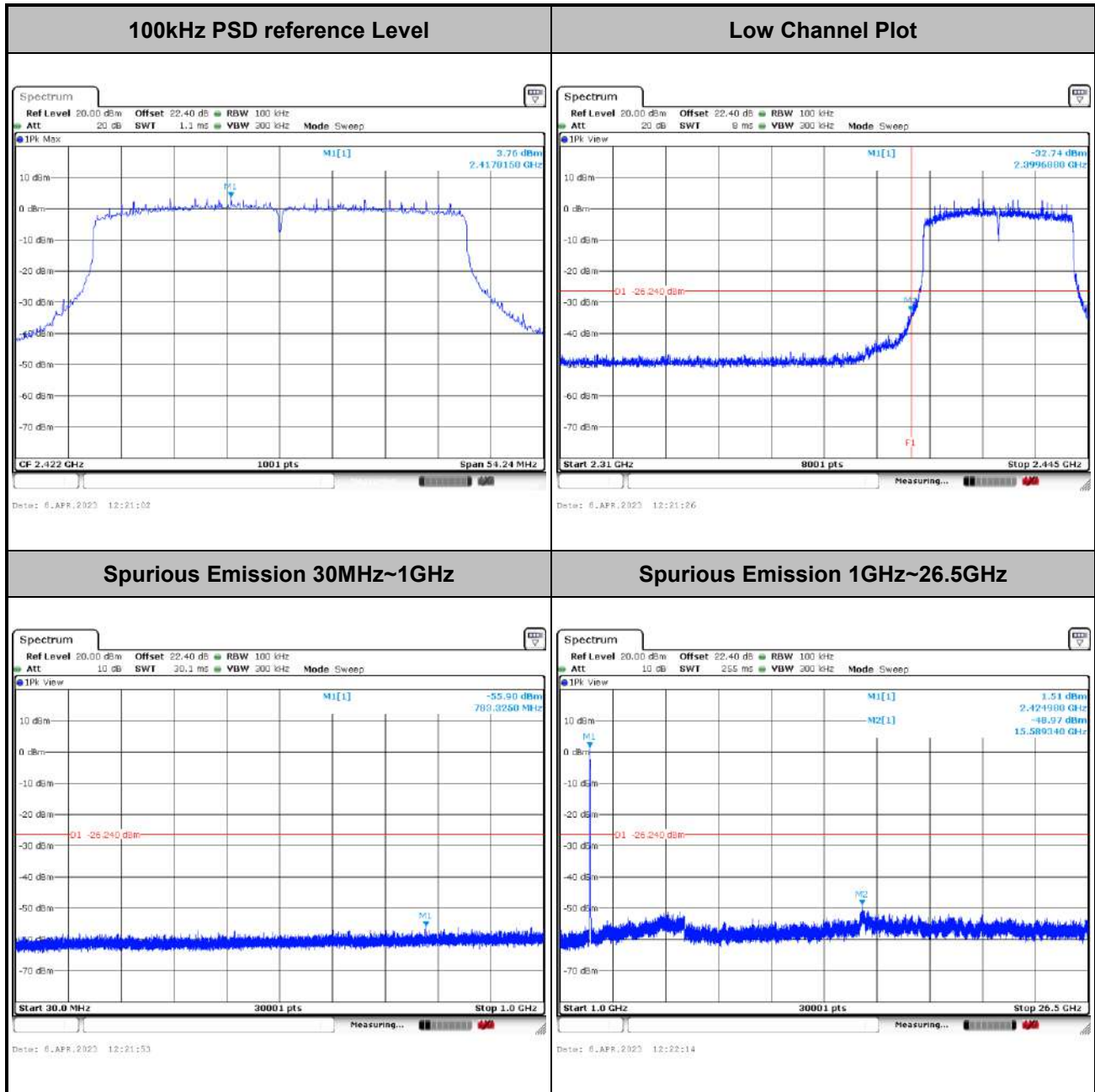


Test Mode :	802.11ax HE20	Test Channel :	11 Full RU
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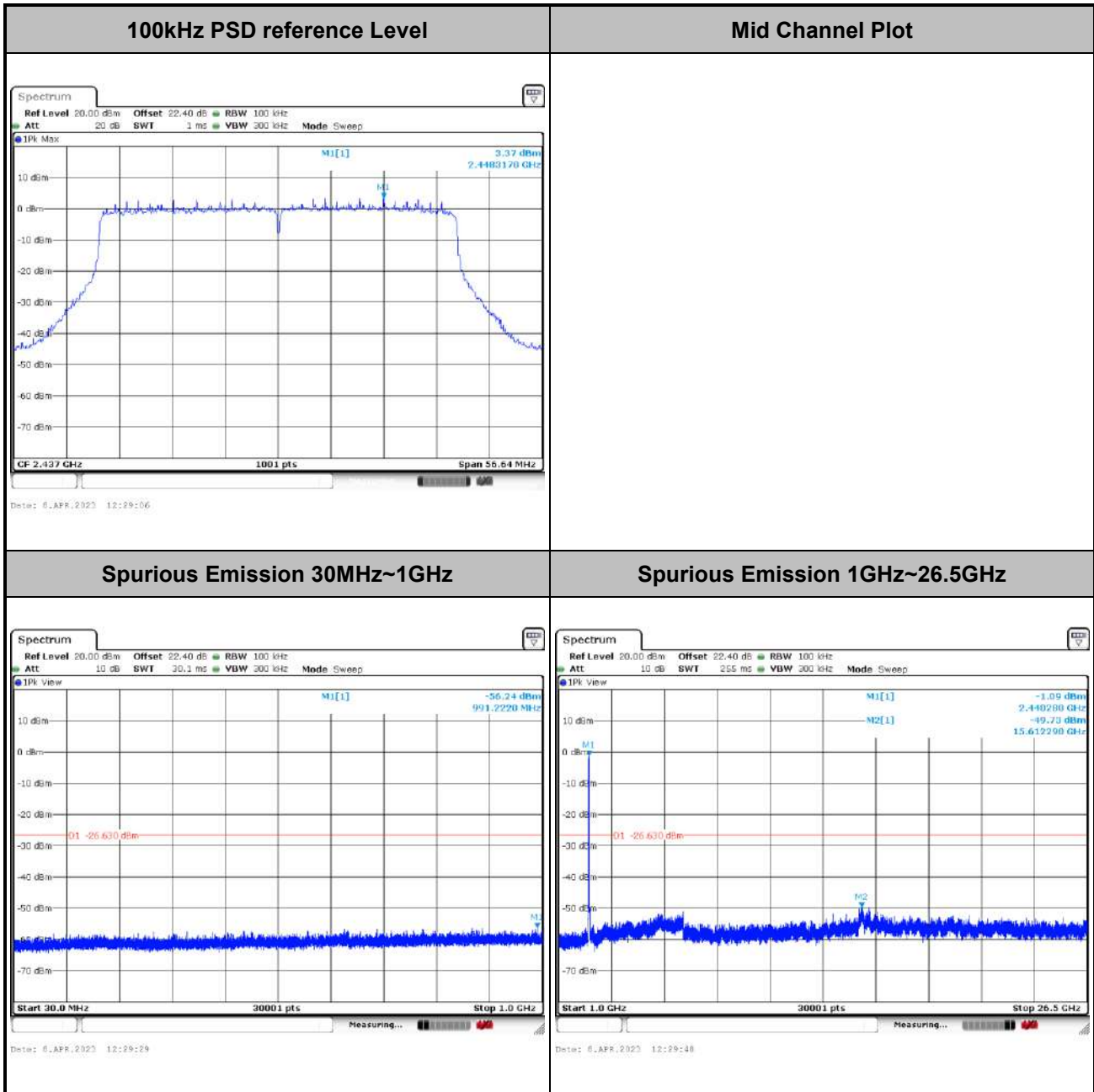


Test Mode :	802.11ax HE40	Test Channel :	03 Full RU
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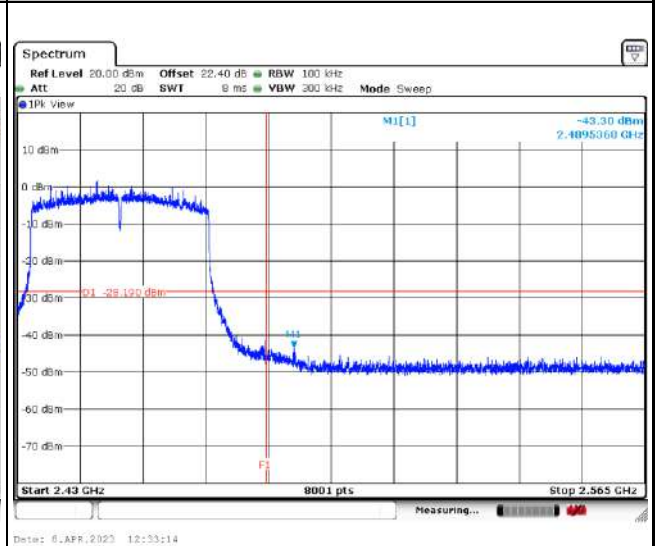
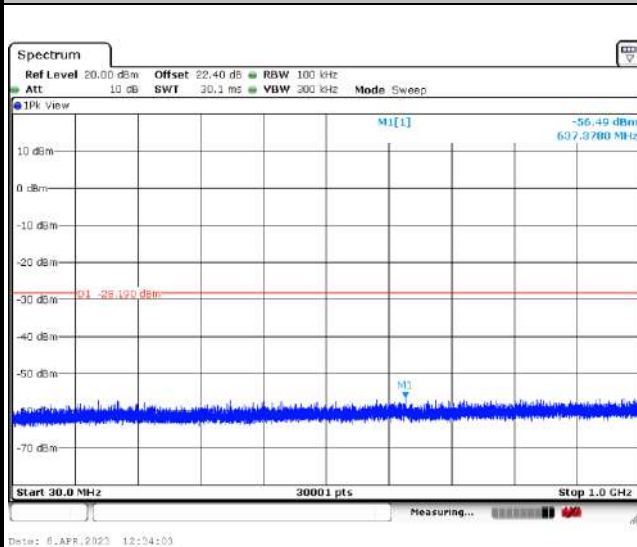
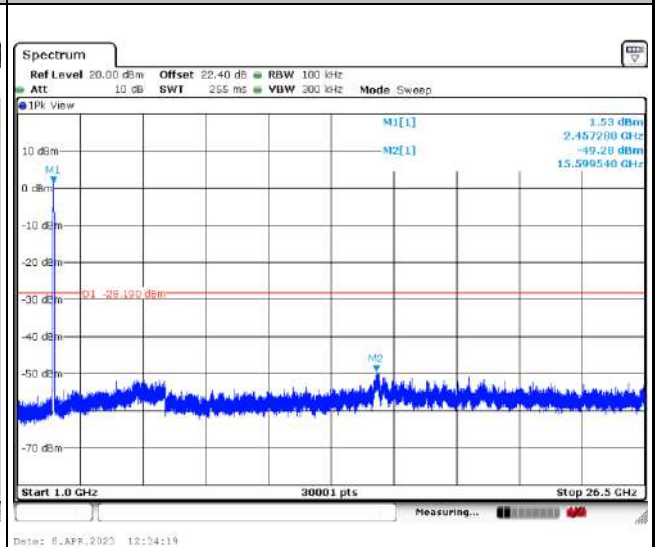


Test Mode :	802.11ax HE40	Test Channel :	06 Full RU
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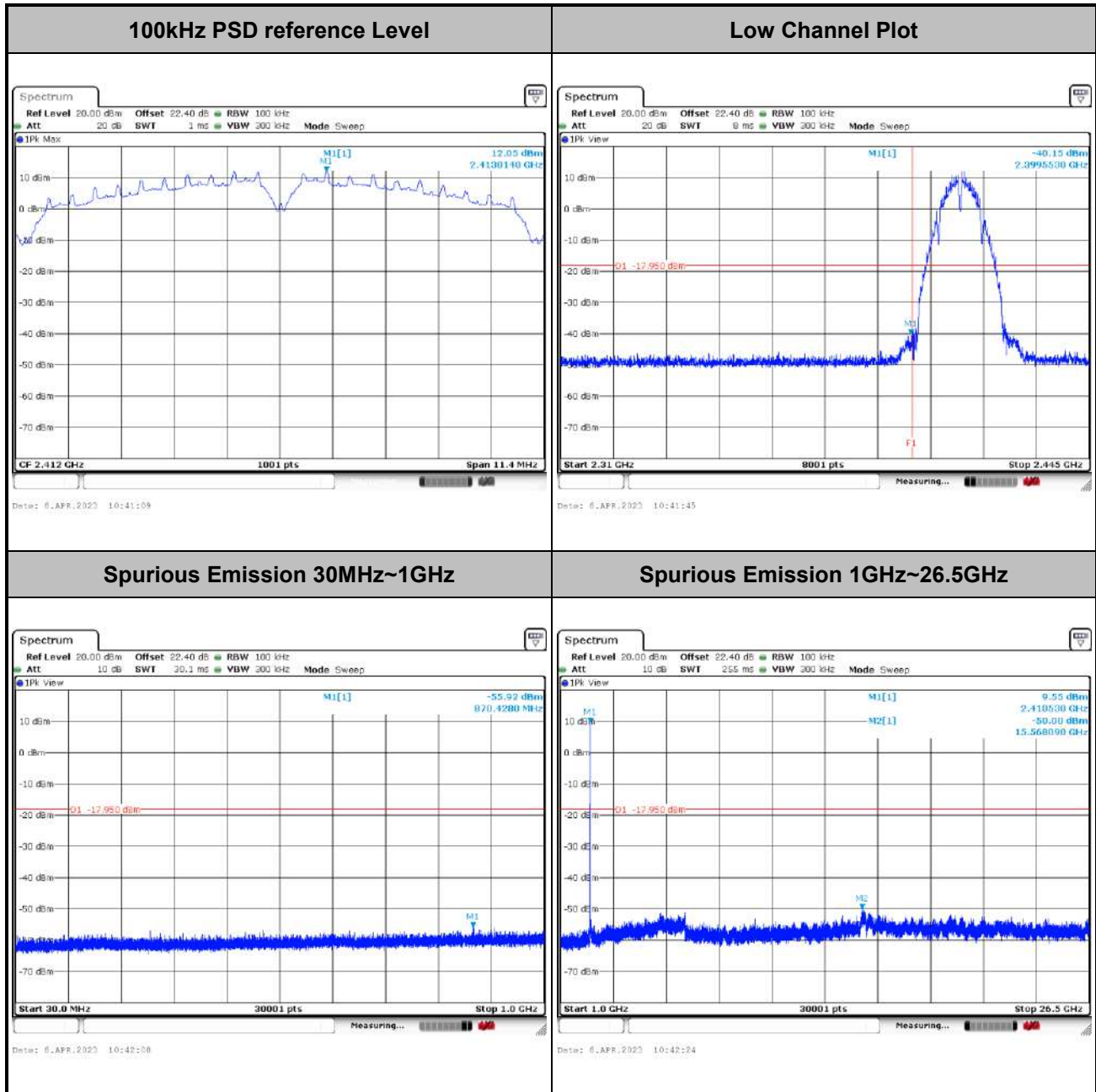
Test Mode :	802.11ax HE40	Test Channel :	09 Full RU
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100kHz PSD reference Level**High Channel Plot****Spurious Emission 30MHz~1GHz****Spurious Emission 1GHz~26.5GHz**



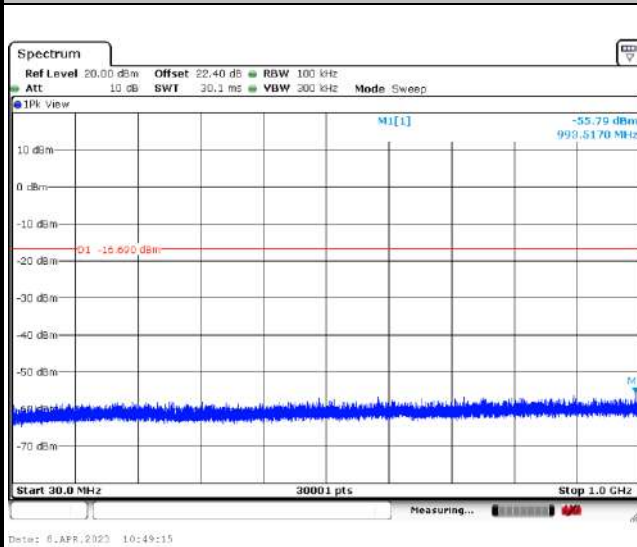
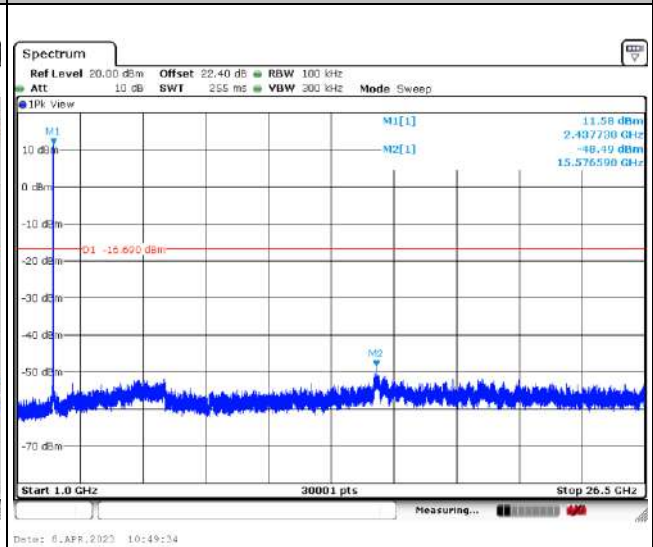
Number of TX = 2, Ant. 2 (Measured)

Test Mode :	802.11b	Test Channel :	01
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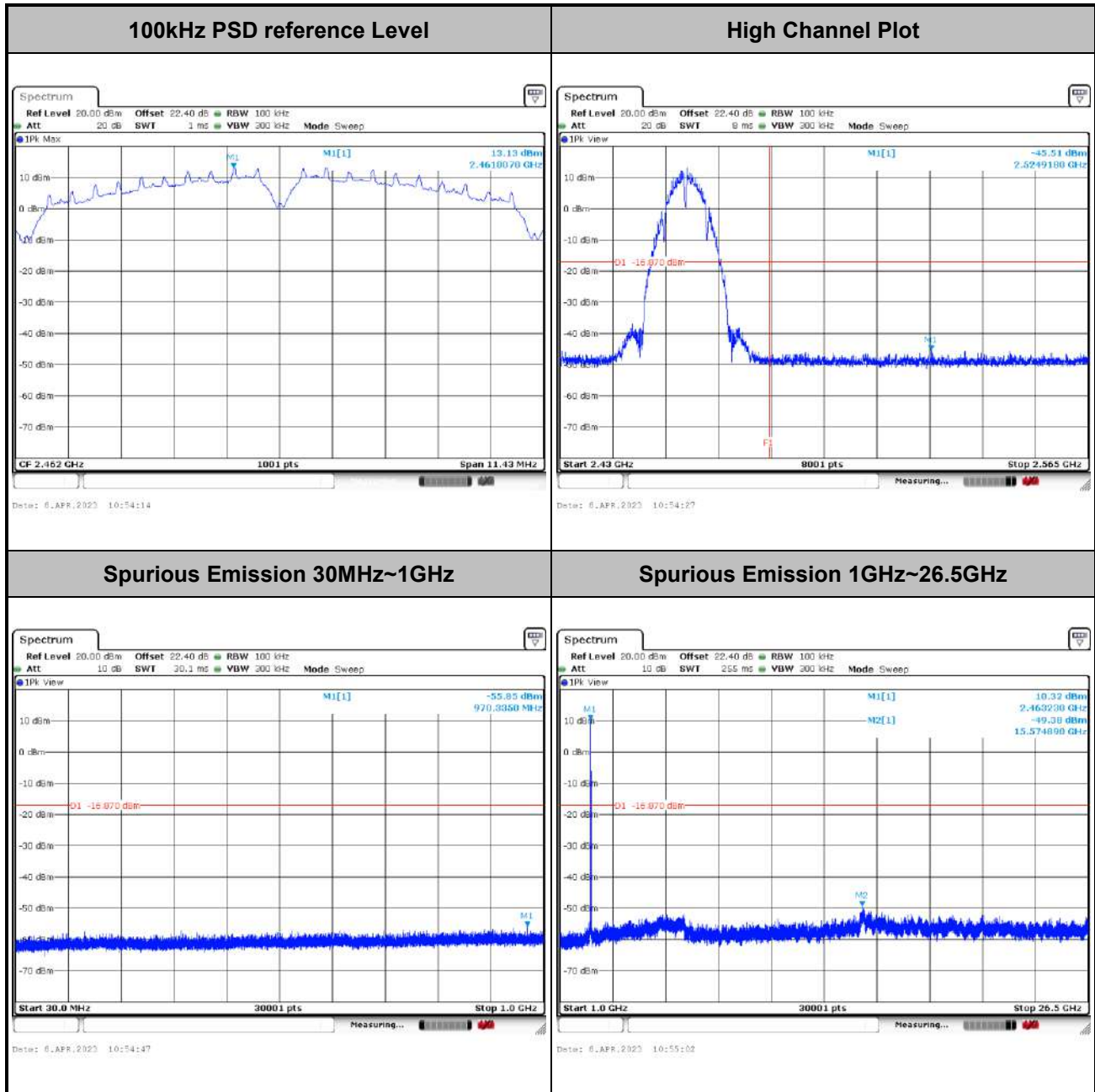


Test Mode :	802.11b	Test Channel :	06
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100kHz PSD reference Level**Mid Channel Plot****Spurious Emission 30MHz~1GHz****Spurious Emission 1GHz~26.5GHz**



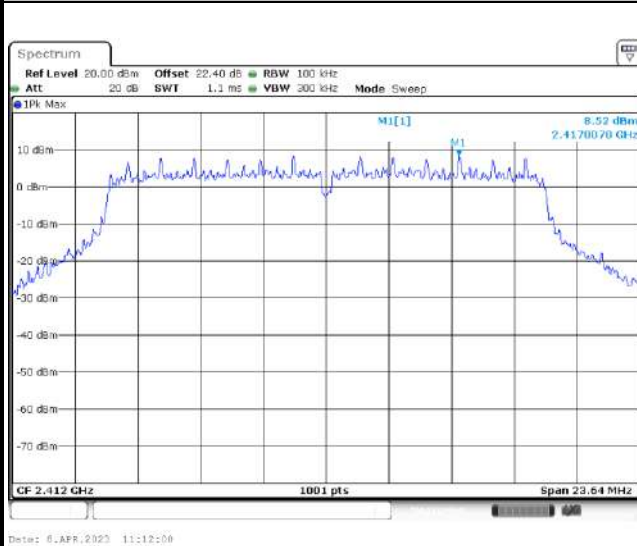
Test Mode :	802.11b	Test Channel :	11
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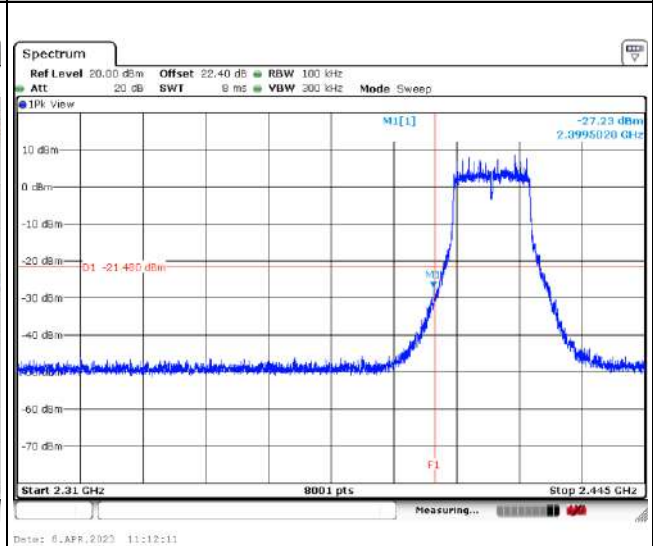


Test Mode :	802.11g	Test Channel :	01
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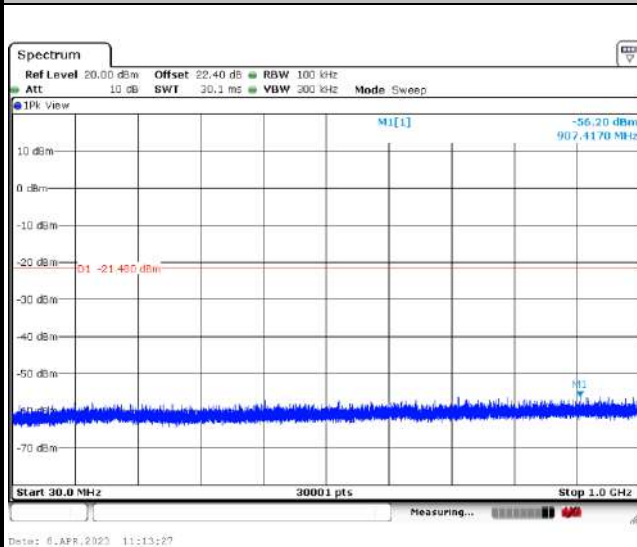
100kHz PSD reference Level



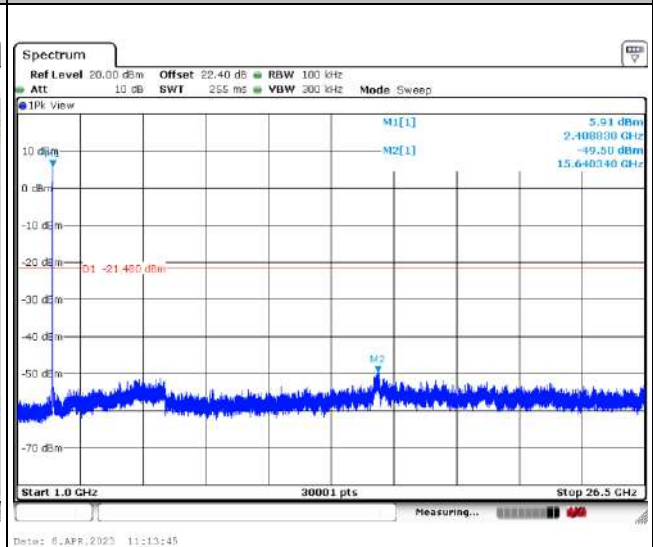
Low Channel Plot



Spurious Emission 30MHz~1GHz

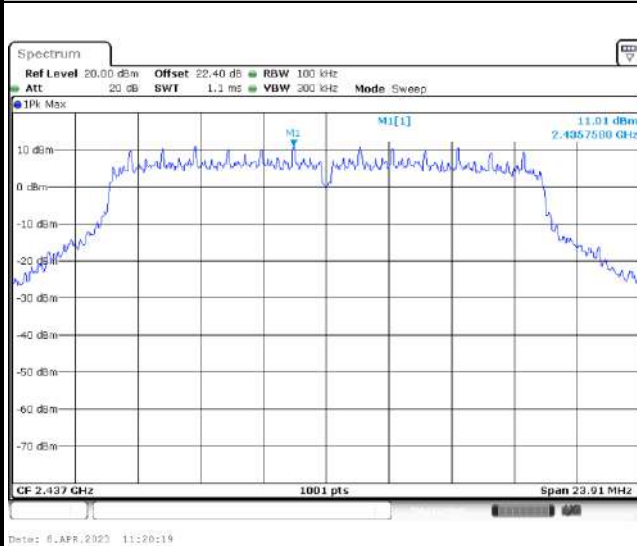
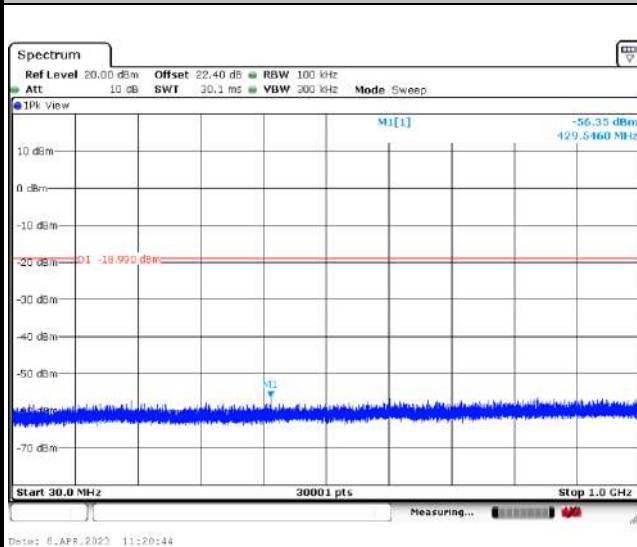
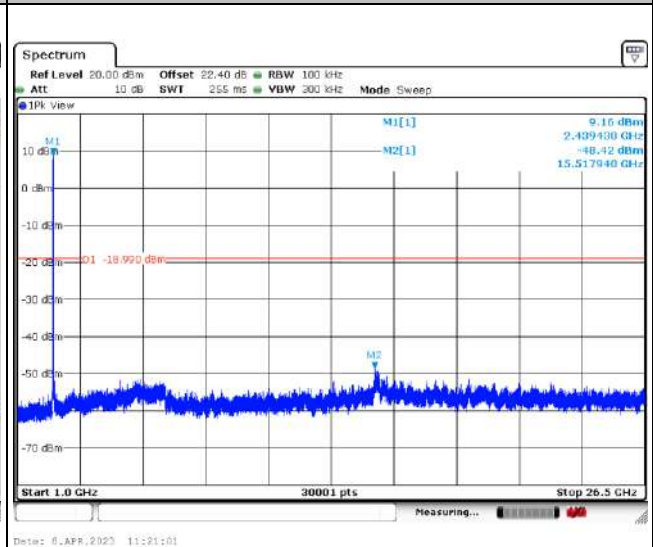


Spurious Emission 1GHz~26.5GHz



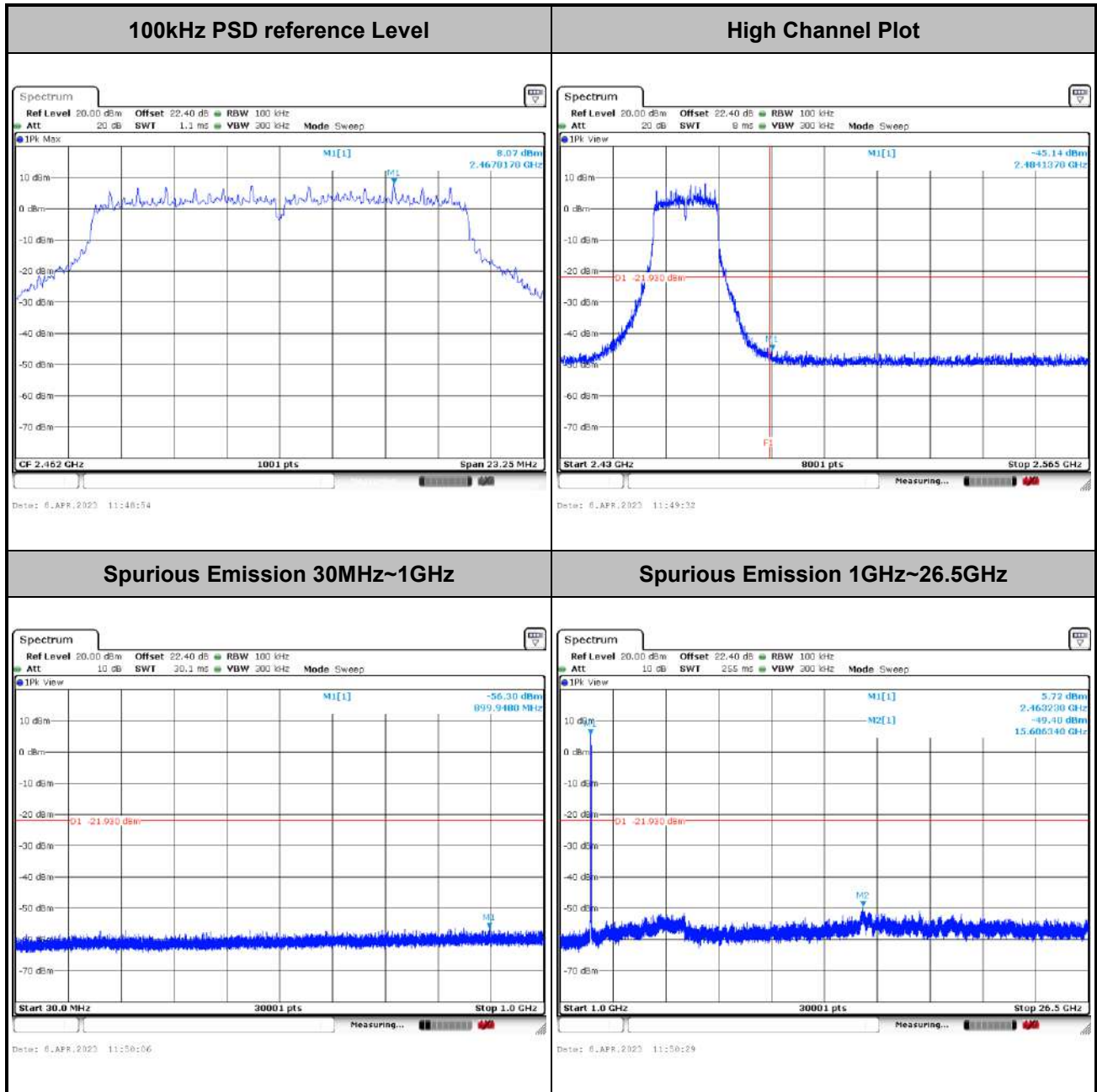


Test Mode :	802.11g	Test Channel :	06
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100kHz PSD reference Level**Mid Channel Plot****Spurious Emission 30MHz~1GHz****Spurious Emission 1GHz~26.5GHz**



Test Mode :	802.11g	Test Channel :	11
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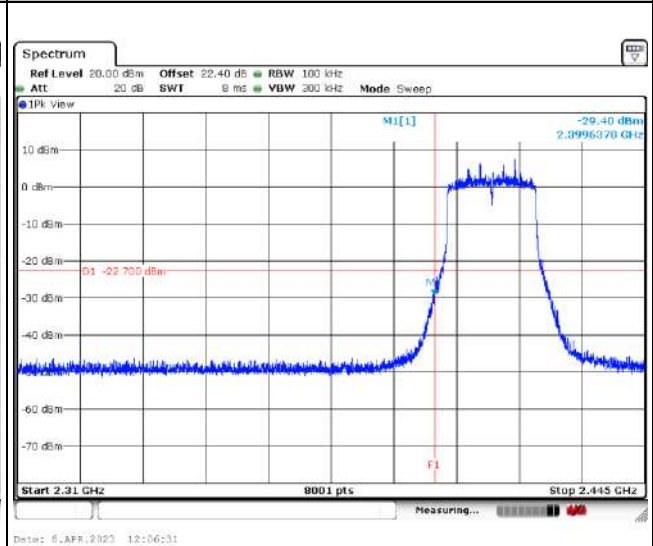


Test Mode :	802.11ax HE20	Test Channel :	01 Full RU
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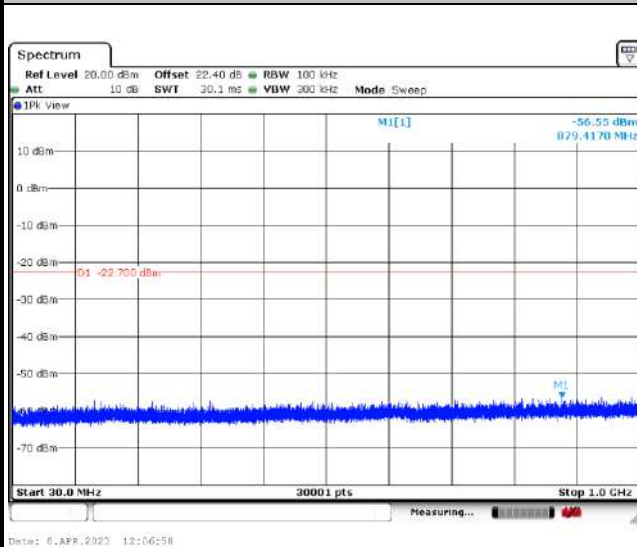
100kHz PSD reference Level



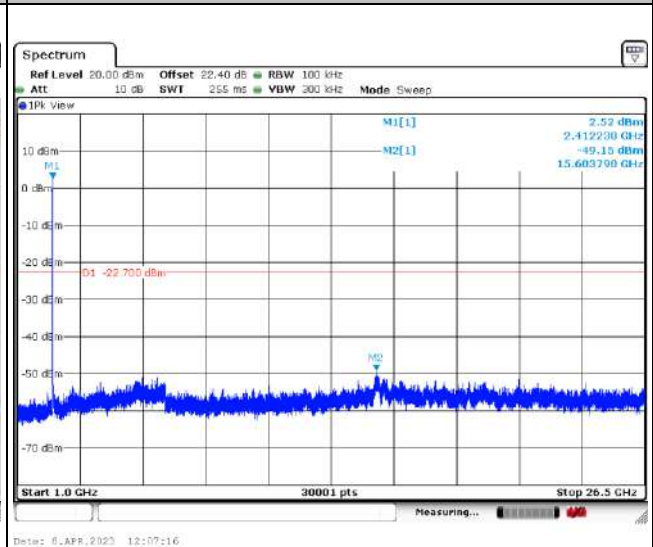
Low Channel Plot



Spurious Emission 30MHz~1GHz

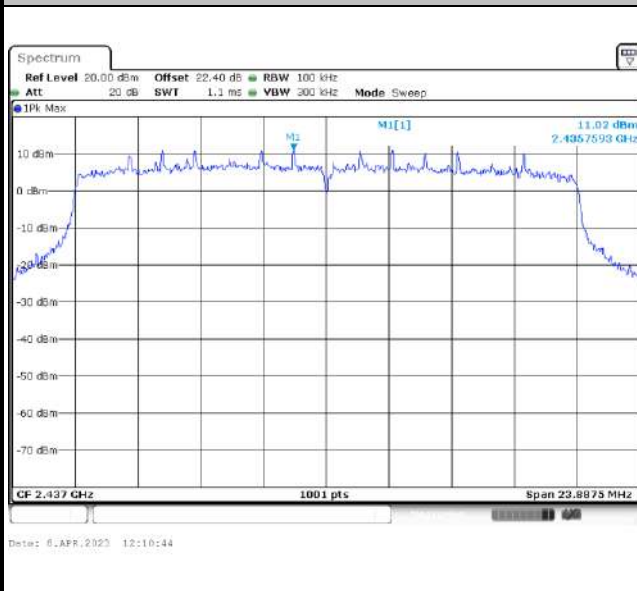
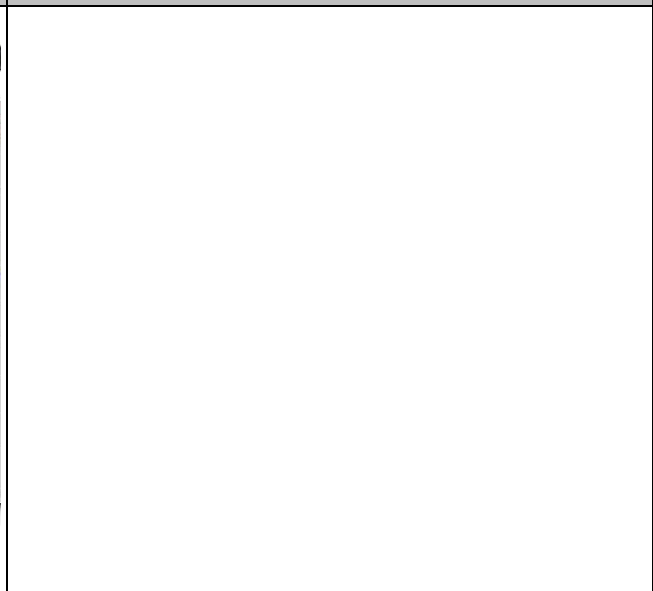
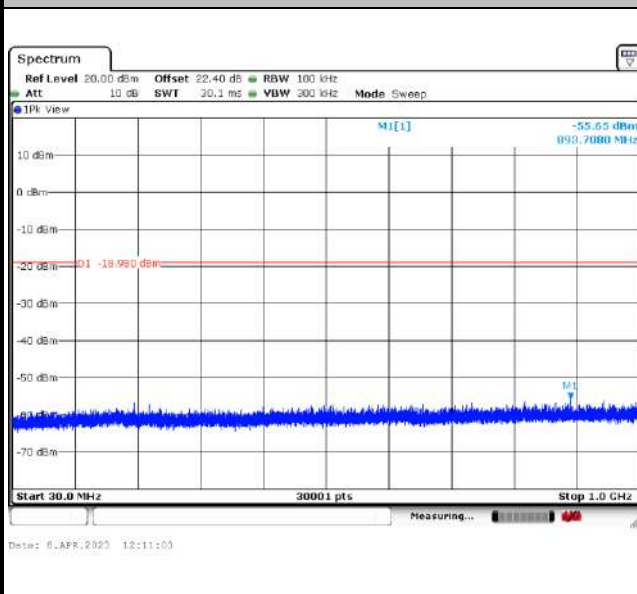
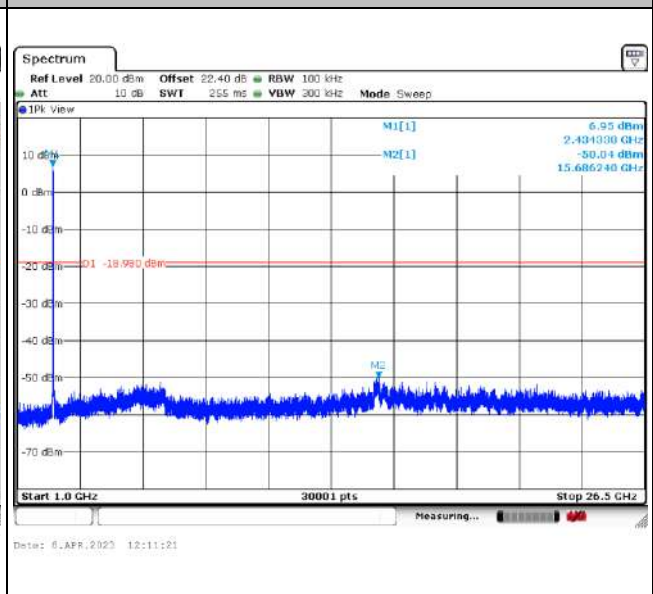


Spurious Emission 1GHz~26.5GHz



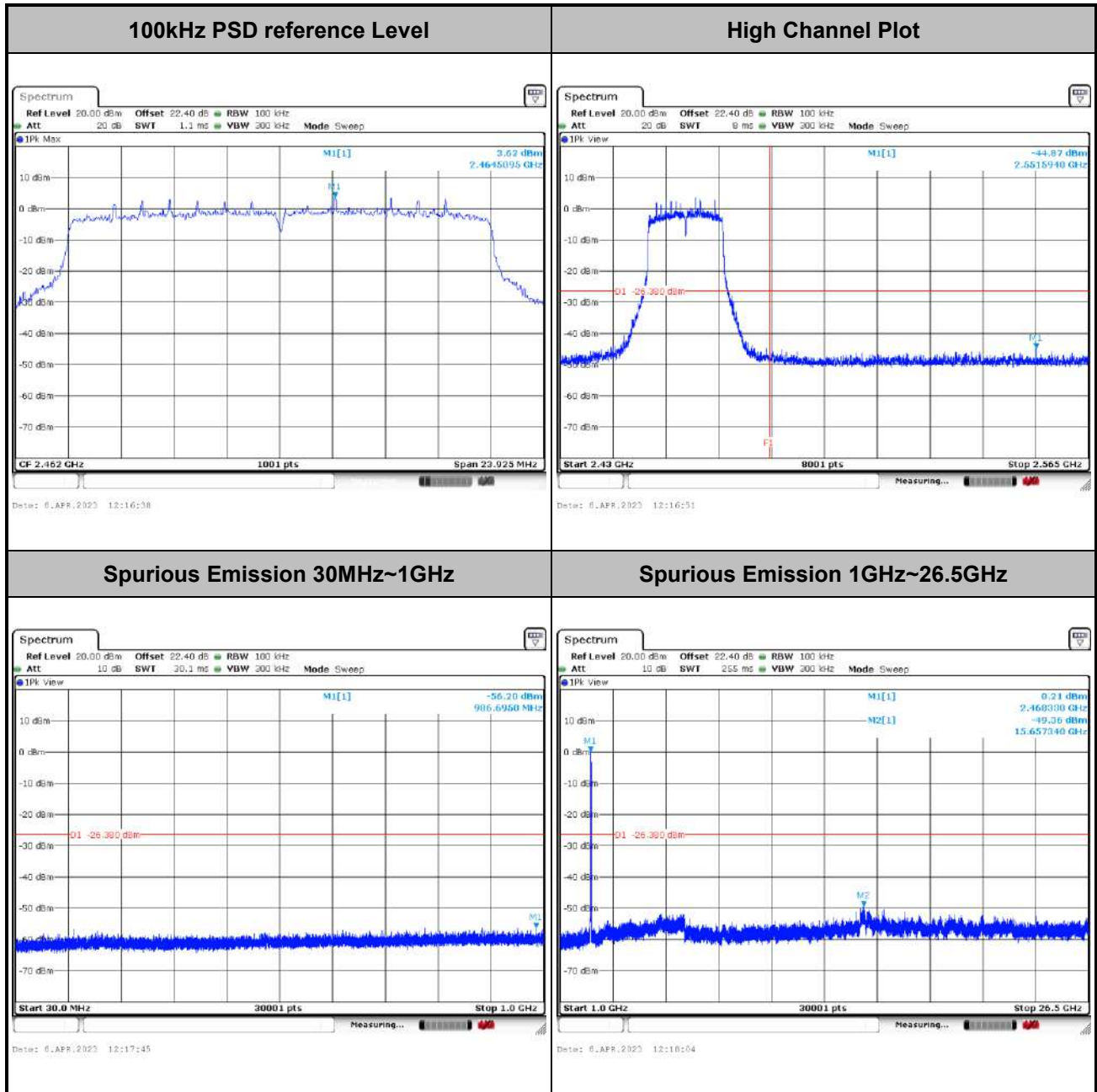


Test Mode :	802.11ax HE20	Test Channel :	06 Full RU
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100kHz PSD reference Level**Mid Channel Plot****Spurious Emission 30MHz~1GHz****Spurious Emission 1GHz~26.5GHz**

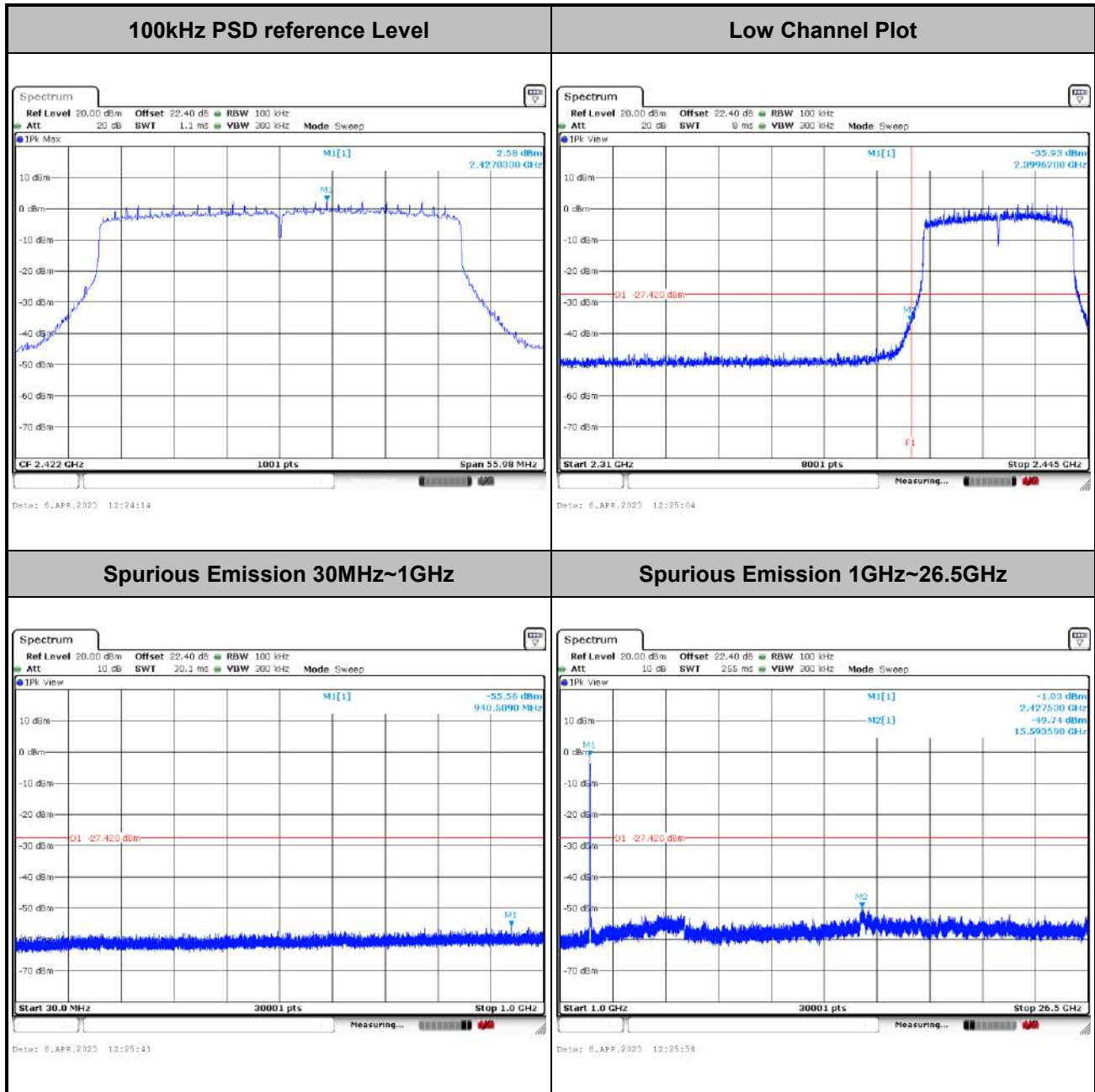


Test Mode :	802.11ax HE20	Test Channel :	11 Full RU
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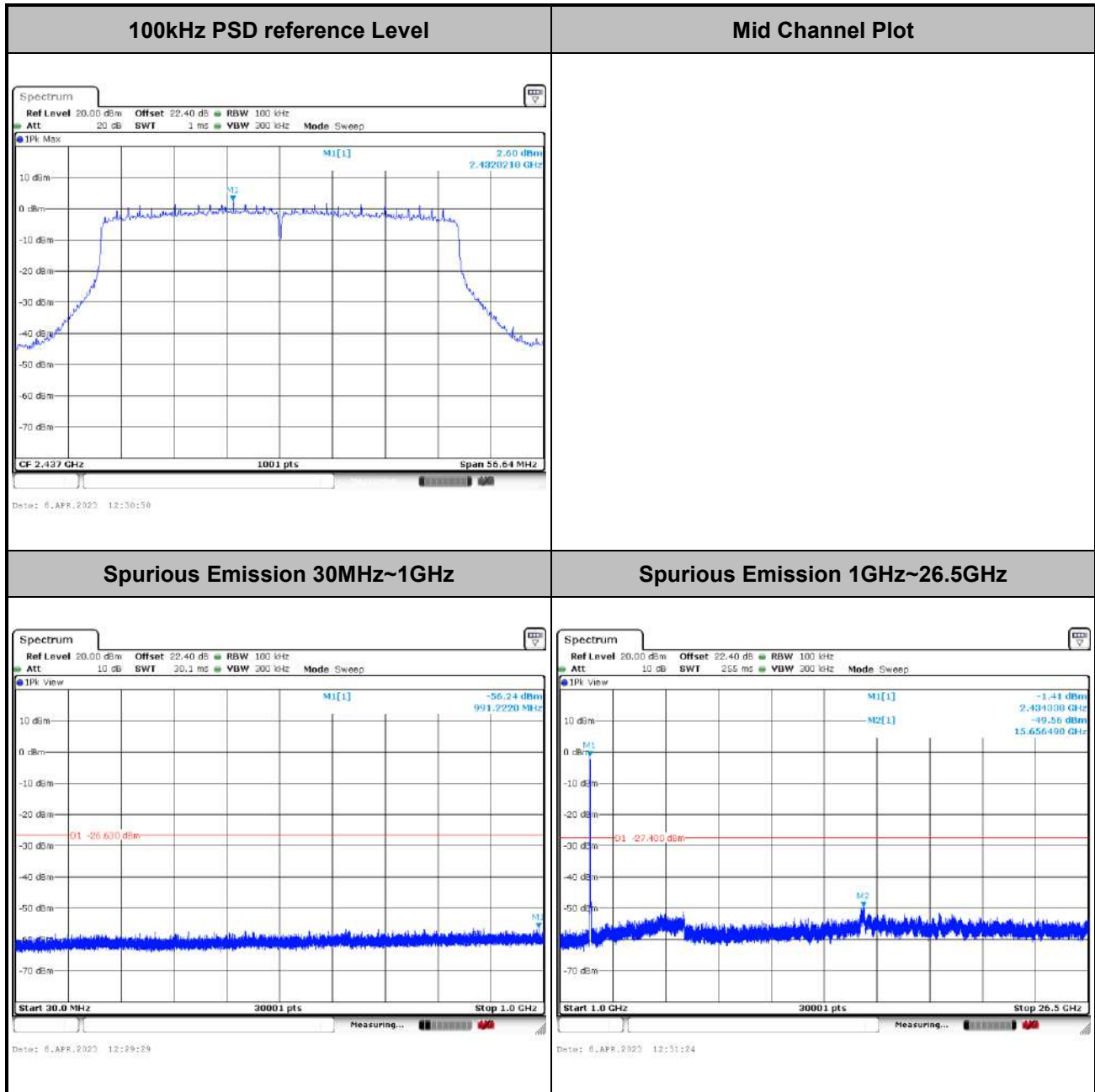


Test Mode :	802.11ax HE40	Test Channel :	03 Full RU
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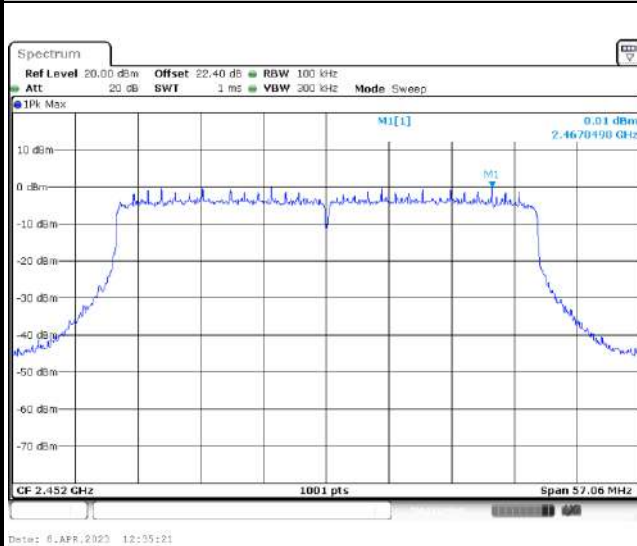
Test Mode :	802.11ax HE40	Test Channel :	06 Full RU
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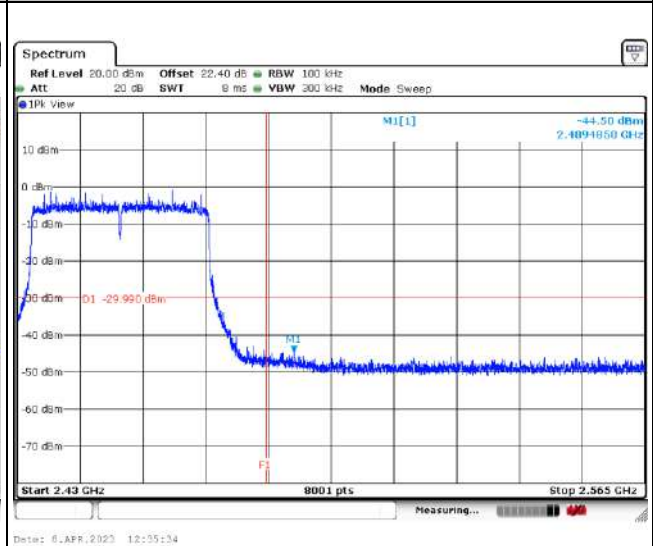


Test Mode :	802.11ax HE40	Test Channel :	09 Full RU
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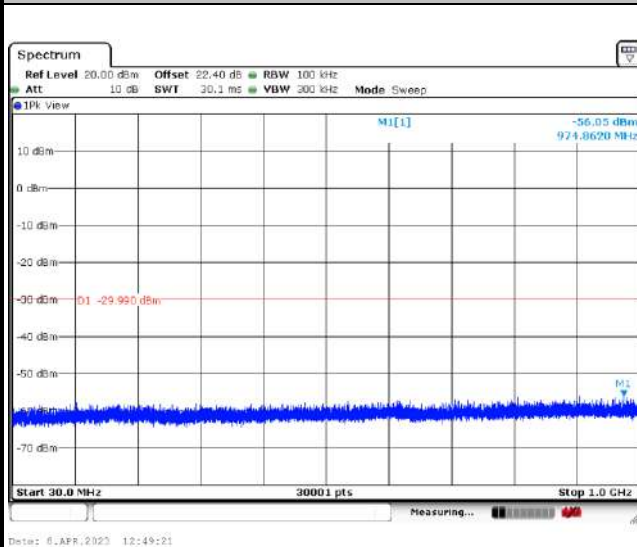
100kHz PSD reference Level



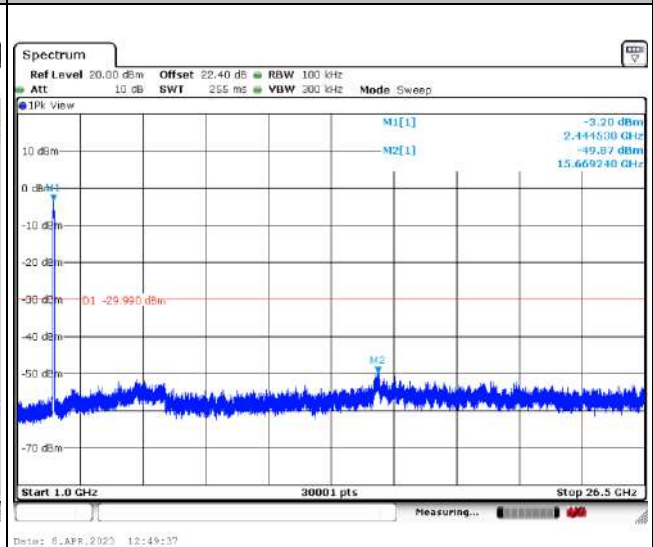
High Channel Plot



Spurious Emission 30MHz~1GHz



Spurious Emission 1GHz~26.5GHz





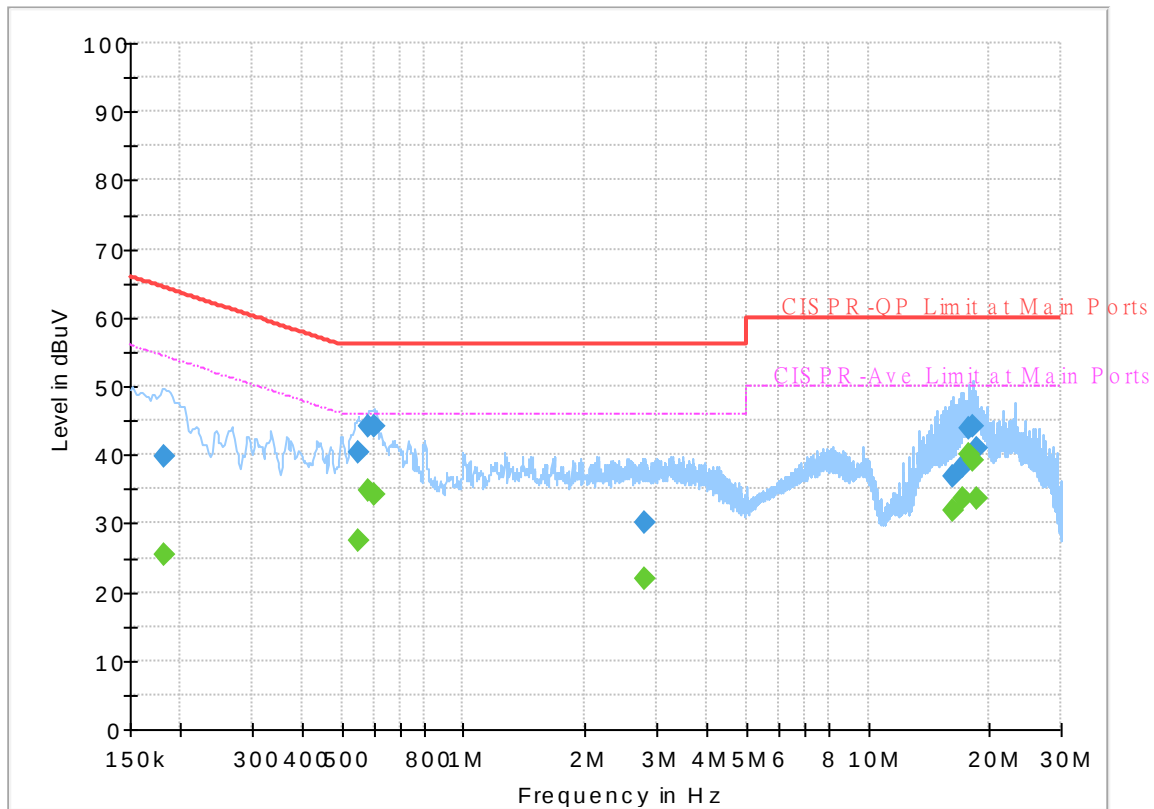
Appendix B. AC Conducted Emission Test Results

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

EUT Information

Report NO : 261637
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



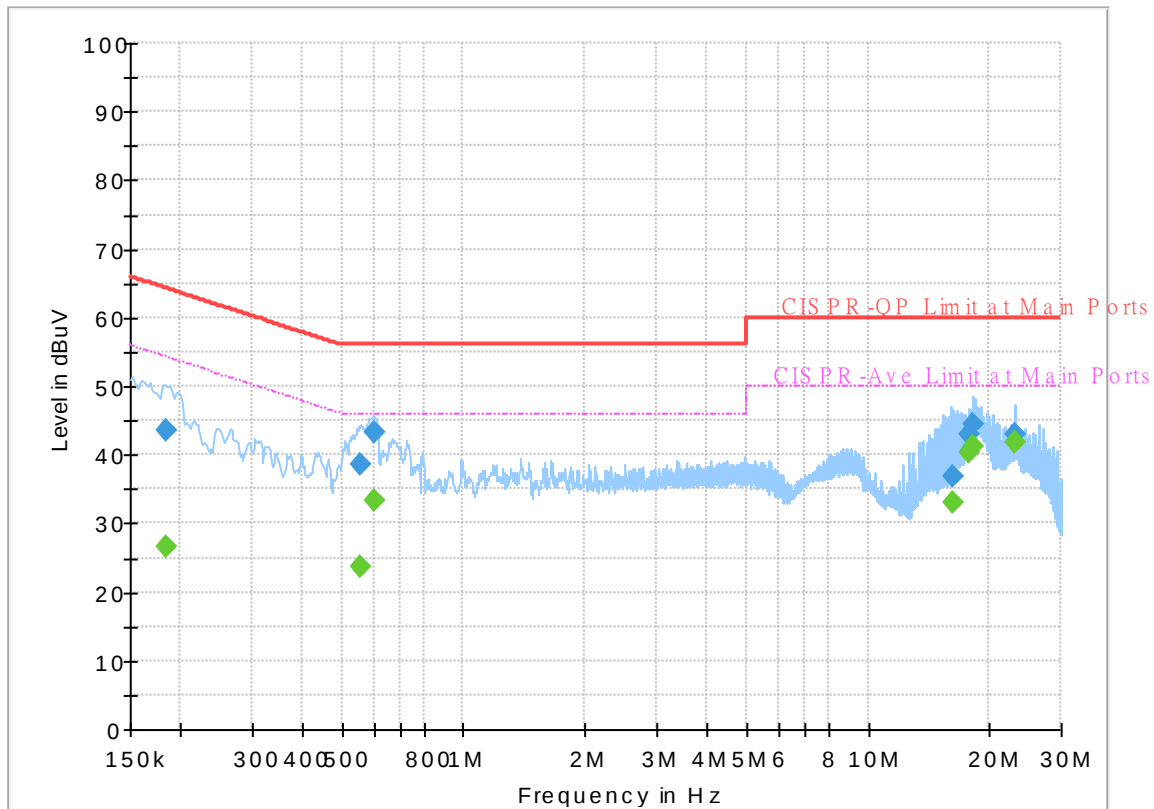
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.181500	---	25.43	54.42	28.99	L1	OFF	19.6
0.181500	39.90	---	64.42	24.52	L1	OFF	19.6
0.550500	---	27.36	46.00	18.64	L1	OFF	19.6
0.550500	40.45	---	56.00	15.55	L1	OFF	19.6
0.582000	---	34.77	46.00	11.23	L1	OFF	19.6
0.582000	44.12	---	56.00	11.88	L1	OFF	19.6
0.600000	---	34.16	46.00	11.84	L1	OFF	19.6
0.600000	44.14	---	56.00	11.86	L1	OFF	19.6
2.816250	---	21.85	46.00	24.15	L1	OFF	19.6
2.816250	30.03	---	56.00	25.97	L1	OFF	19.6
16.221750	---	31.91	50.00	18.09	L1	OFF	19.8
16.221750	36.78	---	60.00	23.22	L1	OFF	19.8
17.142000	---	33.75	50.00	16.25	L1	OFF	19.8
17.142000	38.33	---	60.00	21.67	L1	OFF	19.8
17.695500	---	40.08	50.00	9.92	L1	OFF	19.8
17.695500	43.76	---	60.00	16.24	L1	OFF	19.8
18.246750	---	39.06	50.00	10.94	L1	OFF	19.8
18.246750	44.01	---	60.00	15.99	L1	OFF	19.8
18.618000	---	33.69	50.00	16.31	L1	OFF	19.8
18.618000	40.89	---	60.00	19.11	L1	OFF	19.8

EUT Information

Report NO : 261637
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)
0.183750	---	26.61	54.31	27.70	N	OFF	19.6
0.183750	43.59	---	64.31	20.72	N	OFF	19.6
0.555000	---	23.61	46.00	22.39	N	OFF	19.6
0.555000	38.49	---	56.00	17.51	N	OFF	19.6
0.602250	---	33.28	46.00	12.72	N	OFF	19.6
0.602250	43.35	---	56.00	12.65	N	OFF	19.6
16.255500	---	33.00	50.00	17.00	N	OFF	19.9
16.255500	36.82	---	60.00	23.18	N	OFF	19.9
17.693250	---	40.48	50.00	9.52	N	OFF	19.9
17.693250	43.03	---	60.00	16.97	N	OFF	19.9
18.242250	---	41.12	50.00	8.88	N	OFF	19.9
18.242250	44.52	---	60.00	15.48	N	OFF	19.9
23.127000	---	41.76	50.00	8.24	N	OFF	20.0
23.127000	43.05	---	60.00	16.95	N	OFF	20.0



Appendix C. Radiated Spurious Emission

Test Engineer :	Andy Yang, Gary Guo and Steven Wu	Temperature :	18~23°C
		Relative Humidity :	50~65%



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
5+6		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2356.2	54.54	-19.46	74	40.53	27.2	17.29	30.48	300	114	P	H
		2387.385	44.91	-9.09	54	30.66	27.37	17.35	30.47	300	114	A	H
	*	2412	110.21	-	-	95.85	27.42	17.4	30.46	300	114	P	H
	*	2412	106.92	-	-	92.56	27.42	17.4	30.46	300	114	A	H
													H
													H
		2379.405	54.83	-19.17	74	40.67	27.29	17.34	30.47	200	226	P	V
		2389.38	46.3	-7.7	54	32.02	27.39	17.36	30.47	200	226	A	V
	*	2412	116	-	-	101.64	27.42	17.4	30.46	200	226	P	V
	*	2412	112.44	-	-	98.08	27.42	17.4	30.46	200	226	A	V
													V
													V
802.11b CH 06 2437MHz		2350.6	55.25	-18.75	74	41.25	27.2	17.28	30.48	400	309	P	H
		2389.94	44.94	-9.06	54	30.65	27.4	17.36	30.47	400	309	A	H
	*	2437	111.49	-	-	96.9	27.6	17.44	30.45	400	309	P	H
	*	2437	108.28	-	-	93.69	27.6	17.44	30.45	400	309	A	H
		2495.52	55.79	-18.21	74	40.9	27.8	17.52	30.43	400	309	P	H
		2483.69	45.7	-8.3	54	30.89	27.74	17.51	30.44	400	309	A	H
		2382.66	54.86	-19.14	74	40.66	27.33	17.34	30.47	200	126	P	V
		2389.94	45.02	-8.98	54	30.73	27.4	17.36	30.47	200	126	A	V
	*	2437	113.21	-	-	98.62	27.6	17.44	30.45	200	126	P	V
	*	2437	108.9	-	-	94.31	27.6	17.44	30.45	200	126	A	V
		2493.84	55.73	-18.27	74	40.84	27.8	17.52	30.43	200	126	P	V
		2491.04	45.58	-8.42	54	30.69	27.8	17.52	30.43	200	126	A	V



802.11b CH 11 2462MHz	*	2462	113.57	-	-	98.92	27.62	17.47	30.44	271	66	P	H
	*	2462	110.39	-	-	95.74	27.62	17.47	30.44	271	66	A	H
		2486.36	55.45	-18.55	74	40.61	27.76	17.51	30.43	271	66	P	H
		2490.76	46.39	-7.61	54	31.5	27.8	17.52	30.43	271	66	A	H
													H
													H
	*	2462	115.91	-	-	101.26	27.62	17.47	30.44	292	46	P	V
	*	2462	112.43	-	-	97.78	27.62	17.47	30.44	292	46	A	V
		2485.76	56.98	-17.02	74	42.14	27.76	17.51	30.43	292	46	P	V
		2487.28	47.3	-6.7	54	32.45	27.77	17.51	30.43	292	46	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**2.4GHz 2400~2483.5MHz****WIFI 802.11b (Harmonic @ 3m)**

WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
802.11b CH 01 2412MHz		4824	40.49	-33.51	74	63.37	32.44	11.32	66.64	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4824	39.78	-34.22	74	62.66	32.44	11.32	66.64	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
802.11b CH 06 2437MHz		4874	40.35	-33.65	74	62.94	32.65	11.35	66.59	-	-	P	H
		7311	49.55	-24.45	74	65.5	36.88	13.5	66.33	304	283	P	H
		7311	43.26	-10.74	54	59.21	36.88	13.5	66.33	304	283	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4874	40.78	-33.22	74	63.37	32.65	11.35	66.59	-	-	P	V
		7311	49.81	-24.19	74	65.76	36.88	13.5	66.33	304	282	P	V
		7311	43.34	-10.66	54	59.29	36.88	13.5	66.33	304	282	A	V
													V
													V
													V
													V
													V
													V

[illegible]



2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
802.11g CH 01 2412MHz		2390	55.85	-18.15	74	41.56	27.4	17.36	30.47	216	124	P	H
		2390	46.78	-7.22	54	32.49	27.4	17.36	30.47	216	124	A	H
	*	2412	110.73	-	-	96.37	27.42	17.4	30.46	216	124	P	H
	*	2412	101.85	-	-	87.49	27.42	17.4	30.46	216	124	A	H
													H
													H
		2389.905	61.61	-12.39	74	47.32	27.4	17.36	30.47	197	235	P	V
		2390	51.88	-2.12	54	37.59	27.4	17.36	30.47	197	235	A	V
	*	2412	117.35	-	-	102.99	27.42	17.4	30.46	197	235	P	V
	*	2412	108.75	-	-	94.39	27.42	17.4	30.46	197	235	A	V
													V
													V
802.11g CH 06 2437MHz		2361.1	54.56	-19.44	74	40.53	27.2	17.3	30.47	241	78	P	H
		2388.54	44.29	-9.71	54	30.01	27.39	17.36	30.47	241	78	A	H
	*	2437	114.38	-	-	99.79	27.6	17.44	30.45	241	78	P	H
	*	2437	107.12	-	-	92.53	27.6	17.44	30.45	241	78	A	H
		2484.32	55	-19	74	40.19	27.74	17.51	30.44	241	78	P	H
		2483.83	44.93	-9.07	54	30.12	27.74	17.51	30.44	241	78	A	H
		2389.24	54.08	-19.92	74	39.8	27.39	17.36	30.47	227	242	P	V
		2388.12	44.88	-9.12	54	30.61	27.38	17.36	30.47	227	242	A	V
	*	2437	117.08	-	-	102.49	27.6	17.44	30.45	227	242	P	V
	*	2437	110.63	-	-	96.04	27.6	17.44	30.45	227	242	A	V
		2488.52	55.18	-18.82	74	40.31	27.79	17.51	30.43	227	242	P	V
		2484.53	45.11	-8.89	54	30.28	27.75	17.51	30.43	227	242	A	V



802.11g CH 11 2462MHz	*	2462	110.94	-	-	96.29	27.62	17.47	30.44	177	80	P	H
	*	2462	103.24	-	-	88.59	27.62	17.47	30.44	177	80	A	H
		2483.56	59.36	-14.64	74	44.55	27.74	17.51	30.44	177	80	P	H
		2483.52	49.36	-4.64	54	34.55	27.74	17.51	30.44	177	80	A	H
													H
													H
	*	2462	115.45	-	-	100.8	27.62	17.47	30.44	290	194	P	V
	*	2462	107.49	-	-	92.84	27.62	17.47	30.44	290	194	A	V
		2484.32	61.3	-12.7	74	46.49	27.74	17.51	30.44	290	194	P	V
		2483.52	52.85	-1.15	54	38.04	27.74	17.51	30.44	290	194	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI 802.11g (Harmonic @ 3m)

TEL : 886-3-327-0868
FAX : 886-3-327-0855



WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
802.11g CH 06 2437MHz		4874	40.75	-33.25	74	63.34	32.65	11.35	66.59	-	-	P	H
		7311	46	-28	74	61.95	36.88	13.5	66.33	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4874	42.29	-31.71	74	64.88	32.65	11.35	66.59	-	-	P	V
		7311	53.54	-20.46	74	69.49	36.88	13.5	66.33	275	136	P	V
		7311	40.89	-13.11	54	56.84	36.88	13.5	66.33	275	136	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)	
802.11g CH 11 2462MHz		4924	39.48	-34.52	74	61.89	32.75	11.38	66.54	-	-	P	H	
		7386	44.18	-29.82	74	60.49	36.66	13.39	66.36	-	-	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
			4924	41.33	-32.67	74	63.74	32.75	11.38	66.54	-	-	P	V
			7386	48.32	-25.68	74	64.63	36.66	13.39	66.36	332	97	P	V
			7386	37.28	-16.72	54	53.59	36.66	13.39	66.36	332	97	A	V
														V
														V
														V
														V
														V
														V
													V	
													V	
Remark	1. No other spurious found.													
	2. All results are PASS against Peak and Average limit line.													
	3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.													



2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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 01 2412MHz		2389.275	55.44	-18.56	74	41.16	27.39	17.36	30.47	400	319	P	H
		2390	46.79	-7.21	54	32.5	27.4	17.36	30.47	400	319	A	H
	*	2412	106.97	-	-	92.61	27.42	17.4	30.46	400	319	P	H
	*	2412	98.74	-	-	84.38	27.42	17.4	30.46	400	319	A	H
													H
													H
		2389.59	60.34	-13.66	74	46.05	27.4	17.36	30.47	224	226	P	V
		2390	51.29	-2.71	54	37	27.4	17.36	30.47	224	226	A	V
	*	2412	114.96	-	-	100.6	27.42	17.4	30.46	224	226	P	V
	*	2412	107.2	-	-	92.84	27.42	17.4	30.46	224	226	A	V
													V
													V
802.11ax HE20 Full CH 06 2437MHz		2376.78	55.19	-18.81	74	41.06	27.27	17.33	30.47	239	80	P	H
		2389.94	43.55	-10.45	54	29.26	27.4	17.36	30.47	239	80	A	H
	*	2437	115.74	-	-	101.15	27.6	17.44	30.45	239	80	P	H
	*	2437	106.14	-	-	91.55	27.6	17.44	30.45	239	80	A	H
		2488.31	55.28	-18.72	74	40.42	27.78	17.51	30.43	239	80	P	H
		2485.51	44.23	-9.77	54	29.39	27.76	17.51	30.43	239	80	A	H
		2372.72	54.31	-19.69	74	40.23	27.23	17.32	30.47	199	238	P	V
		2389.94	44.65	-9.35	54	30.36	27.4	17.36	30.47	199	238	A	V
	*	2437	118.49	-	-	103.9	27.6	17.44	30.45	199	238	P	V
	*	2437	109.08	-	-	94.49	27.6	17.44	30.45	199	238	A	V
		2484.95	56.71	-17.29	74	41.88	27.75	17.51	30.43	199	238	P	V
		2483.69	44.8	-9.2	54	29.99	27.74	17.51	30.44	199	238	A	V



WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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 11 2462MHz	*	2462	108.56	-	-	93.91	27.62	17.47	30.44	303	79	P	H
	*	2462	98.51	-	-	83.86	27.62	17.47	30.44	303	79	A	H
		2484.32	57.68	-16.32	74	42.87	27.74	17.51	30.44	303	79	P	H
		2483.52	46.97	-7.03	54	32.16	27.74	17.51	30.44	303	79	A	H
													H
													H
	*	2462	112.89	-	-	98.24	27.62	17.47	30.44	276	203	P	V
	*	2462	102.55	-	-	87.9	27.62	17.47	30.44	276	203	A	V
		2483.64	59.51	-14.49	74	44.7	27.74	17.51	30.44	276	203	P	V
		2483.6	49.78	-4.22	54	34.97	27.74	17.51	30.44	276	203	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE20 Full (Harmonic @ 3m)

[illegible]

[illegible]

[illegible]



2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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 03 2422MHz		2389.94	57.47	-16.53	74	43.18	27.4	17.36	30.47	397	311	P	H
		2389.94	47.44	-6.56	54	33.15	27.4	17.36	30.47	397	311	A	H
	*	2422	104.65	-	-	90.17	27.52	17.41	30.45	397	311	P	H
	*	2422	95.66	-	-	81.18	27.52	17.41	30.45	397	311	A	H
		2483.83	55.03	-18.97	74	40.22	27.74	17.51	30.44	397	311	P	H
		2487.89	44.16	-9.84	54	29.3	27.78	17.51	30.43	397	311	A	H
		2389.38	61.48	-12.52	74	47.2	27.39	17.36	30.47	263	232	P	V
		2389.66	51.84	-2.16	54	37.55	27.4	17.36	30.47	263	232	A	V
	*	2422	110.71	-	-	96.23	27.52	17.41	30.45	263	232	P	V
	*	2422	102.05	-	-	87.57	27.52	17.41	30.45	263	232	A	V
		2490.34	54.95	-19.05	74	40.06	27.8	17.52	30.43	263	232	P	V
		2487.33	44.31	-9.69	54	29.46	27.77	17.51	30.43	263	232	A	V
802.11ax HE40 Full CH 06 2437MHz		2389.94	55.14	-18.86	74	40.85	27.4	17.36	30.47	200	221	P	H
		2389.94	44.5	-9.5	54	30.21	27.4	17.36	30.47	200	221	A	H
	*	2437	105.98	-	-	91.39	27.6	17.44	30.45	200	221	P	H
	*	2437	97.19	-	-	82.6	27.6	17.44	30.45	200	221	A	H
		2496.99	56.3	-17.7	74	41.4	27.8	17.53	30.43	200	221	P	H
		2483.83	45.45	-8.55	54	30.64	27.74	17.51	30.44	200	221	A	H
		2388.82	55.94	-18.06	74	41.66	27.39	17.36	30.47	330	206	P	V
		2389.66	45.48	-8.52	54	31.19	27.4	17.36	30.47	330	206	A	V
	*	2437	109.9	-	-	95.31	27.6	17.44	30.45	330	206	P	V
	*	2437	100.8	-	-	86.21	27.6	17.44	30.45	330	206	A	V
		2483.5	55.99	-18.01	74	41.18	27.74	17.51	30.44	330	206	P	V
		2483.5	46.16	-7.84	54	31.35	27.74	17.51	30.44	330	206	A	V



WIFI Ant. 5+6	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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 09 2452MHz		2374.82	54.34	-19.66	74	40.23	27.25	17.33	30.47	200	75	P	H
		2389.94	43.12	-10.88	54	28.83	27.4	17.36	30.47	200	75	A	H
	*	2452	104.18	-	-	89.57	27.6	17.46	30.45	200	75	P	H
	*	2452	95.32	-	-	80.71	27.6	17.46	30.45	200	75	A	H
		2483.76	58.78	-15.22	74	43.97	27.74	17.51	30.44	200	75	P	H
		2484.32	48.59	-5.41	54	33.78	27.74	17.51	30.44	200	75	A	H
		2384.9	54.78	-19.22	74	40.55	27.35	17.35	30.47	191	106	P	V
		2389.52	43.2	-10.8	54	28.91	27.4	17.36	30.47	191	106	A	V
	*	2452	108.58	-	-	93.97	27.6	17.46	30.45	191	106	P	V
	*	2452	99.57	-	-	84.96	27.6	17.46	30.45	191	106	A	V
		2485.3	63.48	-10.52	74	48.65	27.75	17.51	30.43	191	106	P	V
		2484.18	51.97	-2.03	54	37.16	27.74	17.51	30.44	191	106	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE40 Full (Harmonic @ 3m)

[illegible]



Report No. : FR261637A

[illegible]

[illegible]

[illegible]

2.4GHz 2400~2483.5MHz

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

[illegible]



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	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.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

$$1. \text{ Path Loss(dB)} = \text{Cable loss(dB)} + \text{Filter loss(dB)} + \text{Attenuator loss(dB)}$$

$$2. \text{ Level(dB}\mu\text{V/m)} =$$

$$\text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$3. \text{ Margin(dB)} = \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

For Peak Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 54.51(\text{dB}\mu\text{V}) - 35.86(\text{dB})$$

$$= 55.45(\text{dB}\mu\text{V/m})$$

$$2. \text{ Margin(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 55.45(\text{dB}\mu\text{V/m}) - 74(\text{dB}\mu\text{V/m})$$

$$= -18.55(\text{dB})$$

For Average Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 42.6(\text{dB}\mu\text{V}) - 35.86(\text{dB})$$

$$= 43.54(\text{dB}\mu\text{V/m})$$

$$2. \text{ Margin(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 43.54(\text{dB}\mu\text{V/m}) - 54(\text{dB}\mu\text{V/m})$$

$$= -10.46(\text{dB})$$

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



Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Andy Yang, Gary Guo and Steven Wu	Temperature :	18~23°C
		Relative Humidity :	50~65%

Note symbol

-L	Low channel location
-R	High channel location

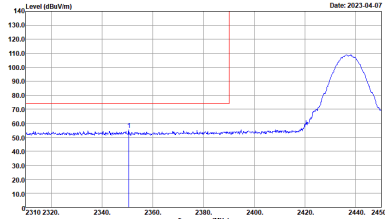
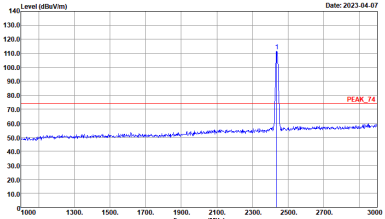
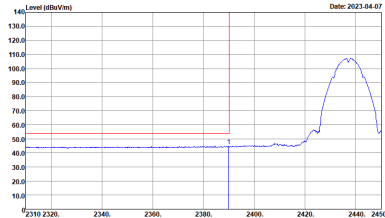
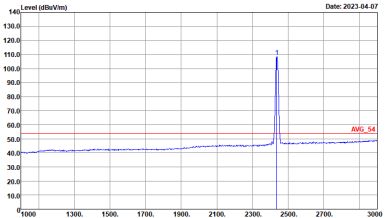
**2.4GHz 2400~2483.5MHz****WIFI 802.11b (Band Edge @ 3m)**

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
5+6	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

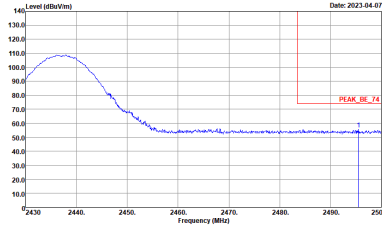
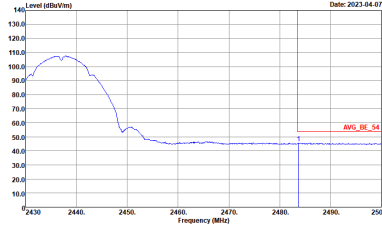


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
5+6	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

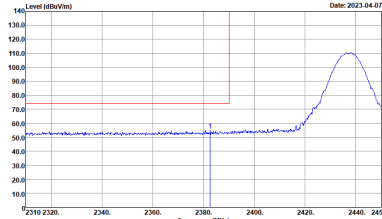
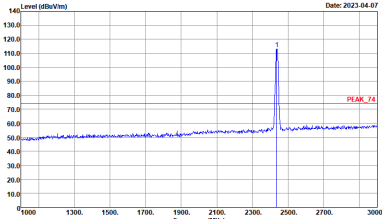
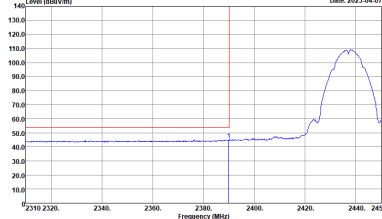
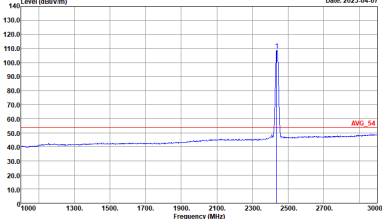


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

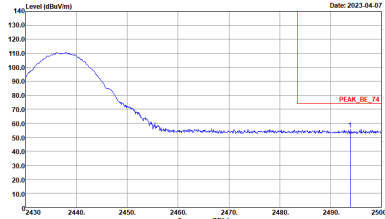
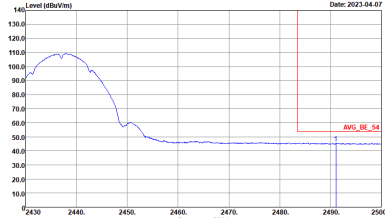


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

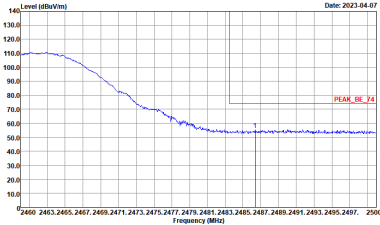
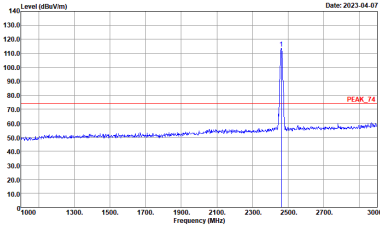
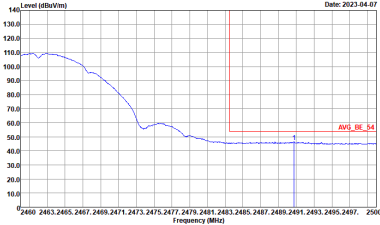
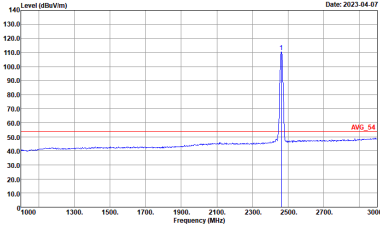


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

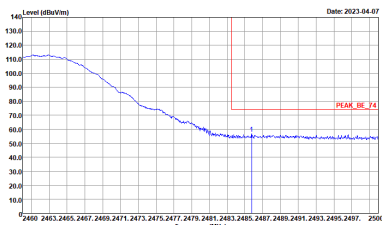
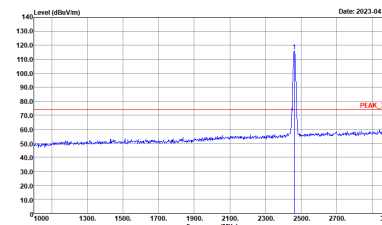
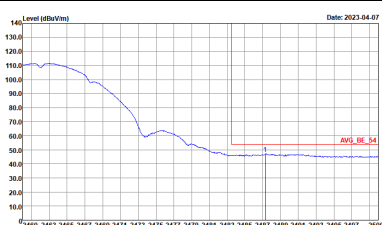
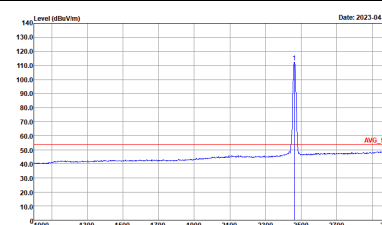


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.		



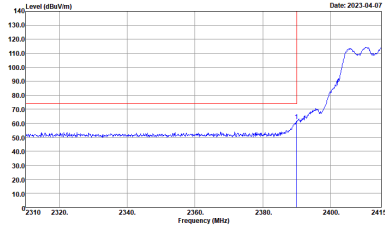
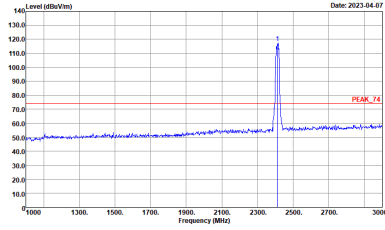
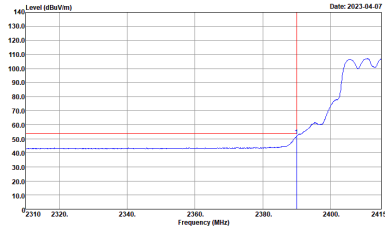
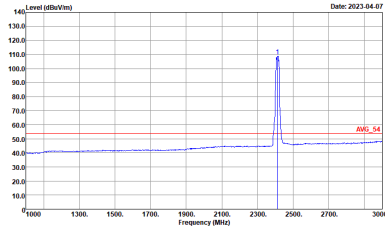
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto



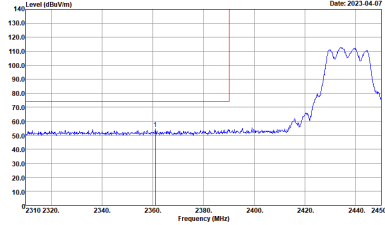
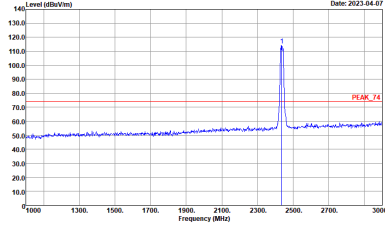
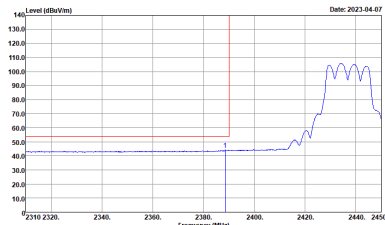
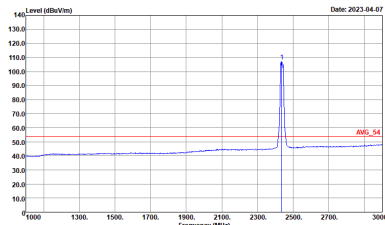
2.4GHz 2400~2483.5MHz
WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
5+6	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto

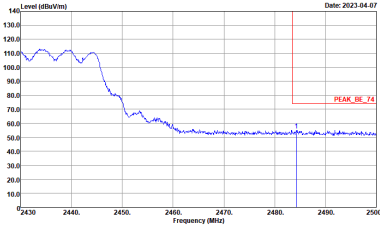
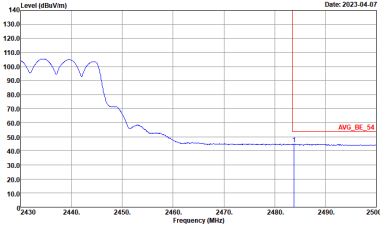


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:1000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:1000kHz SWT:Auto

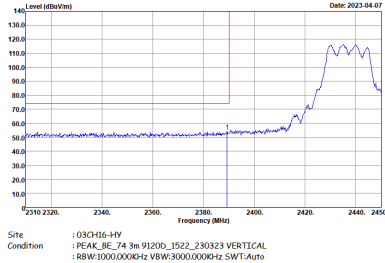
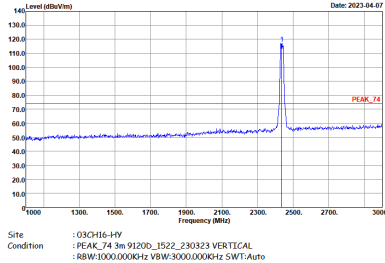
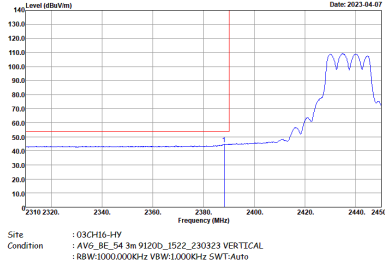
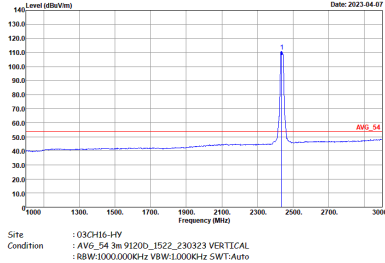


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:1000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:1000kHz SWT:Auto
Avg.		

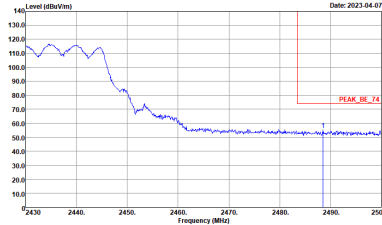
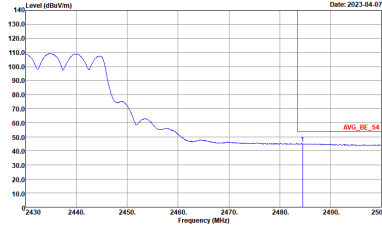


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:10000kHz SWT:Auto	Left blank

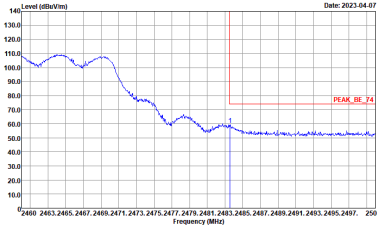
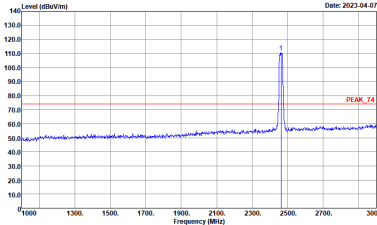
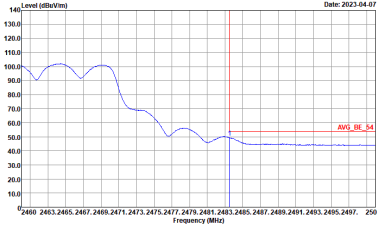
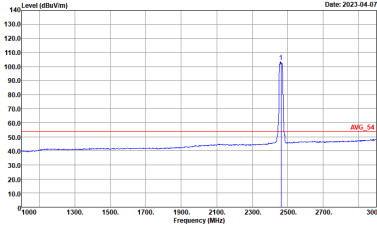


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:10000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:10000kHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left Blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:10000kHz SWT:Auto	Left Blank

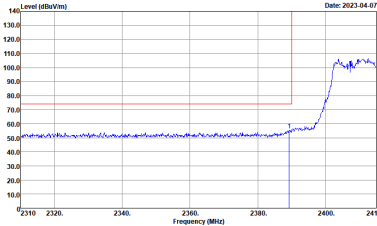
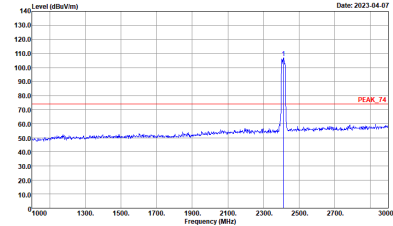
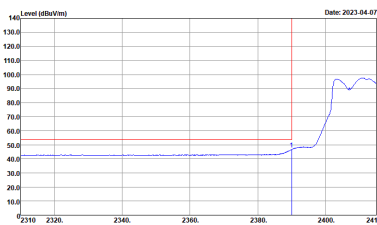
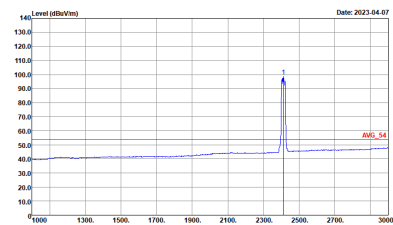


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
5+6	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto

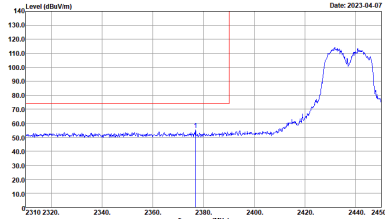
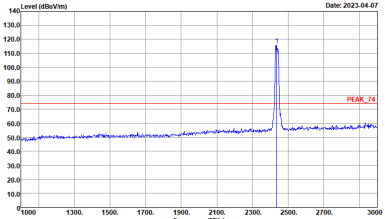
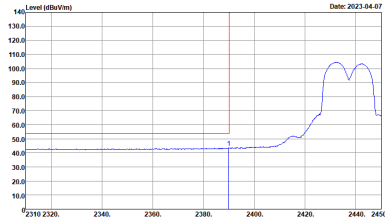
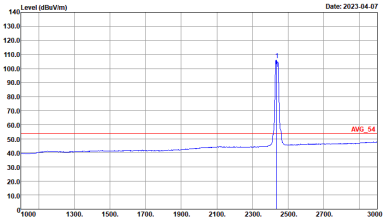
2.4GHz 2400~2483.5MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 2412MHz	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.		

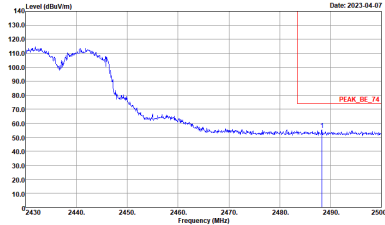
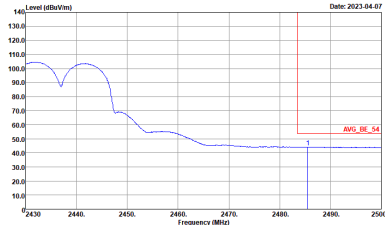


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 2412MHz	
5+6	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - L	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:0.300kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:0.300kHz SWT:Auto

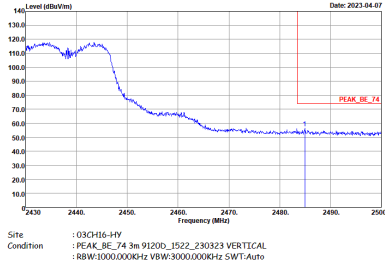
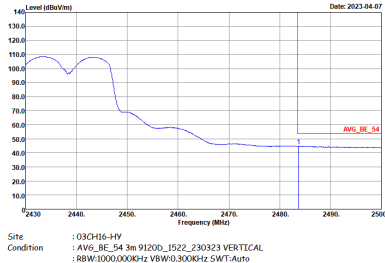


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - R	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_64 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

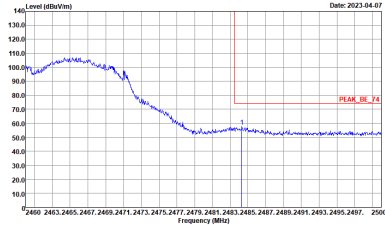
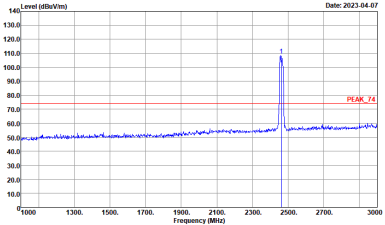
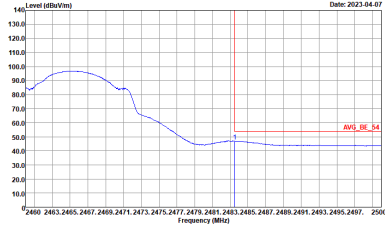
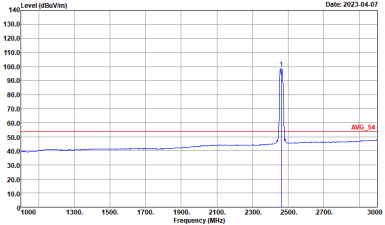


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - L	
5+6	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - R	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH11 2462MHz	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.		

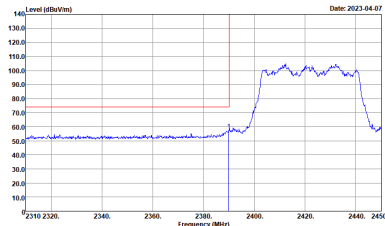
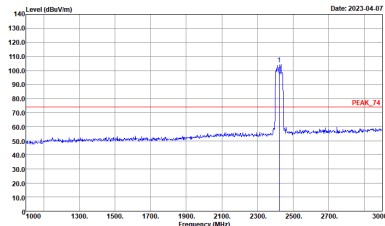
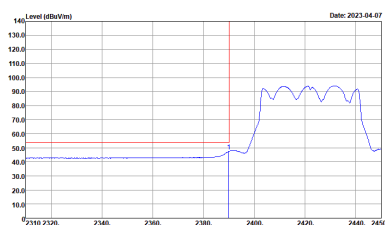
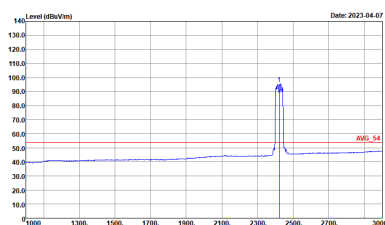


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH11 2462MHz	
5+6	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

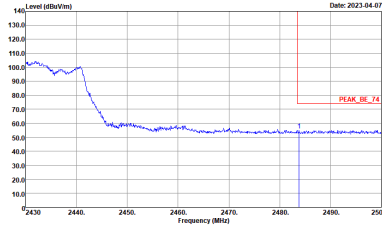
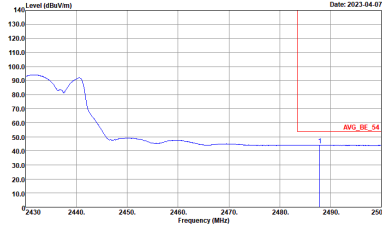


2.4GHz 2400~2483.5MHz

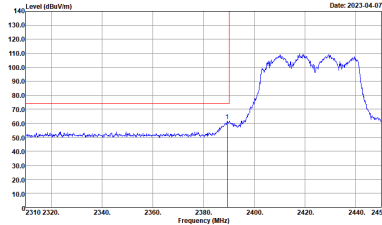
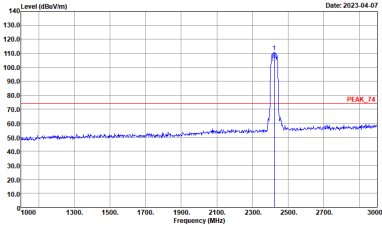
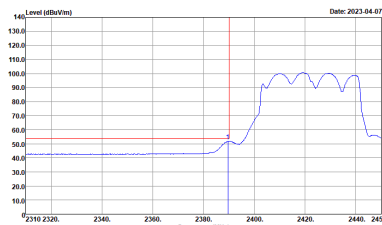
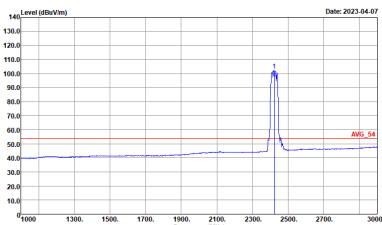
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - L	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

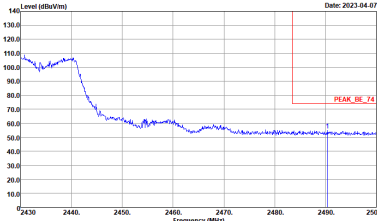
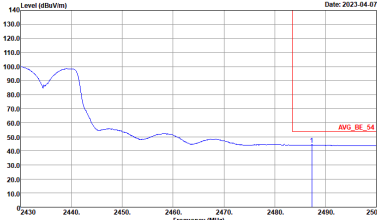


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - R	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

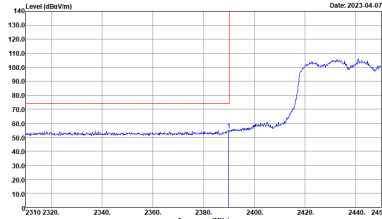
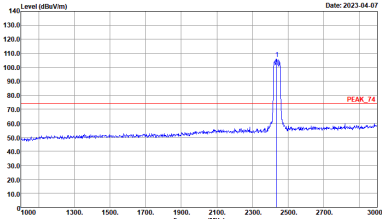
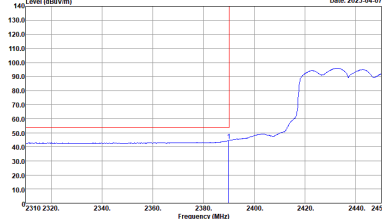
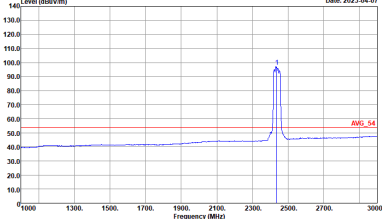


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - L	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

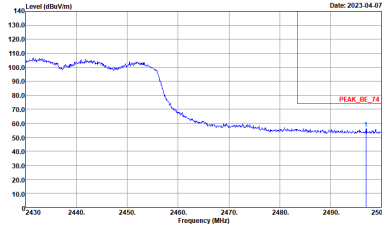
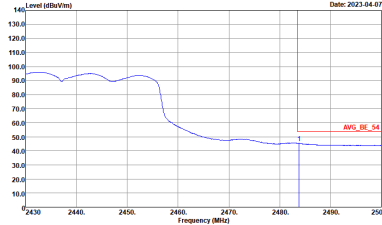


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - R	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - L	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:0.300kHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:0.300kHz SWT:Auto

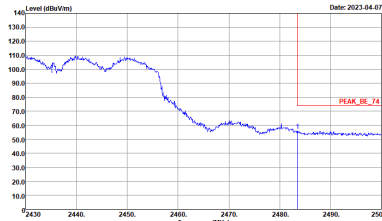
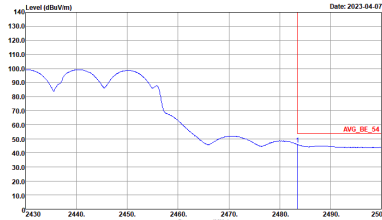


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - R	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - L	
5+6	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

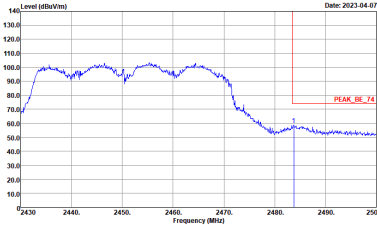
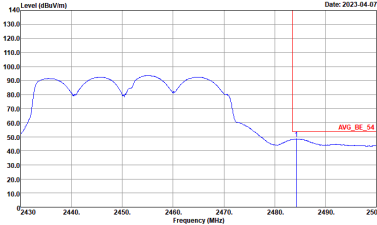


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - R	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - L	
5+6	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:0.3000kHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:0.3000kHz SWT:Auto

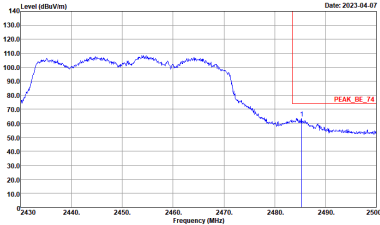
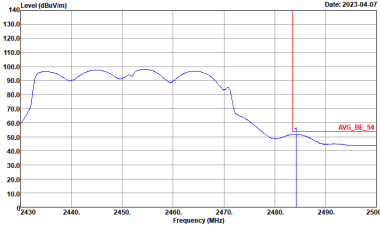


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - R	
5+6	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - L	
5+6	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:0.3000kHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522_230323 VERTICAL : RBW:1000.000kHz VBW:0.3000kHz SWT:Auto

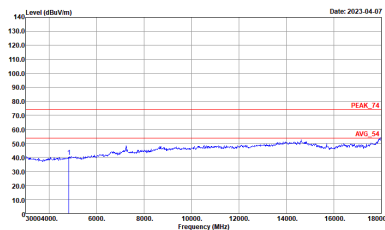
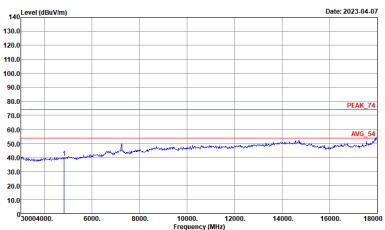


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - R	
5+6	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522_230323 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
5+6	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-IHY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-IHY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

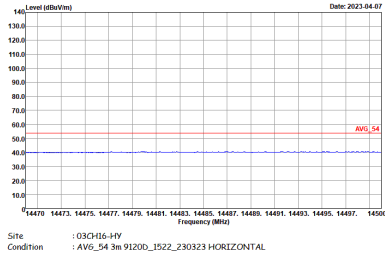
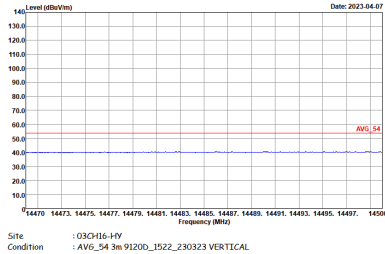
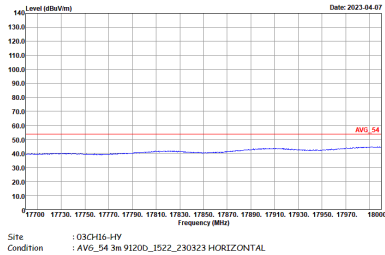
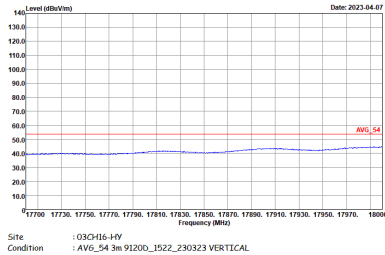


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL

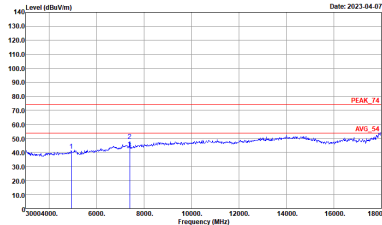
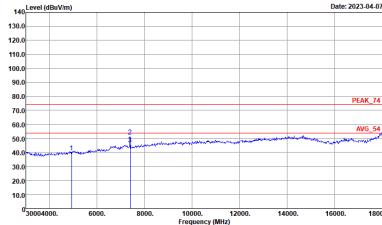


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
5+6	Horizontal	Vertical
Peak Avg.	Level (dBm/1m) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	Level (dBm/1m) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

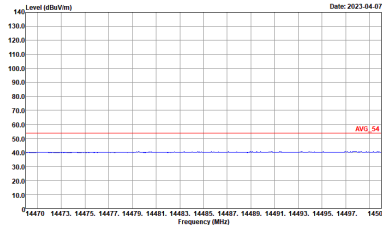
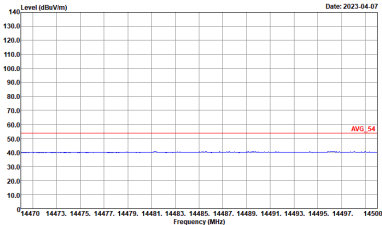
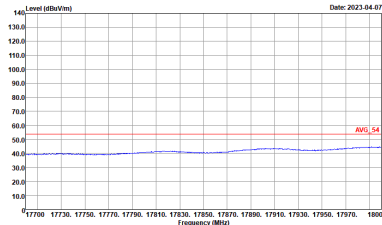
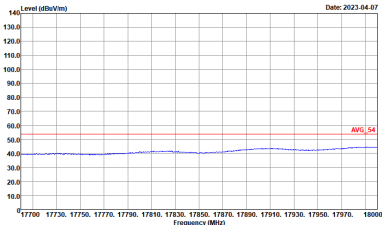


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
5+6	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

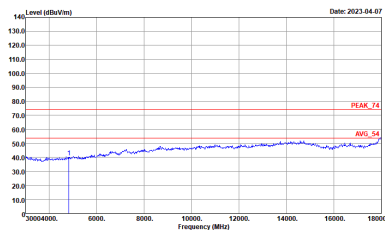
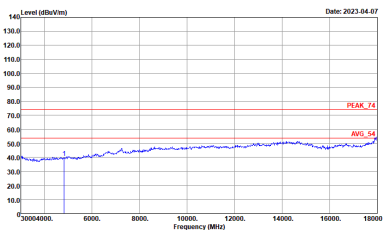


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL

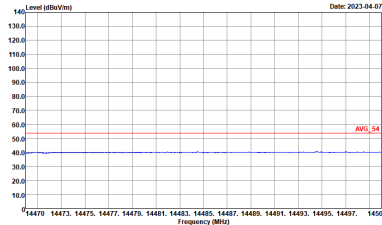
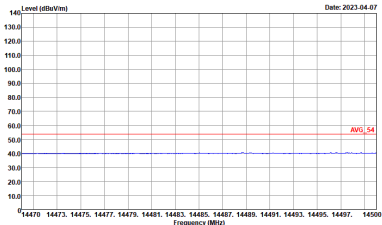
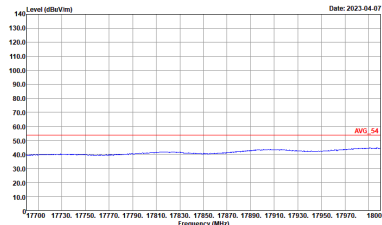
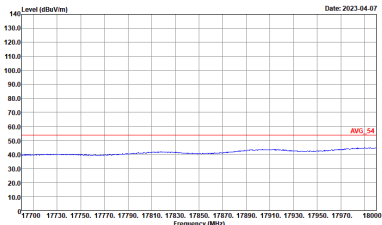


2.4GHz 2400~2483.5MHz

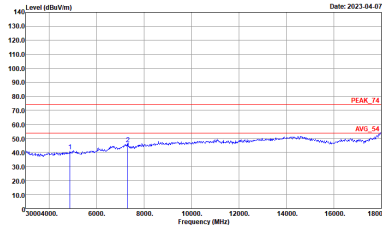
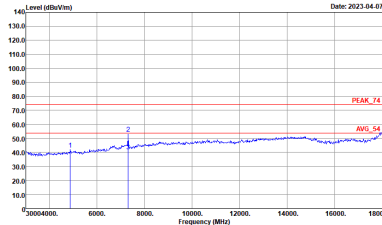
WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
5+6	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL

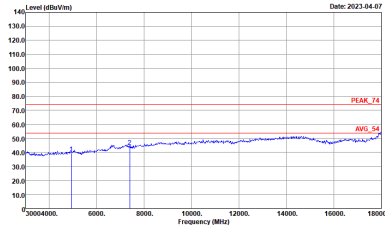
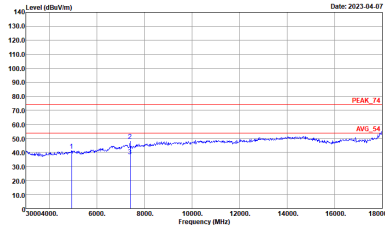


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
5+6	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

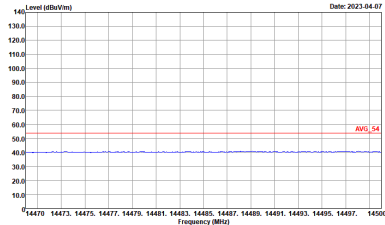
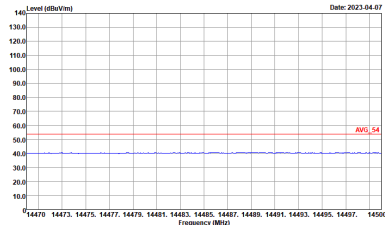
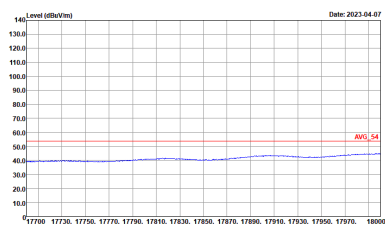
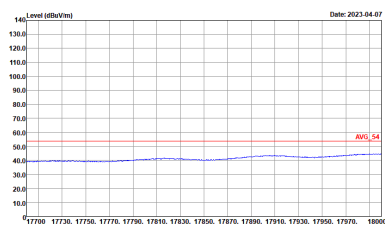


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
5+6	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

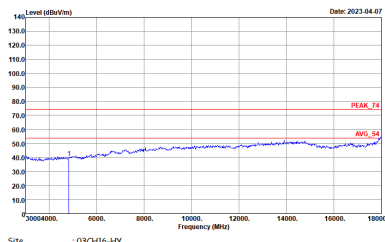
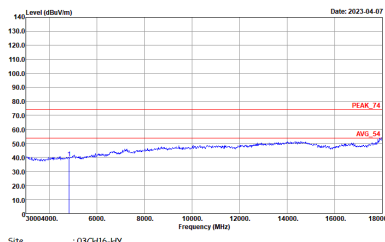


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE20 Full (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH01 2412MHz	
5+6	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

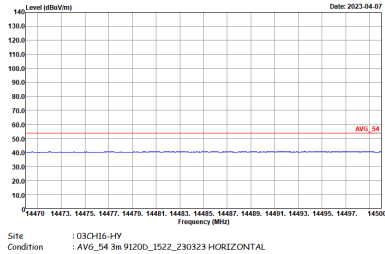
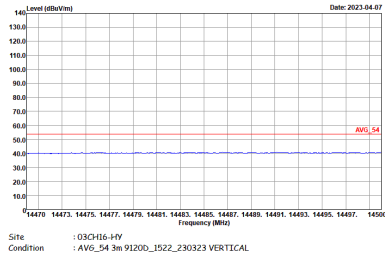
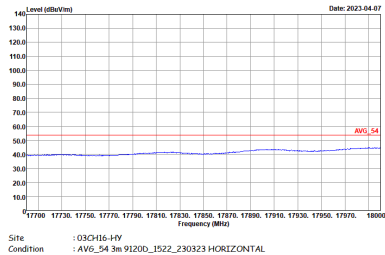
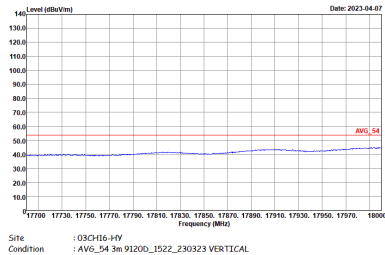


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH01 2412MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH06 2437MHz	
5+6	Horizontal	Vertical
Peak Avg.	140 Level (dBm/Hz) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	140 Level (dBm/Hz) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

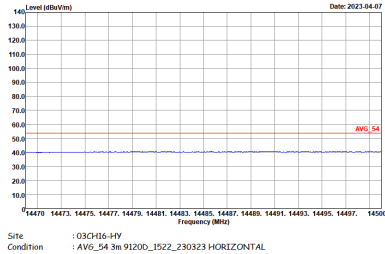
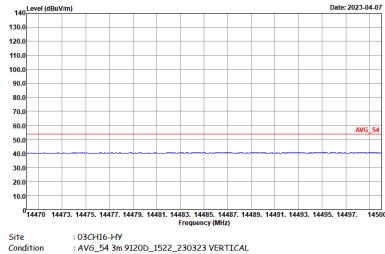
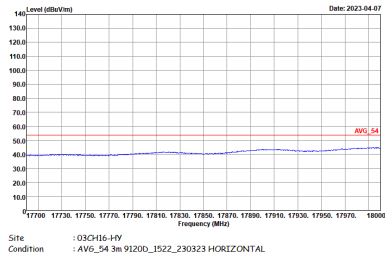
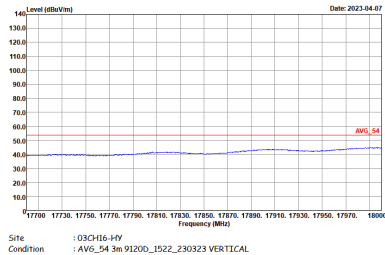


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH06 2437MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH11 2462MHz	
5+6	Horizontal	Vertical
Peak Avg.	140 Level (dBm/Hz) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	140 Level (dBm/Hz) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

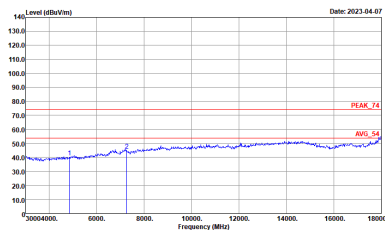
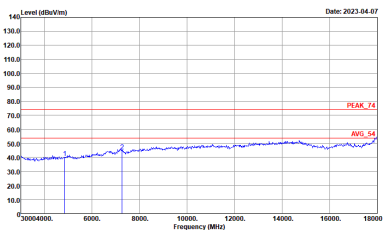


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH11 2462MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE40 Full (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH03 2422MHz	
5+6	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH03 2422MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH06 2437MHz	
5+6	Horizontal	Vertical
Peak Avg.	140 Level (dBm/Hz) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	140 Level (dBm/Hz) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL

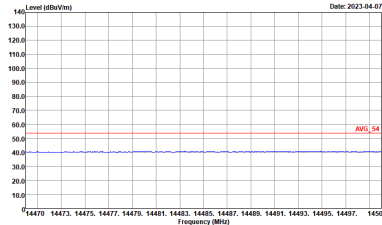
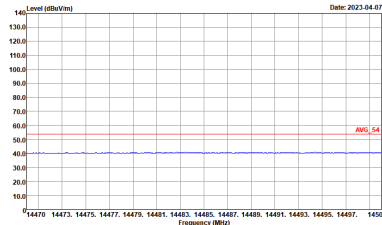
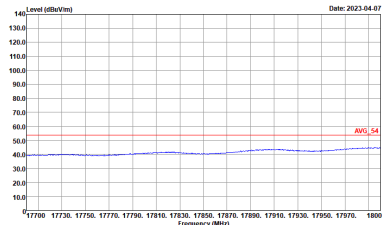
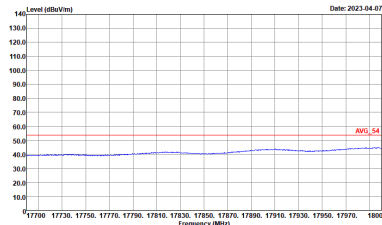


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH06 2437MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH09 2452MHz	
5+6	Horizontal	Vertical
Peak Avg.	140 Level (dBm/Hz) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 HORIZONTAL	140 Level (dBm/Hz) Date: 2023-04-07 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522_230323 VERTICAL



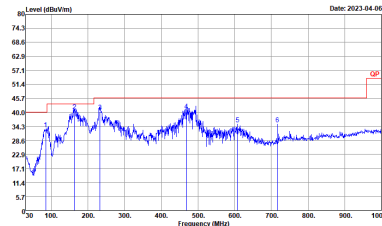
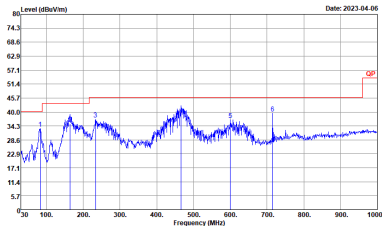
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH09 2452MHz	
5+6	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL
	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522_230323 VERTICAL



Emission above 18GHz
2.4GHz WIFI 802.11g (SHF @ 1m)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g SHF	
5+6	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2023-04-12 Site : 03CH16-11Y Condition : PEAK_74 1m SHF_993_1124 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2023-04-12 Site : 03CH16-11Y Condition : PEAK_74 1m SHF_993_1124 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

Emission below 1GHz
2.4GHz WIFI 802.11g (LF)

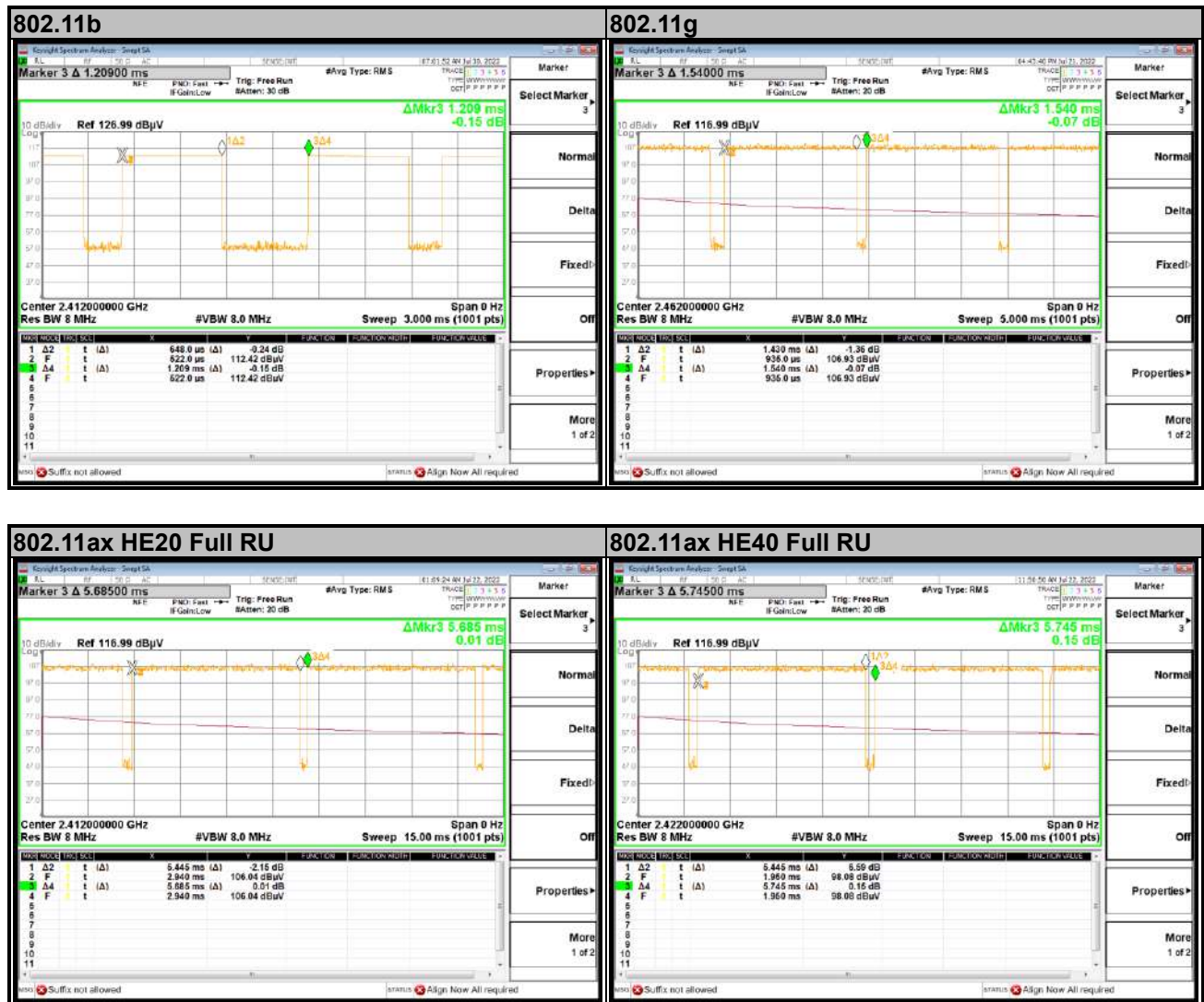
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
5+6	Horizontal	Vertical
QP / Peak	 Site : 03CH16-HY Condition : QP 3m B1LO6_47020_221008_L HORIZONTAL	 Site : 03CH16-HY Condition : QP 3m B1LO6_47020_221008_L VERTICAL



Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1+2	802.11b	53.60	648	1.54	3kHz
1+2	802.11g	92.86	1430	0.70	1kHz
1+2	2.4GHz 802.11ax HE20 Full RU	95.78	5445	0.18	300Hz
1+2	2.4GHz 802.11ax HE40 Full RU	94.78	5445	0.18	300Hz

MIMO <Ant. 1+2>



—THE END—