

FCC Test Report

Report No. : 1812C60437412503

Applicant : SHENZHEN HOLATEK CO.,LTD.

Address : #12,Building 1,Chongwen Park, Nanshan
Zhiyuan, 3370 Liuxian Ave, Nanshan District,
Shenzhen, China

Product Name : Smart Projector

Report Date : 2026-09-30

Shenzhen Anbotek Compliance Laboratory Limited



Contents

1. General Information	6
1.1. Client Information	6
1.2. Description of Device (EUT)	6
1.3. Auxiliary Equipment Used During Test	7
1.4. Operation channel list	7
1.5. Description of Test Mode(s)	8
1.6. Measurement Uncertainty	8
1.7. Additional Instructions	9
1.8. Test Summary	10
1.9. Description of Test Facility	11
1.10. Disclaimer	11
1.11. Test Equipment List	12
2. Antenna requirement	14
2.1. Conclusion	14
3. Conducted Emission at AC power line	15
3.1. EUT Operation	15
3.2. Test Setup	15
3.3. Test Data	16
4. 6dB Bandwidth	20
4.1. EUT Operation	20
4.2. Test Setup	21
4.3. Test Data	21
5. Maximum Conducted Output Power	22
5.1. EUT Operation	22
5.2. Test Setup	22
5.3. Test Data	22
6. Power Spectral Density	23
6.1. EUT Operation	23
6.2. Test Setup	23
6.3. Test Data	23
7. Emissions in non-restricted frequency bands	24
7.1. EUT Operation	24
7.2. Test Setup	24
7.3. Test Data	24
8. Band edge emissions (Radiated)	25
8.1. EUT Operation	25
8.2. Test Setup	26
8.3. Test Data	27
9. Emissions in restricted frequency bands (below 1GHz)	33
9.1. EUT Operation	33
9.2. Test Setup	34

9.3. Test Data35

10. Emissions in restricted frequency bands (above 1GHz).....39

10.1. EUT Operation39

10.2. Test Setup40

10.3. Test Data41

APPENDIX I -- TEST SETUP PHOTOGRAPH44

APPENDIX II -- EXTERNAL PHOTOGRAPH44

APPENDIX III -- INTERNAL PHOTOGRAPH.....44

TEST REPORT

Applicant : SHENZHEN HOLATEK CO.,LTD.
Manufacturer : SHENZHEN HOLATEK CO.,LTD.
Product Name : Smart Projector
Model No. : J9B-9K2, J9F-9K2, J9B-9K0, J9B-9K1, J9B-9K3, J9F-9K0, J9F-9K1, J9F-9K3
Trade Mark : JMGO
Rating(s) : J9B series Input: 24V=12.5A
J9F series Input: 24V=10A
47 CFR Part 15.247
KDB 558074 D01 15.247 Meas Guidance v05r02*
Test Standard(s) : **KDB 662911 D01 Multiple Transmitter Output v02r01***
ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024*

Note: * denotes that this test standard is not included in CNAS accredited scope.

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: 2026-07-30

Date of Test: 2026-07-30 to 2026-09-29

Prepared By:



(Lene Chen)

Approved & Authorized Signer:



(Jules Guo)

Revision History

Report Version	Description	Issued Date
R00	Original Issue.	2026-09-30

1. General Information

1.1. Client Information

Applicant	:	SHENZHEN HOLATEK CO.,LTD.
Address	:	#12,Building 1,Chongwen Park, Nanshan Zhiyuan, 3370 Liuxian Ave, Nanshan District, Shenzhen, China
Manufacturer	:	SHENZHEN HOLATEK CO.,LTD.
Address	:	#12,Building 1,Chongwen Park, Nanshan Zhiyuan, 3370 Liuxian Ave, Nanshan District, Shenzhen, China
Factory	:	Anhui MuKe High-tech Co., Ltd
Address	:	A15 Plant at the intersection of Hongxing Road and Lixin Road, Zhoupeng Street, Yingquan District, Fuyang, Anhui Province, China

1.2. Description of Device (EUT)

Product Name	:	Smart Projector
Model No.	:	J9B-9K2, J9F-9K2, J9B-9K0, J9B-9K1, J9B-9K3, J9F-9K0, J9F-9K1, J9F-9K3 (Note: All samples are the same except the model name, input ratings, adapter supplied with the product, laser source and J9F series reduce circuitry associated with the LED beads. So we prepare all test items for model "J9B-9K2", conducted emission and radiation spurious emission (below 1G) test for model "J9F-9K2".)
Trade Mark	:	JMGO
Test Power Supply	:	AC 120V/60Hz for Adapter
Test Sample No.	:	J9B-9K2: 1-3-1(Normal Sample), 1-3-2(Engineering Sample) J9F-9K2: 1-3-3(Normal Sample)
Adapter1 (for J9B series)	:	Manufacturer: Shenzhen JingQuanHua & Everrise Intelligent Electric Co.,Ltd. Model: NSA300EF-24012500 Input: 100-240V~ 50/60Hz 3.5A Output: 24.0V=12.5A 300.0W
Adapter2 (for J9F series)	:	Manufacturer: Shenzhen JingQuanHua & Everrise Intelligent Electric Co.,Ltd. Model: NSA240EC-2401001 Input: 100-240V~ 50/60Hz, 2.5A Output: 24.0V=10.0A
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	:	ANT1: FPC Antenna ANT2: FPC Antenna
Antenna Gain(Peak)	:	ANT1: 1.80dBi ANT2: 1.80dBi
Directional antenna gain	:	4.81dBi
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 and 802.11ax modes support MIMO. (4) Directional gain= $10 \log[(10G1/20 + 10G2/20)2/N \text{ ANT}] \text{ dBi}$		

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 Mode(s)

Test Mode(s)	Description(s)
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
Occupied Bandwidth	552Hz
Conducted Output Power	0.84dB
Power Spectral Density	0.84dB
Conducted Spurious Emission	1.24dB
Radiated spurious emissions (above 1GHz)	1G-6GHz: 4.64dB; 6G-18GHz: 4.82dB 18G-40GHz: 5.62dB
Radiated emissions (Below 30MHz)	3.14dB
Radiated spurious emissions (30MHz~1GHz)	Horizontal: 4.44dB; Vertical: 4.82dB
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: SecureCRSecureFXPortable64

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 Mode(s)	Status
Antenna requirement	/	P
Conducted Emission at AC power line	Mode1,2,3,4,5,6	P
6dB Bandwidth	Mode1,2,3,4,5,6	P
Maximum Conducted Output Power	Mode1,2,3,4,5,6	P
Power Spectral Density	Mode1,2,3,4,5,6	P
Emissions in non-restricted frequency bands	Mode1,2,3,4,5,6	P
Band edge emissions (Radiated)	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 effect that the results relate only to the items tested.
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. This report shall not be reproduced except in full without approval of the anbotek.
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.
8. Unless otherwise specified, use the binary decision rule of simple acceptance ($w=0$) for conformity determination with reference to ILAC-G8:09/2019.

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	2026-06-08	2027-06-07
2	Software Name EZ-EMC	Farad Technology	ANB-03A	/	/
3	EMI Test Receiver(CE2#)	Rohde & Schwarz	ESCI3	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#	2025-12-29	2026-12-28

6dB Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in non-restricted frequency bands					
Item	Equipment	Manufacturer	Model No.	Last Cal.	Cal.Due Date
1	MXG RF Vector Signal Generator	Agilent	N5182A	2025-12-29	2026-12-28
2	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-HWHS80B	2026-06-08	2027-06-07
3	Signal Generator	Agilent	E4421B	2025-12-29	2026-12-28
4	DC Power Supply	IVYTECH	IV3605	2026-06-08	2027-06-07
5	RF Control Unit	Tonscend	JS0806-2	2026-06-08	2027-06-07
6	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	2025-12-29	2026-12-28
7	MXA Spectrum Analysis	KEYSIGHT	N9020A	2025-12-29	2026-12-28
8	RF Test software	Toscend	JS1120-3	/	/

Band edge emissions (Radiated)					
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

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	EMI Preamplifier	SKET Electronic	LNPA-0118G-45	2025-12-30	2026-12-29
5	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	2025-10-27	2028-10-26
6	Loop Antenna (9K-30M)	Schwarzbeck	FMZB1519B	2026-06-24	2029-06-23
7	EMI Test Software EZ-EMC	SHURPLE	N/A	/	/
8	MXG RF Vector Signal Generator	Agilent	N5182A	2025-12-29	2026-12-28
9	DC Power Supply	LW	TPR-6420D	2025-10-10	2026-10-09
10	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-HWHS80B	2026-06-08	2027-06-07
11	Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	2025-12-29	2026-12-28
12	High-Pass Filter	CDKMV	ZHPF-BM1100-4730	2025-10-10	2026-10-09
13	High-Pass Filter	CDKMV	ZHPF-M3.5-18G-3834	2025-12-30	2026-12-29
14	MXA Spectrum Analysis	KEYSIGHT	N9020A	2026-06-08	2027-06-07

Shenzhen Anbotek Compliance Laboratory Limited

Any unauthorized modification, forgery, or falsification of this document constitutes a violation of law and is subject to legal penalties. If you have any questions, you may scan the QR code to download the report for verification or contact us via email.

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

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.
Test Method:	---

2.1. Conclusion

The antenna is **FPC Antenna** which permanently attached, and the best case gain of the antenna is **1.80dBi for ANT1, 1.80dBi for ANT2**. It complies with the standard requirement.

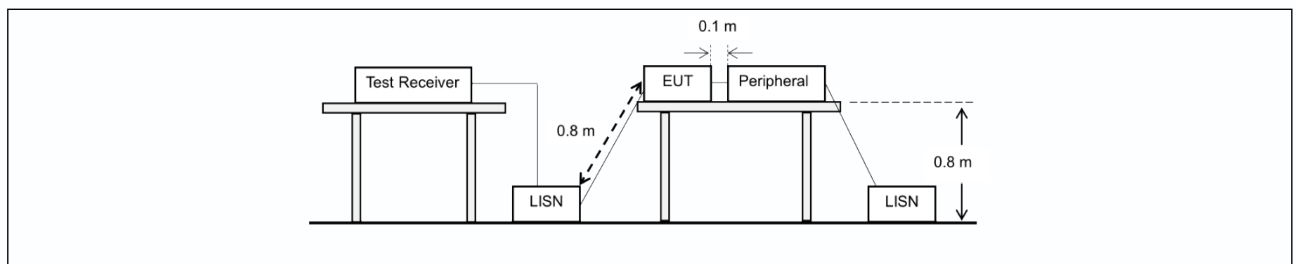
3. Conducted Emission at AC power line

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 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.2		
Procedure:	Refer to ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 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. 4:802.11n(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.

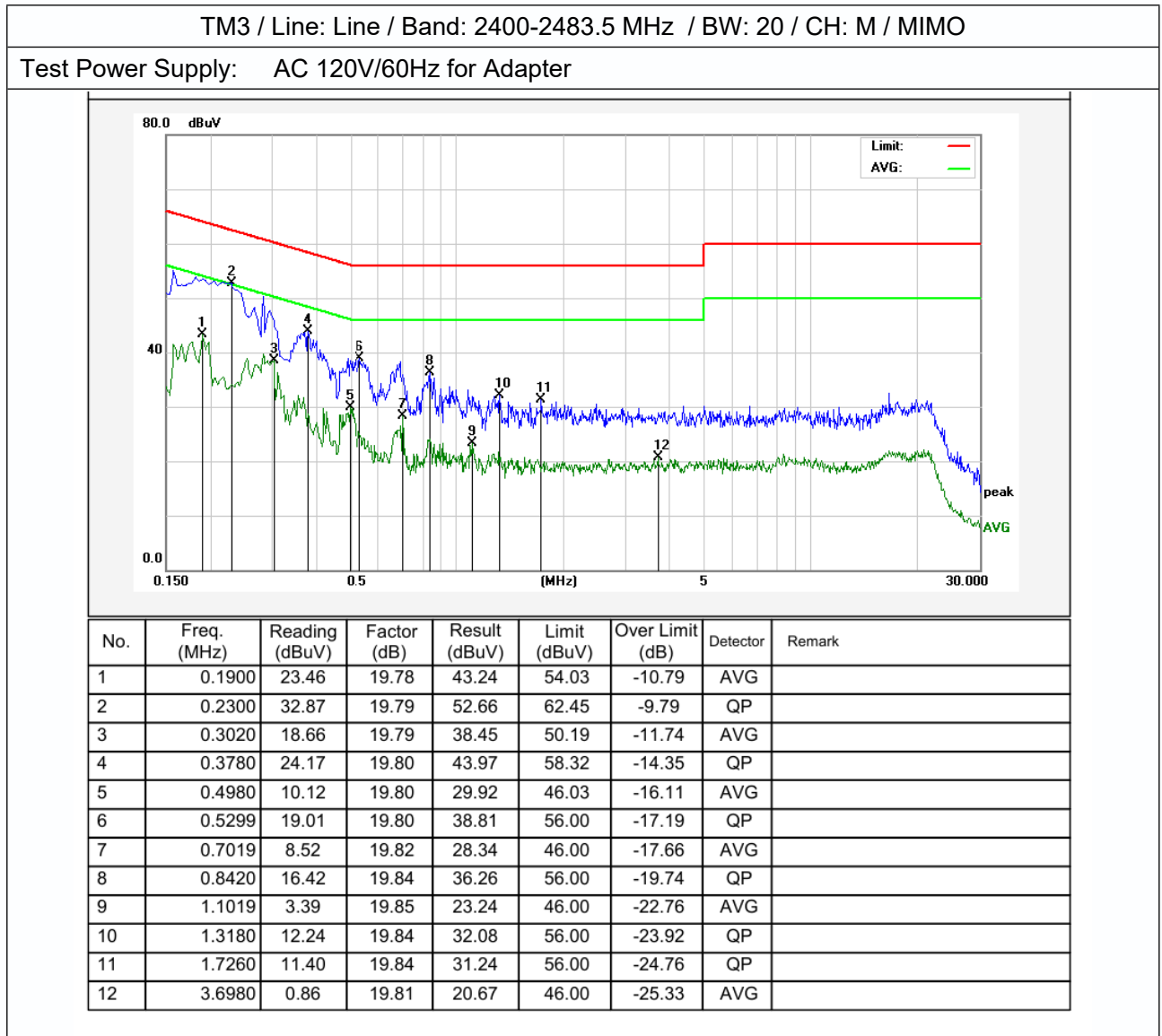
3.2. Test Setup



3.3. Test Data

Test Sample: J9B-9K2

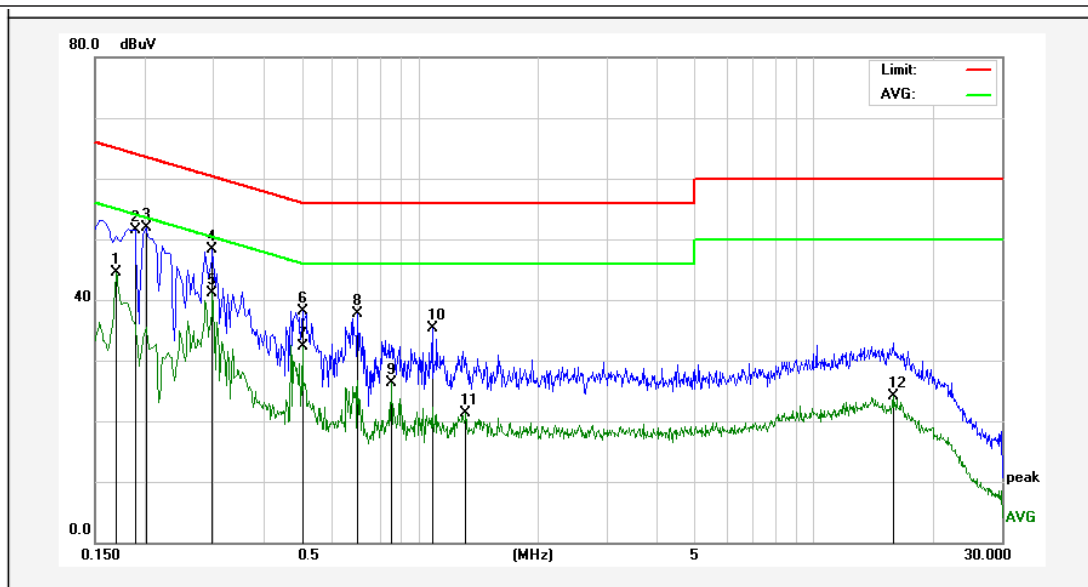
Temperature:	23.8 °C	Humidity:	57 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------



Temperature:	23.8 °C	Humidity:	57 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------

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

Test Power Supply: AC 120V/60Hz for Adapter



No.	Freq. (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Over Limit (dB)	Detector	Remark
1	0.1700	24.67	19.78	44.45	54.96	-10.51	AVG	
2	0.1900	31.67	19.78	51.45	64.03	-12.58	QP	
3	0.2020	32.17	19.78	51.95	63.52	-11.57	QP	
4	0.2980	28.54	19.79	48.33	60.30	-11.97	QP	
5	0.2980	21.37	19.79	41.16	50.30	-9.14	AVG	
6	0.5020	18.21	19.80	38.01	56.00	-17.99	QP	
7	0.5020	12.56	19.80	32.36	46.00	-13.64	AVG	
8	0.6980	17.84	19.82	37.66	56.00	-18.34	QP	
9	0.8500	6.44	19.84	26.28	46.00	-19.72	AVG	
10	1.0820	15.37	19.85	35.22	56.00	-20.78	QP	
11	1.3140	1.53	19.84	21.37	46.00	-24.63	AVG	
12	15.8980	4.32	19.86	24.18	50.00	-25.82	AVG	

Note:

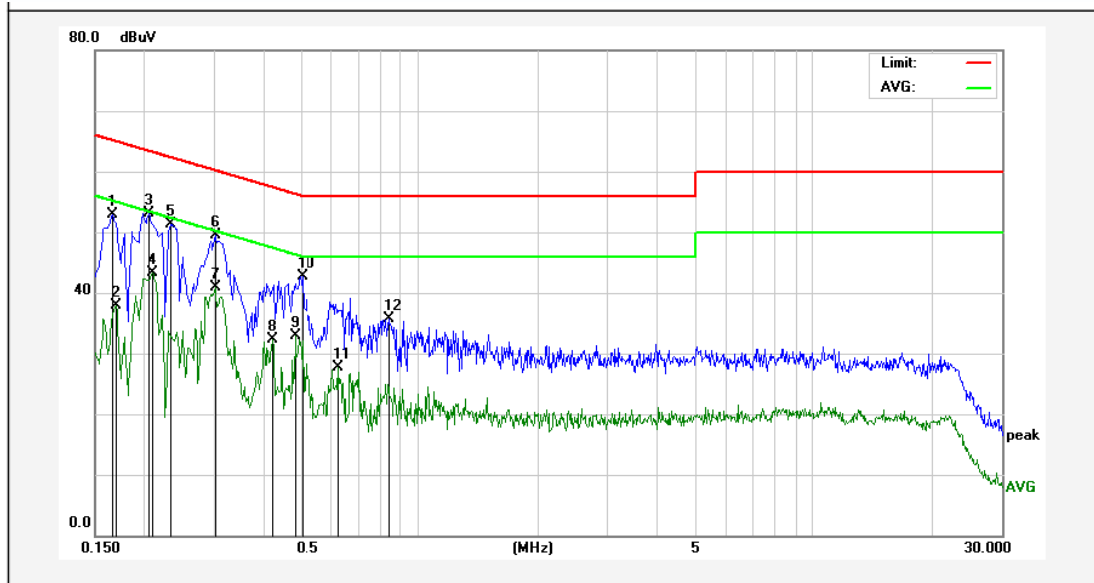
- Only record the worst data in the report.
- Result(dBμV) = Reading(dBμV) + Factor(dB);
Over Limit(dB) = Result(dBμV) - Limit(dBμV)

Test Sample: J9F-9K2

Temperature:	23.8 °C	Humidity:	57 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------

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

Test Power Supply: AC 120V/60Hz for Adapter

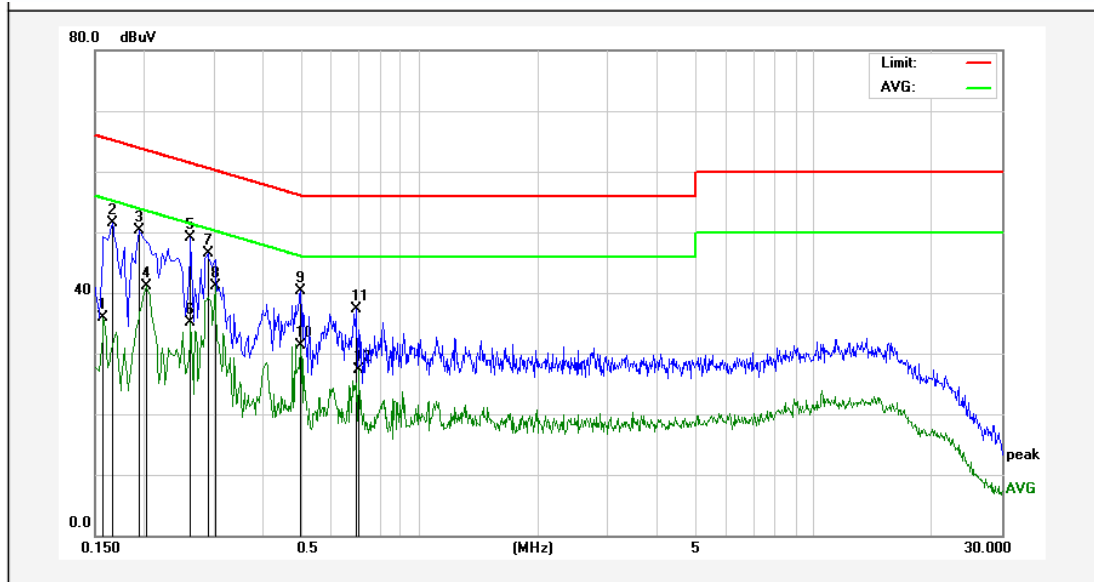


No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1660	33.06	19.78	52.84	65.15	-12.31	QP	
2	0.1700	18.17	19.78	37.95	54.96	-17.01	AVG	
3	0.2060	33.24	19.78	53.02	63.36	-10.34	QP	
4	0.2100	23.59	19.78	43.37	53.20	-9.83	AVG	
5	0.2340	31.60	19.79	51.39	62.30	-10.91	QP	
6	0.3020	29.63	19.79	49.42	60.19	-10.77	QP	
7	0.3020	21.16	19.79	40.95	50.19	-9.24	AVG	
8	0.4220	12.47	19.80	32.27	47.41	-15.14	AVG	
9	0.4820	13.09	19.80	32.89	46.30	-13.41	AVG	
10	0.5060	22.97	19.80	42.77	56.00	-13.23	QP	
11	0.6220	7.89	19.81	27.70	46.00	-18.30	AVG	
12	0.8380	15.87	19.84	35.71	56.00	-20.29	QP	

Temperature:	23.8 °C	Humidity:	57 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------

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

Test Power Supply: AC 120V/60Hz for Adapter



No.	Freq. (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Over Limit (dB)	Detector	Remark
1	0.1580	16.14	19.78	35.92	55.56	-19.64	AVG	
2	0.1660	31.64	19.78	51.42	65.15	-13.73	QP	
3	0.1940	30.52	19.78	50.30	63.86	-13.56	QP	
4	0.2020	21.29	19.78	41.07	53.52	-12.45	AVG	
5	0.2620	29.30	19.79	49.09	61.36	-12.27	QP	
6	0.2620	15.27	19.79	35.06	51.36	-16.30	AVG	
7	0.2900	26.75	19.79	46.54	60.52	-13.98	QP	
8	0.3020	21.37	19.79	41.16	50.19	-9.03	AVG	
9	0.4980	20.49	19.80	40.29	56.03	-15.74	QP	
10	0.4980	11.50	19.80	31.30	46.03	-14.73	AVG	
11	0.6940	17.47	19.82	37.29	56.00	-18.71	QP	
12	0.7019	7.49	19.82	27.31	46.00	-18.69	AVG	

Note:

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

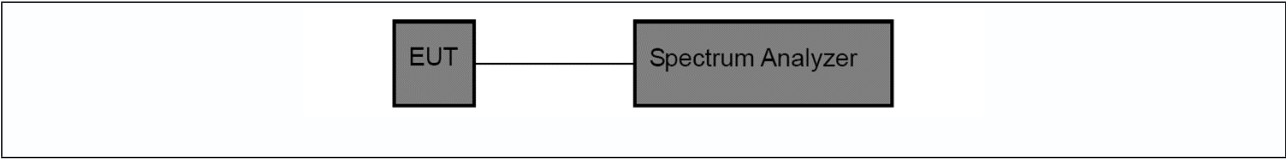
4. 6dB Bandwidth

Test Requirement:	47 CFR 15.247(a)(2)
Test Limit:	Refer to 47 CFR 15.247(a)(2), Systems using digital modulation techniques may operate in the 902-928 MHz, and 2400-2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.8 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	11.8.1 Option 1 The steps for the first option are as follows: a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz. b) Set the VBW $\geq [3 \times \text{RBW}]$. c) Detector = peak. d) Trace mode = max-hold. e) Sweep = No faster than coupled (auto) time. f) Allow the trace to stabilize. g) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value. 11.8.2 Option 2 The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz, VBW $\geq 3 \times \text{RBW}$, 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.

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:	23.5 °C	Humidity:	51 %	Atmospheric Pressure:	99.5 kPa
--------------	---------	-----------	------	-----------------------	----------

Please Refer to Appendix for Details.

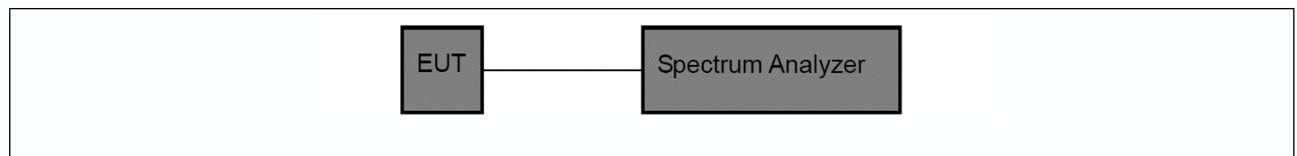
5. Maximum Conducted Output Power

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 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 11.9.2 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.9.2 Maximum conducted (average) output power

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. 4:802.11n(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.

5.2. Test Setup



5.3. Test Data

Temperature:	23.5 °C	Humidity:	51 %	Atmospheric Pressure:	99.5 kPa
--------------	---------	-----------	------	-----------------------	----------

Please Refer to Appendix for Details.

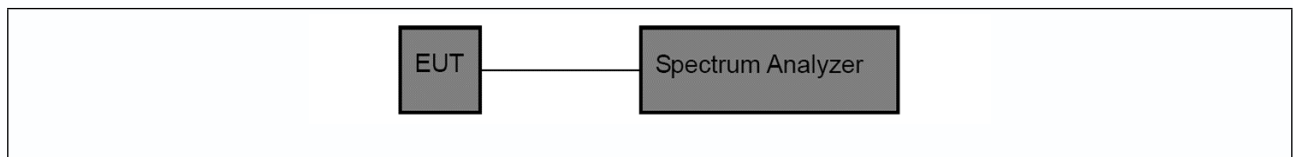
6. Power Spectral Density

Test Requirement:	47 CFR 15.247(e)
Test Limit:	Refer to 47 CFR 15.247(e), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.10 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.10, Maximum power spectral density level in the fundamental emission

6.1. 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.

6.2. Test Setup



6.3. Test Data

Temperature:	23.5 °C	Humidity:	51 %	Atmospheric Pressure:	99.5 kPa
--------------	---------	-----------	------	-----------------------	----------

Please Refer to Appendix for Details.

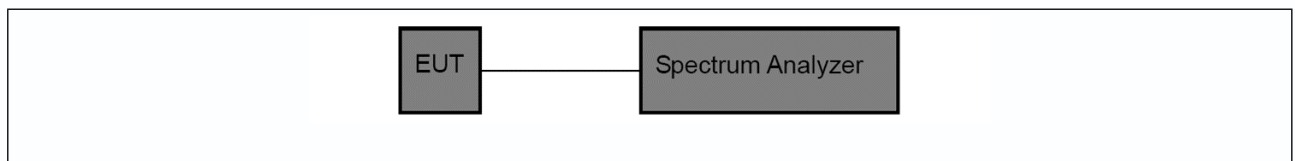
7. Emissions in non-restricted frequency bands

Test Requirement:	47 CFR 15.247(d)
Test Limit:	Refer to 47 CFR 15.247(d), In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 11.11 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 11.11.1, Section 11.11.2, Section 11.11.3

7.1. 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.

7.2. Test Setup



7.3. Test Data

Temperature:	23.5 °C	Humidity:	51 %	Atmospheric Pressure:	99.5 kPa
--------------	---------	-----------	------	-----------------------	----------

Please Refer to Appendix for Details.

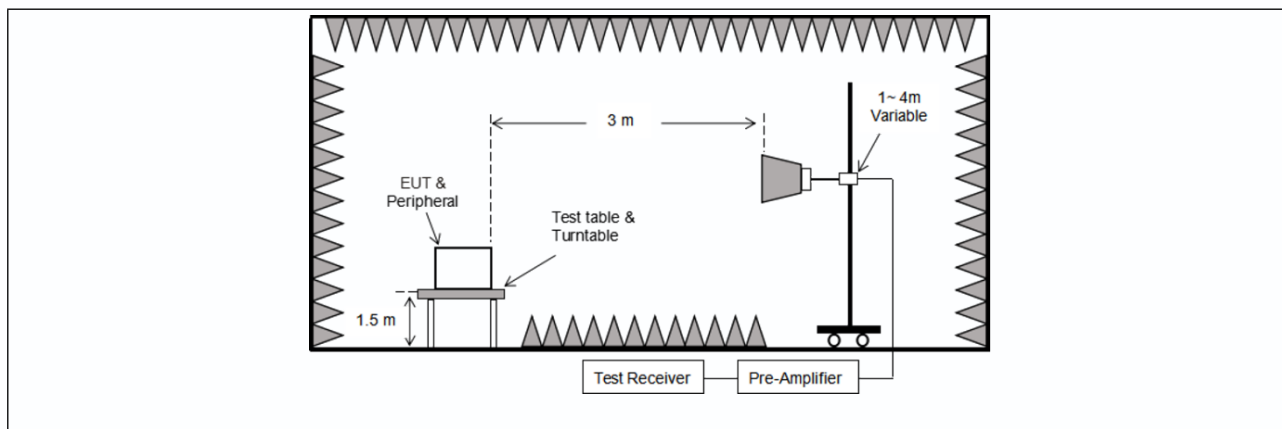
8. Band edge emissions (Radiated)

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 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.10 KDB 558074 D01 15.247 Meas Guidance v05r02		
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.10.5.2		

8.1. 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.

8.2. Test Setup



8.3. Test Data

Temperature:	23.5 °C	Humidity:	51 %	Atmospheric Pressure:	99.5 kPa
--------------	---------	-----------	------	-----------------------	----------

TM1 / CH: L						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	38.57	9.58	48.15	74.00	-25.85	Horizontal
2390.00	40.81	9.73	50.54	74.00	-23.46	Horizontal
2310.00	39.92	9.58	49.50	74.00	-24.50	Vertical
2390.00	46.46	9.73	56.19	74.00	-17.81	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	29.22	9.58	38.80	54.00	-15.20	Horizontal
2390.00	36.45	9.73	46.18	54.00	-7.82	Horizontal
2310.00	30.37	9.58	39.95	54.00	-14.05	Vertical
2390.00	38.80	9.73	48.53	54.00	-5.47	Vertical

TM1 / CH: H						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	46.50	9.91	56.41	74.00	-17.59	Horizontal
2500.00	40.68	9.94	50.62	74.00	-23.38	Horizontal
2483.50	46.86	9.91	56.77	74.00	-17.23	Vertical
2500.00	40.36	9.94	50.30	74.00	-23.70	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.82	9.91	47.73	54.00	-6.27	Horizontal
2500.00	29.73	9.94	39.67	54.00	-14.33	Horizontal
2483.50	39.50	9.91	49.41	54.00	-4.59	Vertical
2500.00	30.04	9.94	39.98	54.00	-14.02	Vertical

Remark:

1. Result=Reading + Factor
2. During the test, all antenna chains has been tested, and only worst case (ANT1) data is listed in the report.

TM2 / CH: L						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	37.25	9.58	46.83	74.00	-27.17	Horizontal
2390.00	41.07	9.73	50.80	74.00	-23.20	Horizontal
2310.00	39.59	9.58	49.17	74.00	-24.83	Vertical
2390.00	43.40	9.73	53.13	74.00	-20.87	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	29.84	9.58	39.42	54.00	-14.58	Horizontal
2390.00	36.37	9.73	46.10	54.00	-7.90	Horizontal
2310.00	30.61	9.58	40.19	54.00	-13.81	Vertical
2390.00	36.22	9.73	45.95	54.00	-8.05	Vertical

TM2 / CH: H						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	46.52	9.91	56.43	74.00	-17.57	Horizontal
2500.00	40.70	9.94	50.64	74.00	-23.36	Horizontal
2483.50	46.66	9.91	56.57	74.00	-17.43	Vertical
2500.00	40.30	9.94	50.24	74.00	-23.76	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	35.99	9.91	45.90	54.00	-8.10	Horizontal
2500.00	28.83	9.94	38.77	54.00	-15.23	Horizontal
2483.50	38.45	9.91	48.36	54.00	-5.64	Vertical
2500.00	29.57	9.94	39.51	54.00	-14.49	Vertical

Remark:

1. Result=Reading + Factor
2. During the test, all antenna chains has been tested, and only worst case (ANT1) data is listed in the report.

TM3 / CH: L						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	35.25	9.58	44.83	74.00	-29.17	Horizontal
2390.00	39.07	9.73	48.80	74.00	-25.20	Horizontal
2310.00	38.59	9.58	48.17	74.00	-25.83	Vertical
2390.00	41.40	9.73	51.13	74.00	-22.87	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	28.52	9.58	38.10	54.00	-15.90	Horizontal
2390.00	33.91	9.73	43.64	54.00	-10.36	Horizontal
2310.00	28.22	9.58	37.80	54.00	-16.20	Vertical
2390.00	34.22	9.73	43.95	54.00	-10.05	Vertical

TM3 / CH: H						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	44.27	9.91	54.18	74.00	-19.82	Horizontal
2500.00	38.68	9.94	48.62	74.00	-25.38	Horizontal
2483.50	45.86	9.91	55.77	74.00	-18.23	Vertical
2500.00	40.36	9.94	50.30	74.00	-23.70	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	33.97	9.91	43.88	54.00	-10.12	Horizontal
2500.00	28.98	9.94	38.92	54.00	-15.08	Horizontal
2483.50	35.27	9.91	45.18	54.00	-8.82	Vertical
2500.00	29.71	9.94	39.65	54.00	-14.35	Vertical

Remark:

1. Result=Reading + Factor
2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

TM4 / CH: L						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	37.72	9.58	47.30	74.00	-26.70	Horizontal
2390.00	42.07	9.73	51.80	74.00	-22.20	Horizontal
2310.00	40.59	9.58	50.17	74.00	-23.83	Vertical
2390.00	43.61	9.73	53.34	74.00	-20.66	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	29.44	9.58	39.02	54.00	-14.98	Horizontal
2390.00	34.76	9.73	44.49	54.00	-9.51	Horizontal
2310.00	29.42	9.58	39.00	54.00	-15.00	Vertical
2390.00	33.62	9.73	43.35	54.00	-10.65	Vertical

TM4 / CH: H						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	44.18	9.91	54.09	74.00	-19.91	Horizontal
2500.00	39.36	9.94	49.30	74.00	-24.70	Horizontal
2483.50	45.99	9.91	55.90	74.00	-18.10	Vertical
2500.00	40.86	9.94	50.80	74.00	-23.20	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	33.67	9.91	43.58	54.00	-10.42	Horizontal
2500.00	30.98	9.94	40.92	54.00	-13.08	Horizontal
2483.50	35.27	9.91	45.18	54.00	-8.82	Vertical
2500.00	30.71	9.94	40.65	54.00	-13.35	Vertical

Remark:

1. Result=Reading + Factor
2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

TM5 / CH: L						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	35.48	9.58	45.06	74.00	-28.94	Horizontal
2390.00	39.39	9.73	49.12	74.00	-24.88	Horizontal
2310.00	39.03	9.58	48.61	74.00	-25.39	Vertical
2390.00	41.93	9.73	51.66	74.00	-22.34	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	28.93	9.58	38.51	54.00	-15.49	Horizontal
2390.00	34.37	9.73	44.10	54.00	-9.90	Horizontal
2310.00	28.54	9.58	38.12	54.00	-15.88	Vertical
2390.00	34.43	9.73	44.16	54.00	-9.84	Vertical

TM5 / CH: H						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	44.42	9.91	54.33	74.00	-19.67	Horizontal
2500.00	38.97	9.94	48.91	74.00	-25.09	Horizontal
2483.50	46.01	9.91	55.92	74.00	-18.08	Vertical
2500.00	40.68	9.94	50.62	74.00	-23.38	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	34.21	9.91	44.12	54.00	-9.88	Horizontal
2500.00	29.28	9.94	39.22	54.00	-14.78	Horizontal
2483.50	35.59	9.91	45.50	54.00	-8.50	Vertical
2500.00	29.94	9.94	39.88	54.00	-14.12	Vertical

Remark:

1. Result=Reading + Factor
2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

TM6 / CH: L						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	37.95	9.58	47.53	74.00	-26.47	Horizontal
2390.00	42.39	9.73	52.12	74.00	-21.88	Horizontal
2310.00	41.03	9.58	50.61	74.00	-23.39	Vertical
2390.00	44.14	9.73	53.87	74.00	-20.13	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	29.85	9.58	39.43	54.00	-14.57	Horizontal
2390.00	35.08	9.73	44.81	54.00	-9.19	Horizontal
2310.00	29.74	9.58	39.32	54.00	-14.68	Vertical
2390.00	33.83	9.73	43.56	54.00	-10.44	Vertical

TM6 / CH: H						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	44.33	9.91	54.24	74.00	-19.76	Horizontal
2500.00	39.65	9.94	49.59	74.00	-24.41	Horizontal
2483.50	46.14	9.91	56.05	74.00	-17.95	Vertical
2500.00	41.18	9.94	51.12	74.00	-22.88	Vertical
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	33.91	9.91	43.82	54.00	-10.18	Horizontal
2500.00	31.28	9.94	41.22	54.00	-12.78	Horizontal
2483.50	35.59	9.91	45.50	54.00	-8.50	Vertical
2500.00	30.94	9.94	40.88	54.00	-13.12	Vertical

Remark:

1. Result=Reading + Factor
2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

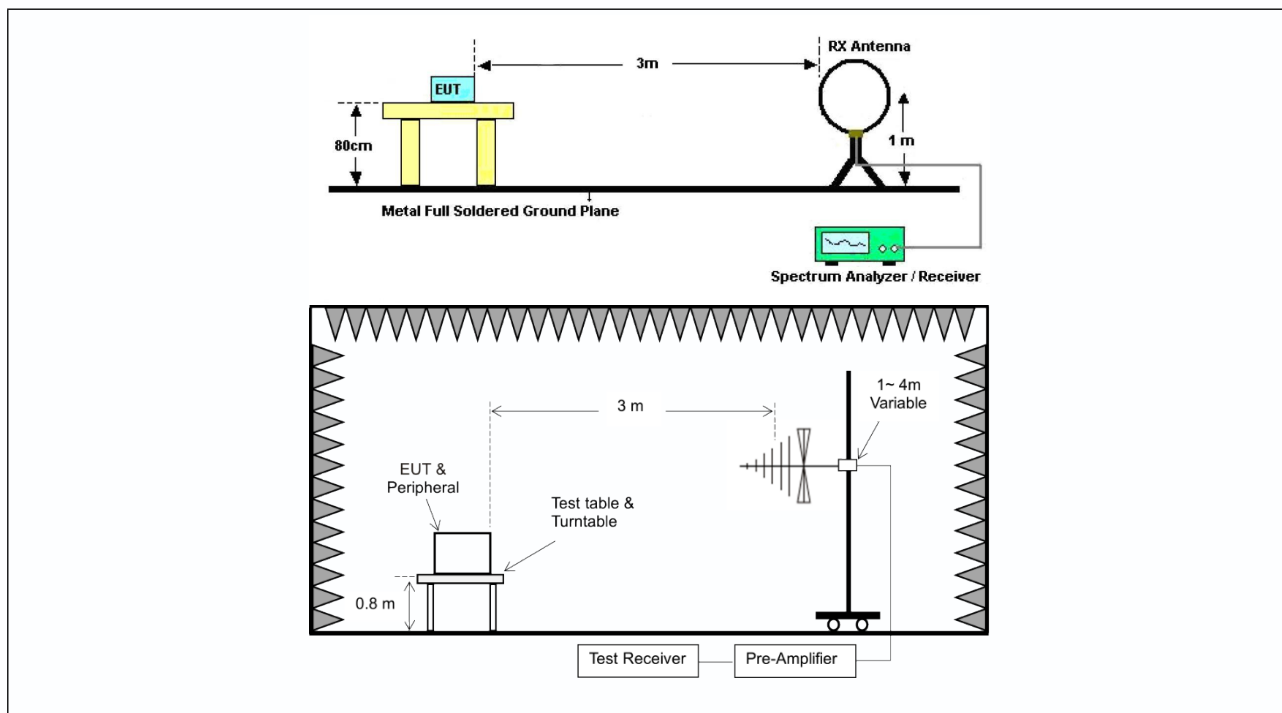
9. Emissions in restricted frequency bands (below 1GHz)

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 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4 KDB 558074 D01 15.247 Meas Guidance v05r02		
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4		

9.1. 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.

9.2. Test Setup



Shenzhen Anbotek Compliance Laboratory Limited

Any unauthorized modification, forgery, or falsification of this document constitutes a violation of law and is subject to legal penalties. If you have any questions, you may scan the QR code to download the report for verification or contact us via email.

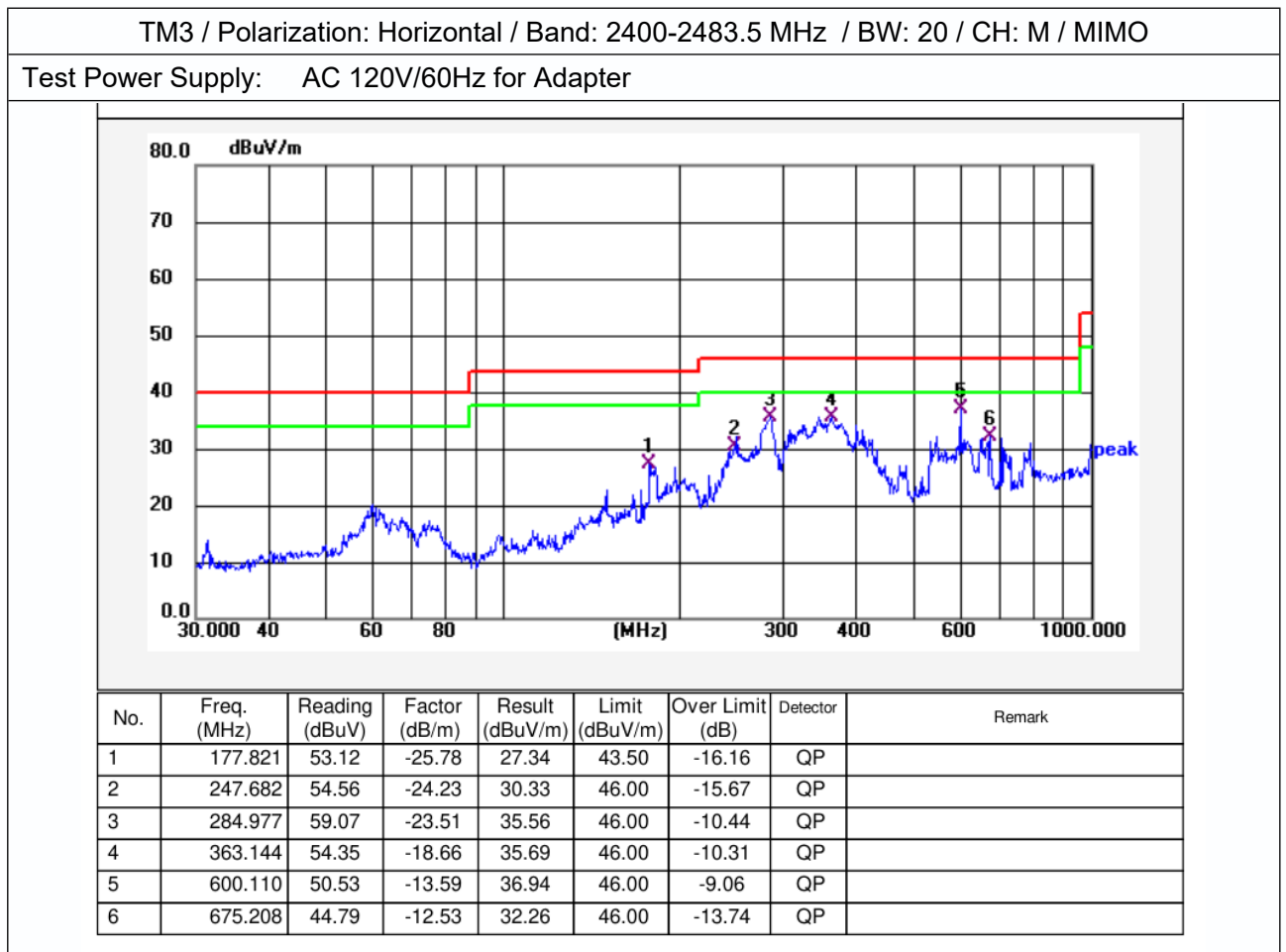
Hotline: 400-003-0500 web: www.anbotek.com E-mail: service@anbotek.com

9.3. Test Data

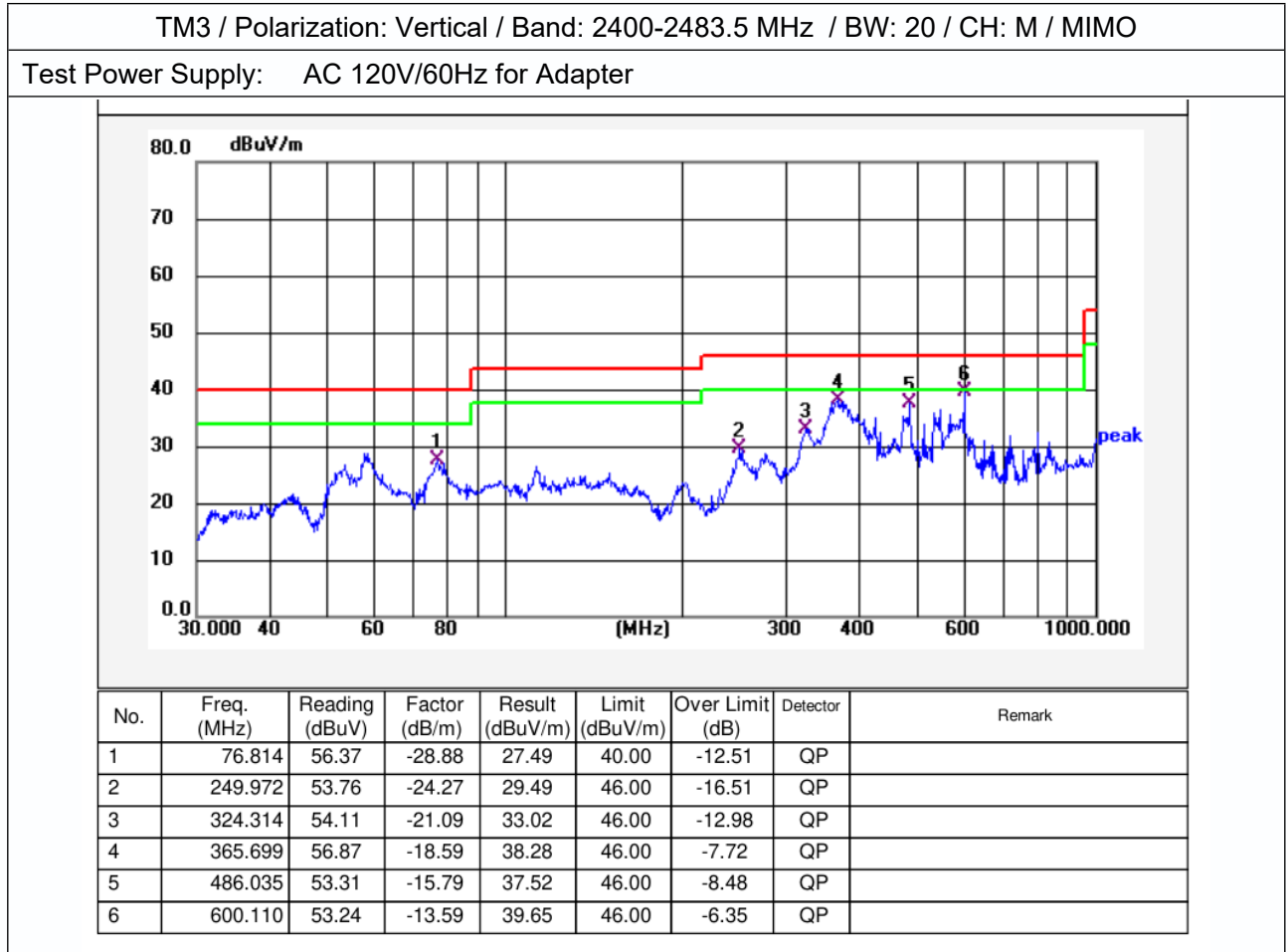
The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Test Sample: J9B-9K2

Temperature:	24.8 °C	Humidity:	51 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------



Temperature:	24.8 °C	Humidity:	51 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------



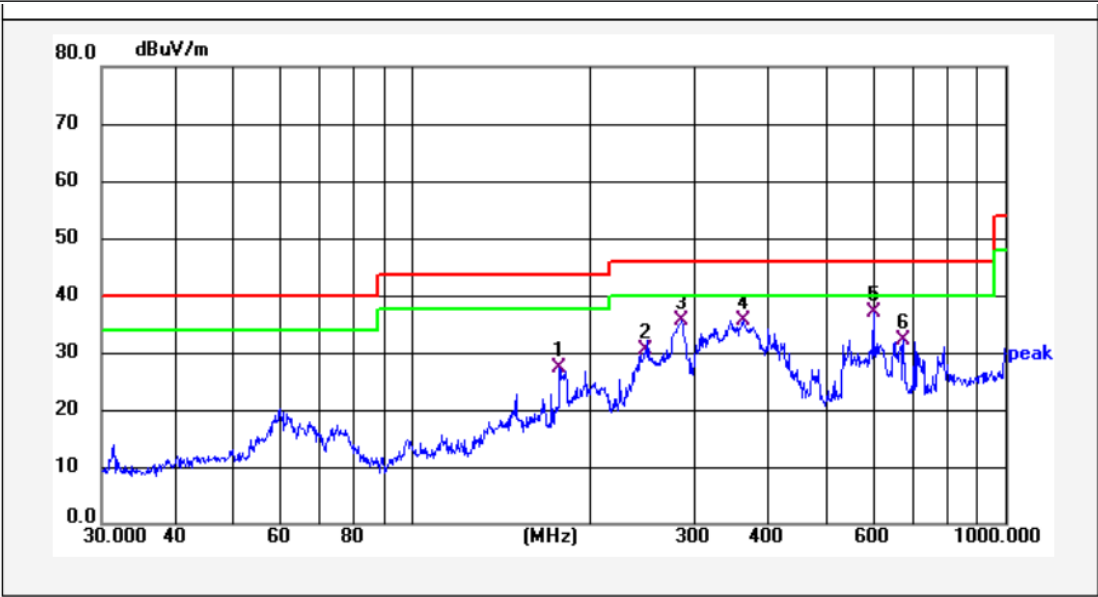
Note:

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

Test Sample: J9F-9K2

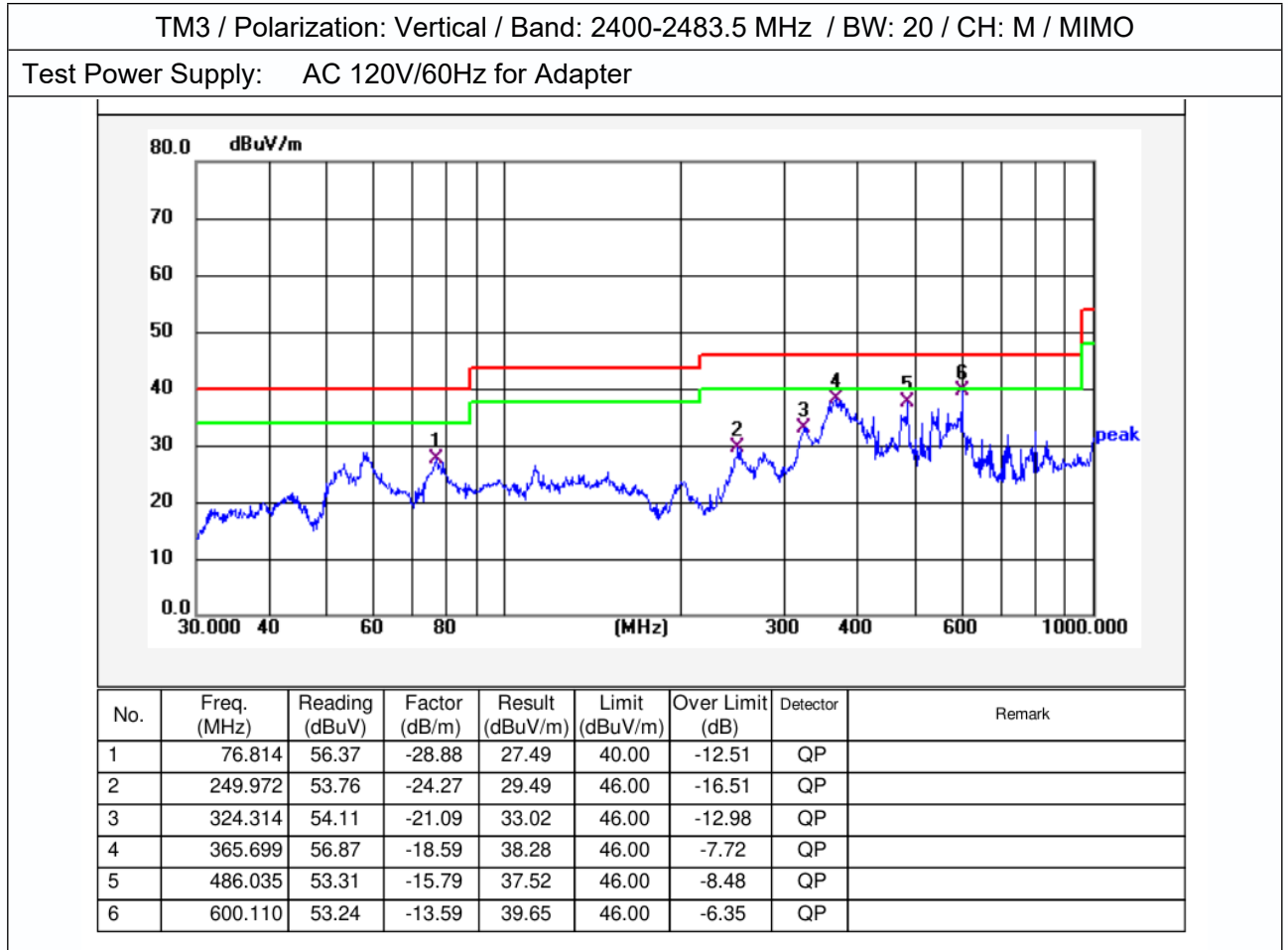
Temperature:	24.8 °C	Humidity:	51 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------

TM3 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 20 / CH: M / MIMO
Test Power Supply: AC 120V/60Hz for Adapter



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Remark
1	177.821	53.12	-25.78	27.34	43.50	-16.16	QP	
2	247.682	54.56	-24.23	30.33	46.00	-15.67	QP	
3	284.977	59.07	-23.51	35.56	46.00	-10.44	QP	
4	363.144	54.35	-18.66	35.69	46.00	-10.31	QP	
5	600.110	50.53	-13.59	36.94	46.00	-9.06	QP	
6	675.208	44.79	-12.53	32.26	46.00	-13.74	QP	

Temperature:	24.8 °C	Humidity:	51 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------



Note:

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

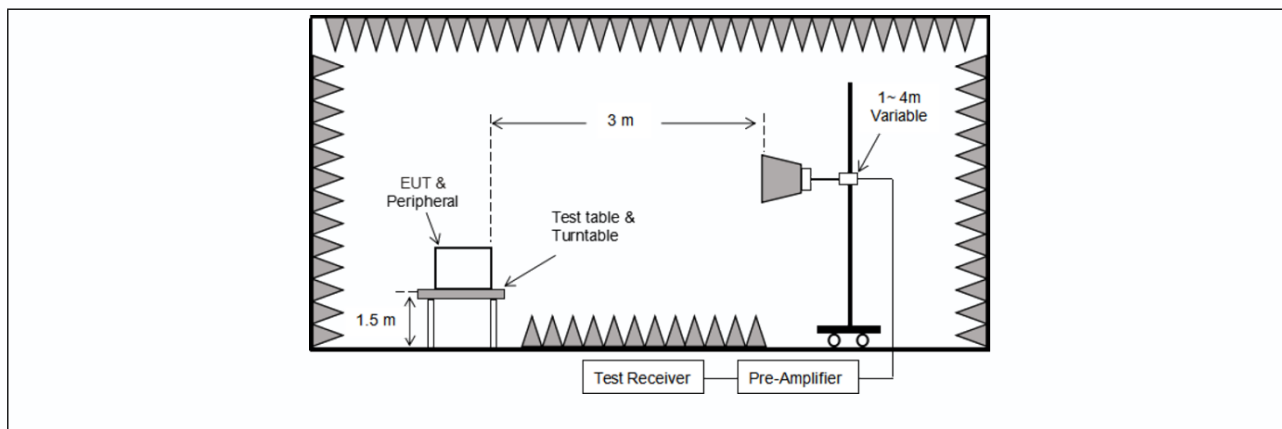
10. Emissions in restricted frequency bands (above 1GHz)

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 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4 KDB 558074 D01 15.247 Meas Guidance v05r02		
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4		

10.1. 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.

10.2. Test Setup



10.3. Test Data

Temperature:	23.5 °C	Humidity:	51 %	Atmospheric Pressure:	99.5 kPa
--------------	---------	-----------	------	-----------------------	----------

TM3 / CH: L						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4824.00	27.87	15.31	43.18	74.00	-30.82	Vertical
7236.00	28.71	18.06	46.77	74.00	-27.23	Vertical
9648.00	29.47	23.77	53.24	74.00	-20.76	Vertical
12060.00	*			74.00		Vertical
14472.00	*			74.00		Vertical
4824.00	28.49	15.31	43.80	74.00	-30.20	Horizontal
7236.00	27.73	18.06	45.79	74.00	-28.21	Horizontal
9648.00	27.54	23.77	51.31	74.00	-22.69	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	18.96	15.31	34.27	54.00	-19.73	Vertical
7236.00	19.58	18.06	37.64	54.00	-16.36	Vertical
9648.00	19.72	23.77	43.49	54.00	-10.51	Vertical
12060.00	*			54.00		Vertical
14472.00	*			54.00		Vertical
4824.00	19.04	15.31	34.35	54.00	-19.65	Horizontal
7236.00	18.31	18.06	36.37	54.00	-17.63	Horizontal
9648.00	18.51	23.77	42.28	54.00	-11.72	Horizontal
12060.00	*			54.00		Horizontal
14472.00	*			54.00		Horizontal

TM3 / CH: M						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4874.00	29.24	15.41	44.65	74.00	-29.35	Vertical
7311.00	28.90	18.01	46.91	74.00	-27.09	Vertical
9748.00	29.79	23.79	53.58	74.00	-20.42	Vertical
12185.00	*			74.00		Vertical
14622.00	*			74.00		Vertical
4874.00	29.48	15.41	44.89	74.00	-29.11	Horizontal
7311.00	30.30	18.01	48.31	74.00	-25.69	Horizontal
9748.00	30.98	23.79	54.77	74.00	-19.23	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	19.94	15.41	35.35	54.00	-18.65	Vertical
7311.00	18.80	18.01	36.81	54.00	-17.19	Vertical
9748.00	20.49	23.79	44.28	54.00	-9.72	Vertical
12185.00	*			54.00		Vertical
14622.00	*			54.00		Vertical
4874.00	19.38	15.41	34.79	54.00	-19.21	Horizontal
7311.00	19.70	18.01	37.71	54.00	-16.29	Horizontal
9748.00	20.88	23.79	44.67	54.00	-9.33	Horizontal
12185.00	*			54.00		Horizontal
14622.00	*			54.00		Horizontal

TM3 / CH: H						
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4924.00	27.41	15.51	42.92	74.00	-31.08	Vertical
7386.00	28.43	17.97	46.40	74.00	-27.60	Vertical
9848.00	29.76	23.82	53.58	74.00	-20.42	Vertical
12310.00	*			74.00		Vertical
14772.00	*			74.00		Vertical
4924.00	26.68	15.51	42.19	74.00	-31.81	Horizontal
7386.00	27.60	17.97	45.57	74.00	-28.43	Horizontal
9848.00	27.43	23.82	51.25	74.00	-22.75	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	18.34	15.51	33.85	54.00	-20.15	Vertical
7386.00	19.35	17.97	37.32	54.00	-16.68	Vertical
9848.00	20.27	23.82	44.09	54.00	-9.91	Vertical
12310.00	*			54.00		Vertical
14772.00	*			54.00		Vertical
4924.00	18.05	15.51	33.56	54.00	-20.44	Horizontal
7386.00	18.00	17.97	35.97	54.00	-18.03	Horizontal
9848.00	18.70	23.82	42.52	54.00	-11.48	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(802.11n(HT20)_MIMO) 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 -----