

FCC Test Report

Report No. : 1812C50131012501

Applicant : SprintRay Inc

Address : 2710 Media Center Dr, Suite 100A, Los Angeles, CA 90065-1700, USA

Product Name : Midas

Report Date : 2025-05-14

Shenzhen Anbotek Compliance Laboratory Limited

Shenzhen Anbotek Compliance Laboratory Limited

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TEST REPORT

Applicant : SprintRay Inc
Manufacturer : Zhejiang Xunshi Technology Co., Ltd
Product Name : Midas
Model No. : SRP2304A

Trade Mark :  SprintRay

Rating(s) : Input: 100-240VAC, 50/60Hz, 140W

Test Standard(s) : 47 CFR Part 15.247
ANSI C63.10-2020
KDB 558074 D01 15.247 Meas Guidance v05r02
KDB 662911 D01 Multiple Transmitter Output v02r01

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with above listed standard(s) requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt: 2025-03-31

Date of Test: 2025-03-31 to 2025-04-15

Prepared By:

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Approved & Authorized Signer:

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Revision History

Report Version	Description	Issued Date
R00	Original Issue. (Note 1)	2025-01-16
R01	Original Issue. (Note 2)	2025-05-14

Note 1:

This is a Class II application which was based on the original report 18220WC40089601. The difference between the original device and current one described as following:

1. Change the wiring board in the EUT.
2. Change the Test Setup Photograph, External Photograph, Internal Photograph.
3. Change the Address of the Factory.

Based on the change, only Conducted emissions, Radiated spurious emissions were retested. Other tests were validated against the worst Modes of the original data.

Note 2:

This is a Class II application which was based on the original report 1812C40179312501. The difference between the original device and current one described as following:

1. Speakers are added to EUT.
2. Update a set of power supplies from a new power supply manufacturer.
3. Update internal photograph.

The changes are not related with the other RF parameters, only conducted emission and spurious emission(below 1GHz) were retested.

Shenzhen Anbotek Compliance Laboratory Limited

1. General Information

1.1. Client Information

Applicant	:	SprintRay Inc
Address	:	2710 Media Center Dr, Suite 100A, Los Angeles, CA 90065-1700, USA
Manufacturer	:	Zhejiang Xunshi Technology Co., Ltd
Address	:	4 / F, building 2, Qihang building, science and Technology Park, 586 Xihuan Road, Kebei Economic Development Zone, Keqiao District, Shaoxing City, China
Factory	:	Zhejiang Xunshi Technology Co., Ltd
Address	:	No.79 Shuguang Road, Kebei Industrial Zone, Qixian Sub-district, Keqiao District, Shaoxing, Zhejiang, 312000, China

1.2. Description of Device (EUT)

Product Name	:	Midas
Model No.	:	SRP2304A
Trade Mark	:	 SprintRay
Test Power Supply	:	AC 120V/60Hz
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Adapter	:	N/A

RF Specification

Operation Frequency	:	802.11b/g/n(HT20)/ax(HEW20): 2412MHz to 2462MHz
Number of Channel	:	802.11b/g/n(HT20)/ax(HEW20): 11 Channels
Modulation Type	:	802.11b: DSSS(CCK, DQPSK, DBPSK); 802.11g: OFDM(BPSK, QPSK, 16QAM, 64QAM); 802.11n(HT20): OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ax(HEW20): OFDMA(BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Antenna Type	:	PCB Antenna
Antenna Gain(Peak)	:	WiFi 2.4G ANT1: 2.91dBi WiFi 2.4G ANT2: 2.91dBi
Directional antenna gain	:	5.92dBi

Remark:

- (1) All of the RF specification are provided by customer.
- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (3) Only 802.11n(HT20)/ax(HEW20) support MIMO.
- (4) Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] \text{ dBi}$

1.3. Auxiliary Equipment Used During Test

Title	Manufacturer	Model No.	Serial No.
/	/	/	/

1.4. Operation channel list

Operation Band:

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

1.5. Description of Test Modes

Pretest Modes	Descriptions
TM1	Keep the EUT in 802.11b transmitting mode.
TM2	Keep the EUT in 802.11g transmitting mode.
TM3	Keep the EUT in 802.11n(HT20) transmitting mode.
TM4	Keep the EUT in 802.11ax(HEW20) transmitting mode.

Note: 802.11ax mode only support full resource unit size.

1.6. Measurement Uncertainty

Parameter	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	3.4dB
Conducted Output Power	0.76dB
Radiated emissions (Below 30MHz)	3.53dB

The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.7. Test Summary

Test Items	Test Modes	Status
Antenna requirement	/	P
Conducted Emission at AC power line	Mode1,2,3,4	P
Maximum Conducted Output Power	Mode1,2,3,4	P
Emissions in frequency bands (below 1GHz)	Mode1,2,3,4	P
Note: P: Pass N: N/A, not applicable		

1.8. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.:434132

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 434132.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

Sogood Industrial Zone Laboratory & 1/F. of Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.

1.9. Disclaimer

1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
2. The test report is invalid if there is any evidence and/or falsification.
3. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.
7. The data in this report will be synchronized with the corresponding national market supervision and management departments and cross-border e-commerce platforms as required by regulatory agencies.

The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

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1.10. Test Equipment List

Conducted Emission at AC power line						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	2024-09-09	2025-09-08
2	Three Phase V-type Artificial Power Network	CYBERTEK	EM5040DT	E215040D T001	2025-01-13	2026-01-12
3	Software Name EZ-EMC	Farad Technology	ANB-03A	N/A	/	/
4	EMI Test Receiver(CE2#)	Rohde & Schwarz	ESPI3	100926	2024-09-09	2025-09-08

Maximum conducted output power						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80B	N/A	2023-10-16	2024-10-15
					2024-10-14	2025-10-13
2	DC Power Supply	IVYTECH	IV3605	1804D360 510	2023-10-20 2024-09-09	2024-10-19 2025-09-08
3	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	101792	2024-05-06	2025-05-05
4	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY505318 23	2024-02-22	2025-02-21
5	MXG RF Vector Signal Generator	Agilent	N5182A	MY474206 47	2024-02-04	2025-02-03

Undesirable emission limits (below 1GHz)						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver(RE2/3#)	Rohde & Schwarz	ESR26	101481	2025-01-14	2026-01-13
2	Pre-amplifier	SONOMA	310N	186860	2025-01-14	2026-01-13
3	Bilog Broadband Antenna	Schwarzbeck	VULB9163	345	2022-10-23	2025-10-22
4	Loop Antenna (9K-30M)	Schwarzbeck	FMZB1519 B	00053	2024-09-12	2025-09-11
5	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	/	/

2. Antenna requirement

Test Requirement:

Refer to 47 CFR Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

2.1. Conclusion

The antenna is a PCB antenna which permanently attached, and the best case gain of the antenna is 2.91dBi for WiFi 2.4G ANT1, 2.91dBi for WiFi 2.4G ANT2. It complies with the standard requirement.

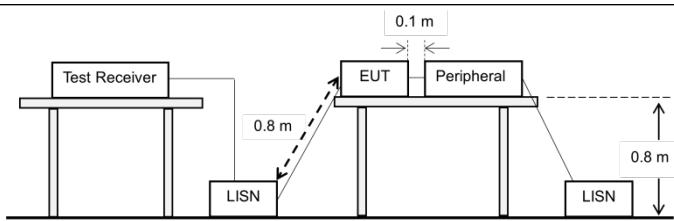
3. Conducted Emission at AC power line

Test Requirement:	Refer to 47 CFR 15.207(a), Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator 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, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).		
Test Limit:	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.			
Test Method:	ANSI C63.10-2020 section 6.2		
Procedure:	Refer to ANSI C63.10-2020 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices		

3.1. EUT Operation

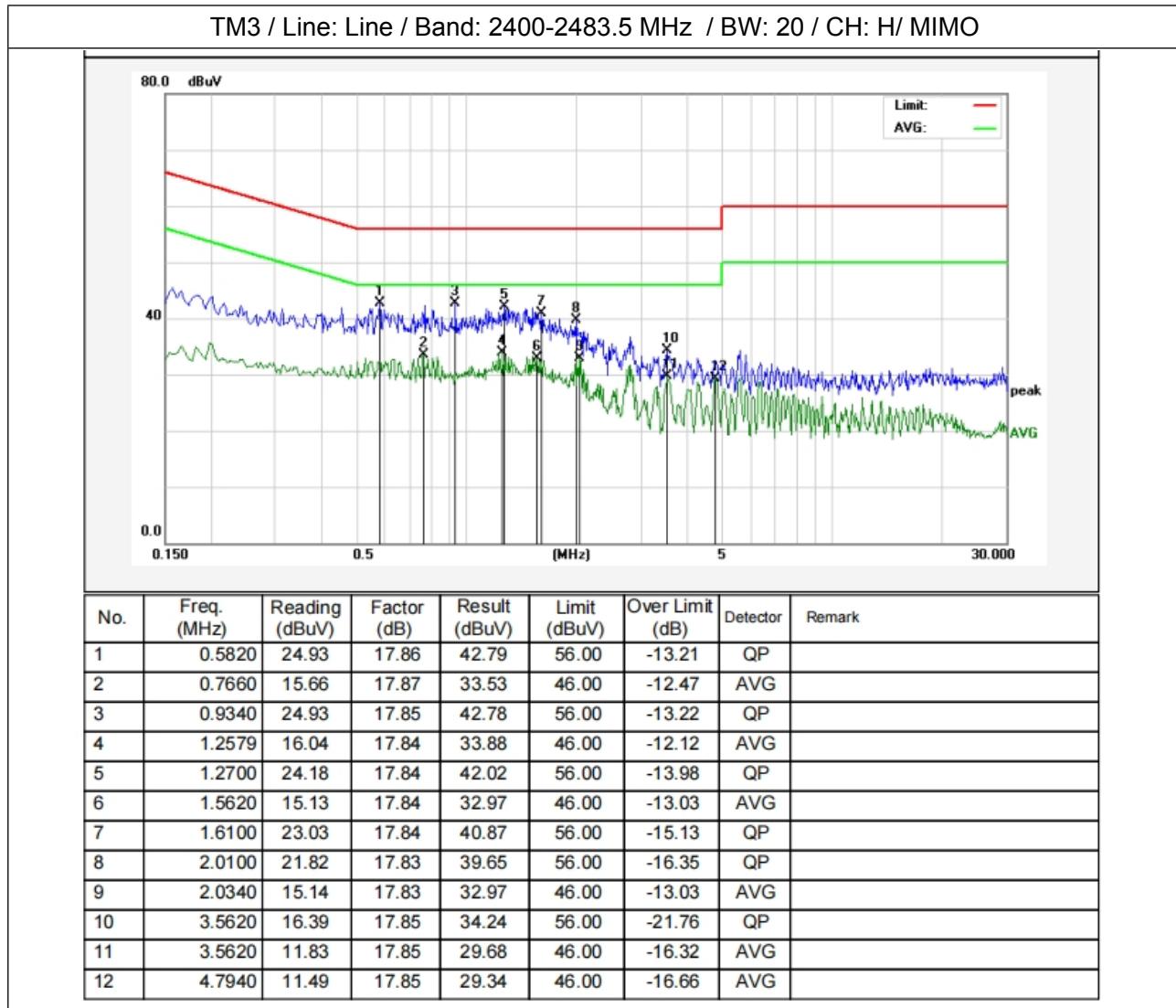
Operating Environment:	
Test mode:	1: 802.11b mode: Keep the EUT in 802.11b transmitting mode. 2: 802.11g mode: Keep the EUT in 802.11g transmitting mode. 3: 802.11n(HT20) mode: Keep the EUT in 802.11n(HT20) transmitting mode. 4: 802.11ax(HEW20): Keep the EUT in 802.11ax(HEW20) transmitting mode.

3.2. Test Setup



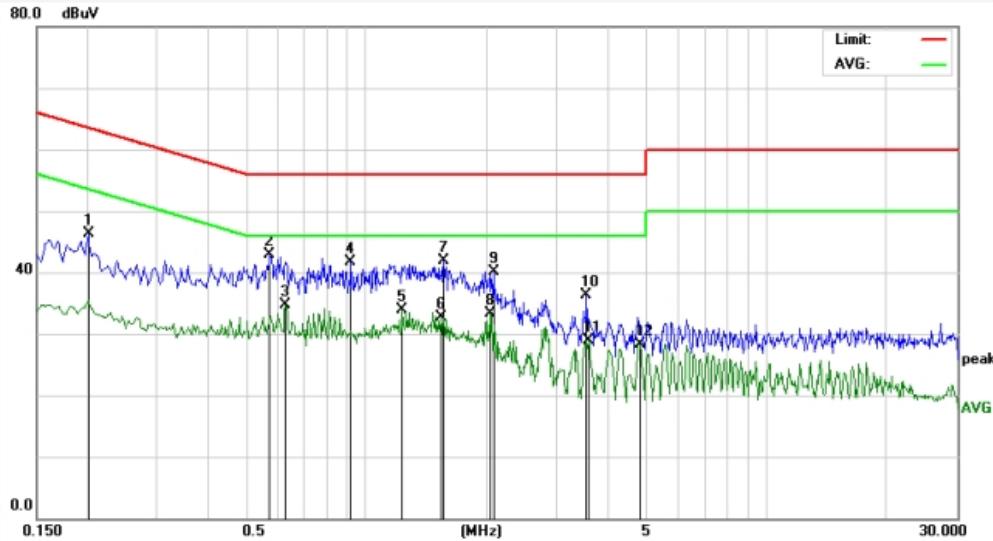
3.3. Test Data

Temperature:	24 °C	Humidity:	49.2 %	Atmospheric Pressure:	101 kPa
Test Power Supply:	AC 120V/60Hz				



Temperature:	24 °C	Humidity:	49.2 %	Atmospheric Pressure:	101 kPa
Test Power Supply:	AC 120V/60Hz				

TM3 / Line: Neutral / Band: 2400-2483.5 MHz / BW: 20 / CH: H/ MIMO



No.	Freq. (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V)	Over Limit (dB)	Detector	Remark
1	0.2020	28.38	17.83	46.21	63.52	-17.31	QP	
2	0.5740	25.11	17.86	42.97	56.00	-13.03	QP	
3	0.6300	16.77	17.86	34.63	46.00	-11.37	AVG	
4	0.9140	23.79	17.86	41.65	56.00	-14.35	QP	
5	1.2340	16.07	17.84	33.91	46.00	-12.09	AVG	
6	1.5380	14.84	17.84	32.68	46.00	-13.32	AVG	
7	1.5620	24.12	17.84	41.96	56.00	-14.04	QP	
8	2.0340	15.44	17.83	33.27	46.00	-12.73	AVG	
9	2.0820	22.28	17.83	40.11	56.00	-15.89	QP	
10	3.5620	18.45	17.85	36.30	56.00	-19.70	QP	
11	3.5860	11.08	17.85	28.93	46.00	-17.07	AVG	
12	4.8420	10.45	17.85	28.30	46.00	-17.70	AVG	

Note:

1.Only the worst case data was showed in the report.

2.Result(dB μ V) = Reading(dB μ V) + Factor(dB);Over Limit(dB) = Result(dB μ V) - Limit(dB μ V)

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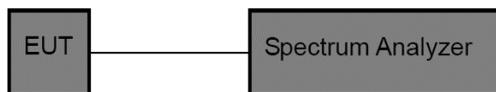
4. Maximum Conducted Output Power

Test Requirement:	47 CFR 15.247(b)(3)
Test Limit:	Refer to 47 CFR 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.
Test Method:	ANSI C63.10-2020, section 11.9.2 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020, section 11.9.2 Maximum conducted (average) output power

4.1. EUT Operation

Operating Environment:	
Test mode:	1: 802.11b mode: Keep the EUT in 802.11b transmitting mode. 2: 802.11g mode: Keep the EUT in 802.11g transmitting mode. 3: 802.11n(HT20) mode: Keep the EUT in 802.11n(HT20) transmitting mode. 4: 802.11ax(HEW20): Keep the EUT in 802.11ax(HEW20) transmitting mode.

4.2. Test Setup



4.3. Test Data

Temperature:	24.6 °C	Humidity:	46 %	Atmospheric Pressure:	101 kPa
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Test Mode	Antenna	Frequency[MHz]	Average power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	14.88	98.94	0.05	14.93	≤30.00	PASS
11B	Ant2	2412	13.68	98.94	0.05	13.73	≤30.00	PASS
11B	Ant1	2437	14.72	98.94	0.05	14.77	≤30.00	PASS
11B	Ant2	2437	13.23	98.82	0.05	13.28	≤30.00	PASS
11B	Ant1	2462	15.04	98.94	0.05	15.09	≤30.00	PASS
11B	Ant2	2462	12.89	98.94	0.05	12.94	≤30.00	PASS
11G	Ant1	2412	15.40	92.67	0.33	15.73	≤30.00	PASS
11G	Ant2	2412	13.98	93.33	0.30	14.28	≤30.00	PASS
11G	Ant1	2437	14.63	93.33	0.30	14.93	≤30.00	PASS
11G	Ant2	2437	13.31	93.33	0.30	13.61	≤30.00	PASS
11G	Ant1	2462	14.22	93.29	0.30	14.52	≤30.00	PASS
11G	Ant2	2462	12.68	93.29	0.30	12.98	≤30.00	PASS
11N20MIMO	Ant1	2412	15.21	92.91	0.32	15.53	≤30.00	PASS
11N20MIMO	Ant2	2412	13.72	92.86	0.32	14.04	≤30.00	PASS
11N20MIMO	total	2412	---	---	---	17.86	≤30.00	PASS
11N20MIMO	Ant1	2437	14.59	92.91	0.32	14.91	≤30.00	PASS
11N20MIMO	Ant2	2437	13.20	92.86	0.32	13.52	≤30.00	PASS
11N20MIMO	total	2437	---	---	---	17.28	≤30.00	PASS
11N20MIMO	Ant1	2462	15.43	92.91	0.32	15.75	≤30.00	PASS
11N20MIMO	Ant2	2462	15.35	92.86	0.32	15.67	≤30.00	PASS
11N20MIMO	total	2462	---	---	---	18.72	≤30.00	PASS
11AX20MIMO	Ant1	2412	13.30	91.07	0.41	13.71	≤30.00	PASS
11AX20MIMO	Ant2	2412	13.26	90.27	0.44	13.70	≤30.00	PASS
11AX20MIMO	total	2412	---	---	---	16.72	≤30.00	PASS
11AX20MIMO	Ant1	2437	14.26	90.27	0.44	14.70	≤30.00	PASS
11AX20MIMO	Ant2	2437	14.33	91.07	0.41	14.74	≤30.00	PASS
11AX20MIMO	total	2437	---	---	---	17.73	≤30.00	PASS
11AX20MIMO	Ant1	2462	13.80	91.07	0.41	14.21	≤30.00	PASS
11AX20MIMO	Ant2	2462	13.79	90.27	0.44	14.23	≤30.00	PASS
11AX20MIMO	total	2462	---	---	---	17.23	≤30.00	PASS

Note: For pre-scan, the result is equal to original, so the original data is referenced.

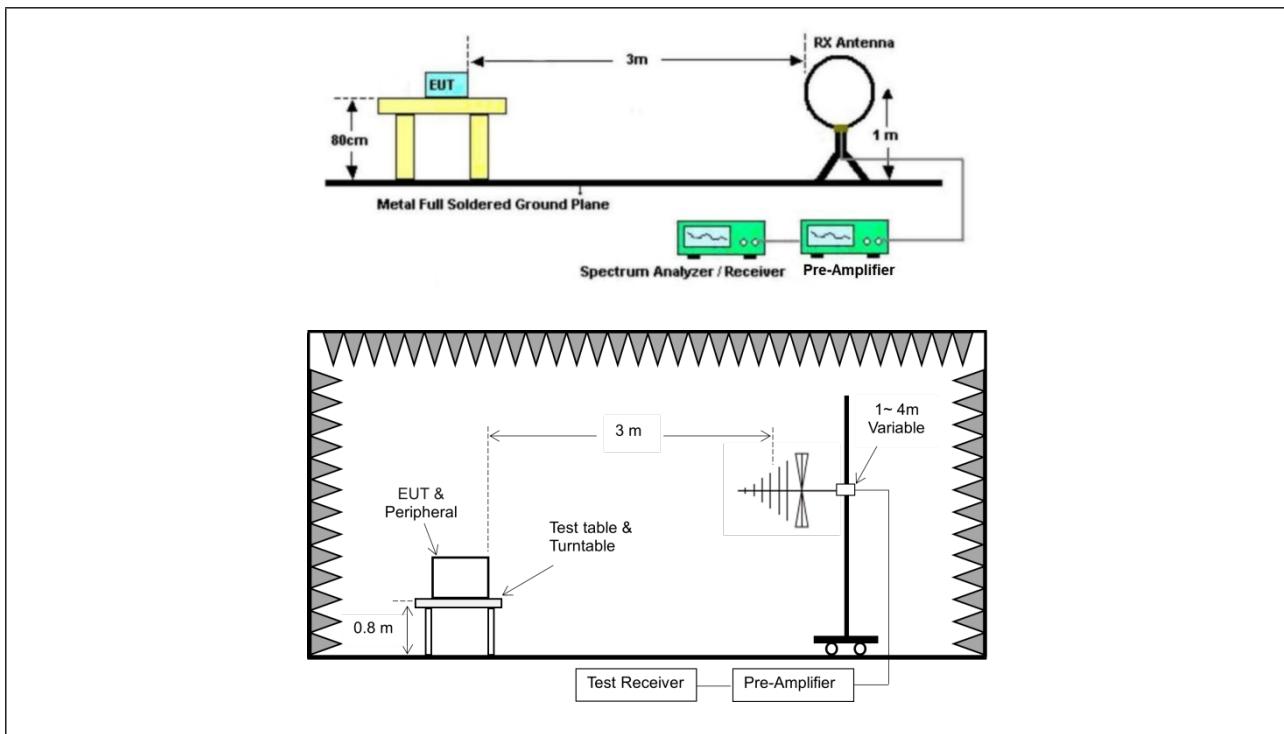
5. Emissions in frequency bands (below 1GHz)

Test Requirement:	Refer to 47 CFR 15.247(d), In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).		
Test Limit:	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
<p>** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.</p> <p>In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.</p>			
Test Method:	ANSI C63.10-2020 section 6.6.4 KDB 558074 D01 15.247 Meas Guidance v05r02		
Procedure:	ANSI C63.10-2020 section 6.6.4		

5.1. EUT Operation

Operating Environment:	
Test mode:	1: 802.11b mode: Keep the EUT in 802.11b transmitting mode. 2: 802.11g mode: Keep the EUT in 802.11g transmitting mode. 3: 802.11n(HT20) mode: Keep the EUT in 802.11n(HT20) transmitting mode. 4: 802.11ax(HEW20): Keep the EUT in 802.11ax(HEW20) transmitting mode.

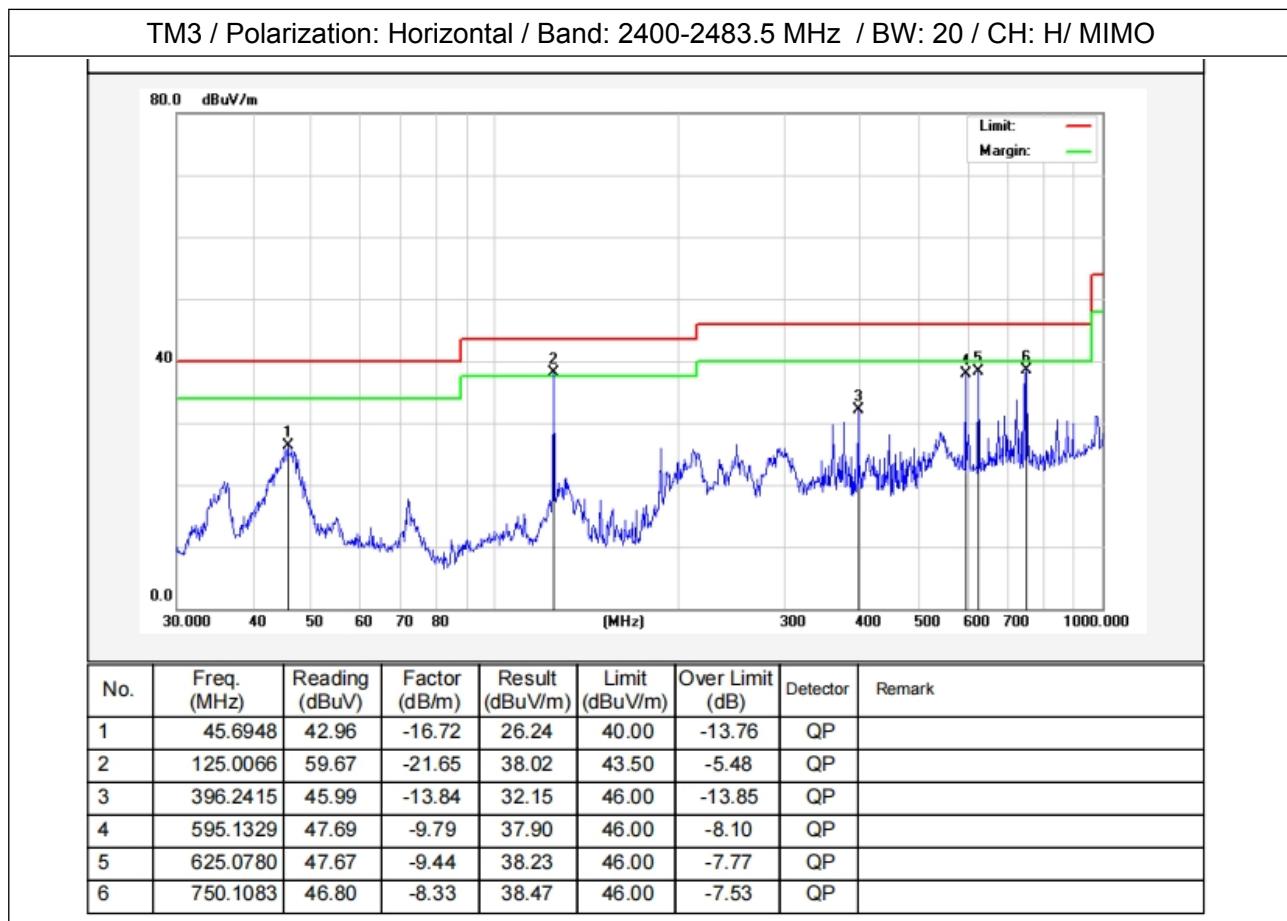
5.2. Test Setup



5.3. Test Data

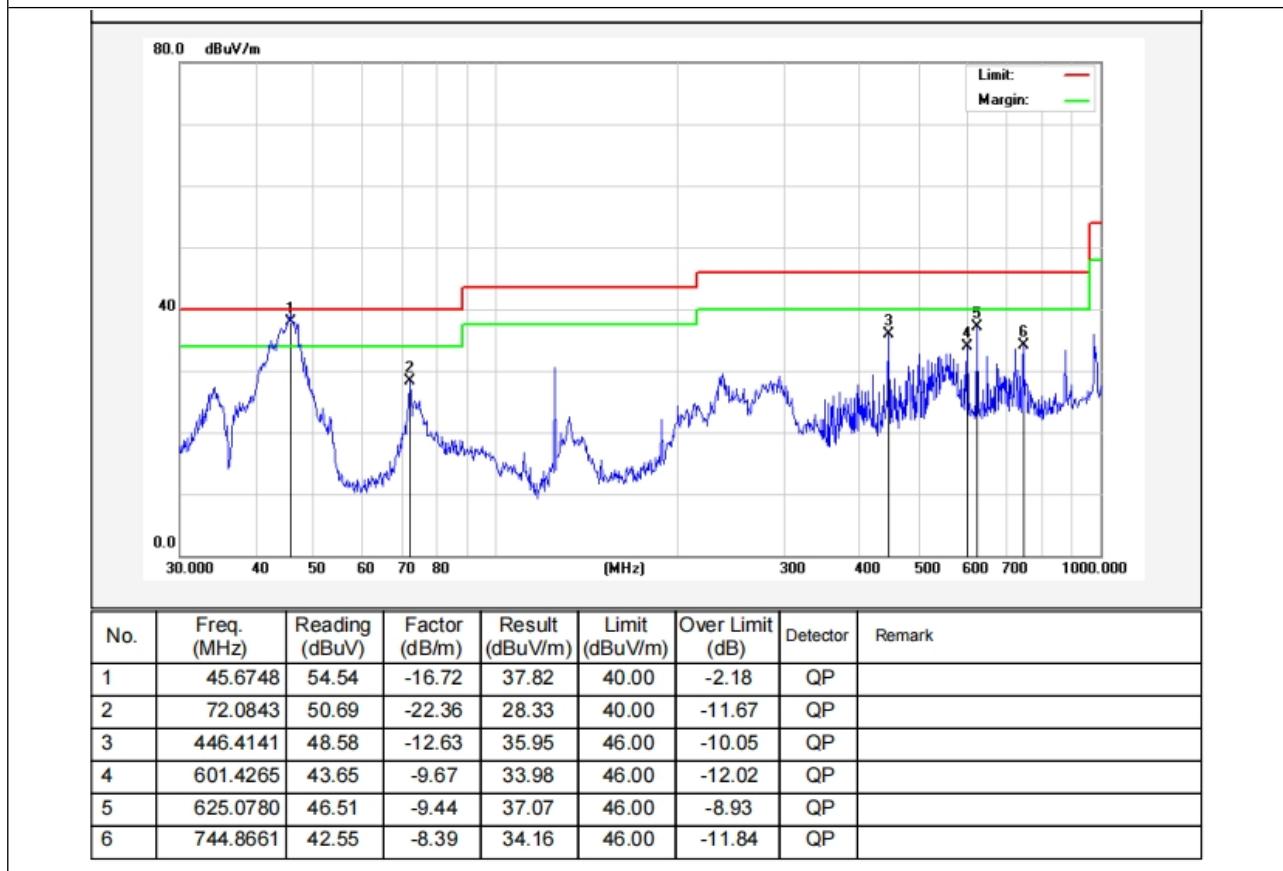
The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Temperature:	24.6 °C	Humidity:	46 %	Atmospheric Pressure:	101 kPa
Test Power Supply:	AC 120V/60Hz				



Temperature:	24.6 °C	Humidity:	46 %	Atmospheric Pressure:	101 kPa
Test Power Supply:	AC 120V/60Hz				

TM3 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 20 / CH: H/ MIMO



Note:

- Only the worst case data was showed in the report.
- Result(dB μ V/m) = Reading(dB μ V) + Factor(dB/m);
Over Limit(dB) = Result(dB μ V/m) - Limit(dB μ V/m)

APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph_RF

APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

APPENDIX III -- INTERNAL PHOTOGRAPH

Please refer to separated files Appendix III -- Internal Photograph

----- End of Report -----