

FCC Test Report

Report No. : 1813C50568712502

Applicant : Makeblock Co., Ltd.

Address : Floor 4, Building C3, Nanshan iPark, No.1001
Xueyuan Avenue, Nanshan District, Shenzhen,
Guangdong Province, 518000, China

Product Name : Apparel Printer

Report Date : 2026-03-31

Shenzhen Anbotek Compliance Laboratory Limited



Shenzhen Anbotek Compliance Laboratory Limited

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Hotline: 400-003-0500 web: www.anbotek.com E-mail: service@anbotek.com



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TEST REPORT

Applicant : Makeblock Co., Ltd.
Manufacturer : Makeblock Co., Ltd.
Product Name : Apparel Printer
Model No. : MDT-K001-110
Trade Mark : xTool
Rating(s) : Input: 100-120VAC, 60Hz, 350W

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

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: 2026-01-14

Date of Test: 2026-01-14 to 2026-02-25

Prepared By:

Cecilia Chen

(Cecilia Chen)

Approved & Authorized Signer:

Hugo Chen

(Hugo Chen)

Revision History

Report Version	Description	Issued Date
R00	Original Issue. (Note 1)	2026-03-31

Note 1:
This is a Class II application which was based on the original report 1813C50061112502. The difference between the original device and current one described as following:

- 1. The motor driver chip on the sport board was changed.
- 2. The RJ45 connector and circuit components on the user side of the high-speed board were removed.
- 3. The network port was removed.
- 4. Update the photograph of EUT.

The changes are not related with the other RF parameters, only Conducted Emission and Emissions in restricted frequency bands were retested. Other tests will retain the original test results.

1. General Information

1.1. Client Information

Applicant	:	Makeblock Co., Ltd.
Address	:	Floor 4, Building C3, Nanshan iPark, No.1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong Province, 518000, China
Manufacturer	:	Makeblock Co., Ltd.
Address	:	Floor 4, Building C3, Nanshan iPark, No.1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong Province, 518000, China

1.2. Description of Device (EUT)

Product Name	:	Apparel Printer
Model No.	:	MDT-K001-110
Trade Mark	:	xTool
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; 802.11n(HT40)/ax(HEW40): 2422MHz to 2452MHz
Number of Channel	:	802.11b/g/n(HT20)/ax(HEW20): 11 Channels; 802.11n(HT40)/ax(HEW40): 7 Channels
Modulation Type	:	802.11b: DSSS(CCK, DQPSK, DBPSK); 802.11g: OFDM(BPSK, QPSK, 16QAM, 64QAM); 802.11n(HT20 and HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ax(HEW20 and HEW40): OFDMA(BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Antenna Type	:	Rod Antenna
Antenna Gain(Peak)	:	3.22dBi
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.		

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 802.11n(HT40) transmitting mode.
TM5	Keep the EUT in 802.11ax(HEW20) transmitting mode.
TM6	Keep the EUT in 802.11ax(HEW40) transmitting mode.
Note: 802.11ax mode only support full resource unit size.	

1.6. Measurement Uncertainty

Parameter	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	2.8dB
Radiated spurious emissions (above 1GHz)	1G-6GHz: 4.22dB; 6G-18GHz: 4.14dB 18G-40GHz: 5.58dB
Radiated emissions (Below 30MHz)	3.14dB
Radiated spurious emissions (30MHz~1GHz)	Horizontal: 3.94dB; Vertical: 4.34dB
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. Additional Instructions

Power level setup in software:

After Type-C connects to the prototype, the browser enters the address (<http://201.234.3.1:8083/wifi.html>) to set the frequency.

Operation Band:

Mode	Channel(MHz)	Power level	Transmitting type
802.11b	2412	default	data pack TX
802.11b	2437	default	data pack TX
802.11b	2462	default	data pack TX
802.11g	2412	default	data pack TX
802.11g	2437	default	data pack TX
802.11g	2462	default	data pack TX
802.11n(HT20)	2412	default	data pack TX
802.11n(HT20)	2437	default	data pack TX
802.11n(HT20)	2462	default	data pack TX
802.11n(HT40)	2422	default	data pack TX
802.11n(HT40)	2437	default	data pack TX
802.11n(HT40)	2452	default	data pack TX
802.11ax(HEW20)	2412	default	data pack TX
802.11ax(HEW20)	2437	default	data pack TX
802.11ax(HEW20)	2462	default	data pack TX
802.11ax(HEW40)	2422	default	data pack TX
802.11ax(HEW40)	2437	default	data pack TX
802.11ax(HEW40)	2452	default	data pack TX

1.8. Test Summary

Test Items	Test Modes	Status
Conducted Emission at AC power line	Mode1,2,3,4,5,6	P
Emissions in restricted frequency bands (below 1GHz)	Mode1,2,3,4,5,6	P
Emissions in restricted frequency bands (above 1GHz)	Mode1,2,3,4,5,6	P
Note: P: Pass N: N/A, not applicable		

1.9. Description of Test Facility

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

FCC-Registration No.:279531

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. 279531.

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.

1.10. 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.

1.11. Test Equipment List

Conducted Emission at AC power line					
Item	Equipment	Manufacturer	Model No.	Last Cal.	Cal.Due Date
1	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	2025-09-05	2026-09-04
2	Software Name EZ-EMC	Farad Technology	ANB-03A	/	/
3	EMI Test Receiver(CE2#)	Rohde & Schwarz	ESCI	2025-12-29	2026-12-28
4	Three Phase V-type Artificial Power Network LISN 200A	EMtrace	PWL-50-3200A	2025-12-29	2026-12-28
5	10dB Attenuator	Emtrace	10dB100W	2025-12-29	2026-12-28
6	Pulse limiter	EMtrace	PL00903-2#	2025-12-30	2026-12-29

Emissions in frequency bands (below 1GHz)					
Item	Equipment	Manufacturer	Model No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver(RE2/3#)	Rohde & Schwarz	ESR26	2025-12-30	2026-12-29
2	Pre-amplifier	SONOMA	310N	2025-12-30	2026-12-29
3	Bilog Broadband Antenna	Schwarzbeck	VULB9163	2025-10-26	2028-10-25
4	Loop Antenna (9K-30M)	Schwarzbeck	FMZB1519B	2025-09-05	2026-09-04
5	EMI Test Software EZ-EMC	SHURPLE	N/A	/	/

Emissions in frequency bands (above 1GHz)					
Item	Equipment	Manufacturer	Model No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver(RE2/3#)	Rohde & Schwarz	ESR26	2025-12-30	2026-12-29
2	EMI Preamplifier	SKET Electronic	LNPA-0118G-45	2025-12-30	2026-12-29
3	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	2025-10-27	2028-10-26
4	EMI Test Software EZ-EMC	SHURPLE	N/A	/	/
5	Horn Antenna	A-INFO	LB-180400-KF	2024-01-22	2027-01-21
6	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	2025-12-29	2026-12-28
7	Amplifier	Talent Microwave	TLLA18G40G-53-30	2026-01-05	2027-01-04

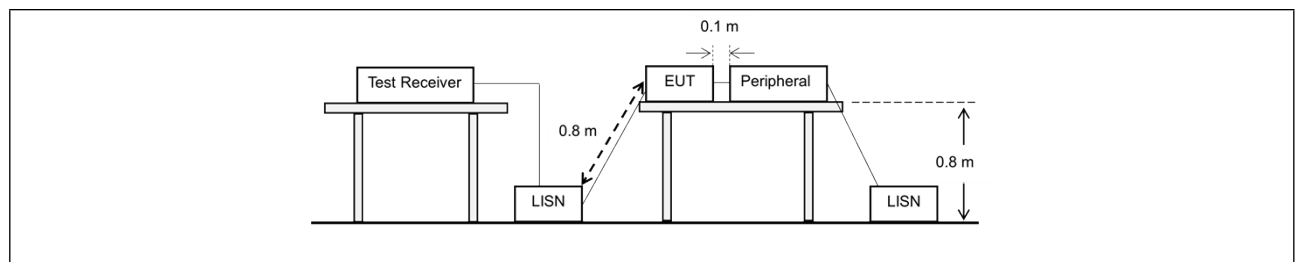
2. Conducted Emission at AC power line

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		

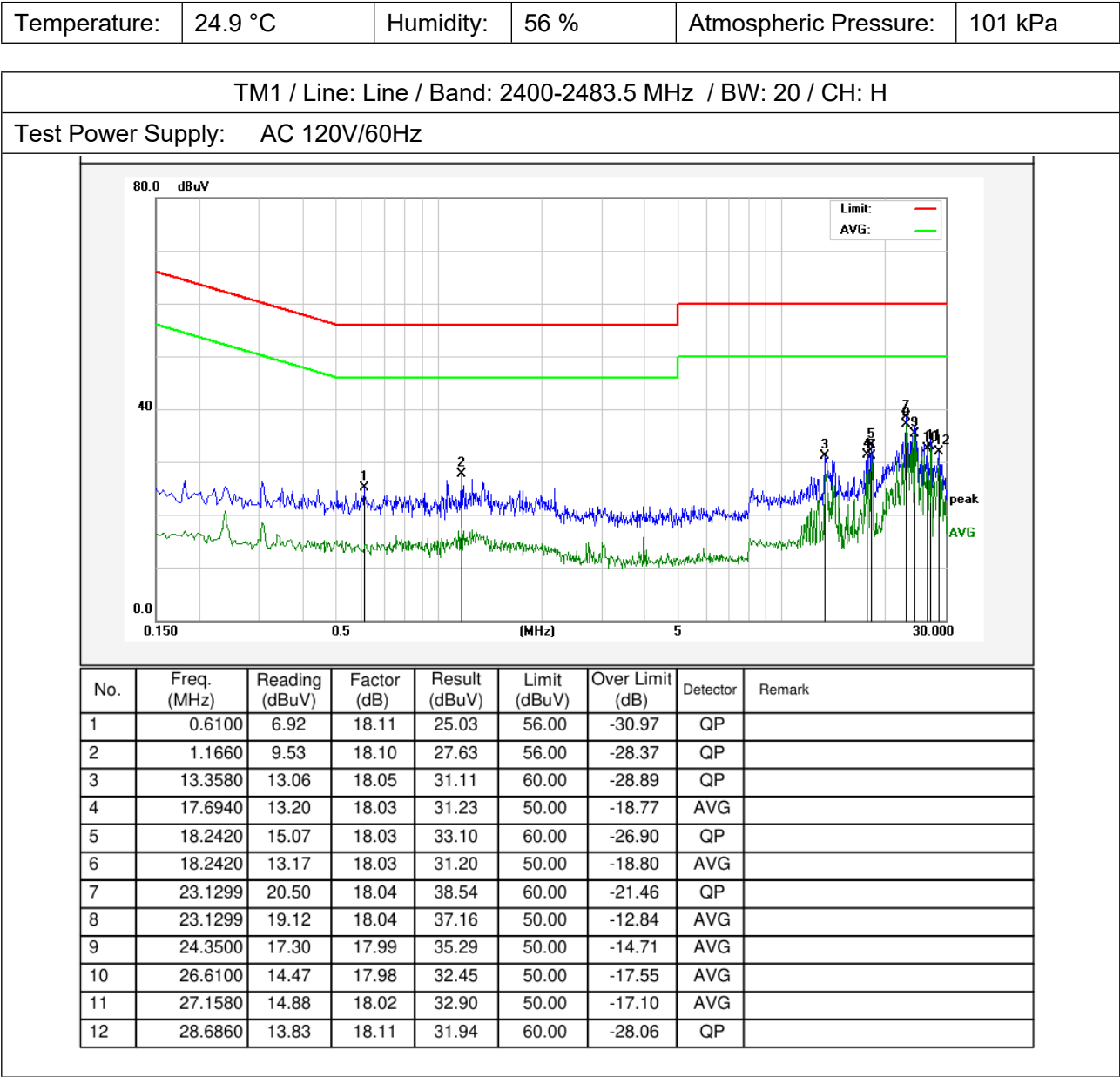
2.1. EUT Operation

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: 802.11n(HT40) mode: Keep the EUT in 802.11n(HT40) transmitting mode. 5: 802.11ax(HEW20): Keep the EUT in 802.11ax(HEW20) transmitting mode. 6: 802.11ax(HEW40): Keep the EUT in 802.11ax(HEW40) transmitting mode.

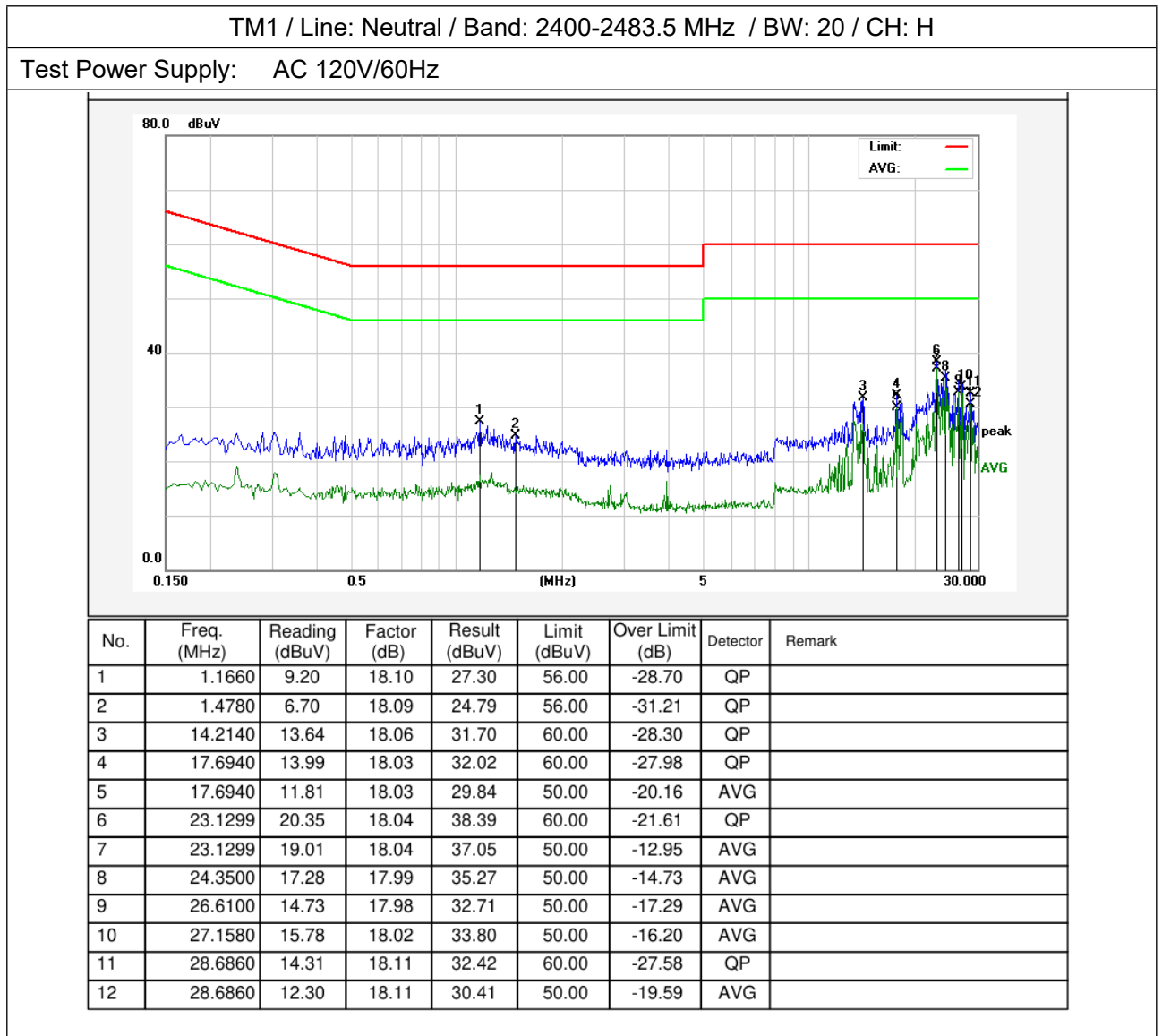
2.2. Test Setup



2.3. Test Data



Temperature:	24.9 °C	Humidity:	56 %	Atmospheric Pressure:	101 kPa
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Note:

- Only record the worst data in the report.
- Result(dBμV) = Reading(dBμV) + Factor(dB);
Over Limit(dB) = Result(dBμV) - Limit(dBμV)

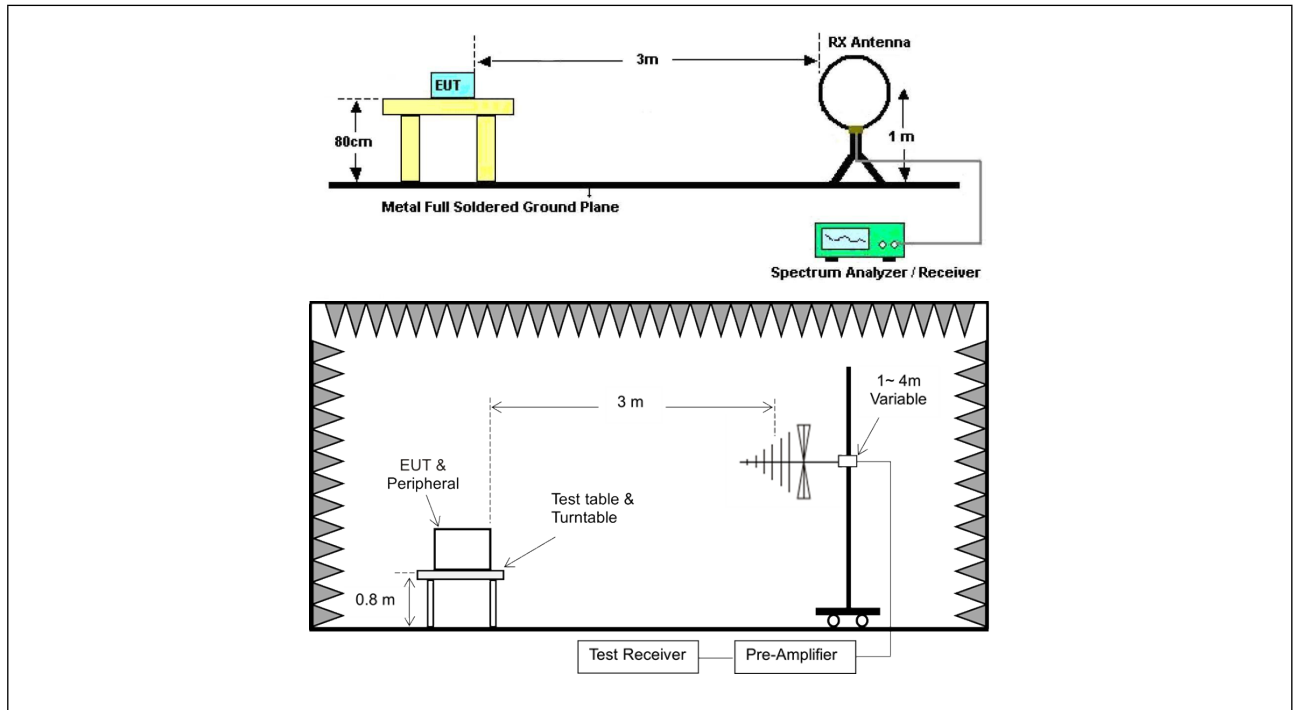
3. Emissions in restricted frequency bands (below 1GHz)

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
	** 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. 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.		
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		

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: 802.11n(HT40) mode: Keep the EUT in 802.11n(HT40) transmitting mode. 5: 802.11ax(HEW20): Keep the EUT in 802.11ax(HEW20) transmitting mode. 6: 802.11ax(HEW40): Keep the EUT in 802.11ax(HEW40) transmitting mode.

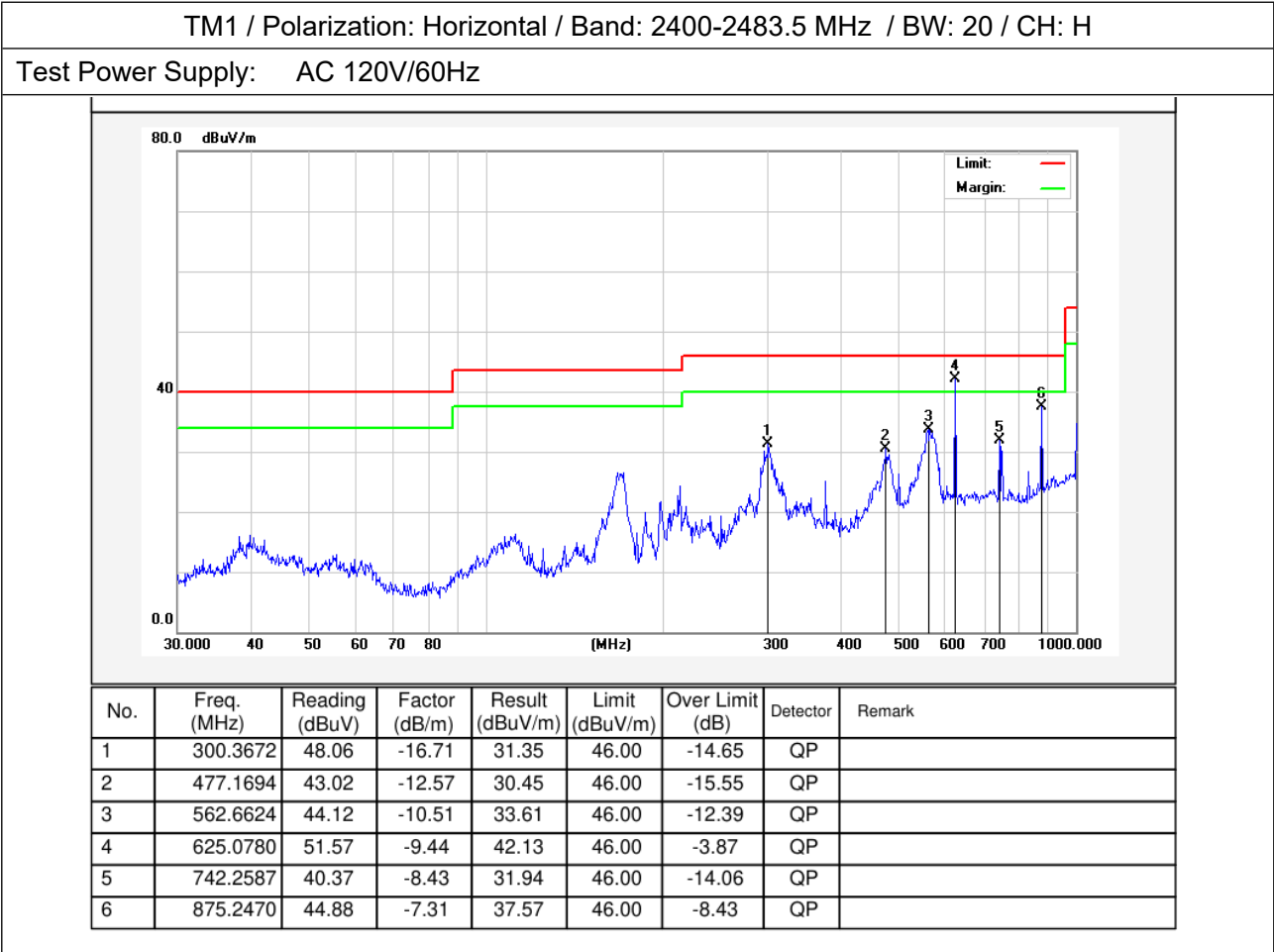
3.2. Test Setup



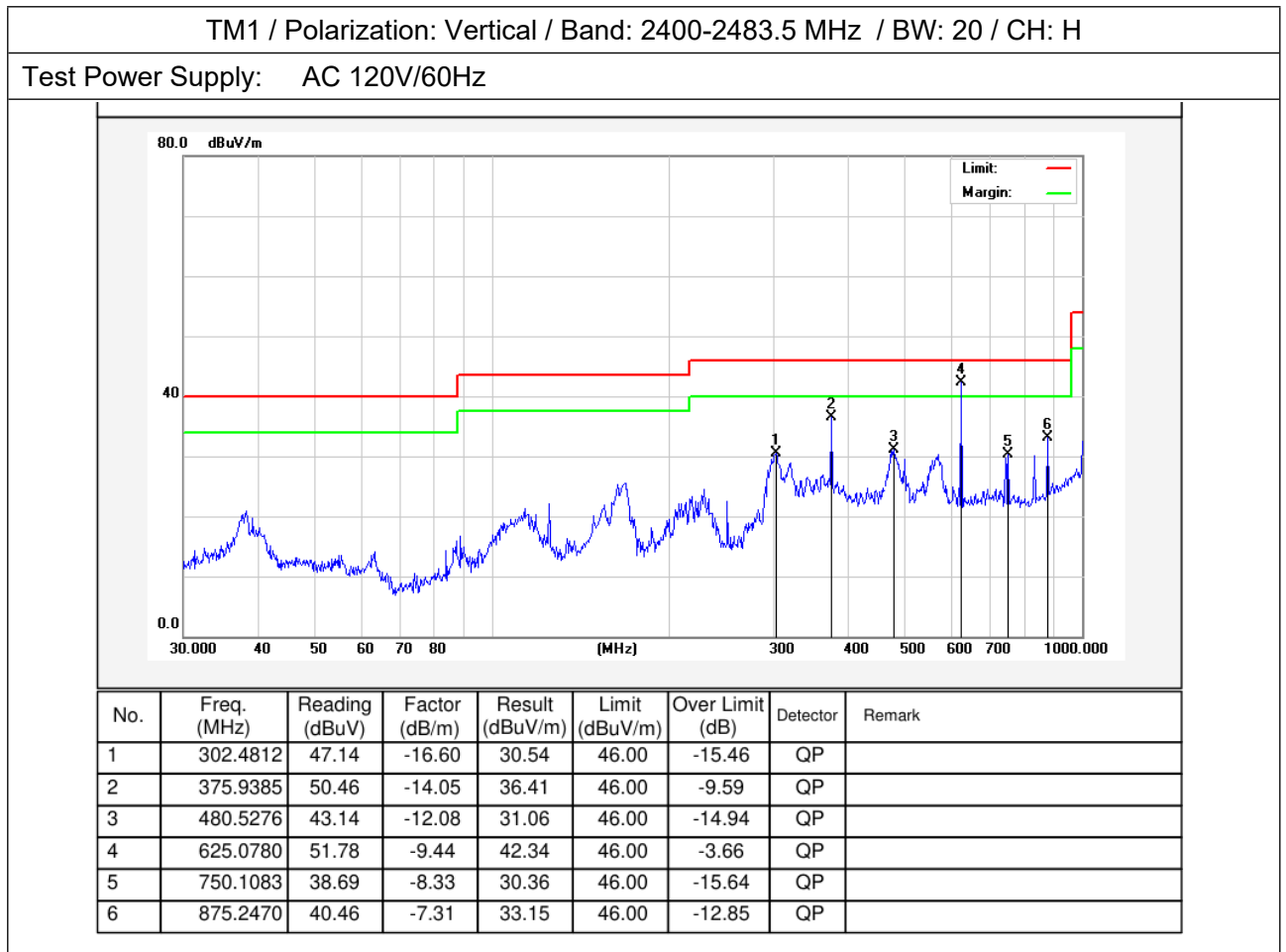
3.3. Test Data

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:	24.4 °C	Humidity:	52 %	Atmospheric Pressure:	101 kPa
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Temperature:	24.4 °C	Humidity:	52 %	Atmospheric Pressure:	101 kPa
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Note:

1. Only record the worst data in the report.
2. $\text{Result(dB}\mu\text{V/m)} = \text{Reading(dB}\mu\text{V)} + \text{Factor(dB/m)}$;
 $\text{Over Limit(dB)} = \text{Result(dB}\mu\text{V/m)} - \text{Limit(dB}\mu\text{V/m)}$

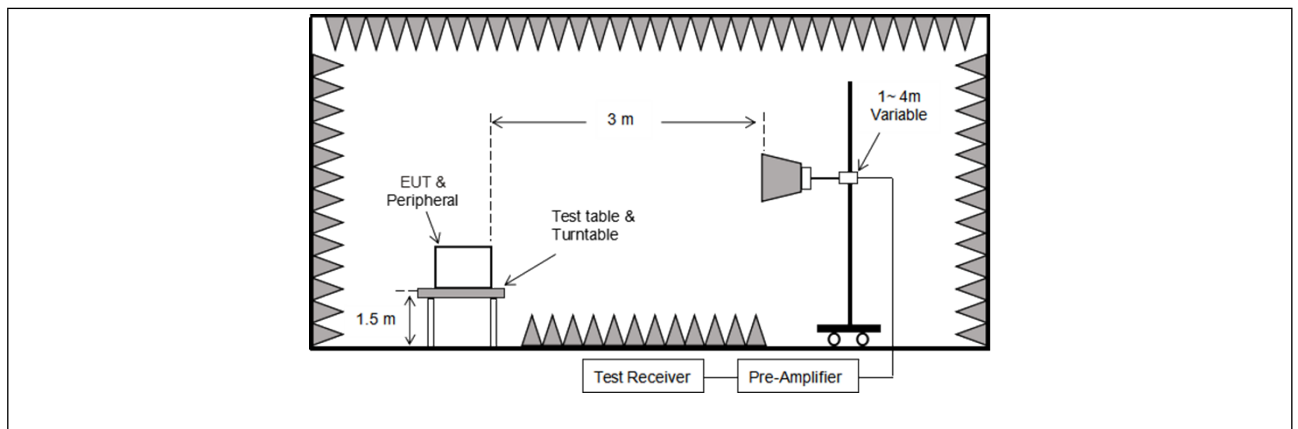
4. Emissions in restricted frequency bands (above 1GHz)

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
	** 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. 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.		
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		

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: 802.11n(HT40) mode: Keep the EUT in 802.11n(HT40) transmitting mode. 5: 802.11ax(HEW20): Keep the EUT in 802.11ax(HEW20) transmitting mode. 6: 802.11ax(HEW40): Keep the EUT in 802.11ax(HEW40) transmitting mode.

4.2. Test Setup



4.3. Test Data

Temperature:	24.4 °C	Humidity:	48 %	Atmospheric Pressure:	101 kPa
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TM1 / CH: L						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4824.00	29.52	15.31	44.83	74.00	-29.17	Vertical
7236.00	30.86	18.06	48.92	74.00	-25.08	Vertical
9648.00	31.19	23.77	54.96	74.00	-19.04	Vertical
12060.00	*			74.00		Vertical
14472.00	*			74.00		Vertical
4824.00	28.85	15.31	44.16	74.00	-29.84	Horizontal
7236.00	31.52	18.06	49.58	74.00	-24.42	Horizontal
9648.00	28.65	23.77	52.42	74.00	-21.58	Horizontal
12060.00	*			74.00		Horizontal
14472.00	*			74.00		Horizontal
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4824.00	21.54	15.31	36.85	54.00	-17.15	Vertical
7236.00	22.64	18.06	40.70	54.00	-13.30	Vertical
9648.00	23.09	23.77	46.86	54.00	-7.14	Vertical
12060.00	*			54.00		Vertical
14472.00	*			54.00		Vertical
4824.00	21.36	15.31	36.67	54.00	-17.33	Horizontal
7236.00	24.09	18.06	42.15	54.00	-11.85	Horizontal
9648.00	20.39	23.77	44.16	54.00	-9.84	Horizontal
12060.00	*			54.00		Horizontal
14472.00	*			54.00		Horizontal

TM1 / CH: M						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4874.00	29.47	15.41	44.88	74.00	-29.12	Vertical
7311.00	29.21	18.01	47.22	74.00	-26.78	Vertical
9748.00	31.13	23.79	54.92	74.00	-19.08	Vertical
12185.00	*			74.00		Vertical
14622.00	*			74.00		Vertical
4874.00	28.65	15.41	44.06	74.00	-29.94	Horizontal
7311.00	30.44	18.01	48.45	74.00	-25.55	Horizontal
9748.00	28.95	23.79	52.74	74.00	-21.26	Horizontal
12185.00	*			74.00		Horizontal
14622.00	*			74.00		Horizontal
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4874.00	20.29	15.41	35.70	54.00	-18.30	Vertical
7311.00	20.11	18.01	38.12	54.00	-15.88	Vertical
9748.00	21.38	23.79	45.17	54.00	-8.83	Vertical
12185.00	*			54.00		Vertical
14622.00	*			54.00		Vertical
4874.00	19.75	15.41	35.16	54.00	-18.84	Horizontal
7311.00	20.52	18.01	38.53	54.00	-15.47	Horizontal
9748.00	19.66	23.79	43.45	54.00	-10.55	Horizontal
12185.00	*			54.00		Horizontal
14622.00	*			54.00		Horizontal

TM1 / CH: H						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4924.00	29.33	15.51	44.84	74.00	-29.16	Vertical
7386.00	29.15	17.97	47.12	74.00	-26.88	Vertical
9848.00	30.57	23.82	54.39	74.00	-19.61	Vertical
12310.00	*			74.00		Vertical
14772.00	*			74.00		Vertical
4924.00	29.31	15.51	44.82	74.00	-29.18	Horizontal
7386.00	30.79	17.97	48.76	74.00	-25.24	Horizontal
9848.00	29.45	23.82	53.27	74.00	-20.73	Horizontal
12310.00	*			74.00		Horizontal
14772.00	*			74.00		Horizontal
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4924.00	20.12	15.51	35.63	54.00	-18.37	Vertical
7386.00	19.55	17.97	37.52	54.00	-16.48	Vertical
9848.00	21.82	23.82	45.64	54.00	-8.36	Vertical
12310.00	*			54.00		Vertical
14772.00	*			54.00		Vertical
4924.00	19.56	15.51	35.07	54.00	-18.93	Horizontal
7386.00	20.90	17.97	38.87	54.00	-15.13	Horizontal
9848.00	19.89	23.82	43.71	54.00	-10.29	Horizontal
12310.00	*			54.00		Horizontal
14772.00	*			54.00		Horizontal

Remark:

1. Result =Reading + Factor
2. Test frequency are from 1GHz to 25GHz, “*” means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.
3. Only the worst case is recorded in the report.

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 -----