

Test Report No.: 25031403-RF-US-01

FCC Part 15, Subpart C

Test Report

FCC ID: 2BPVT-XTA4503S2U

Applicant: Beijing Starway Technology Limited

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Materials City, Haidian District, Beijing, China

Manufacturer: Beijing Starway Technology Limited

Address: Room 301, 3rd Floor, Zhongke Zhihui Workshop Building 3, Xisanqi Building
Materials City, Haidian District, Beijing, China

Product(s): Portal Panel Automatic Satellite station

Brand(s): OneLinQ

Test Model(s): XTA4503S2U

Series Model(s): N/A

Test Date: Apr. 09, 2025 ~ Jul. 22, 2025

Issued Date: Aug. 05, 2025

Issued By: Hwa-Hsing (Dongguan) Testing Co., Ltd.

Address: No.101, Building N1, Yuyuan 2 Road, Yuyuan Industrial Park, HuangJiang
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Test Firm Registration No.: 915896

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10:2013

The above equipment has been tested by **Hwa-Hsing (Dongguan) Testing Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :



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Reviewed by :



Approved by :



Scott He

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Release

Ver. 1.5

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Test Report No.: 25031403-RF-US-01

Release Control Record

Issue No.	Description	Date Issued
25031403-RF-US-01	Original Release	Aug. 05, 2025

1. Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247) KDB 558074 D01 15.247 Meas Guidance v05r02 KDB 662911 D01 v02r01 ANSI C63.10:2013			
Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit.
15.205 & 209	Radiated Emissions	Pass	Meet the requirement of limit.
15.247(d)	Band Edge Measurement	Pass	Meet the requirement of limit.
15.247(d)	Antenna Port Emission	Pass	Meet the requirement of limit.
15.247(a)(2)	6dB Bandwidth	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	Pass	Reference only
15.247(b)	Conducted power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used. The device is professionally installed

Note: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC).
The test report has been issued separately.

1.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

The listed uncertainties are the worst cases uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.66 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1000MHz	3.56 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	4.71 dB
	6GHz ~ 18GHz	4.84 dB

1.2 Modification Record

There were no modifications required for compliance.

2. General Information**2.1 General Description of EUT**

Product(s)	Portal Panel Automatic Satellite station
Test Model(s)	XTA4503S2U
Sample No.	HS25031403001
Series Model(s)	N/A
Power Supply Rating	DC input form adater DC20V/5A 60W
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Transfer Rate	DSSS, OFDM
Operating Frequency	802.11b:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps
Number of Channel	802.11b, 802.11g, 802.11n (HT20): 11 802.11n (HT40): 9
Maximum Output Power	13.85dBm
Antenna Type	FPC Antenna
Max. Antenna Gain	ANT1: 2.25dBi, ANT2: 2.64dBi
Antenna Connector	I-PEX
Software Version	V2.0.20250305.170235
Hardware Version	zeus-mb-pd31-250109
Accessory Device	Adapter*1
Data Cable Supplied	4.5m TYPE-C*1, 1m, 6A TYPE-C*1

Note:

1. Please refer to the EUT photo document (Reference No.: 25031403) for detailed product photo.
2. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.
3. Hwa-Hsing (Dongguan) Testing Co., Ltd. is not responsible for the accuracy of the information provided by the manufacturer.
4. For the test results, the EUT had been tested with all conditions, and only the worst case was shown in the test report.
5. The EUT incorporates SISO/MIMO function. with 2 antenna transmission and 2 antenna reception.

Support mode	Frequency band	Transmit and receive mode	Transmit and Receive Chain
802.11b	2412~2462MHz	SISO	2TX/2RX
802.11g	2412~2462MHz	SISO	2TX/2RX
802.11n HT20	2412~2462MHz	MIMO	2TX/2RX
802.11n HT40	2422~2452MHz	MIMO	2TX/2RX

2.2 Description of Test Channels

11 channels are provided for 802.11b, 802.11g and 802.11n (20MHz):

Channel	Frequency	Channel	Frequency
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

7 channels are provided for 802.11n (40MHz):

Channel	Frequency	Channel	Frequency
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

*Power setting value from test software:

Mode	Channel No.	Freq. (MHz)	Power Setting
802.11b	1	2412	Default
	6	2437	Default
	11	2462	Default
802.11g	1	2412	Default
	6	2437	Default
	11	2462	Default
802.11 n20	1	2412	Default
	6	2437	Default
	11	2462	Default
802.11 n40	3	2422	Default
	6	2437	Default
	9	2452	Default

2.3 Test Mode Applicability and Tested Channel Detail

Applicable test items	X-Axis	Y-Axis	Z-Axis	Voltage Supply
AC Power Conducted Emission	N/A	N/A	N/A	Powered by adapter
Radiated Emissions	√	√	√	
Band Edge Measurement	N/A	N/A	N/A	
Antenna Port Emission	N/A	N/A	N/A	
6dB Bandwidth	N/A	N/A	N/A	
Occupied Bandwidth Measurement	N/A	N/A	N/A	
Conducted power	N/A	N/A	N/A	
Power Spectral Density	N/A	N/A	N/A	
1. The EUT had been pre-tested on the positioned of each 3 Axis. 2. “N/A” means no effect.				

Applicable test items	Antenna Transmit and receive mode	X-Axis	Y-Axis	Z-Axis
Radiated Emissions	MIMO	√	√	√

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Following channel(s) was (were) selected for the final test as listed below.

Test Condition:

Applicable test items	Environmental Conditions	Tested by
AC Power Conducted Emission	25.4deg. C, 57%RH	Aron
Radiated Emissions	25.4deg. C, 57%RH	Carl

Radiated Emission Test (Above 1GHz):

EUT Configure Mode	Tested Channel	Modulation Type	Data Rate (Mbps)
802.11b	1, 6, 11	DSSS	1.0
802.11g	1, 6, 11	OFDM	6.0
802.11n (20MHz)	1, 6, 11	OFDM	7.2
802.11n (40MHz)	3, 6, 9	OFDM	15.0

Radiated Emission Test (Below 1GHz):

EUT Configure Mode	Tested Channel	Modulation Type	Data Rate (Mbps)
802.11b	1, 6, 11	DSSS	1

Power Line Conducted Emission Test:

EUT Configure Mode	Tested Channel	Modulation Type	Data Rate (Mbps)
802.11b	1, 6, 11	DSSS	1

Antenna Port Conducted Measurement:

*This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

EUT Configure Mode	Tested Channel	Modulation Type	Data Rate (Mbps)
802.11b	1 to 11	DSSS	1.0
802.11g	1 to 11	OFDM	6.0
802.11n (20MHz)	1 to 11	OFDM	7.2
802.11n (40MHz)	3 to 9	OFDM	15.0

2.4 Description of Support Units

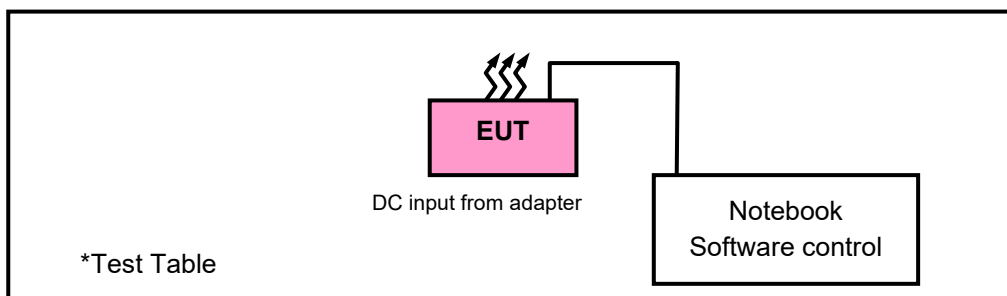
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.
1.	Notebook	HUAWEI	NbD-WFH9	EUEPM21725002655
2.	DESKTOP	Lenovo	510Pro-181KL	R305DH4Y

Insert Cable Connections to/from EUT provided by test team.

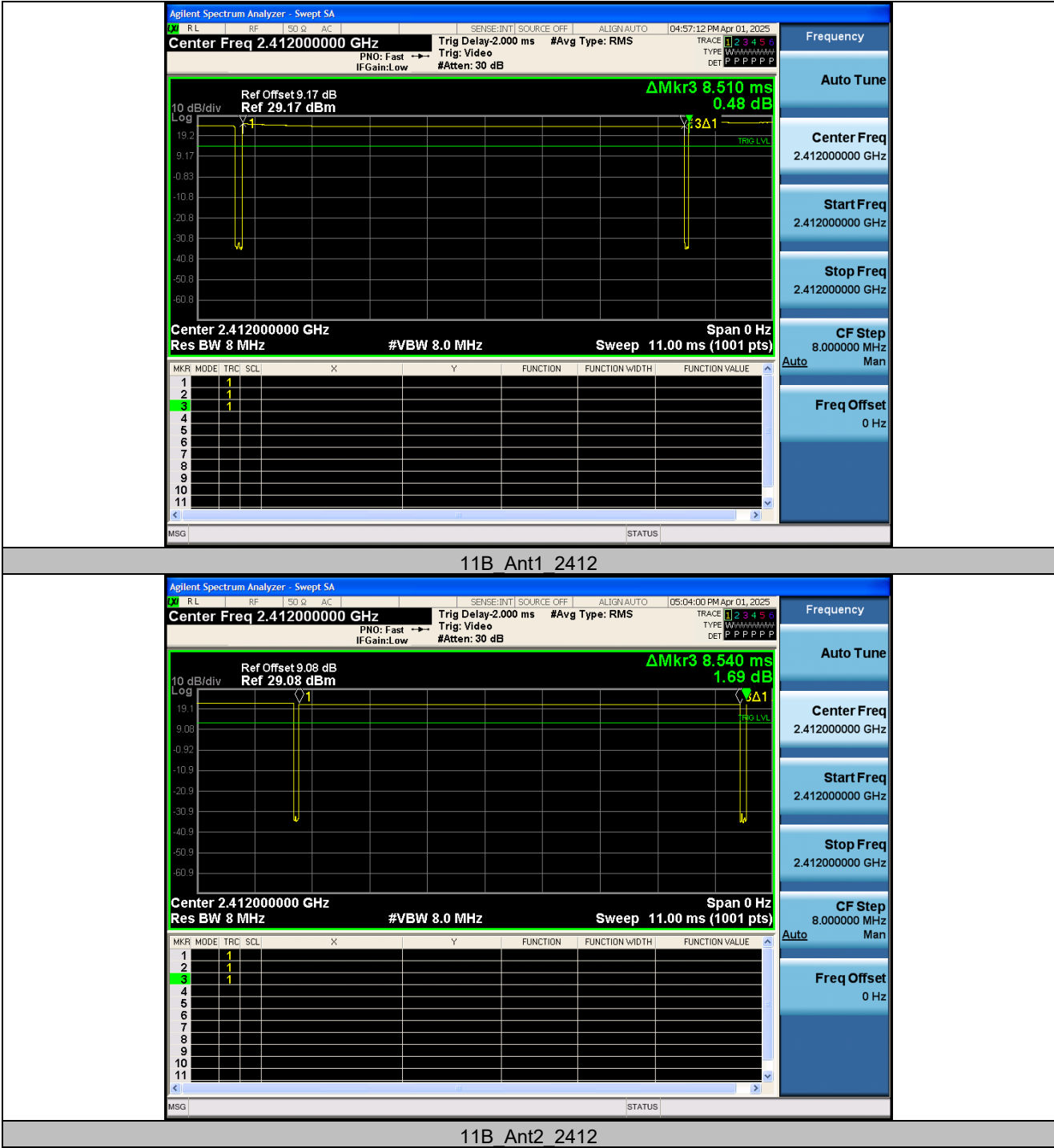
No.	signal cable description of the above support units
1.	DC Line: Unshielded, Detachable 1.0m

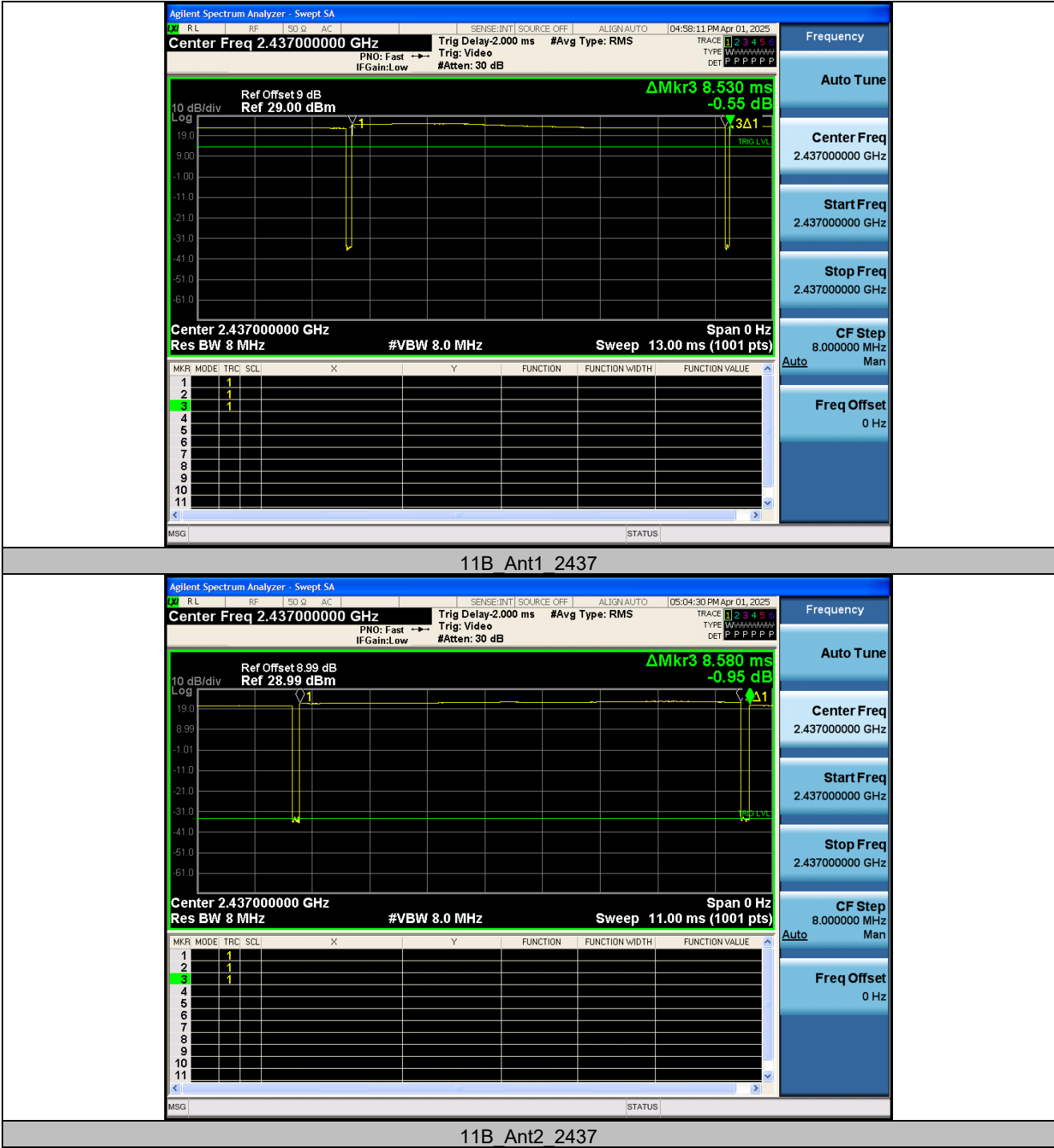
2.5 Configuration of System under Test

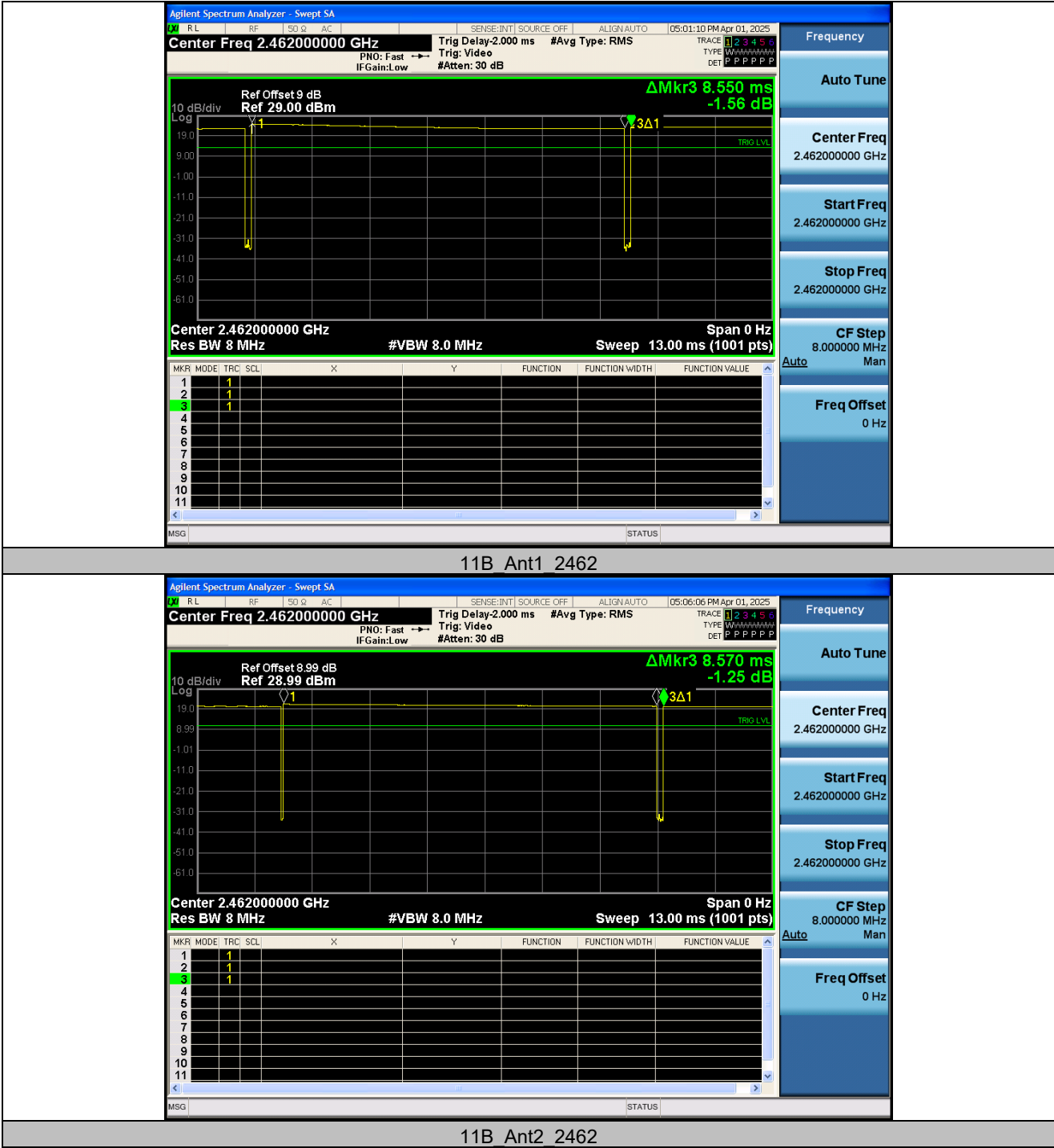


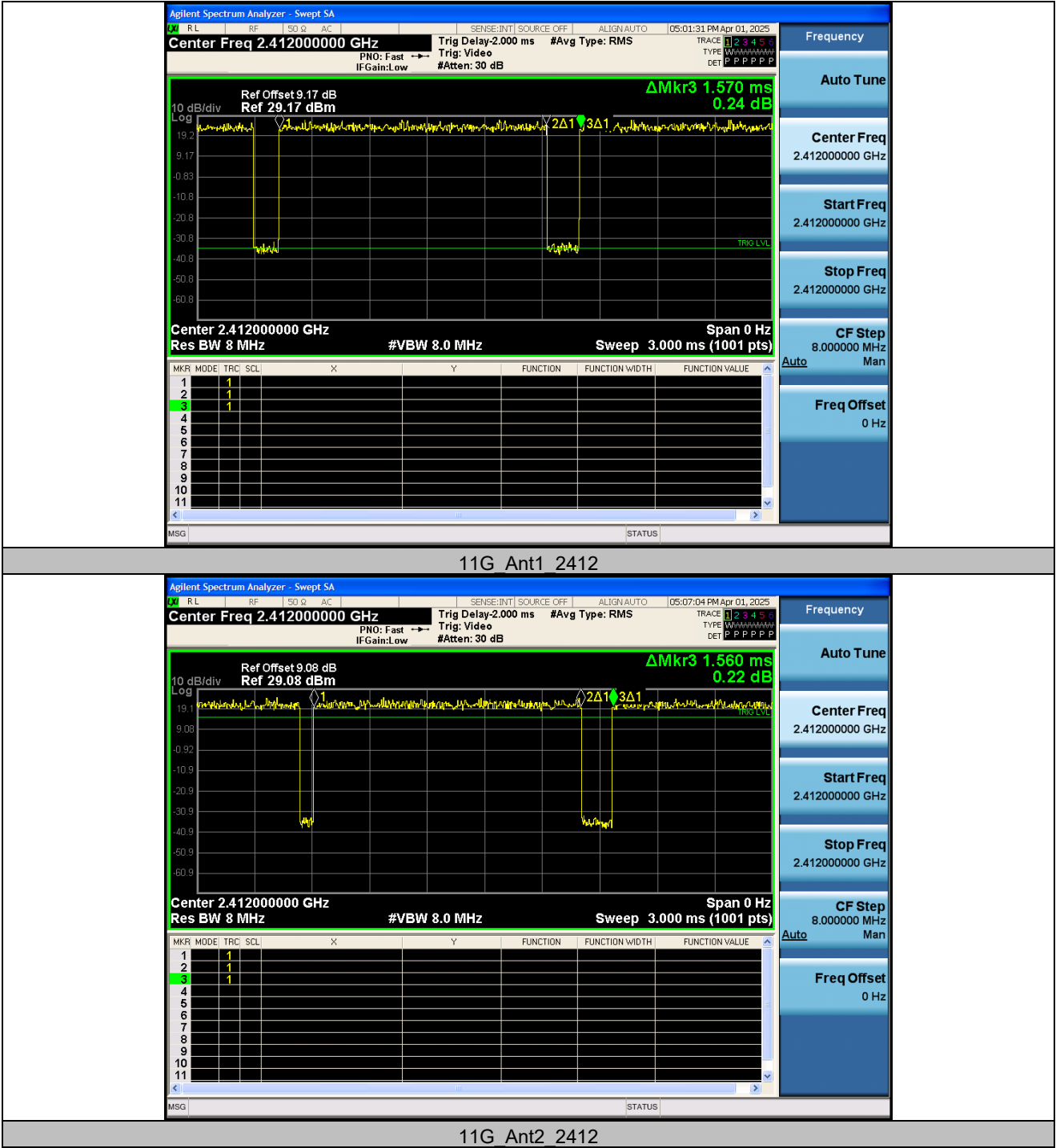
2.6 Duty Cycle of Test Signal

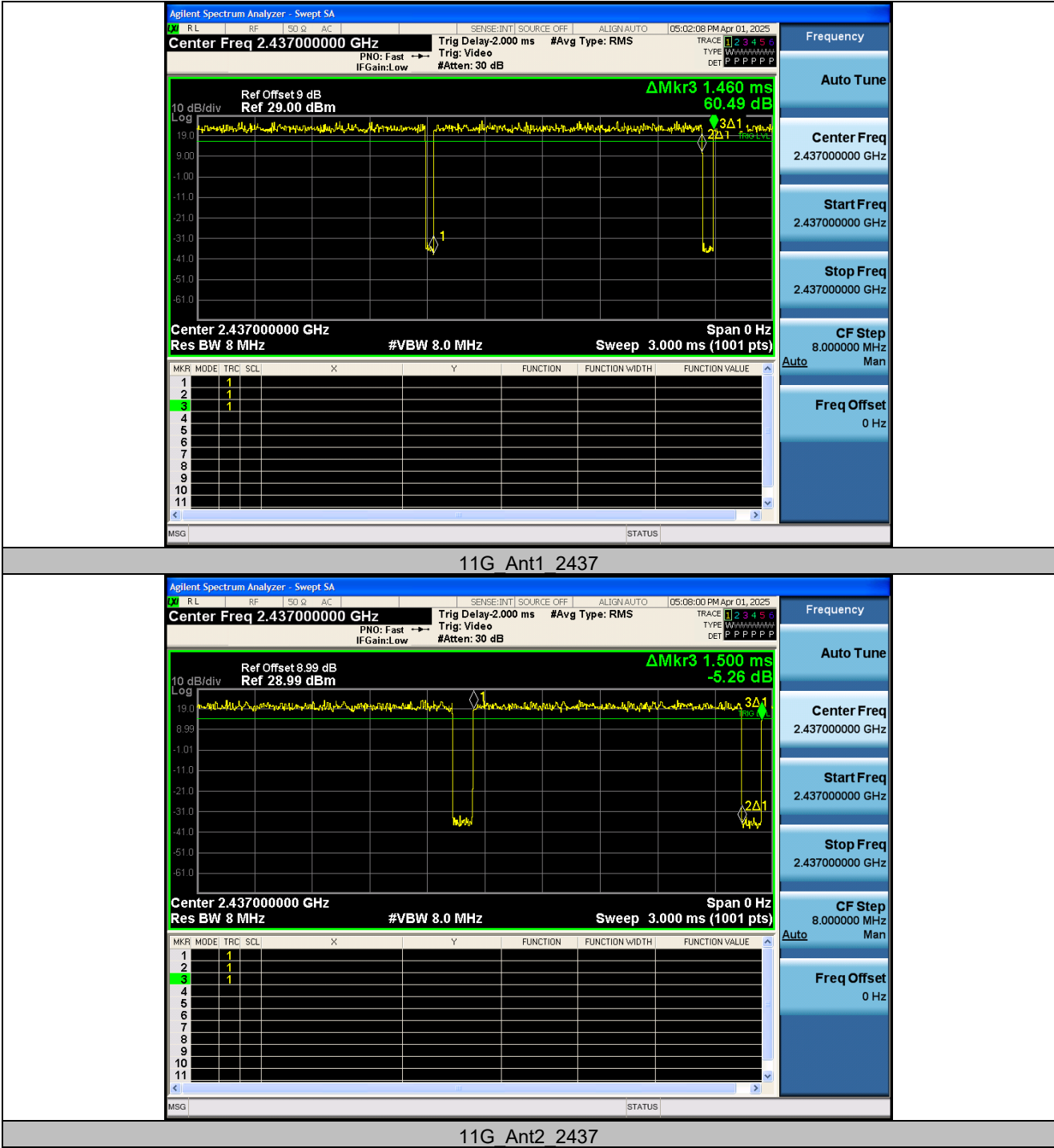
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	8.42	8.51	98.94
	Ant2	2412	8.41	8.54	98.48
	Ant1	2437	8.42	8.53	98.71
	Ant2	2437	8.41	8.58	98.02
	Ant1	2462	8.41	8.55	98.36
	Ant2	2462	8.41	8.57	98.13
11G	Ant1	2412	1.39	1.57	88.54
	Ant2	2412	1.39	1.56	89.10
	Ant1	2437	1.40	1.46	95.89
	Ant2	2437	1.40	1.50	93.33
	Ant1	2462	1.40	1.56	89.74
	Ant2	2462	1.39	1.55	89.68
11N20MIMO	Ant1	2412	1.29	1.43	90.21
	Ant2	2412	1.30	1.35	96.30
	Ant1	2437	1.29	1.45	88.97
	Ant2	2437	1.30	1.36	95.59
	Ant1	2462	1.30	1.34	97.01
	Ant2	2462	1.29	1.34	96.27
11N40MIMO	Ant1	2422	0.64	0.78	82.05
	Ant2	2422	0.64	0.79	81.01
	Ant1	2437	0.63	0.80	78.75
	Ant2	2437	0.64	0.79	81.01
	Ant1	2452	0.64	0.81	79.01
	Ant2	2452	0.64	0.78	82.05

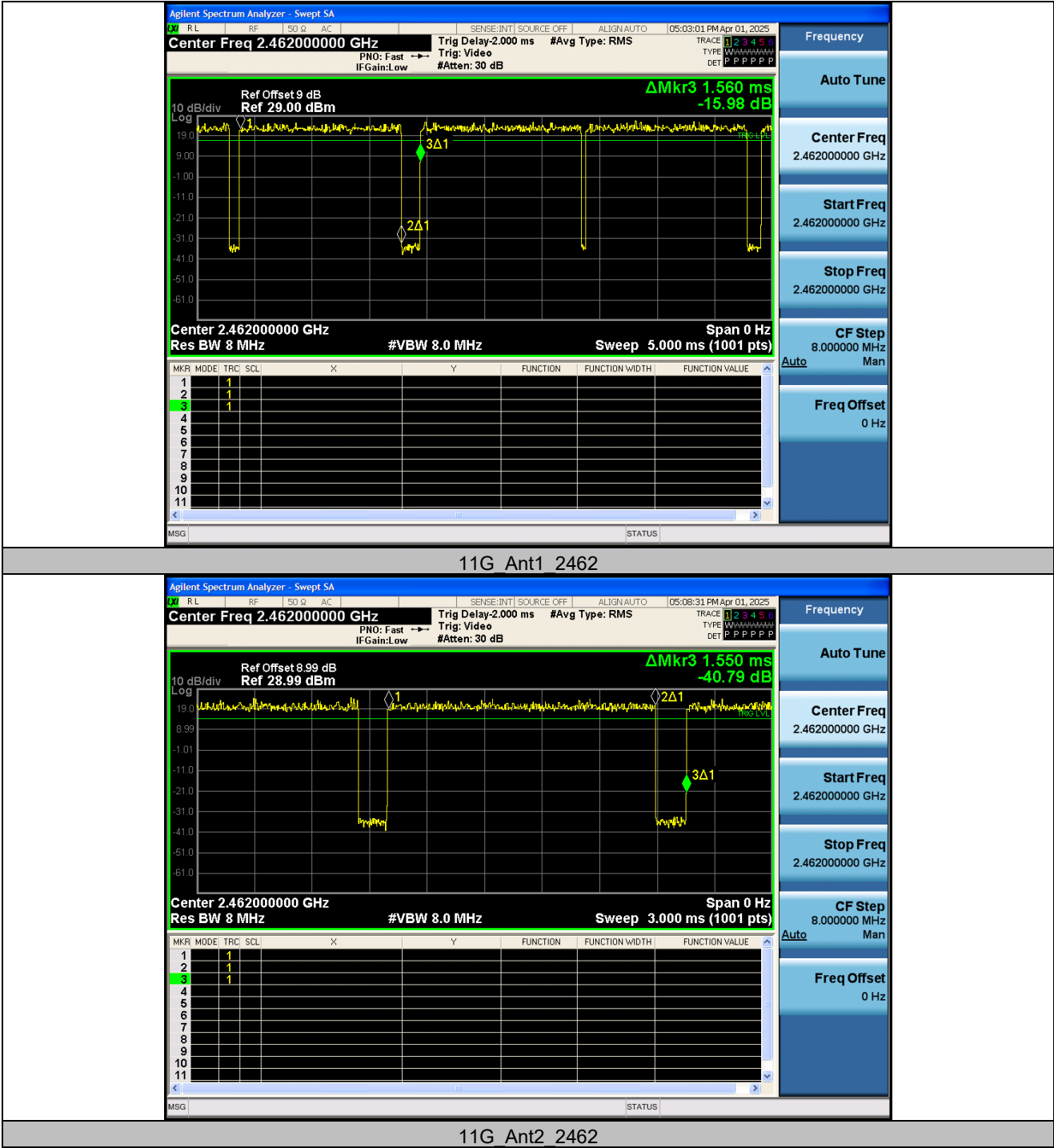


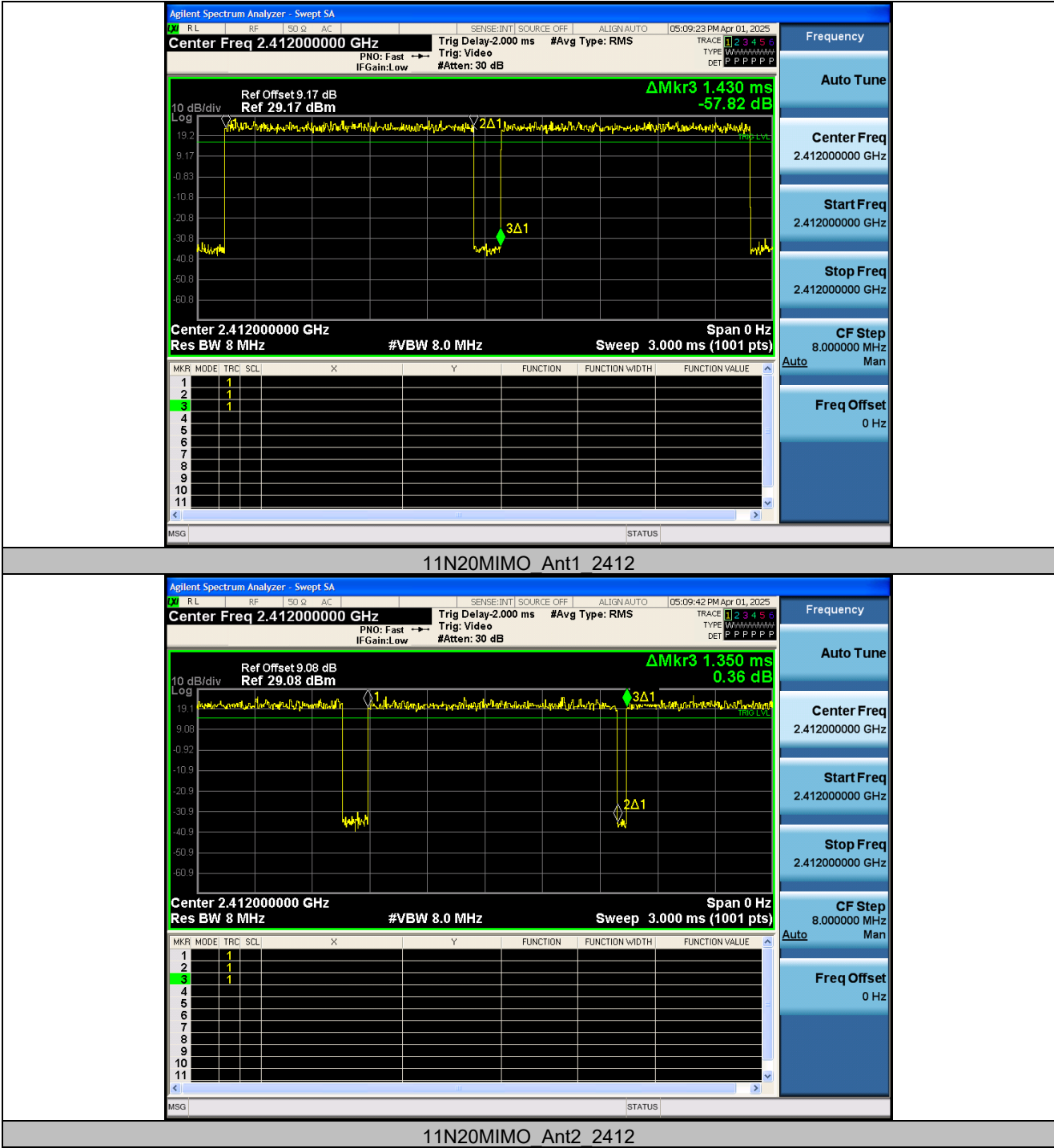


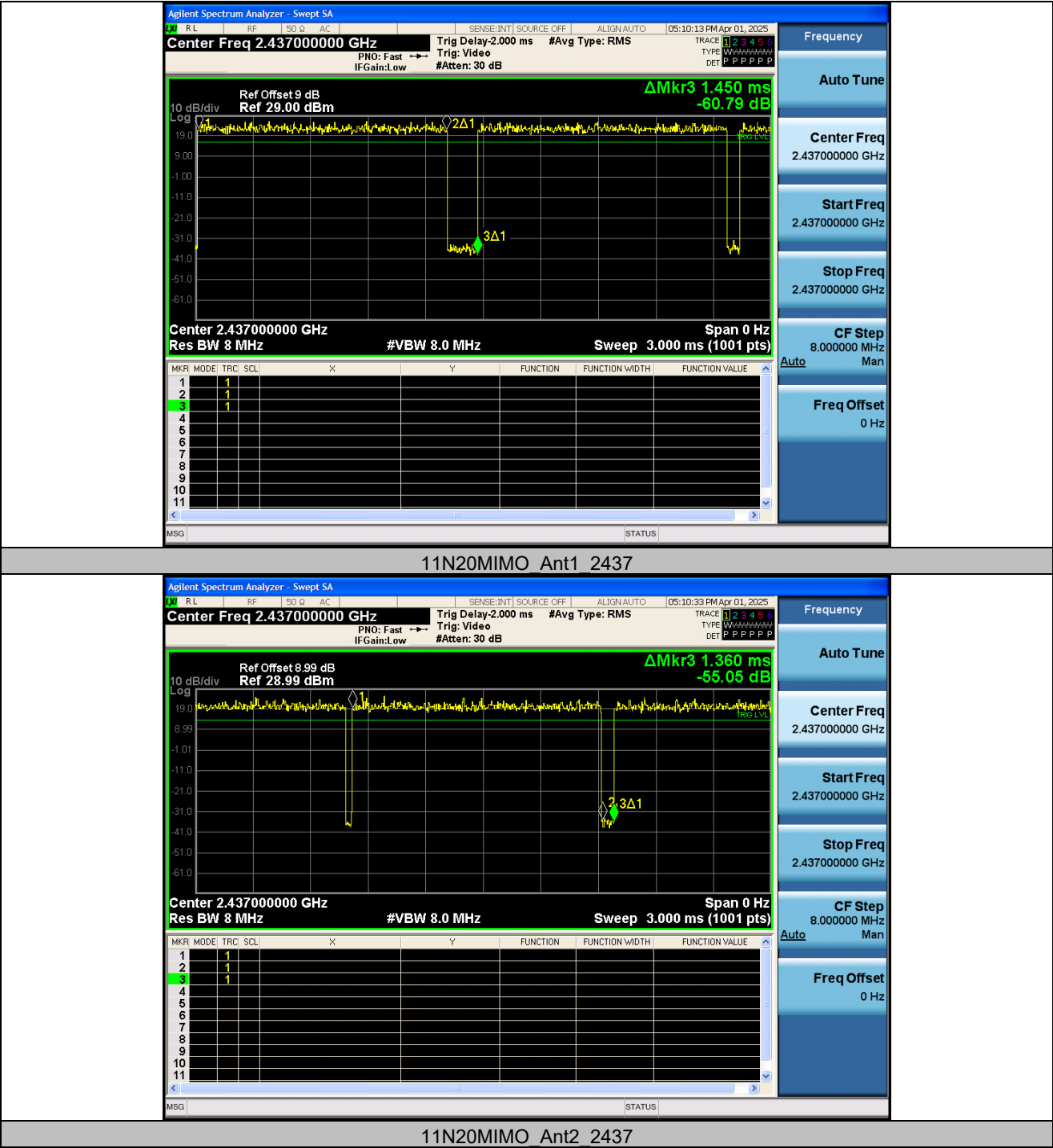


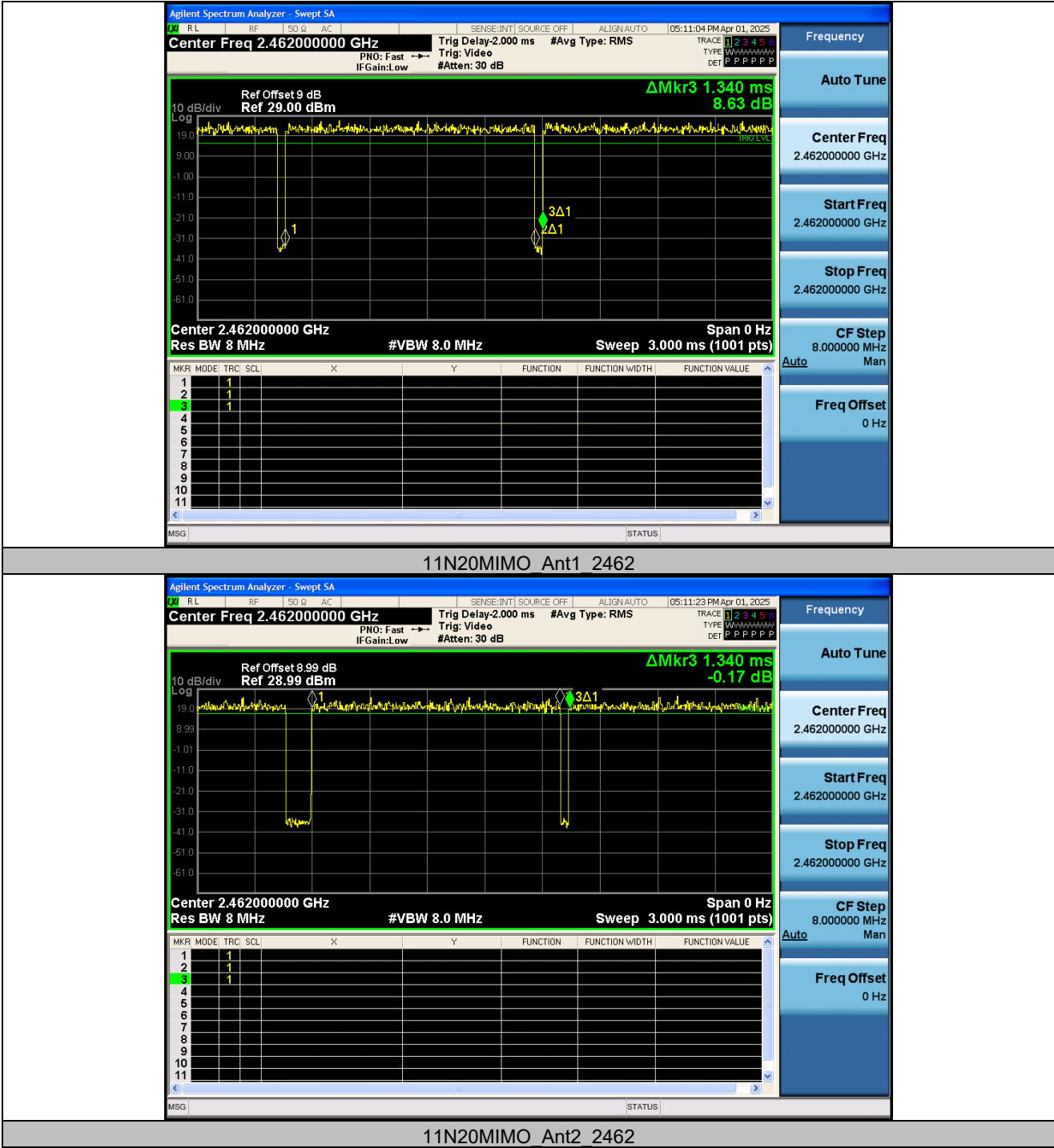


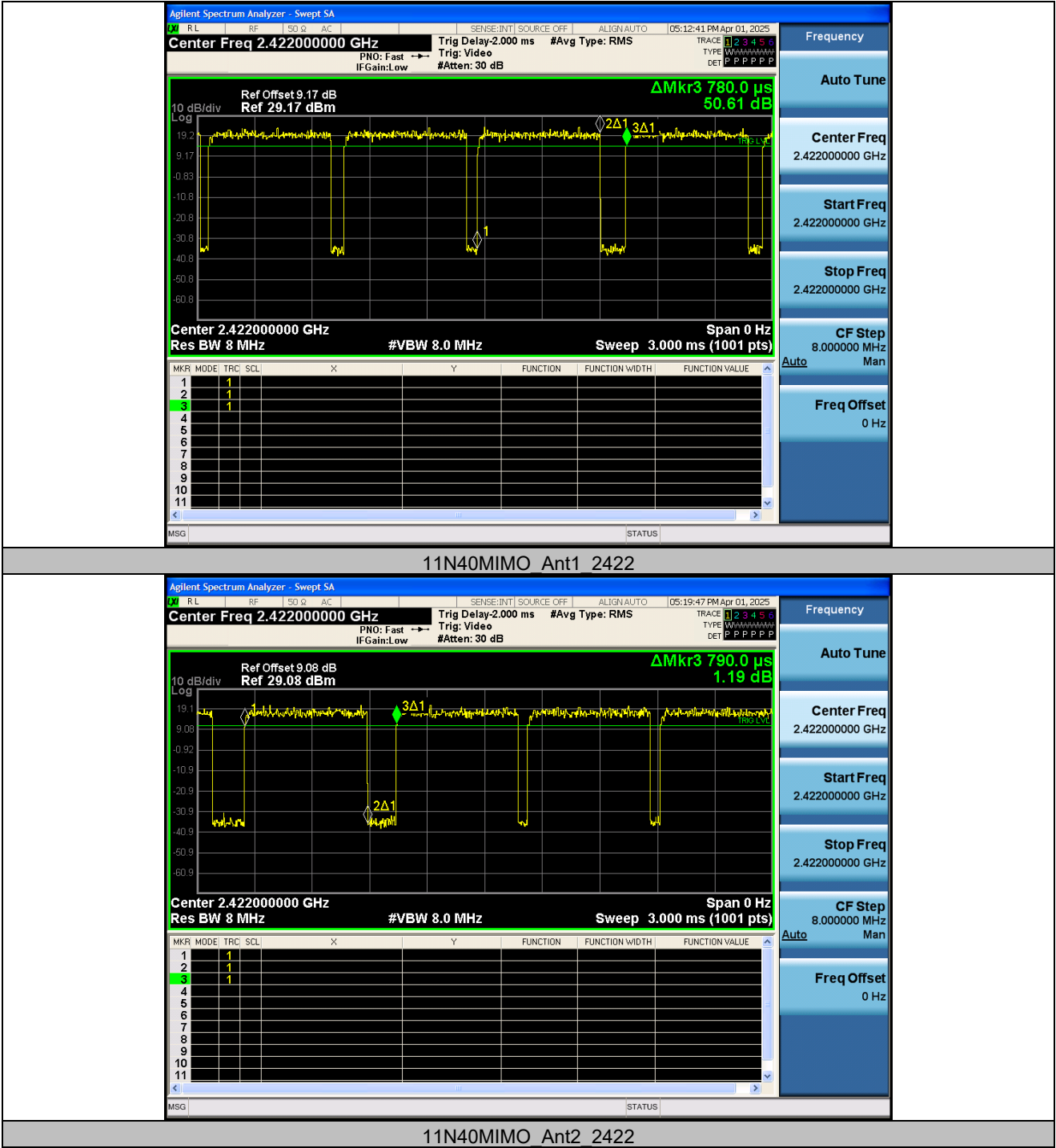


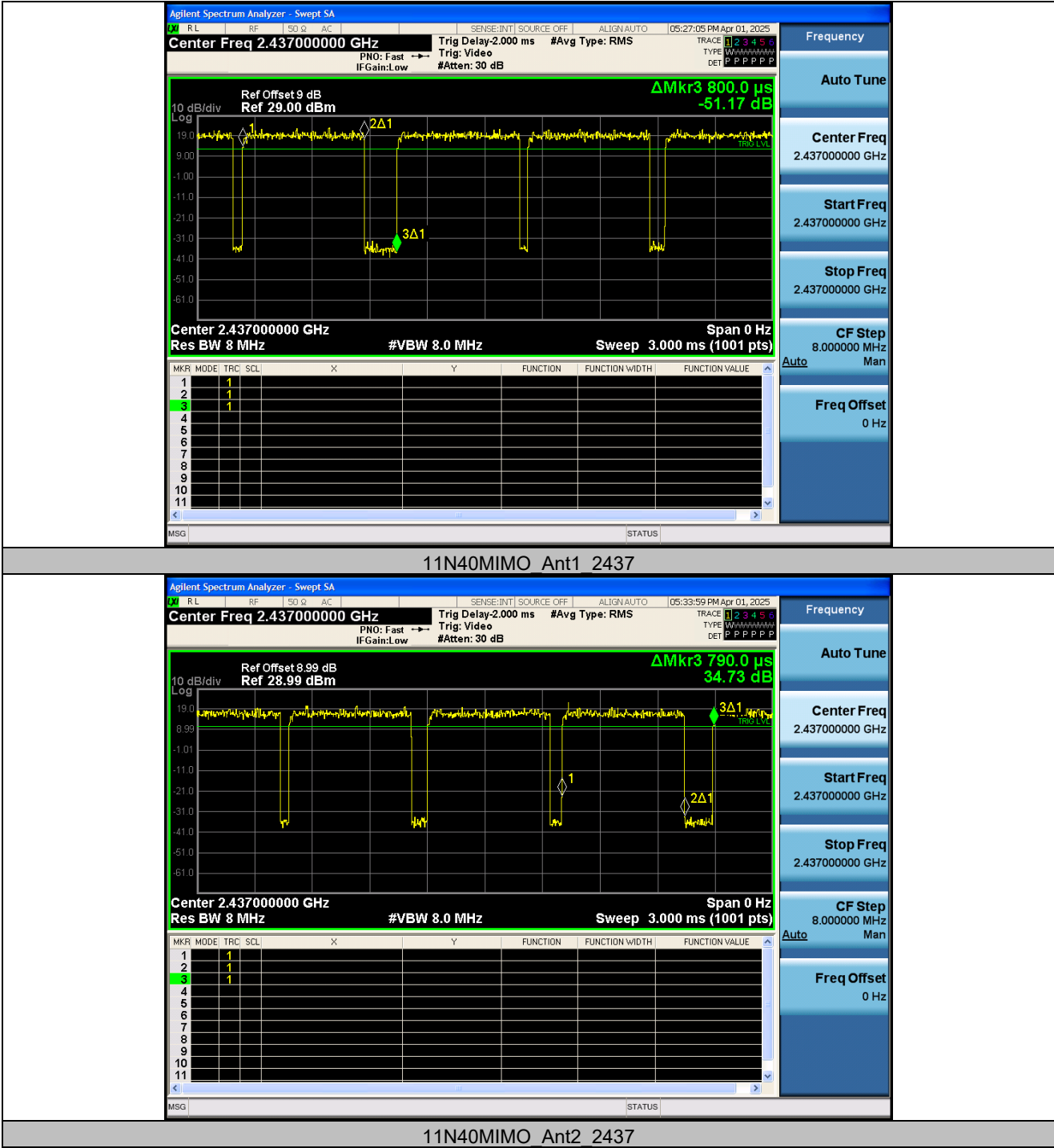


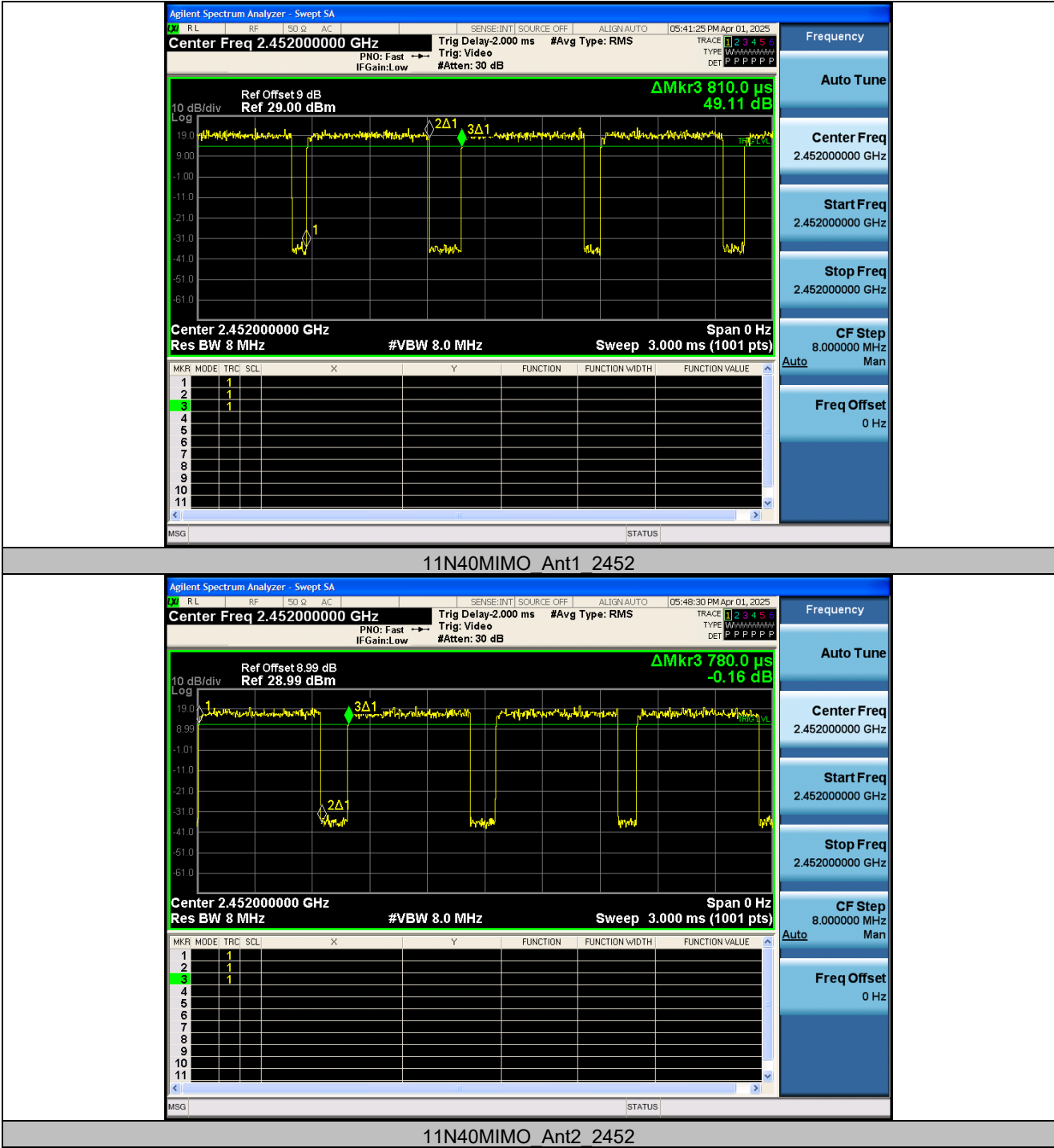












11N40MIMO Ant1 2452

11N40MIMO Ant2 2452

3. Test Types and Results**3.1 Radiated Emission and Band-edge Measurement****3.1.1 Limits of radiated emission and band-edge measurement**

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequencies (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
* DTS emissions in non-restricted frequency bands Subclause 11.11 of ANSI C63.10 is applicable.		
* DTS emissions in restricted frequency bands Subclause 11.12 of ANSI C63.10 is applicable		

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

3.1.2 Test Instruments

Equipment	Manufacturer	Model No.	Serial No.	Next Cal. Date
EMI Test Receiver (9kHz~3GHz)	Rohde&Schwarz	ESPI7	101978	2025-07-25
Broadband antenna (25MHz~2500MHz)	Schwarzbeck	VULB 9168	00937	2025-08-02
3m Semi-anechoic Chamber	MAORUI	9m*6m*6m	HS-2018037	2026-03-13*
Signal Amplifier (30MHz~1000MHz)	Com-power	PAM-103	18020051	2025-07-25
Attenuator	R&S	TS2GA-6dB	18101101	N/A
Test software	FARAD	EZ_EMCV1.1.4.2	N/A	N/A
Digital Multimeter	FLUKE	15B+	54990003WS	2025-08-04
Horn Antenna	Schwarzbeck	BBHA 9120 D	1959	2025-08-15
Spectrum Analyzer	Rohde&Schwarz	FSV-40N	101783	2025-07-25
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	25	2025-07-25
Pre-Amplifier	EMCI	EMC 184045SE	9870709	2025-07-25
Spectrum	Keysight	N9020A	MY51240612	2025-07-25

NOTE:

1. The test was witness in 966 Chamber and RF Oven room in in Hwa-Hsing (Dongguan) Testing Co., Ltd.
2. The calibration interval of the above test instruments is 12/24*/36** months and the calibrations are traceable to LISAI/CHINA.

3.1.3 Test Procedures

a. Peak emission levels are measured by setting the instrument as follow:

- 1) RBW & VBW setting as a function of frequency:

Frequency	RBW	VBW
9kHz~150kHz	200Hz	600Hz
0.15MHz~30MHz	9kHz	30kHz
30MHz~1000MHz	120kHz	300kHz
>1000MHz	1MHz	3MHz

- 2) Detector = peak.
- 3) Sweep time = auto.
- 4) Trace mode = max hold.
- 5) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be lengthened for low-duty-cycle applications.)

Note: If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement

b. Average emission levels are measured by setting the instrument as follow:**● Trace averaging with continuous EUT transmission at full power**

If the EUT can be configured or modified to transmit continuously ($D \geq 98\%$), then the average emission levels shall be measured using the following method (with EUT transmitting continuously):

- 1) RBW=1 MHz (unless otherwise specified).
- 2) VBW $\geq 3 \times$ RBW.
- 3) Detector =RMS
- 4) Sweep time = auto.
- 5) Perform a trace average of at least 100 traces.

● Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction

If continuous transmission of the EUT ($D \geq 98\%$) cannot be achieved and the duty cycle is constant (duty cycle variations are less than $\pm 2\%$), then the following procedure shall be used

- 1) The EUT shall be configured to operate at the maximum achievable duty cycle.
- 2) Measure the duty cycle D of the transmitter output signal as described in 11.6.
- 3) RBW=1 MHz (unless otherwise specified).
- 4) VBW $\geq 3 \times$ RBW.
- 5) Detector =RMS
- 6) Sweep time = auto.
- 7) Perform a trace average of at least 100 traces.

A correction factor shall be added to the measurement results prior to comparing with the emission limit to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

*If power averaging (rms) mode was used in step 5). then the applicable correction factor is $[10 \log (1/D)]$, where D is the duty cycle.

**If linear voltage averaging mode was used in step f). then the applicable correction factor is $[20 \log (1/D)]$, where D is the duty cycle.

***If a specific emission is demonstrated to be continuous ($D > 98\%$) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that

● Reduced VBW Averaging across ON and OFF times of the EUT transmissions with max hold

If continuous transmission of the EUT ($D > 98\%$) cannot be achieved and the duty cycle is not constant (duty cycle variations exceed $\pm 2\%$), then the following procedure shall be used:

- 1) RBW = 1MHz.
 - 2) VBW $\geq 1/T$.
 - 3) Detector = peak
 - 4) Sweep time = auto.
 - 5) Trace mode = max hold.
 - 6) Allow max hold to run for at least $[50 \times (1/D)]$ traces
- c. The EUT was placed on the top of a rotating table 0.8 meters (below 1GHz) / 1.5 meters (1-18GHz) / 1.5 meters (18-40GHz) above the reference ground. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The EUT was set 3meters away from the interference-receiving antenna (Below 1GHz) & (Above 1-18GHz), which was mounted on the top of a variable-height antenna tower. The EUT was set 1meters away from the interference-receiving antenna (18-40GHz).
- e. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- f. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- g. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- h. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

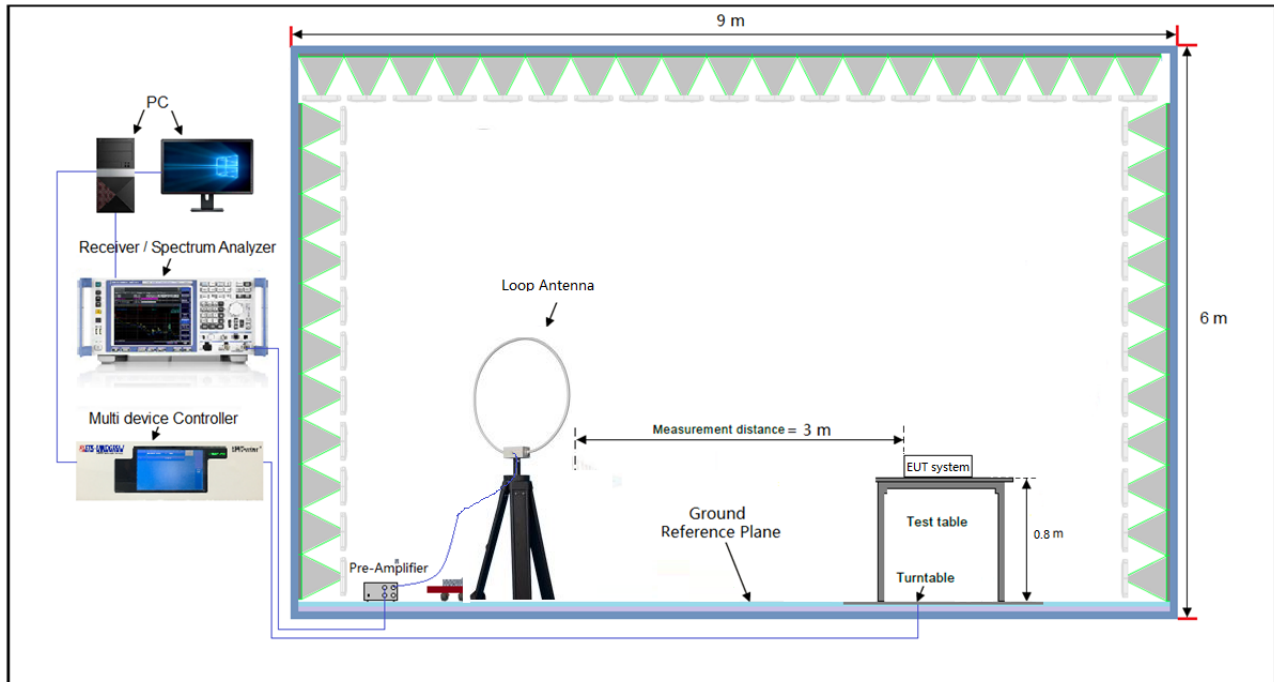
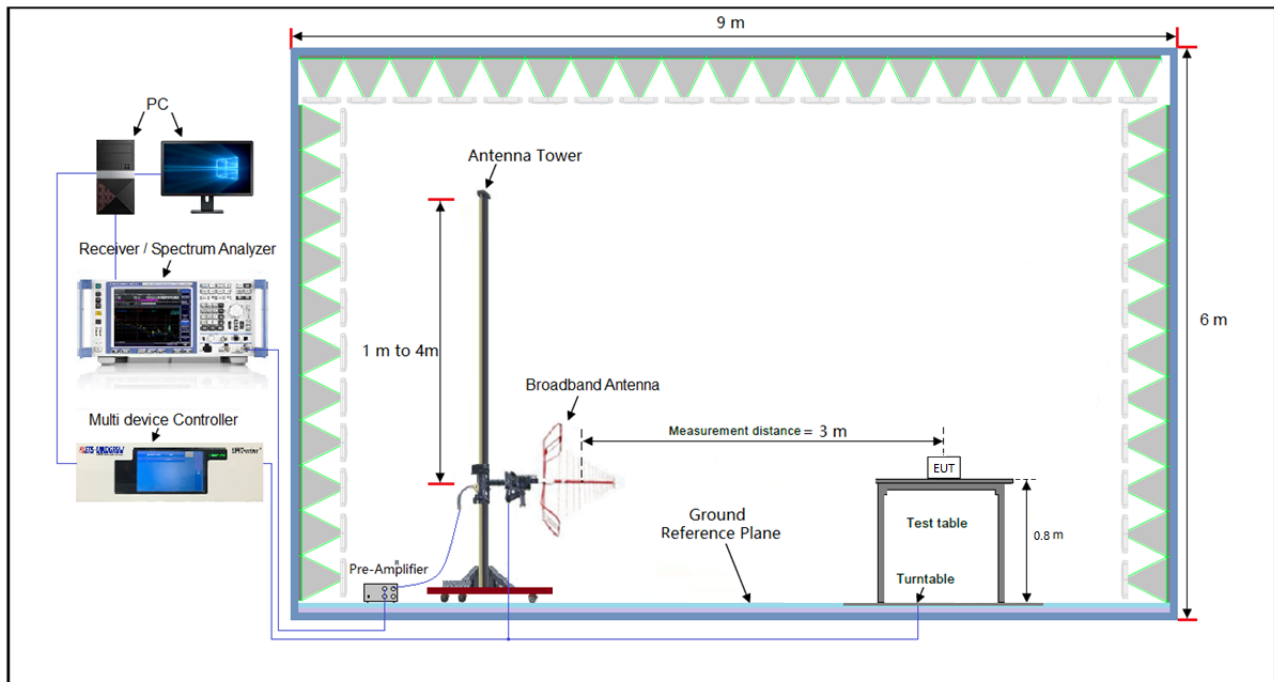
Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth = 3mHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth = $1/T$ for Average (Duty cycle $< 98\%$) detection at frequency above 1 GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is = 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

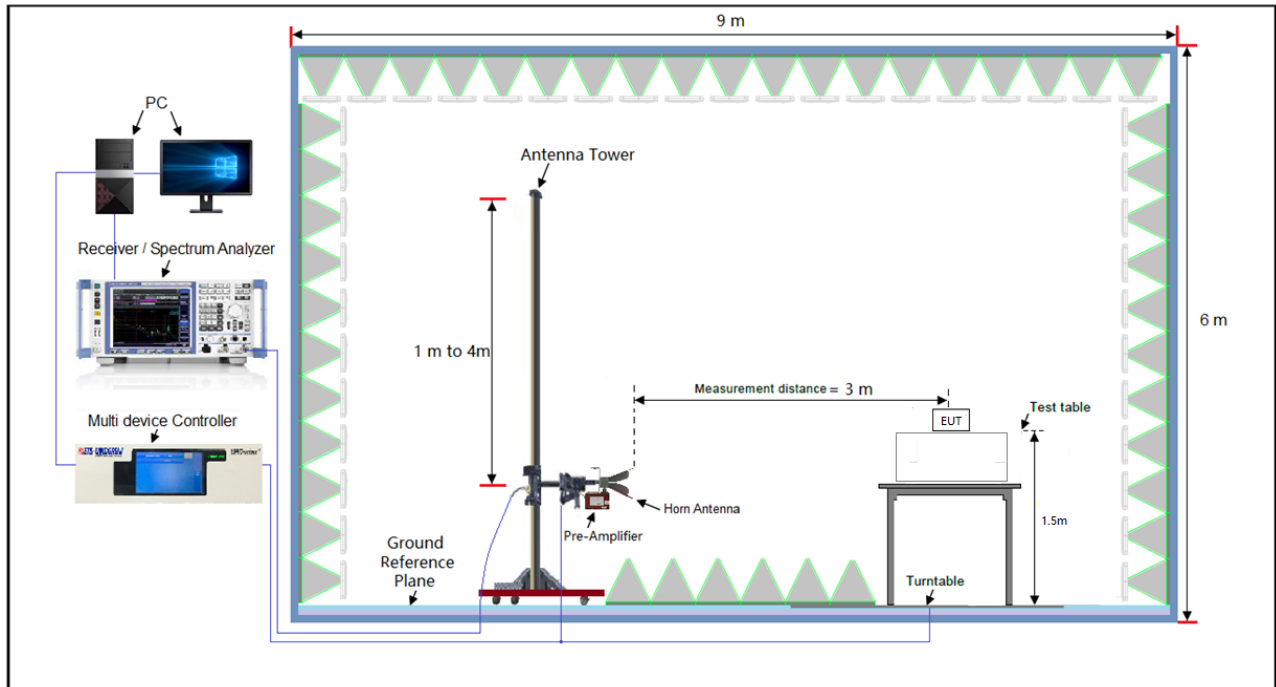
3.1.4 Deviation from Test Standard

No deviation.

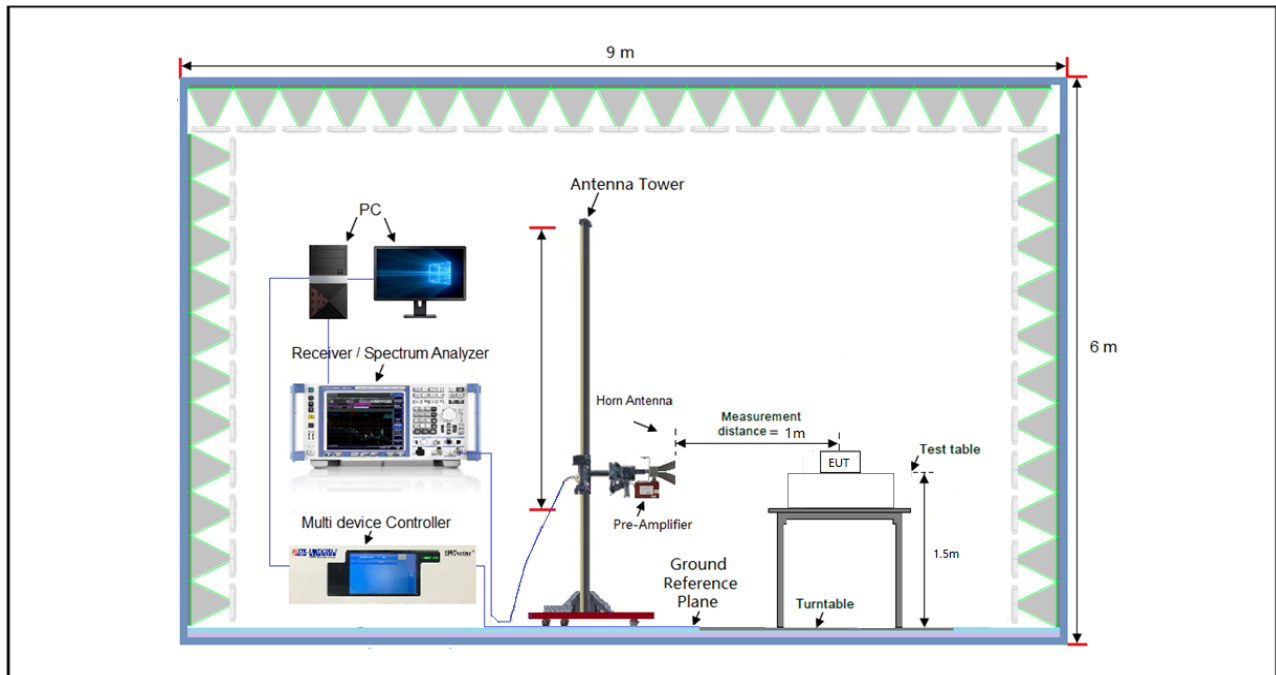
3.1.5 Test Setup

Radiated emission below 30MHz:Frequency Range below 1GHz:

Frequency Range 1-18GHz:



Frequency Range 18-40GHz:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.1.6 EUT Operating Conditions

- Placed the EUT on the testing table.
- Set the EUT under transmission condition continuously at specific channel frequency.

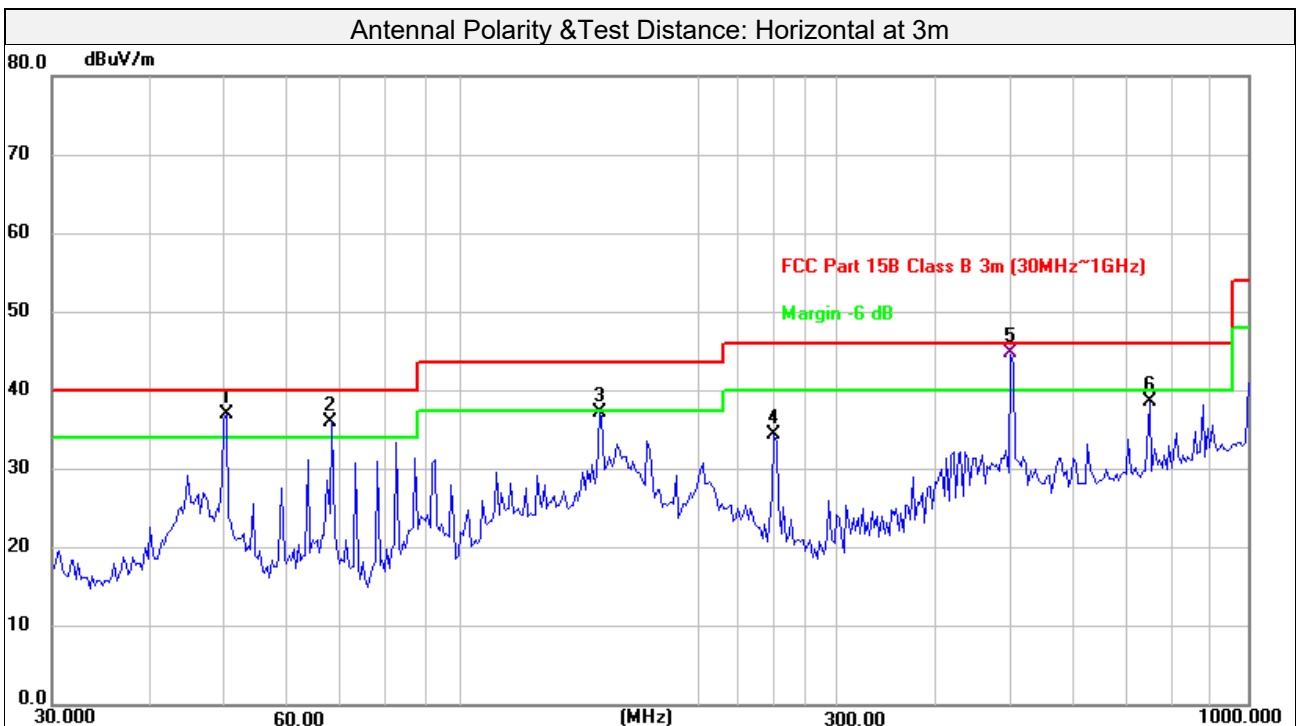
3.1.7 Test Results

9kHz ~ 30MHz Data:

The amplitude of spurious emissions attenuated more than 20dB below the permissible value is not required to be report.

30MHz ~ 1GHz Worst-Case Data:

Test Mode	802.11b 2462MHz TX		
Test Channel	Channel 11	Frequency Range	30MHz ~ 1GHz
Detector Function	Peak (PK) Quasi-peak (QP)	Tested By	Aron

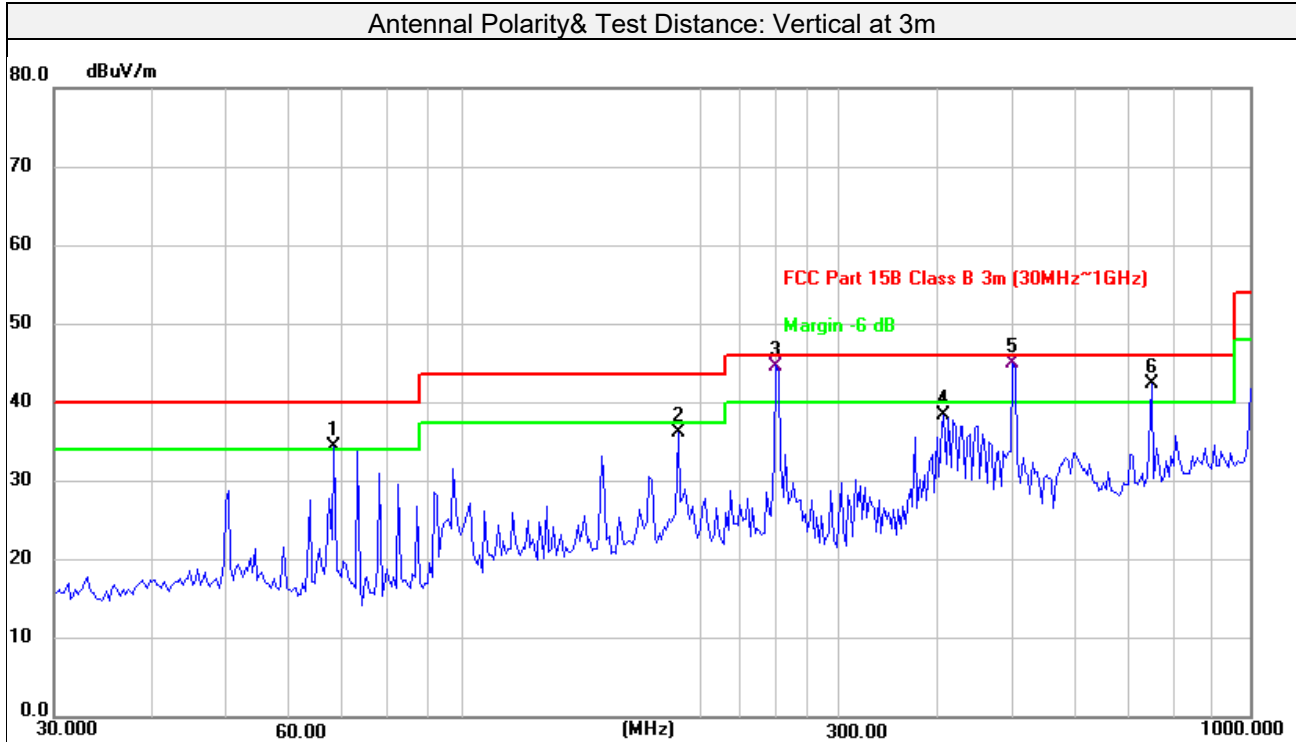


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	50.0566	52.08	-15.09	36.99	40.00	-3.01	peak	244	292
2	68.1512	53.63	-17.70	35.93	40.00	-4.07	peak	133	152
3	149.4857	50.61	-13.37	37.24	43.50	-6.26	peak	120	28
4	249.4250	49.54	-15.06	34.48	46.00	-11.52	peak	330	239
5	500.0045	51.83	-7.05	44.78	46.00	-1.22	QP	225	58
6	750.1082	40.06	-1.47	38.59	46.00	-7.41	peak	348	134

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value

Test Mode	802.11b 2462MHz TX		
Test Channel	Channel 11	Frequency Range	30MHz ~ 1GHz
Detector Function	Peak (PK) Quasi-peak (QP)	Tested By	Aron



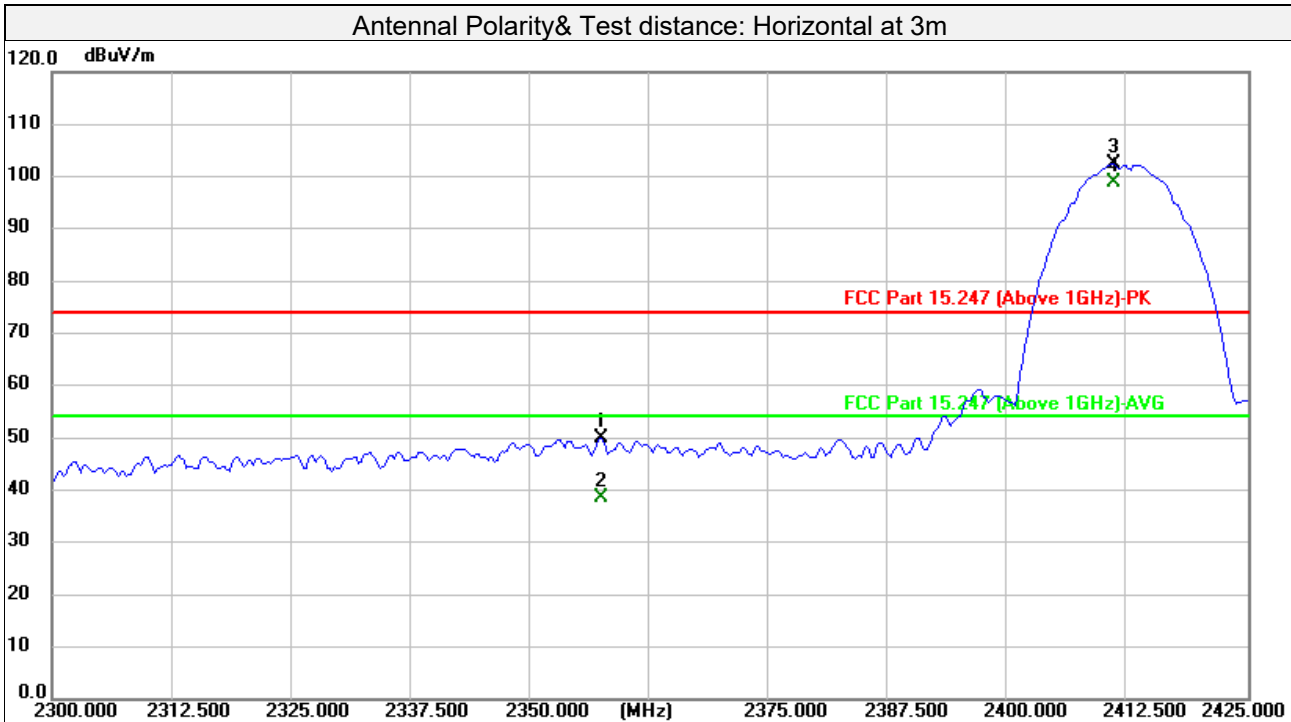
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	68.1514	52.02	-17.70	34.32	40.00	-5.68	peak	260	129
2	187.0956	52.48	-16.30	36.18	43.50	-7.32	peak	196	55
3	249.9950	59.71	-15.04	44.67	46.00	-1.33	QP	221	343
4	407.5144	47.47	-9.16	38.31	46.00	-7.69	peak	150	295
5	500.0046	52.03	-7.05	44.98	46.00	-1.02	QP	247	189
6	750.1082	43.79	-1.47	42.32	46.00	-3.68	peak	218	232

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value

Above 1GHz Data:

Test Mode	802.11b: 2412MHz TX		
Test channel	Channel 1	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

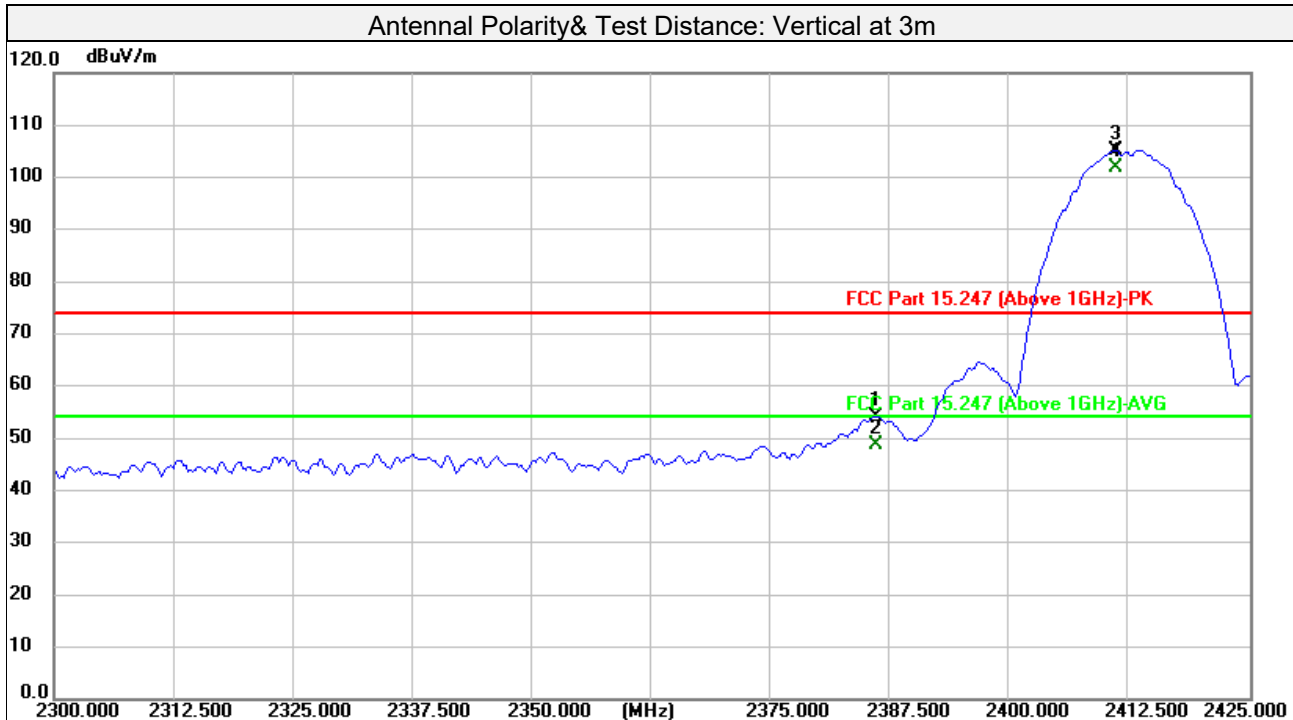


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2357.365	51.48	-1.50	49.98	74.00	-24.02	peak	100	319
2	2357.365	40.05	-1.50	38.55	54.00	-15.45	AVG	100	319
3	2410.972	103.56	-1.16	102.40			peak	100	174
4	2410.972	100.10	-1.16	98.94			AVG	100	174
5	4824.000	52.50	2.51	55.01	74.00	-18.99	peak	100	319
6	4824.000	41.39	2.51	43.90	54.00	-10.10	AVG	100	319
7	7236.000	53.31	9.98	63.29	74.00	-10.71	peak	100	174
8	7236.000	37.71	9.98	47.69	54.00	-6.31	AVG	100	174
9	9648.000	49.61	15.19	64.80	74.00	-9.20	peak	100	175
10	9648.000	31.38	15.19	46.57	54.00	-7.43	AVG	100	175

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2412MHz: Fundamental frequency.

Test Mode	802.11b: 2412MHz TX		
Test channel	Channel 1	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2385.922	55.49	-1.32	54.17	74.00	-19.83	peak	100	174
2	2385.922	49.99	-1.32	48.67	54.00	-5.33	AVG	100	174
3	2410.972	106.30	-1.16	105.14			peak	100	258
4	2410.972	102.90	-1.16	101.74			AVG	100	258
5	4824.000	60.96	2.51	63.47	74.00	-10.53	peak	100	174
6	4824.000	46.70	2.51	49.21	54.00	-4.79	AVG	100	174
7	7236.000	53.39	9.98	63.37	74.00	-10.63	peak	100	258
8	7236.000	37.85	9.98	47.83	54.00	-6.17	AVG	100	258
9	9648.000	49.54	15.19	64.73	74.00	-9.27	peak	100	175
10	9648.000	32.32	15.19	47.51	54.00	-6.49	AVG	100	175

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2412MHz: Fundamental frequency.

Test Mode	802.11b: 2437MHz TX		
Test channel	Channel 6	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

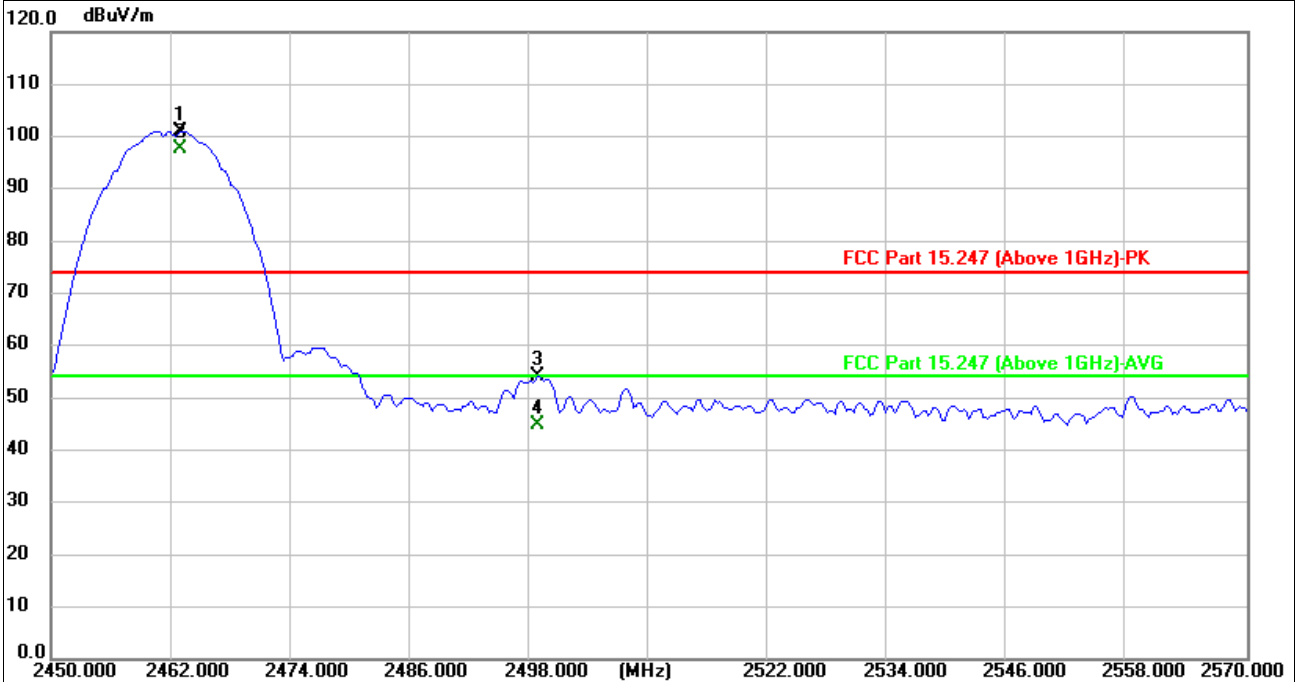
Antennal Polarity& Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2437.000	101.09	-0.99	100.10			peak	100	132
2	2437.000	97.77	-0.99	96.78			AVG	100	132
3	4874.000	51.65	2.62	54.27	74.00	-19.73	peak	107	317
4	4874.000	41.14	2.62	43.76	54.00	-10.24	AVG	107	317
5	7311.000	53.68	10.18	63.86	74.00	-10.14	peak	100	175
6	7311.000	38.80	10.18	48.98	54.00	-5.02	AVG	100	175
7	9748.000	49.44	15.46	64.90	74.00	-9.10	peak	100	258
8	9748.000	31.57	15.46	47.03	54.00	-6.97	AVG	100	258
Antennal Polarity& Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2437.000	98.93	-0.99	97.94			peak	103	177
2	2437.000	95.53	-0.99	94.54			AVG	103	177
3	4874.000	56.06	2.62	58.68	74.00	-15.32	peak	110	164
4	4874.000	44.48	2.62	47.10	54.00	-6.90	AVG	110	164
5	7311.000	52.57	10.18	62.75	74.00	-11.25	peak	100	283
6	7311.000	36.58	10.18	46.76	54.00	-7.24	AVG	100	283
7	9748.000	50.26	15.46	65.72	74.00	-8.28	peak	162	158
8	9748.000	32.59	15.46	48.05	54.00	-5.95	AVG	162	158

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2437MHz: Fundamental frequency.

Test Mode	802.11b: 2462MHz TX		
Test channel	Channel 11	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

Antennal Polarity& Test distance: Horizontal at 3m

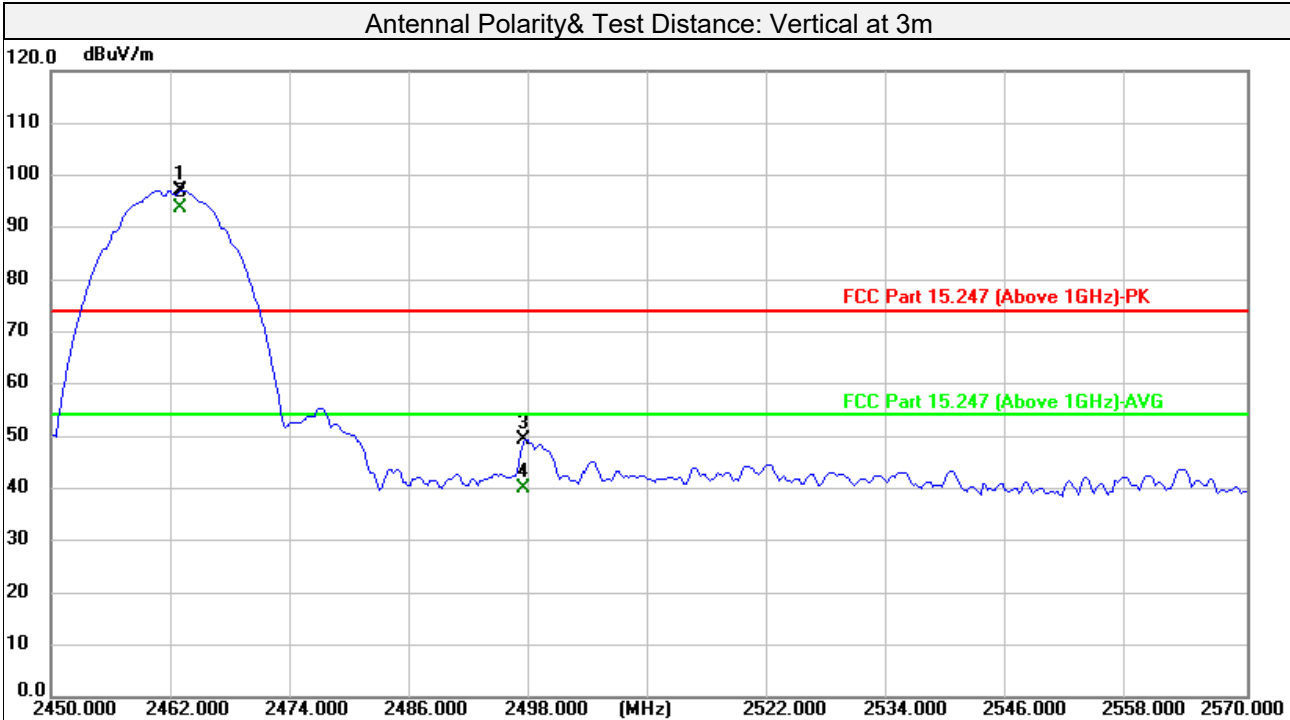


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2463.226	101.90	-0.83	101.07			peak	108	165
2	2463.226	98.43	-0.83	97.60			AVG	108	165
3	2499.058	54.74	-0.59	54.15	74.00	-19.85	peak	108	165
4	2499.058	45.59	-0.59	45.00	54.00	-9.00	AVG	108	165
5	4924.000	54.00	2.74	56.74	74.00	-17.26	peak	116	327
6	4924.000	43.20	2.74	45.94	54.00	-8.06	AVG	116	327
7	7386.000	54.23	10.37	64.60	74.00	-9.40	peak	100	175
8	7386.000	39.15	10.37	49.52	54.00	-4.48	AVG	100	175
9	9848.000	51.83	15.73	67.56	74.00	-6.44	peak	100	305
10	9848.000	33.83	15.73	49.56	54.00	-4.44	AVG	100	305

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2462MHz: Fundamental frequency.

Test Mode	802.11b: 2462MHz TX		
Test channel	Channel 11	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

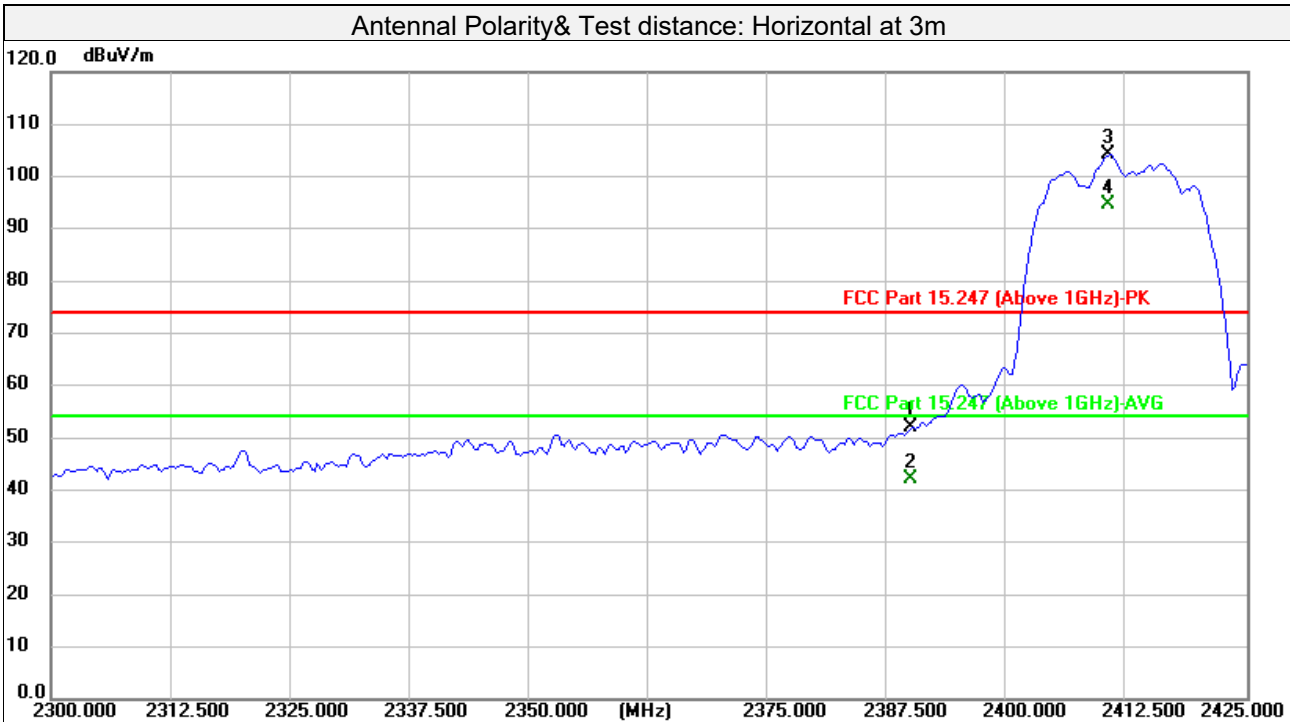


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2463.226	97.92	-0.83	97.09			peak	100	177
2	2463.226	94.50	-0.83	93.67			AVG	100	177
3	2497.615	49.94	-0.60	49.34	74.00	-24.66	peak	100	177
4	2497.615	40.73	-0.60	40.13	54.00	-13.87	AVG	100	177
5	4924.000	57.12	2.74	59.86	74.00	-14.14	peak	100	158
6	4924.000	44.81	2.74	47.55	54.00	-6.45	AVG	100	158
7	7386.000	51.65	10.37	62.02	74.00	-11.98	peak	100	278
8	7386.000	37.09	10.37	47.46	54.00	-6.54	AVG	100	278
9	9848.000	52.90	15.73	68.63	74.00	-5.37	peak	201	210
10	9848.000	34.88	15.73	50.61	54.00	-3.39	AVG	201	210

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2462MHz: Fundamental frequency.

Test Mode	802.11g: 2412MHz TX		
Test channel	Channel 1	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

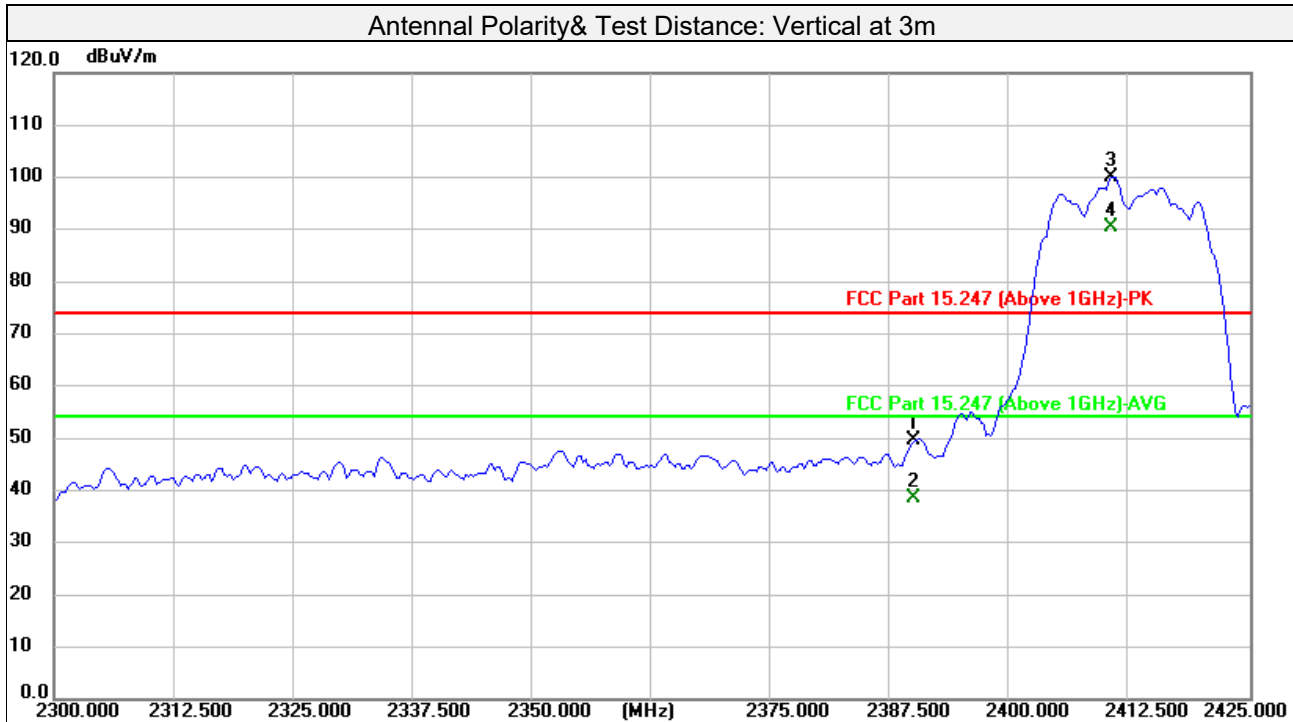


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2390.000	53.23	-1.30	51.93	74.00	-22.07	peak	100	175
2	2390.000	43.34	-1.30	42.04	54.00	-11.96	AVG	100	175
3	2410.721	105.27	-1.16	104.11			peak	100	175
4	2410.721	95.77	-1.16	94.61			AVG	100	175
5	4824.000	51.30	2.51	53.81	74.00	-20.19	peak	100	311
6	4824.000	38.52	2.51	41.03	54.00	-12.97	AVG	100	311
7	7236.000	51.40	9.98	61.38	74.00	-12.62	peak	100	178
8	7236.000	34.97	9.98	44.95	54.00	-9.05	AVG	100	178
9	9648.000	48.91	15.19	64.10	74.00	-9.90	peak	100	315
10	9648.000	30.35	15.19	45.54	54.00	-8.46	AVG	100	315

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2412MHz: Fundamental frequency.

Test Mode	802.11g: 2412MHz TX		
Test channel	Channel 1	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2390.000	50.88	-1.30	49.58	74.00	-24.42	peak	100	177
2	2390.000	39.85	-1.30	38.55	54.00	-15.45	AVG	100	177
3	2410.721	101.24	-1.16	100.08			peak	100	177
4	2410.721	91.51	-1.16	90.35			AVG	100	177
5	4824.000	56.01	2.51	58.52	74.00	-15.48	peak	100	171
6	4824.000	42.26	2.51	44.77	54.00	-9.23	AVG	100	171
7	7236.000	49.26	9.98	59.24	74.00	-14.76	peak	100	260
8	7236.000	33.77	9.98	43.75	54.00	-10.25	AVG	100	260
9	9648.000	48.78	15.19	63.97	74.00	-10.03	peak	100	315
10	9648.000	30.24	15.19	45.43	54.00	-8.57	AVG	100	315

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2412MHz: Fundamental frequency.

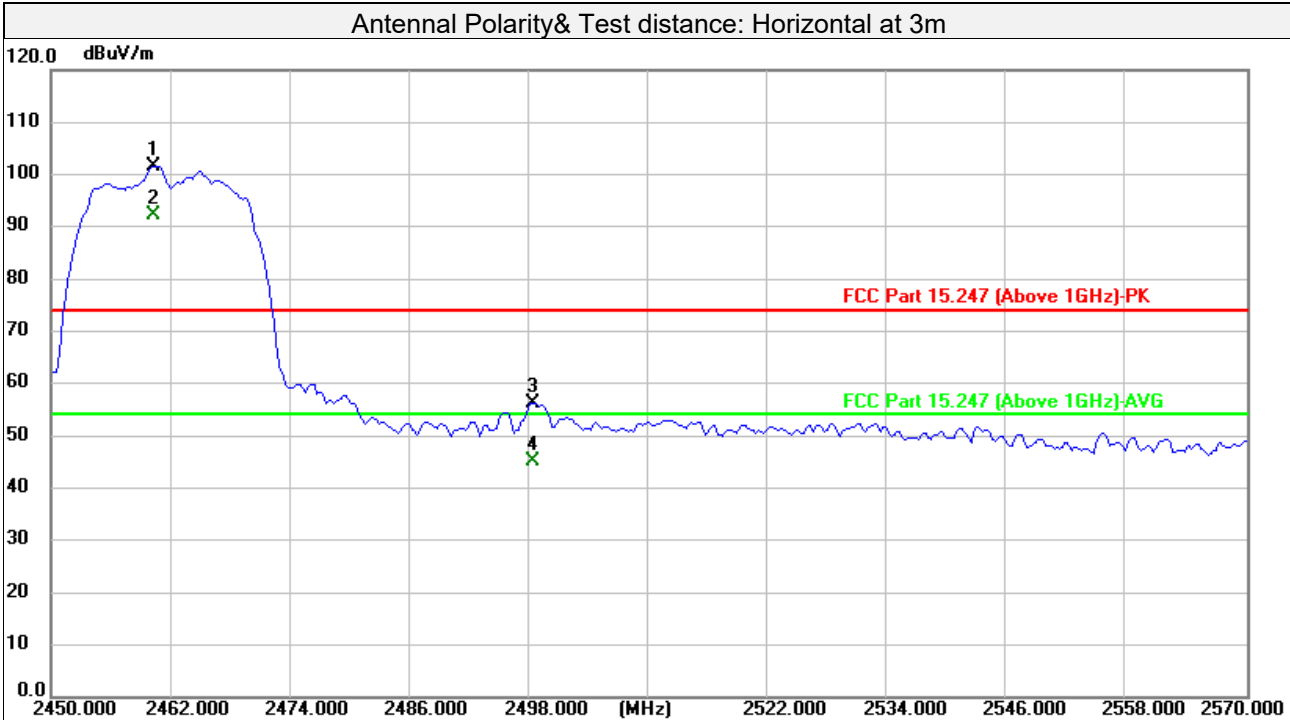
Test Mode	802.11g: 2437MHz TX		
Test channel	Channel 6	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

Antennal Polarity& Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2437.000	104.74	-0.99	103.75			peak	124	174
2	2437.000	95.28	-0.99	94.29			AVG	124	174
3	4874.000	49.89	2.62	52.51	74.00	-21.49	peak	100	187
4	4874.000	37.93	2.62	40.55	54.00	-13.45	AVG	100	187
5	7311.000	52.99	10.18	63.17	74.00	-10.83	peak	100	176
6	7311.000	36.21	10.18	46.39	54.00	-7.61	AVG	100	176
7	9748.000	50.01	15.46	65.47	74.00	-8.53	peak	100	178
8	9748.000	30.59	15.46	46.05	54.00	-7.95	AVG	100	178
Antennal Polarity& Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2437.000	101.00	-0.99	100.01			peak	100	173
2	2437.000	92.22	-0.99	91.23			AVG	100	173
3	4874.000	53.35	2.62	55.97	74.00	-18.03	peak	100	160
4	4874.000	41.92	2.62	44.54	54.00	-9.46	AVG	100	160
5	7311.000	50.22	10.18	60.40	74.00	-13.60	peak	100	283
6	7311.000	34.39	10.18	44.57	54.00	-9.43	AVG	100	283
7	9748.000	49.86	15.46	65.32	74.00	-8.68	peak	100	168
8	9748.000	30.32	15.46	45.78	54.00	-8.22	AVG	100	168

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2437MHz: Fundamental frequency.

Test Mode	802.11g: 2462MHz TX		
Test channel	Channel 11	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

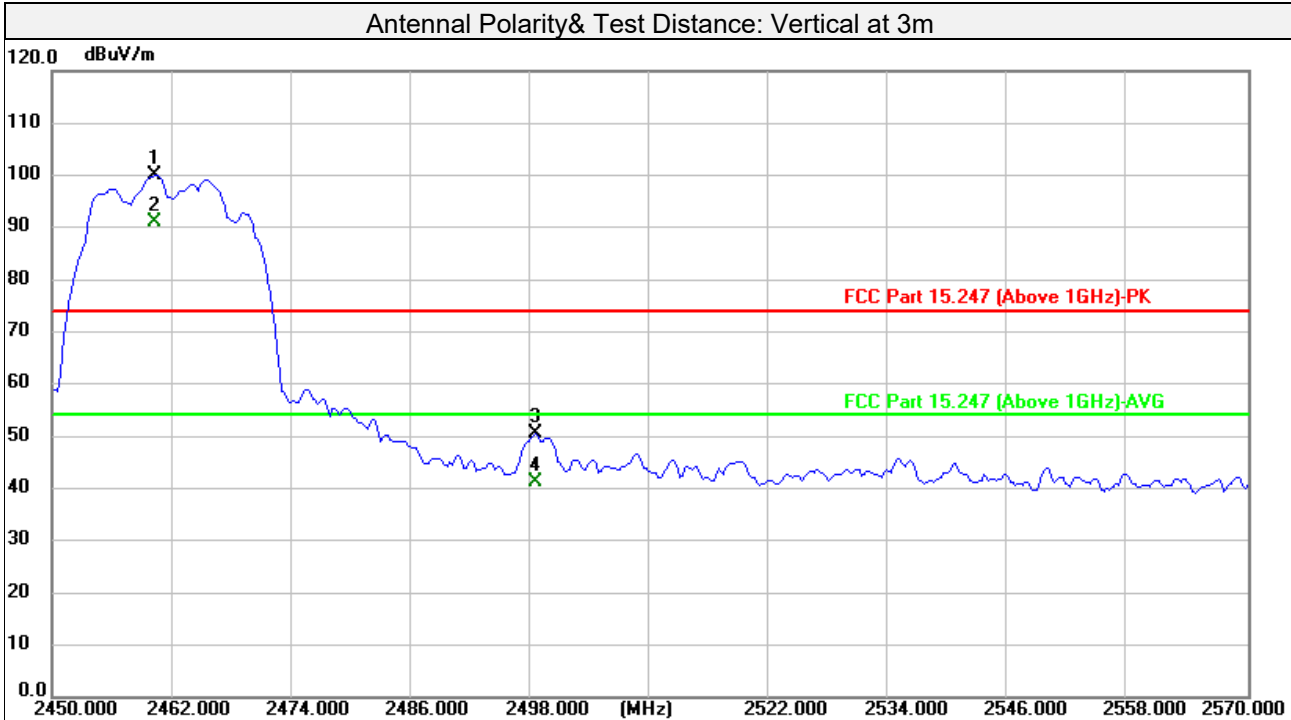


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2460.341	102.46	-0.84	101.62			peak	100	170
2	2460.341	93.11	-0.84	92.27			AVG	100	170
3	2498.337	56.99	-0.60	56.39	74.00	-17.61	peak	100	170
4	2498.337	45.71	-0.60	45.11	54.00	-8.89	AVG	100	170
5	4924.000	52.46	2.74	55.20	74.00	-18.80	peak	132	326
6	4924.000	39.90	2.74	42.64	54.00	-11.36	AVG	132	326
7	7386.000	52.58	10.37	62.95	74.00	-11.05	peak	100	176
8	7386.000	36.56	10.37	46.93	54.00	-7.07	AVG	100	176
9	9848.000	50.92	15.73	66.65	74.00	-7.35	peak	100	305
10	9848.000	32.18	15.73	47.91	54.00	-6.09	AVG	100	305

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2462MHz: Fundamental frequency.

Test Mode	802.11g: 2462MHz TX		
Test channel	Channel 11	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

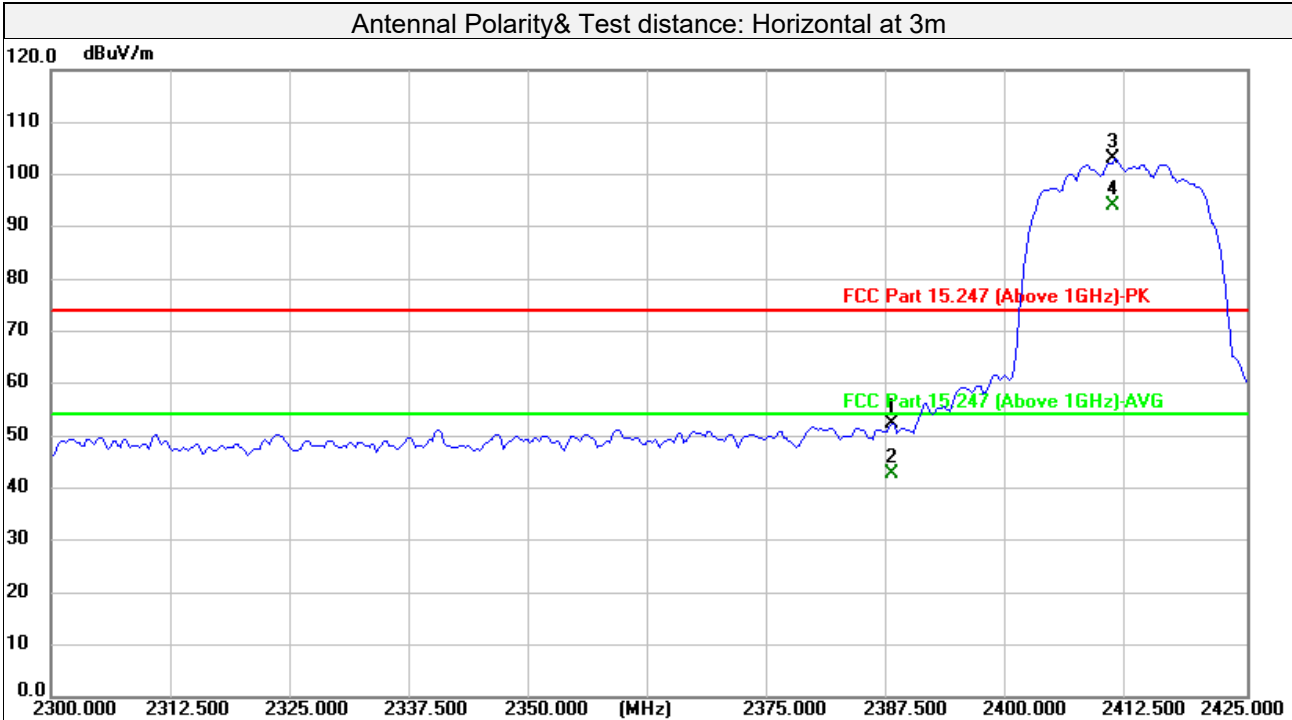


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2460.341	100.83	-0.84	99.99			peak	100	175
2	2460.341	91.85	-0.84	91.01			AVG	100	175
3	2498.577	51.14	-0.60	50.54	74.00	-23.46	peak	100	175
4	2498.577	42.00	-0.60	41.40	54.00	-12.60	AVG	100	175
5	4924.000	56.30	2.74	59.04	74.00	-14.96	peak	100	160
6	4924.000	42.48	2.74	45.22	54.00	-8.78	AVG	100	160
7	7386.000	49.47	10.37	59.84	74.00	-14.16	peak	100	256
8	7386.000	35.47	10.37	45.84	54.00	-8.16	AVG	100	256
9	9848.000	49.80	15.73	65.53	74.00	-8.47	peak	100	115
10	9848.000	30.85	15.73	46.58	54.00	-7.42	AVG	100	115

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2462MHz: Fundamental frequency.

Test Mode	802.11n HT20: 2412MHz TX		
Test channel	Channel 1	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

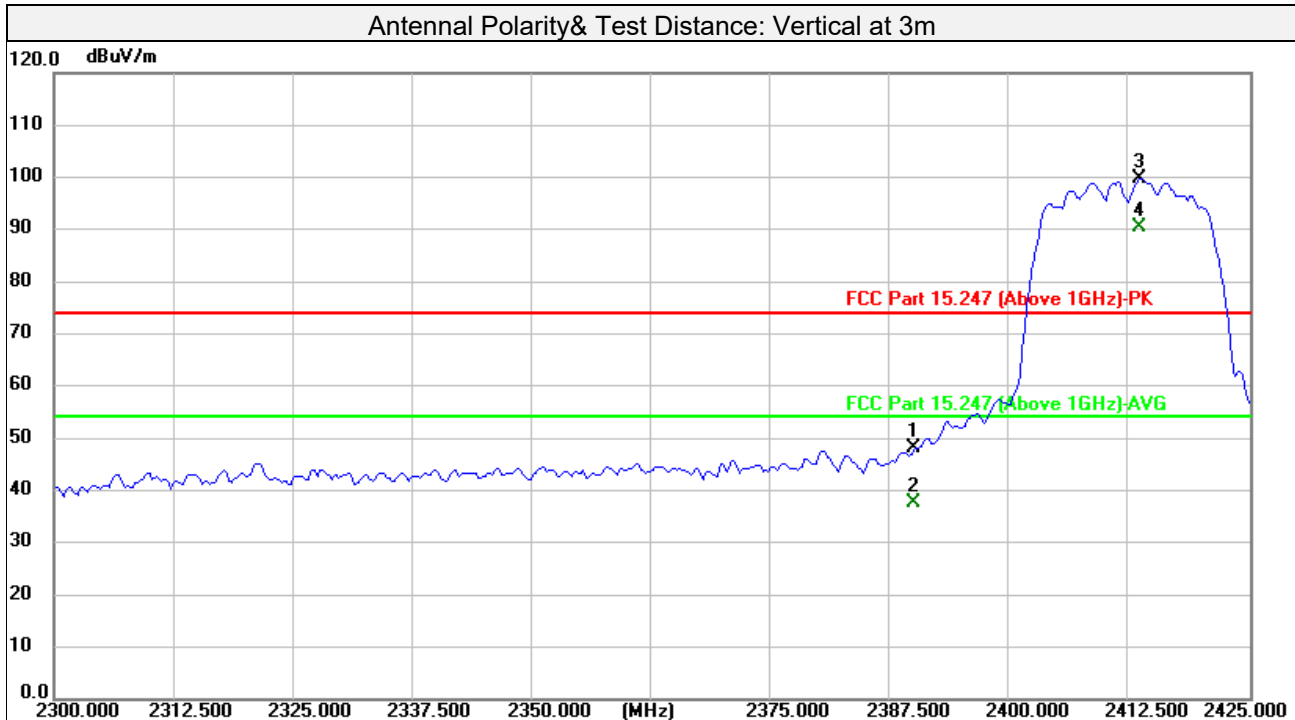


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2387.926	53.80	-1.31	52.49	74.00	-21.51	peak	131	172
2	2387.926	44.06	-1.31	42.75	54.00	-11.25	AVG	131	172
3	2411.222	104.16	-1.16	103.00			peak	131	172
4	2411.222	95.25	-1.16	94.09			AVG	131	172
5	4824.000	55.06	2.51	57.57	74.00	-16.43	peak	100	211
6	4824.000	41.41	2.51	43.92	54.00	-10.08	AVG	100	211
7	7236.000	52.40	9.98	62.38	74.00	-11.62	peak	100	202
8	7236.000	37.90	9.98	47.88	54.00	-6.12	AVG	100	202
9	9648.000	49.46	15.19	64.65	74.00	-9.35	peak	100	231
10	9648.000	31.27	15.19	46.46	54.00	-7.54	AVG	100	231

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2412MHz: Fundamental frequency.

Test Mode	802.11n HT20: 2412MHz TX		
Test channel	Channel 1	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2390.000	49.44	-1.30	48.14	74.00	-25.86	peak	107	173
2	2390.000	39.01	-1.30	37.71	54.00	-16.29	AVG	107	173
3	2413.727	100.82	-1.14	99.68			peak	107	173
4	2413.727	91.52	-1.14	90.38			AVG	107	173
5	4824.000	57.57	2.51	60.08	74.00	-13.92	peak	196	223
6	4824.000	44.61	2.51	47.12	54.00	-6.88	AVG	196	223
7	7236.000	51.13	9.98	61.11	74.00	-12.89	peak	100	163
8	7236.000	35.49	9.98	45.47	54.00	-8.53	AVG	100	163
9	9648.000	48.72	15.19	63.91	74.00	-10.09	peak	100	118
10	9648.000	30.85	15.19	46.04	54.00	-7.96	AVG	100	118

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2412MHz: Fundamental frequency.

Test Mode	802.11n HT20: 2437MHz TX		
Test channel	Channel 6	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

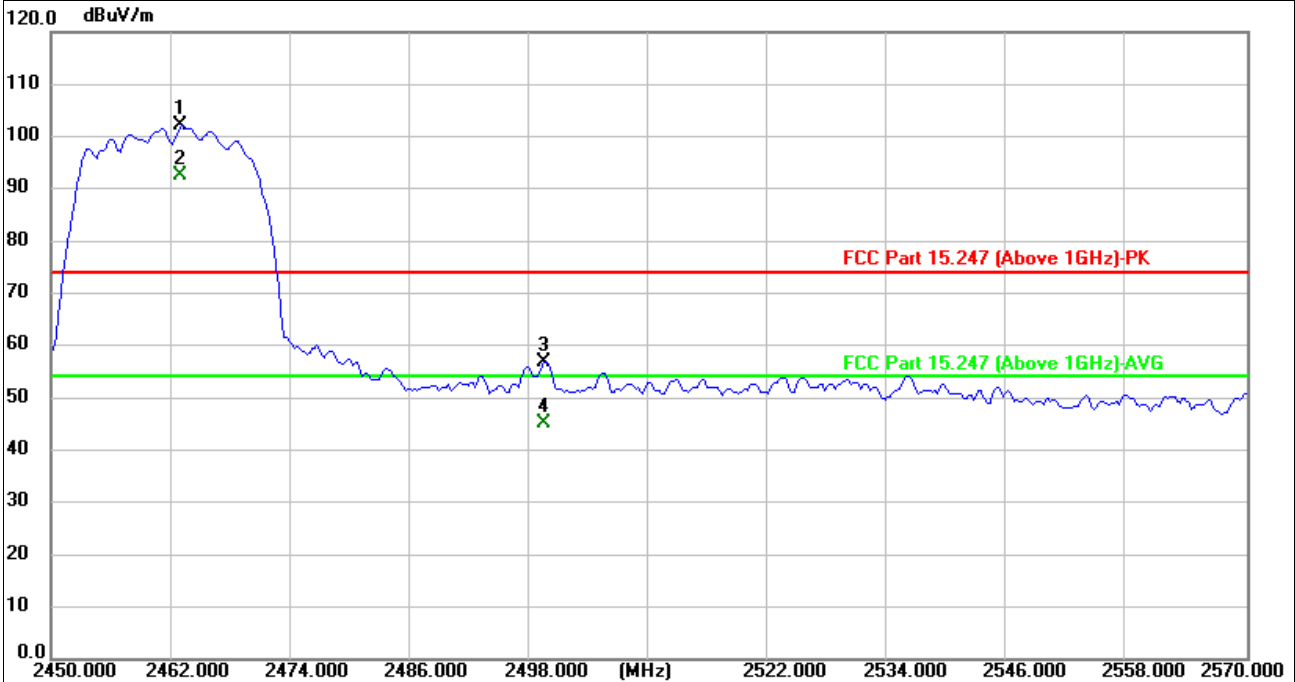
Antennal Polarity& Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2437.000	102.90	-0.99	101.91			peak	143	174
2	2437.000	93.50	-0.99	92.51			AVG	143	174
3	4874.000	53.51	2.62	56.13	74.00	-17.87	peak	177	231
4	4874.000	41.22	2.62	43.84	54.00	-10.16	AVG	177	231
5	7311.000	51.78	10.18	61.96	74.00	-12.04	peak	100	294
6	7311.000	36.12	10.18	46.30	54.00	-7.70	AVG	100	294
7	9748.000	49.70	15.46	65.16	74.00	-8.84	peak	100	232
8	9748.000	31.84	15.46	47.30	54.00	-6.70	AVG	100	232
Antennal Polarity& Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2437.000	100.43	-0.99	99.44			peak	100	178
2	2437.000	91.17	-0.99	90.18			AVG	100	178
3	4874.000	56.95	2.62	59.57	74.00	-14.43	peak	121	152
4	4874.000	42.79	2.62	45.41	54.00	-8.59	AVG	121	152
5	7311.000	50.98	10.18	61.16	74.00	-12.84	peak	100	162
6	7311.000	35.77	10.18	45.95	54.00	-8.05	AVG	100	162
7	9748.000	50.11	15.46	65.57	74.00	-8.43	peak	100	164
8	9748.000	31.64	15.46	47.10	54.00	-6.90	AVG	100	164

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2437MHz: Fundamental frequency.

Test Mode	802.11n HT20: 2462MHz TX		
Test channel	Channel 11	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

Antennal Polarity& Test distance: Horizontal at 3m

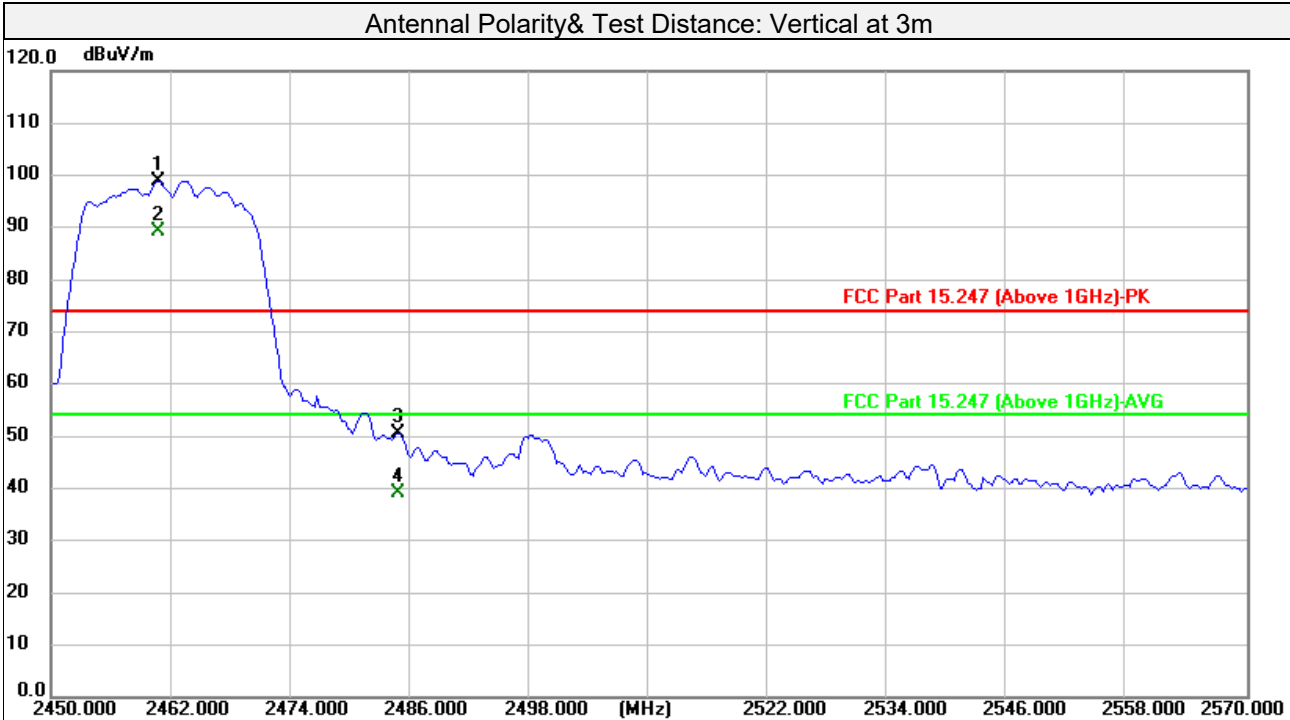


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2463.226	102.99	-0.83	102.16	74.00	28.16	peak	111	174
2	2463.226	93.47	-0.83	92.64	54.00	38.64	AVG	111	174
3	2499.539	57.37	-0.59	56.78	74.00	-17.22	peak	111	174
4	2499.539	45.76	-0.59	45.17	54.00	-8.83	AVG	111	174
5	4924.000	55.98	2.74	58.72	74.00	-15.28	peak	100	213
6	4924.000	42.96	2.74	45.70	54.00	-8.30	AVG	100	213
7	7386.000	53.46	10.37	63.83	74.00	-10.17	peak	100	206
8	7386.000	37.76	10.37	48.13	54.00	-5.87	AVG	100	206
9	9848.000	50.39	15.73	66.12	74.00	-7.88	peak	100	230
10	9848.000	33.55	15.73	49.28	54.00	-4.72	AVG	100	230

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2462MHz: Fundamental frequency.

Test Mode	802.11n HT20: 2462MHz TX		
Test channel	Channel 11	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

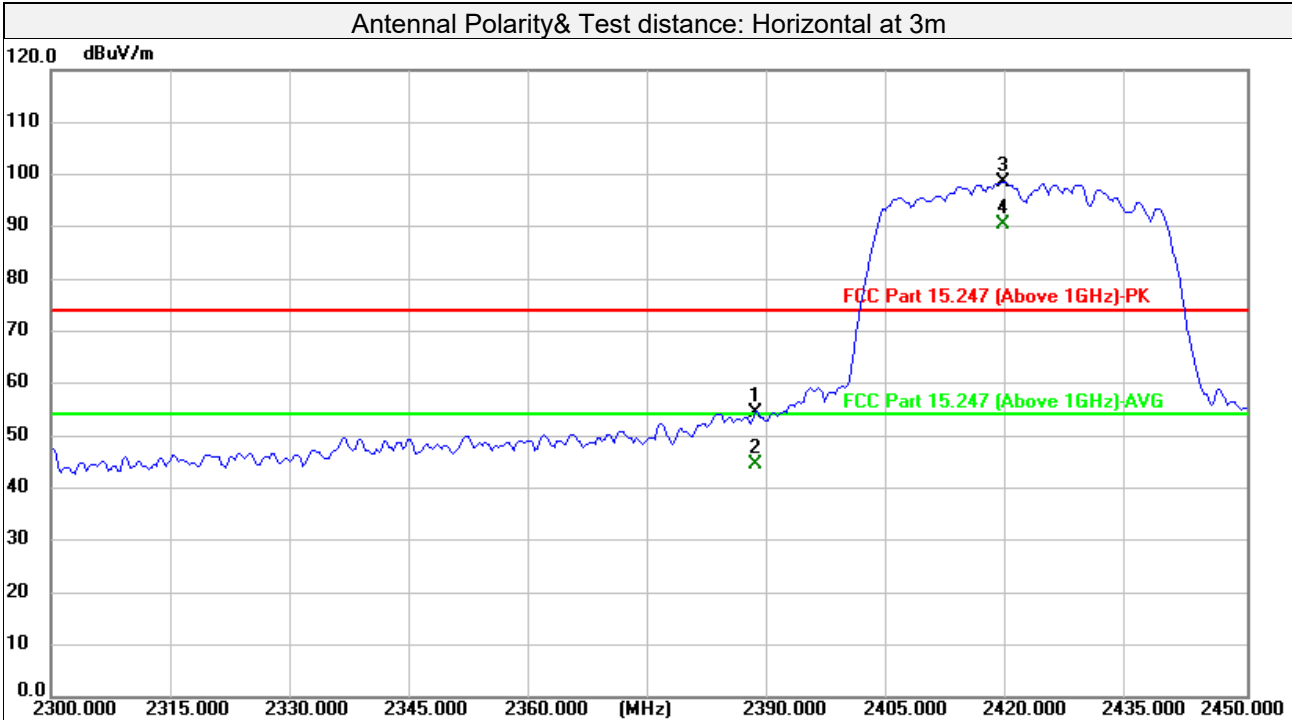


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2460.822	99.82	-0.84	99.98			peak	100	174
2	2460.822	90.15	-0.84	89.31			AVG	100	174
3	2484.870	51.25	-0.69	50.56	74.00	-23.44	peak	100	174
4	2484.870	39.89	-0.69	39.20	54.00	-14.80	AVG	100	174
5	4924.000	56.26	2.74	59.00	74.00	-15.00	peak	100	181
6	4924.000	43.11	2.74	45.85	54.00	-8.15	AVG	100	181
7	7386.000	51.97	10.37	62.34	74.00	-11.66	peak	100	198
8	7386.000	35.84	10.37	46.21	54.00	-7.79	AVG	100	198
9	9848.000	50.43	15.73	66.16	74.00	-7.84	peak	100	173
10	9848.000	33.07	15.73	48.80	54.00	-5.20	AVG	100	173

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2462MHz: Fundamental frequency.

Test Mode	802.11n HT40: 2422MHz TX		
Test channel	Channel 3	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

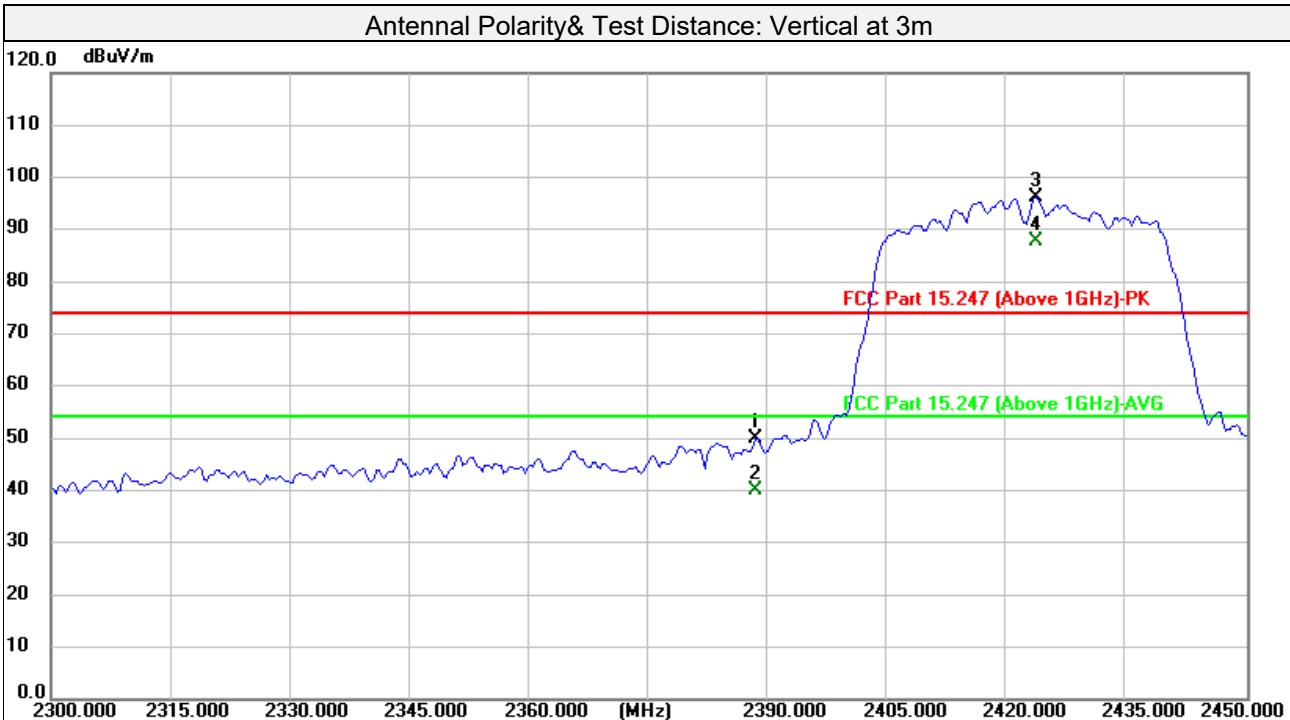


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2388.377	55.90	-1.30	54.60	74.00	-19.40	peak	100	170
2	2388.377	45.97	-1.30	44.67	54.00	-9.33	AVG	100	170
3	2419.339	99.60	-1.11	98.49			peak	100	170
4	2419.339	91.57	-1.11	90.46			AVG	100	170
5	4844.000	40.57	2.54	43.11	74.00	-30.89	peak	169	135
6	4844.000	30.62	2.54	33.16	54.00	-20.84	AVG	169	135
7	7266.000	40.87	10.06	50.93	74.00	-23.07	peak	290	281
8	7266.000	30.26	10.06	40.32	54.00	-13.68	AVG	290	281
9	9688.000	39.48	15.30	54.78	74.00	-19.22	peak	156	45
10	9688.000	29.76	15.30	45.06	54.00	-8.94	AVG	156	45

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2412MHz: Fundamental frequency.

Test Mode	802.11n HT40: 2422MHz TX		
Test channel	Channel 3	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2388.677	51.24	-1.30	49.94	74.00	-24.06	peak	101	172
2	2388.677	41.43	-1.30	40.13	54.00	-13.87	AVG	101	172
3	2423.547	97.15	-1.07	96.08			peak	101	172
4	2423.547	88.76	-1.07	87.69			AVG	101	172
5	4844.000	41.57	2.54	44.11	74.00	-29.89	peak	263	50
6	4844.000	30.06	2.54	32.60	54.00	-21.40	AVG	263	50
7	7266.000	39.84	10.06	49.90	74.00	-24.10	peak	194	124
8	7266.000	30.60	10.06	40.66	54.00	-13.34	AVG	194	124
9	9688.000	39.57	15.30	54.87	74.00	-19.13	peak	336	16
10	9688.000	29.45	15.30	44.75	54.00	-9.25	AVG	336	16

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2412MHz: Fundamental frequency.

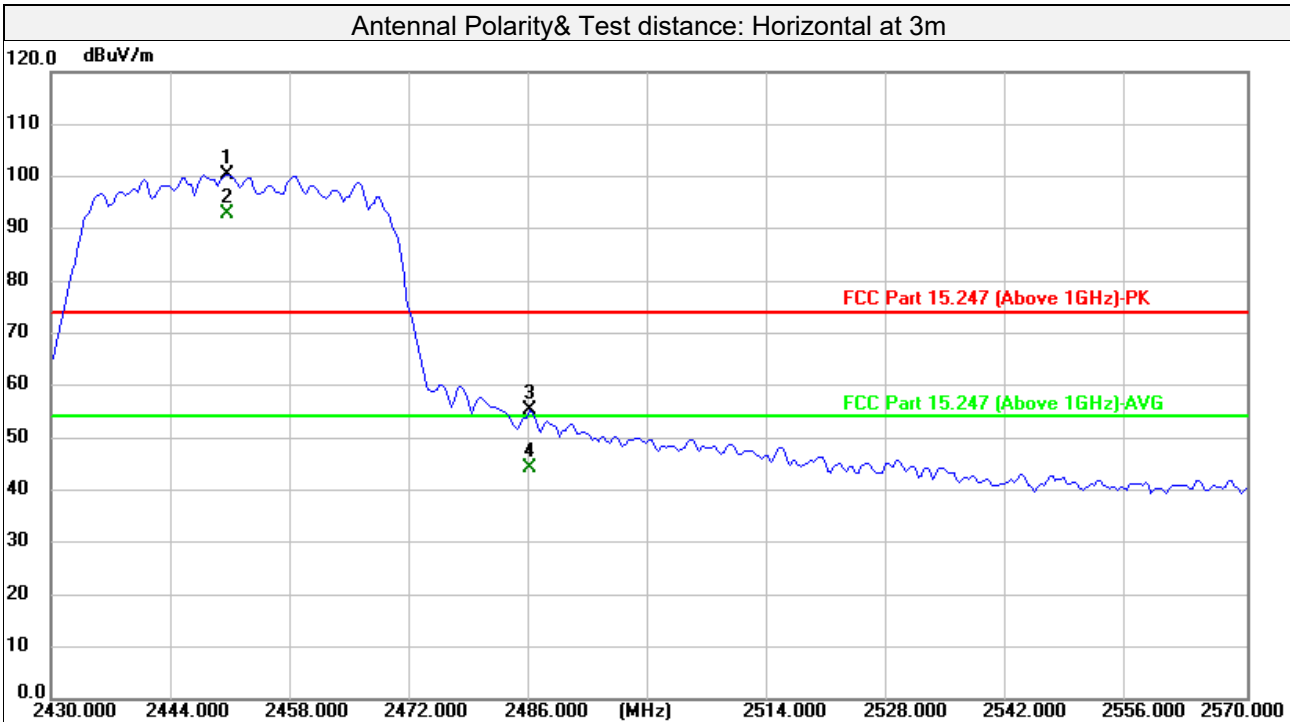
Test Mode	802.11n HT40: 2437MHz TX		
Test channel	Channel 6	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

Antennal Polarity& Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2437.000	108.11	-0.99	107.12			peak	244	264
2	2437.000	99.51	-0.99	98.52			AVG	244	264
3	4874.000	53.47	2.62	56.09	74.00	-17.91	peak	100	202
4	4874.000	41.01	2.62	43.63	54.00	-10.37	AVG	100	202
5	7311.000	49.38	10.18	59.56	74.00	-14.44	peak	100	175
6	7311.000	33.86	10.18	44.04	54.00	-9.96	AVG	100	175
7	9748.000	49.07	15.46	64.53	74.00	-9.47	peak	100	120
8	9748.000	30.29	15.46	45.75	54.00	-8.25	AVG	100	120
Antennal Polarity& Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2437.000	108.92	-0.99	107.93			peak	144	195
2	2437.000	100.79	-0.99	99.80			AVG	144	195
3	4874.000	55.06	2.62	57.68	74.00	-16.32	peak	100	160
4	4874.000	42.08	2.62	44.70	54.00	-9.30	AVG	100	160
5	7311.000	49.07	10.18	59.25	74.00	-14.75	peak	100	279
6	7311.000	32.67	10.18	42.85	54.00	-11.15	AVG	100	279
7	9748.000	48.91	15.46	64.37	74.00	-9.63	peak	100	175
8	9748.000	29.90	15.46	45.36	54.00	-8.64	AVG	100	175

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. 2437MHz: Fundamental frequency.

Test Mode	802.11n HT40: 2452MHz TX		
Test channel	Channel 9	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl

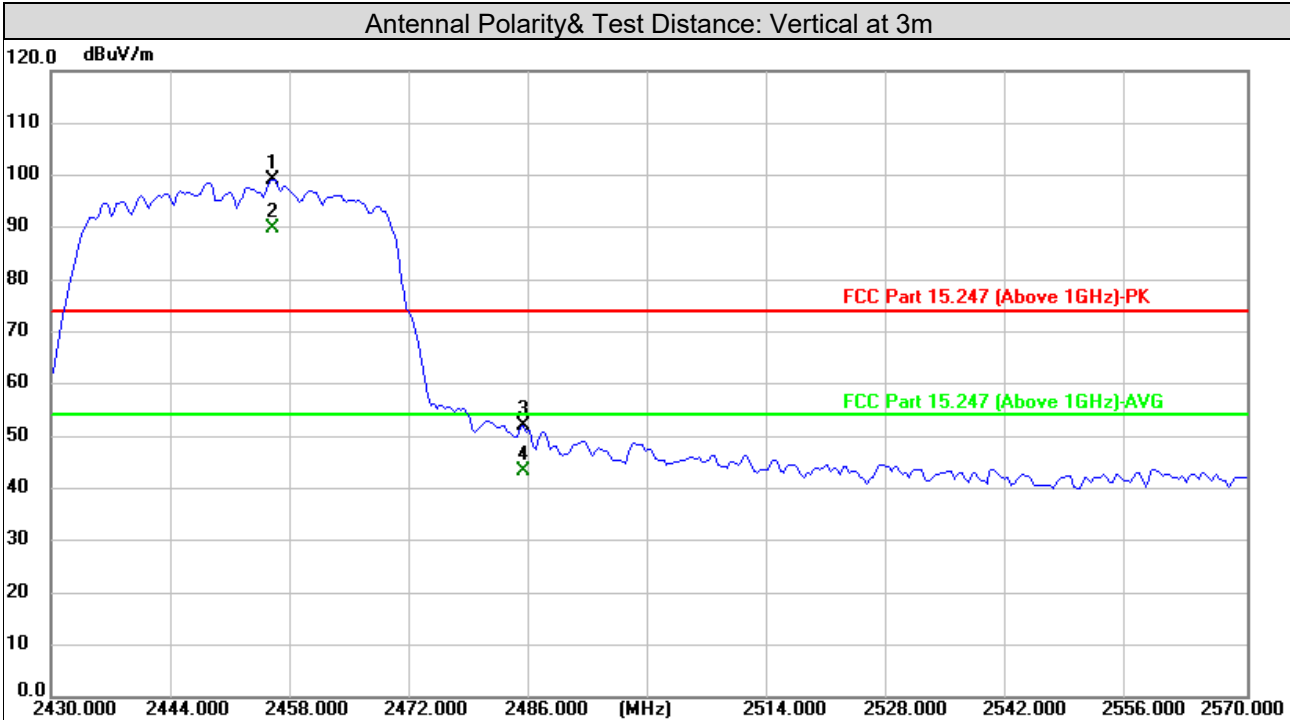


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2450.650	101.23	-0.90	100.33			peak	117	324
2	2450.650	93.63	-0.90	92.73			AVG	117	324
3	2486.000	55.95	-0.68	55.27	74.00	-18.73	peak	117	324
4	2486.000	45.06	-0.68	44.38	54.00	-9.62	AVG	117	324
5	4904.000	52.78	2.68	55.46	74.00	-18.54	peak	100	198
6	4904.000	41.27	2.68	43.95	54.00	-10.05	AVG	100	198
7	7356.000	49.65	10.30	59.95	74.00	-14.05	peak	100	181
8	7356.000	34.24	10.30	44.54	54.00	-9.46	AVG	100	181
9	9808.000	49.60	15.62	65.22	74.00	-8.78	peak	100	195
10	9808.000	31.20	15.62	46.82	54.00	-7.18	AVG	100	195

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2462MHz: Fundamental frequency.

Test Mode	802.11n HT40: 2452MHz TX		
Test channel	Channel 9	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Carl



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2455.900	100.04	-0.88	99.16			peak	117	267
2	2455.900	90.81	-0.88	89.93			AVG	117	267
3	2485.300	52.68	-0.69	51.99	74.00	-22.01	peak	117	267
4	2485.300	44.03	-0.69	43.34	54.00	-10.66	AVG	117	267
5	4904.000	52.95	2.68	55.63	74.00	-18.37	peak	100	166
6	4904.000	41.79	2.68	44.47	54.00	-9.53	AVG	100	166
7	7356.000	49.40	10.30	59.70	74.00	-14.30	peak	100	278
8	7356.000	33.47	10.30	43.77	54.00	-10.23	AVG	100	278
9	9808.000	49.72	15.62	65.34	74.00	-8.66	peak	100	181
10	9808.000	30.60	15.62	46.22	54.00	-7.78	AVG	100	181

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamplifier Factor)
2. Margin value = Emission level – Limit value
3. 2462MHz: Fundamental frequency.

3.2 Conducted Emission Measurement**3.2.1 Limits of Conducted Emission Measurement**

Frequency (MHz)	Conducted Limit (dBUV)	
	Quasi-Peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3.2.2 Test Instruments

Equipment	Manufacturer	Model No.	Serial No.	Next Cal. Date
EMI Test Receiver	Rohde&Schwarz	ESR 7	100962	2025-07-25
Artificial Mains Network	Rohde&Schwarz	ENV216	3560.6550.15	2025-07-25
Test software	FARAD	EZ EMC V1.1.4.2	N/A	N/A
Broadcast test system	R&S	SFU	100410	2025-07-25

3.2.3 Test Procedures

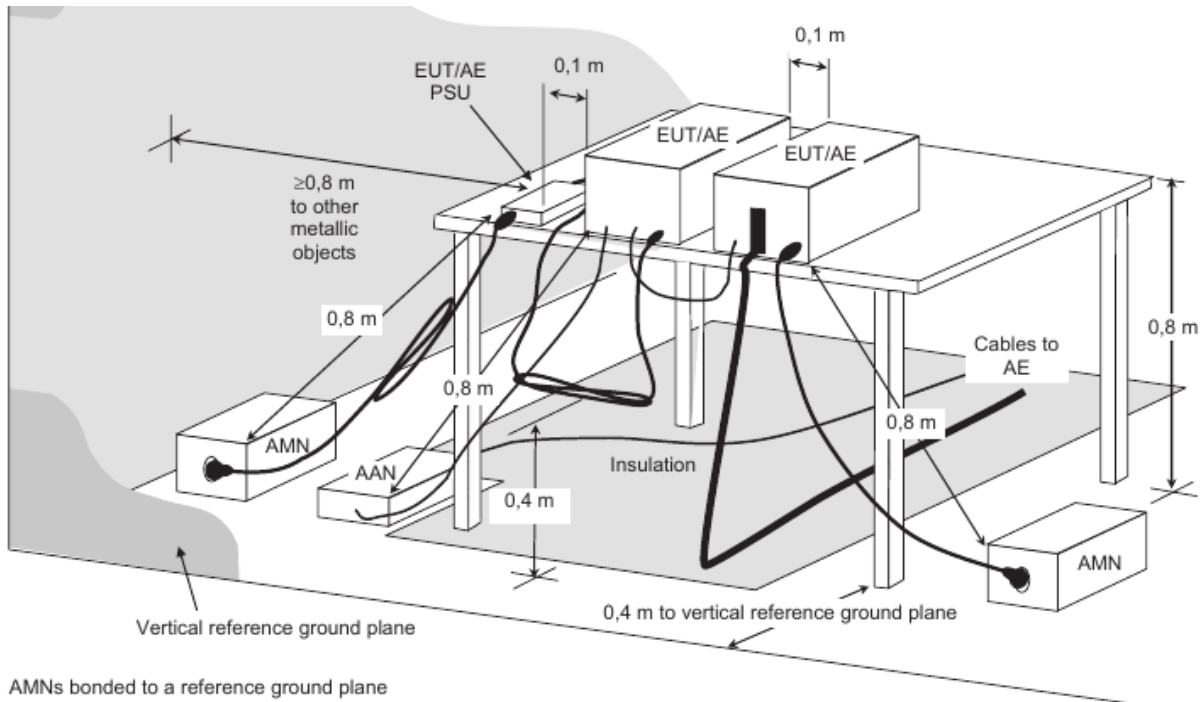
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit – 20dB) was not recorded.

Note: All modes of operation were investigated and the worst-case emissions are reported.

3.2.4 Deviation from Test Standard

No deviation.

3.2.5 Test setup

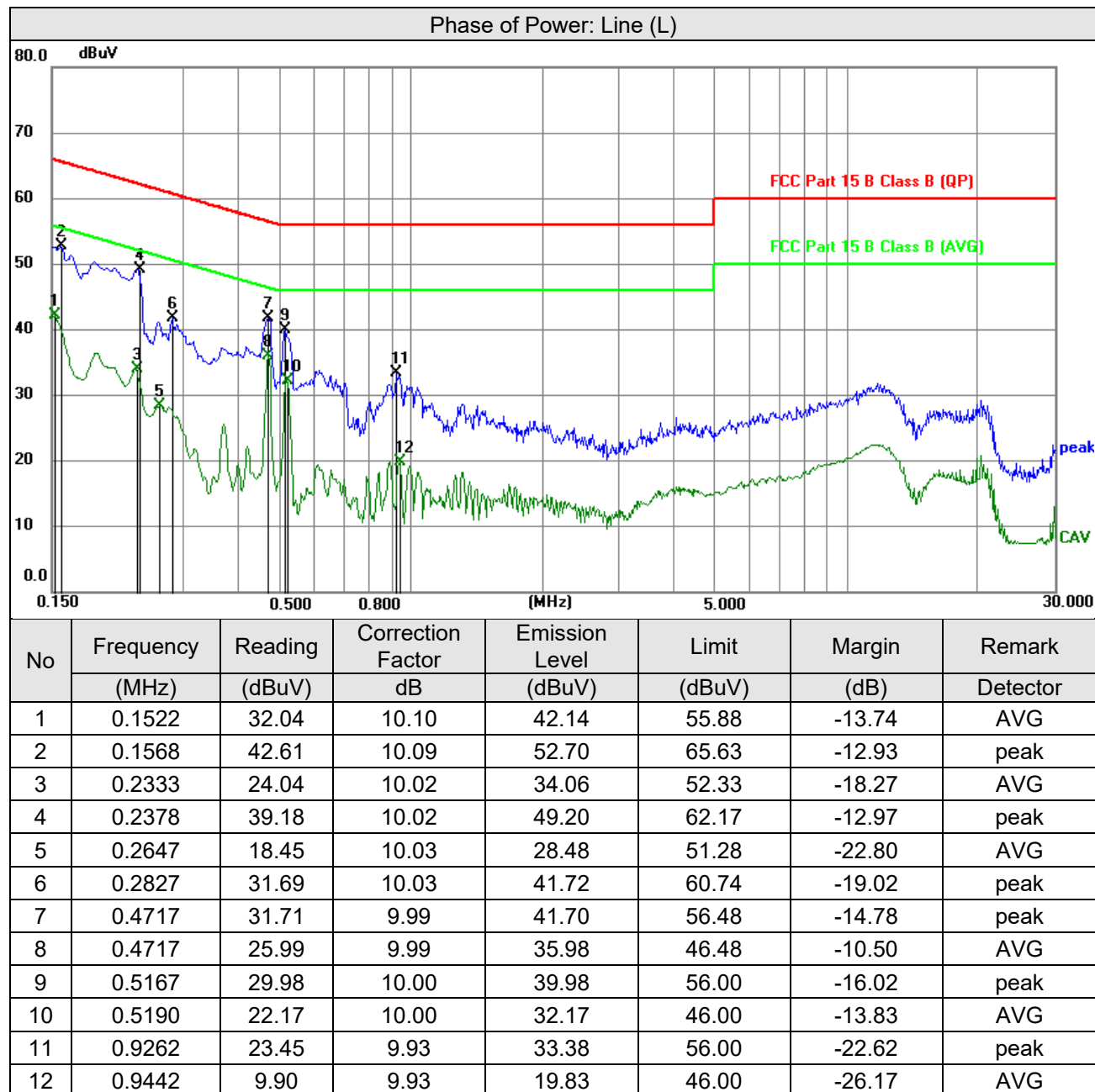


3.2.6 EUT Operating Conditions

- a. Placed the EUT on the testing table.
- b. Set the EUT under transmission condition continuously at specific channel frequency.

3.2.7 Test Results

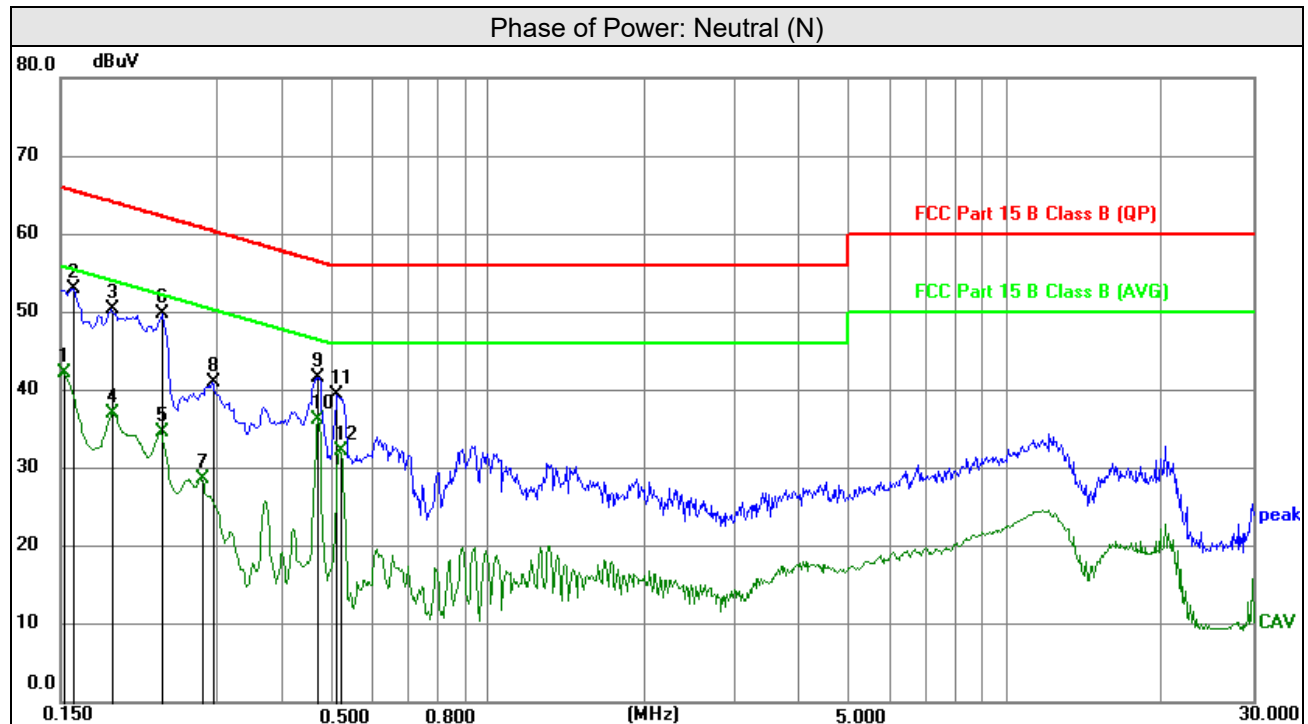
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
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Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
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No.	Frequency (MHz)	Reading (dBuV)	Correction Factor dB	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Remark Detector
1	0.1522	32.06	10.10	42.16	55.88	-13.72	AVG
2	0.1590	42.97	10.09	53.06	65.52	-12.46	peak
3	0.1883	40.27	10.05	50.32	64.11	-13.79	peak
4	0.1883	26.94	10.05	36.99	54.11	-17.12	AVG
5	0.2333	24.53	10.03	34.56	52.33	-17.77	AVG
6	0.2355	39.84	10.03	49.87	62.25	-12.38	peak
7	0.2805	18.69	10.03	28.72	50.80	-22.08	AVG
8	0.2940	31.01	10.03	41.04	60.41	-19.37	peak
9	0.4717	31.65	9.98	41.63	56.48	-14.85	peak
10	0.4717	26.18	9.98	36.16	46.48	-10.32	AVG
11	0.5144	29.47	9.99	39.46	56.00	-16.54	peak
12	0.5190	22.28	9.99	32.27	46.00	-13.73	AVG

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

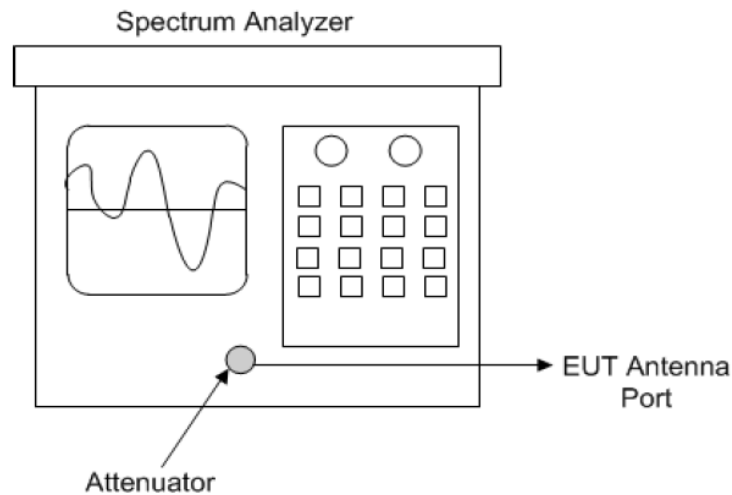
3.3 6dB Bandwidth Measurement

3.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

3.3.2 Test Setup

Subclause 11.8 of ANSI C63.10 is applicable.



Spectrum analyzer test configuration

3.3.3 Test Instruments

Refer to section 5 to get information of above instrument.

3.3.4 Test Procedure

Option 1:

- a. Set resolution bandwidth (RBW) = 30kHz
- b. Set the video bandwidth (VBW) $\geq 3 \times$ RBW
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. Sweep = auto couple.
- f. Allow the trace to stabilize.
- g. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

Option 2:

The automatic bandwidth measurement capability of an instrument may be employed using the dB bandwidth mode with X set to 6 dB. if the functionality described in 11.8.1 (i.e. RBW= 100 kHz. VBW $\geq 3 \times$ RBW. and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability. care

shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB

3.3.5 Deviation from Test Standard

No deviation.

3.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.3.7 Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.000	2407.000	2417.000	0.5	PASS
	Ant2	2412	9.120	2407.440	2416.560	0.5	PASS
	Ant1	2437	10.000	2432.000	2442.000	0.5	PASS
	Ant2	2437	10.000	2432.000	2442.000	0.5	PASS
	Ant1	2462	9.560	2457.440	2467.000	0.5	PASS
	Ant2	2462	9.520	2457.480	2467.000	0.5	PASS
11G	Ant1	2412	15.400	2404.480	2419.880	0.5	PASS
	Ant2	2412	13.760	2405.120	2418.880	0.5	PASS
	Ant1	2437	13.800	2430.720	2444.520	0.5	PASS
	Ant2	2437	15.000	2429.480	2444.480	0.5	PASS
	Ant1	2462	15.040	2454.480	2469.520	0.5	PASS
	Ant2	2462	13.800	2455.720	2469.520	0.5	PASS
11N20MIMO	Ant1	2412	15.040	2404.440	2419.480	0.5	PASS
	Ant2	2412	16.240	2403.880	2420.120	0.5	PASS
	Ant1	2437	12.600	2430.720	2443.320	0.5	PASS
	Ant2	2437	16.560	2428.600	2445.160	0.5	PASS
	Ant1	2462	12.560	2455.680	2468.240	0.5	PASS
	Ant2	2462	14.400	2454.480	2468.880	0.5	PASS
11N40MIMO	Ant1	2422	33.760	2405.760	2439.520	0.5	PASS
	Ant2	2422	35.040	2404.480	2439.520	0.5	PASS
	Ant1	2437	32.640	2420.680	2453.320	0.5	PASS
	Ant2	2437	33.840	2419.480	2453.320	0.5	PASS
	Ant1	2452	35.040	2434.480	2469.520	0.5	PASS
	Ant2	2452	34.400	2435.120	2469.520	0.5	PASS

