



TEST REPORT

Applicant Name: Shenzhen wanbo Technology Co., Ltd.

Address: 4th Floor, Building 1, Chuangjian Phase 2 Industrial Park,

Yingrenshi Community, Shiyan Street, Baoan District, Shenzhen,

China

Report Number: 2504R28083E-RF-00C-M1

FCC ID: 2A7PIWPB84

Test Standard (s)

FCC PART 15.247

Sample Description

Product Type: Wanbo Projector

Model No.: WPB84, WPB21, WPB81, WPC24, WPA34, WPA23, WPL11,

WPD24, WPC14, WPC34, WPA101, WPC024

Trade Mark: wanbo

Date Received: 2025-03-25

Date of Test: 2025-03-31 to 2025-05-10

Report Date: 2025-05-12

Test Result: The EUT complied with the standards above.

Prepared and Checked By:

Matt_Liang

Matt Liang EMC Engineer Approved By:

Bob. Liao

Bob Liao

EMC Engineer

Note: This report must not be used by the customer to claim product certification, approval, or endorsement by A2LA, or any agency of the Federal Government. The information marked "#" is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included but no need marked.

This report cannot be reproduced except in full, without prior written approval of the Company. Unless otherwise stated the results shown in this test report refer.

This report cannot be reproduced except in full, without prior written approval of the Company. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Shenzhen Accurate Technology Co., Ltd.

 $Floor\ 1,\ KuMaKe\ Building,\ Dongzhou\ Community,\ Guangming\ Street,\ Guangming\ District,\ Shenzhen,\ Guangdong,\ China.$

Tel: +86 755-26503290

Web: www.atc-lab.com

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY	4
GENERAL INFORMATION	5
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	
OBJECTIVE	
TEST METHODOLOGYTEST FACILITY	
MEASUREMENT UNCERTAINTY	
SYSTEM TEST CONFIGURATION	
SUPPORT EQUIPMENT LIST AND DETAILS	
EXTERNAL I/O CABLE	
BLOCK DIAGRAM OF TEST SETUP	
SUMMARY OF TEST RESULTS	
TEST EQUIPMENT LIST	11
MAXIMUM PERMISSIBLE EXPOSURE (MPE)	13
APPLICABLE STANDARD	
RESULT	13
FCC §15.203-ANTENNA REQUIREMENT	14
APPLICABLE STANDARD	
ANTENNA CONNECTOR CONSTRUCTION	
FCC §15.207 (a)-AC LINE CONDUCTED EMISSIONS	15
APPLICABLE STANDARD	
EUT SETUP	15
EMI TEST RECEIVER SETUP	
TEST PROCEDURE	
TEST DATA	
FCC §15.209, §15.205 &§15.247(d) - SPURIOUS EMISSIONS	
APPLICABLE STANDARD	
EUT SETUP	21
EMI Test Receiver& Spectrum Analyzer Setup	
TEST PROCEDURE	_
TEST DATA	
FCC §15.247(a) (2)-6 dB EMISSION BANDWIDTH& OCCUPIED BANDWIDTH	
APPLICABLE STANDARD	
TEST PROCEDURE	
TEST DATA	
FCC §15.247(b) (3)-MAXIMUMCONDUCTED OUTPUT POWER	. 129
APPLICABLE STANDARD	. 129
Test Procedure	
TEST DATA	. 129
FCC §15.247(d)-100kHz BANDWIDTHOF FREQUENCY BAND EDGE	. 130
Applicable Standard	
Test Procedure	
TEST DATA	
FCC §15.247(e)-POWER SPECTRAL DENSITY	
APPLICABLE STANDARD	
Test Procedure	. 131

TEST DATA	132
APPENDIX (RF TEST RESULTS)	133
6DB EMISSION BANDWIDTH	133
99% OCCUPIED BANDWIDTH	139
MAXIMUM CONDUCTED OUTPUT POWER	145
Power Spectral Density	
100 kHz Bandwidth of Frequency Band Edge	153
DUTY CYCLE	158
EXHIBIT A-EUT PHOTOGRAPHS	164
EXHIBIT B-TEST SETUP PHOTOGRAPHS	165

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
Rev.00	2504R28083E-RF-00C	Original Report	2025-05-08
Rev.01	2504R28083E-RF-00C-M1	Corrected description of report.	2025-05-12

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Wanbo Projector
Tested Model	WPB84
Multiple Model	WPB21, WPB81, WPC24, WPA34, WPA23, WPL11, WPD24, WPC14, WPC34, WPA101, WPC024
Model Difference [#]	The difference between the above models is only the model name. Please refer to DOS letter for details. The applicant provided model "WPB84" for testing.
Voltage Range [#]	DC 19V from Adapter
Adapter 1 Information [#]	Model: NSA180EC-19094701 Input: 100-240V~50/60Hz 2.5A Output: 19.0V == 9.47A 180.0W Max AC Cable(1.0m), DC Cable(1.5m)
Adapter 2 Information [#]	Model: SOY-1900947-454 Input: 100-240V~50/60Hz 2.5A Max Output: 19.0V == 9.47A 179.93W AC Cable(1.0m), DC Cable(1.5m)

Frequency Range	2.4G Wi-Fi: 2412-2472MHz, 2422-2462MHz
Mode	802.11b/g/n20/n40
Maximum Conducted Peak Output Power	23.32dBm
Modulation Technique	DSSS, OFDM
Antenna Specification [#]	ANT0: 2.03dBi, ANT1: 4.83dBi (It is provided by the applicant.)
Beamforming Gain [#]	3.0dBi (It is provided by the applicant.)
Sample Serial Number	30DC-1(For CE & RE Test), 30DC-2 (For RF Conducted Test) (Assigned by ATC, Shenzhen)
Sample/EUT Status	Good condition

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commission's rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.207, 15.209 and 15.247 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

And KDB 558074 D01 15.247 Meas Guidance v05r02.

Unless otherwise stated there are no any additions to, deviations, or exclusions from the method.

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Accredited by American Association for Laboratory Accreditation (A2LA). The Certificate Number is 4297.01.

Measurement Uncertainty

Р	arameter	Uncertainty
Occupied Channel Bandwidth		5%
RF	Frequency	0.064*10 ⁻⁷
RF output	power, conducted	0.3dB
Unwanted E	Emission, conducted	1.2dB
AC Power Line	s Conducted Emissions	2.7 dB
	9kHz - 30MHz	2.1 dB
Emissions,	30MHz - 1GHz	4.3 dB
Radiated	1GHz - 18GHz	4.9 dB
	18GHz - 26.5GHz	5.2 dB
Temperature		1℃
Humidity		7%
Sup	ply voltages	0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

For 2.4G Wi-Fi, total 11channels are provided to testing:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
1	2412	5	2432	9	2452	13	2472
2	2417	6	2437	10	2457	/	/
3	2422	7	2442	11	2462	/	/
4	2427	8	2447	12	2467	/	/

802.11b, 802.11g, 802.11n20 mode was tested with Channel 1, 7 and 13.

802.11n40 mode was tested with Channel 3, 7 and 11.

EUT Exercise Software and Power Level#

Exercise Software:	Secure CRT					
Mode	Data Rate	Power Level				
Wiode	Dala Rale	Low Channel	Middle Channel	High Channel		
802.11 b	1Mbps	50	50	50		
802.11 g	6Mbps	60	60	50		
802.11 n20	MCS0	50	50	50		
802.11 n40	MCS0	50	50	45		

All antenna ports have same power level setting.

The device supports SISO in all modes. And for 802.11n mode, the device supports MIMO 2Tx.

For 802.11n modes support beamforming mode.

Note 1: The information in the above table is provided by the applicant.

Note 2: The worse-case data rates are determined to be as above for each mode based upon investigations by measuring the output power and PSD across all data rates, bandwidths and modulations.

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

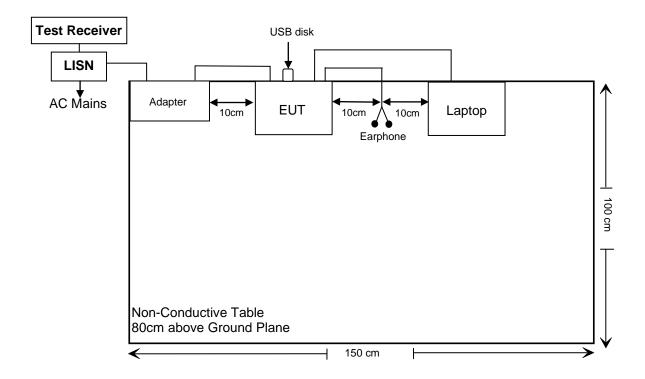
Manufacturer	Manufacturer Description		Serial Number	
LENOVO	Laptop	ThinkPad x240	SL10F31638JS	
Kinston	USB disk	Unknown	Unknown	

External I/O Cable

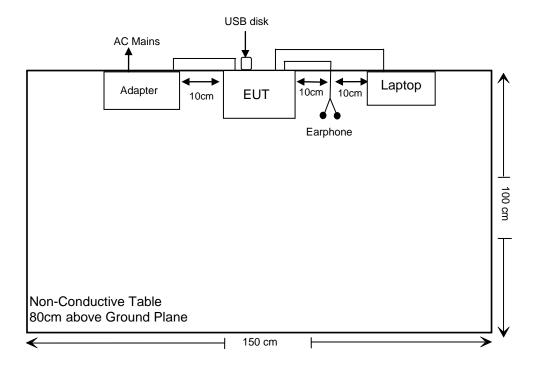
Cable Description	Shielding Type	Length (m)	From Port	То
AC Cable	NO	1.0	AC Mains	Adapter
DC Cable	NO	1.5	Adapter	EUT
Earphone Cable	NO	1.0	EUT	Earphone
HDMI cable	YES	0.5	Laptop	EUT

Block Diagram of Test Setup

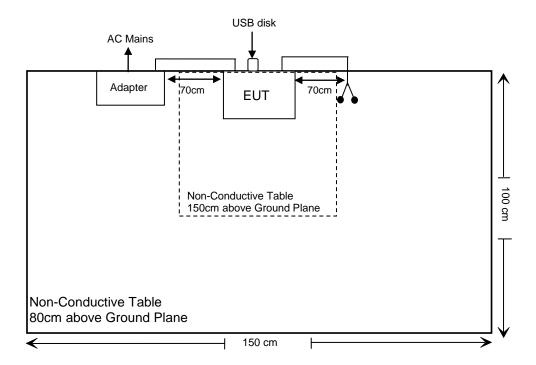
For Conducted Emission:



For Radiated Emission Below 1GHz:



For Radiated Emission Above 1GHz:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310, §2.1091	Maximum Permissible Exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Radiated Spurious Emissions	Compliance
§15.247(a)(2)	6 dB Emission Bandwidth & Occupied Bandwidth	Compliance
§15.247(b)(1)	Maximum Conducted Output Power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

Note 1: For AC line conducted emissions, the maximum output power mode and channel was tested.

Note 2: For Radiated Spurious Emissions 9kHz~1GHz, the maximum output power mode and channel was tested.

Note 3: This device is installed vertically in X-axes orientation. It was provided by applicant. The X-axes orientation was tested and recorded in the report.

Note 4: The cable loss is 0.5dB, which was added into the all RF test results.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date		
Conducted Emissions Test							
Rohde & Schwarz	EMI Test Receiver	ESCI	100784	2024/11/08	2025/11/07		
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2024/11/08	2025/11/07		
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2024/10/08	2025/10/07		
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	100312	2024/10/08	2025/10/07		
Unknown	RF Coaxial Cable	No.17	N0350	2024/10/08	2025/10/07		
	Te	est Software: e3 19121	8 (V9)				
	Radiated S _l	ourious Emission Te	st(Below 1GHz)				
Rohde& Schwarz	Test Receiver	ESR	102725	2024/11/08	2025/11/07		
SONOMA INSTRUMENT	Amplifier	310N	186131	2024/05/24	2025/05/23		
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2024/08/08	2027/08/07		
Unknown	RF Coaxial Cable	No.12	N040	2024/10/08	2025/10/07		
Unknown	RF Coaxial Cable	No.13	N300	2024/10/08	2025/10/07		
Unknown	RF Coaxial Cable	No.14	N800	2024/10/08	2025/10/07		
BACL	LOOP ANTENNA	1313-1A	3110711	2024/01/16	2027/01/15		
	Te	est Software: e3 19121	8 (V9)				
	Radiated Sp	ourious Emission Te	st(Above 1GHz)				
Rohde & Schwarz	Spectrum Analyzer	FSV40	101949	2024/10/08	2025/10/07		
Decentest	Filter Switch Unit	DT7220FSU	DQ77927	2024/10/08	2025/10/07		
Decentest	Multiplex Switch Test Control Set	DT7220CSU	DQ77924	2024/10/08	2025/10/07		
A.H. Systems, inc.	Preamplifier	PAM-0118	226	2024/05/24	2025/05/23		
Schwarzbeck	Horn Antenna	BBHA9120D	837	2023/02/22	2026/02/21		
Unknown	RF Coaxial Cable	No.10	N050	2024/10/08	2025/10/07		
Unknown	RF Coaxial Cable	No.11	N1000	2024/10/08	2025/10/07		
Unknown	RF Coaxial Cable	No.19	N500	2024/10/08	2025/10/07		
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2023/12/12	2026/12/11		
BACL	Amplifier	BACL-1313-A1840	4012521	2024/07/05	2025/07/04		
Unknown	RF Coaxial Cable	No.15	N600	2024/10/08	2025/10/07		
Unknown	RF Coaxial Cable	No.16	N650	2024/10/08	2025/10/07		
Test Software: e3 191218 (V9)							

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date		
RF Conducted test							
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101948	2024/10/08	2025/10/07		
Anritsu	Microwave Peak Power Sensor	MA24418A	12619	2024/05/24	2025/05/23		
WEINSCHEL	10dB Attenuator	5324	AU 3842	2024/10/08	2025/10/07		
Test Software: JDAutoTestSystem V1.0.0							

^{*} **Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §2.1091 and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure								
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (Minutes)				
0.3-1.34	614	1.63	*(100)	30				
1.34-30	824/f	2.19/f	*(180/f ²)	30				
30-300	27.5	0.073	0.2	30				
300-1500	/	/	f/1500	30				
1500-100,000	/	/	1.0	30				

f = frequency in MHz

Result

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

- S = power density (in appropriate units, e.g. mW/cm²)
- P = power input to the antenna (in appropriate units, e.g., mW).
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.
- R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Mode	Frequency	cy Antenna Gain		Tune Up Conducted Power		Evaluation Distance	Power Density	MPE Limit
	(MHz)	(dBi)	(numeric) (dBm) (mW)		(cm)	(mW/cm ²)	(mW/cm ²)	
2.4G WIFI	2472	7.83	6.07	23.8	239.88	20	0.2896	1.0

Note 1: The tune-up conducted power is declared by the applicant.

Note 2: Antenna Gain: Directional gain=4.83dBi[#]+3dBi[#]=7.83dBi

Note 3: The Bluetooth and WIFI can't transmission simultaneously.

Note 4: The 2.4G Wi-Fi function can't transmit at the same time with the 5G Wi-Fi function.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliance

^{* =} Plane-wave equivalent power density

FCC §15.203-ANTENNA REQUIREMENT

Applicable Standard

According to § 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. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has two internal antenna arrangements, which were permanently attached to the EUT, fulfill the requirement of this section. Please refer to the EUT photos.

Frequency Range	Antenna	Antenna gain
2412-2472MHz	ANT0	2.03dBi
2412-2472IVITZ	ANT1	4.83dBi

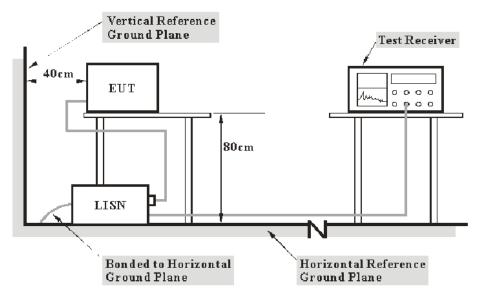
Result: Compliance.

FCC §15.207 (a)-AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a).

EUT Setup



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMIN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2020 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W	
150 kHz – 30 MHz	9 kHz	

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

Calculation

The Factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Limiter Attenuation. The basic equation is as follows:

Factor = LISN VDF + Cable Loss+ 10dB Attenuation(Limiter)

The "Over limit" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

Over Limit = Level - Limit Level = Read Level + Factor

Test Data

Environmental Conditions

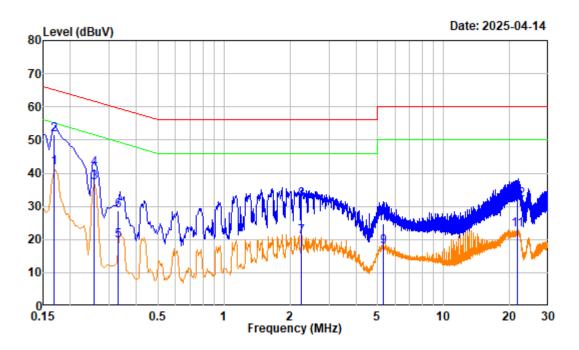
Temperature:	23.2 ℃
Relative Humidity:	44 %
ATM Pressure:	101.3 kPa
Test Engineer:	Jason Fan
Test Date:	2025-04-14
EUT Operation Mode:	2.4G WIFI Transmitting

Test Result: Compliance, please refer to the below data.

Note: The maximum output power mode and channel: 2.4G WIFI 802.11n20 Middle Channel MIMO was tested.

For Adapter 1

AC 120V/60Hz, Line:



Site : Shielding Room

Condition : Line

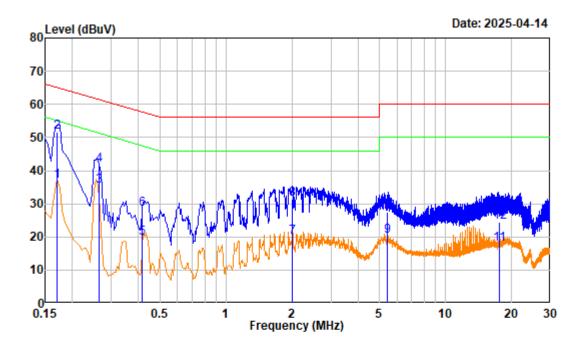
Project No. : 2504R28083E-RF Tester:Jason Fan

Test Mode : 2.4G WIFI Transmitting

Note : Adapter 1#

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.168	20.10	21.45	41.55	55.05	-13.50	Average
2	0.168	20.10	31.52	51.62	65.05	-13.43	QP
3	0.257	20.17	17.00	37.17	51.53	-14.36	Average
4	0.257	20.17	21.34	41.51	61.53	-20.02	QP
5	0.331	20.11	-0.57	19.54	49.43	-29.89	Average
6	0.331	20.11	8.69	28.80	59.43	-30.63	QP
7	2.257	20.41	0.53	20.94	46.00	-25.06	Average
8	2.257	20.41	11.73	32.14	56.00	-23.86	QP
9	5.315	20.53	-2.83	17.70	50.00	-32.30	Average
10	5.315	20.53	4.32	24.85	60.00	-35.15	QP
11	21.679	20.02	2.84	22.86	50.00	-27.14	Average
12	21.679	20.02	11.91	31.93	60.00	-28.07	QP

AC 120V/60Hz, Neutral:



Site : Shielding Room

Condition : neutral

Project No. : 2504R28083E-RF Tester: Jason Fan

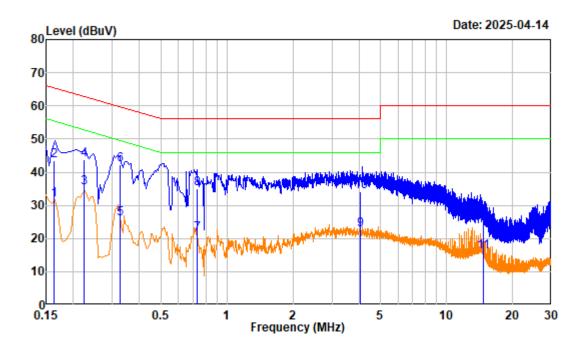
Test Mode : 2.4G WIFI Transmitting

Note : Adapter 1#

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.171	19.87	17.00	36.87	54.92	-18.05	Average
2	0.171	19.87	31.86	51.73	64.92	-13.19	QP
3	0.263	19.82	15.36	35.18	51.33	-16.15	Average
4	0.263	19.82	21.69	41.51	61.33	-19.82	QP
5	0.417	19.82	-0.08	19.74	47.50	-27.76	Average
6	0.417	19.82	8.58	28.40	57.50	-29.10	QP
7	2.008	20.21	-0.36	19.85	46.00	-26.15	Average
8	2.008	20.21	11.17	31.38	56.00	-24.62	QP
9	5.439	20.39	-0.04	20.35	50.00	-29.65	Average
10	5.439	20.39	7.11	27.50	60.00	-32.50	QP
11	17.559	20.14	-2.37	17.77	50.00	-32.23	Average
12	17.559	20.14	4.26	24.40	60.00	-35.60	QP

For Adapter 2

AC 120V/60Hz, Line:



Site : Shielding Room

Condition : Line

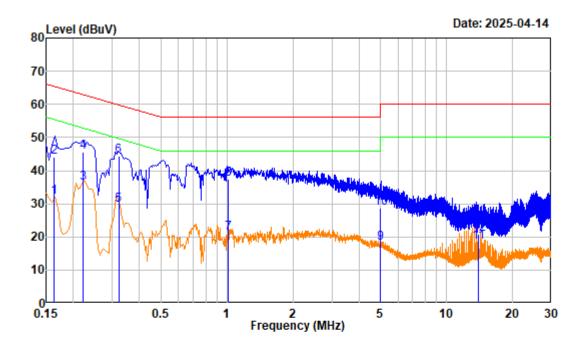
Project No. : 2504R28083E-RF Tester:Jason Fan

Test Mode : 2.4G WIFI Transmitting

Note : Adapter 2#

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.163	20.08	11.62	31.70	55.30	-23.60	Average
2	0.163	20.08	23.54	43.62	65.30	-21.68	QP
3	0.224	20.20	15.26	35.46	52.67	-17.21	Average
4	0.224	20.20	23.62	43.82	62.67	-18.85	QP
5	0.327	20.11	5.95	26.06	49.52	-23.46	Average
6	0.327	20.11	22.08	42.19	59.52	-17.33	QP
7	0.735	20.22	1.15	21.37	46.00	-24.63	Average
8	0.735	20.22	14.85	35.07	56.00	-20.93	QP
9	4.033	20.45	2.13	22.58	46.00	-23.42	Average
10	4.033	20.45	13.71	34.16	56.00	-21.84	QP
11	14.637	19.73	-3.65	16.08	50.00	-33.92	Average
12	14.637	19.73	4.68	24.41	60.00	-35.59	QP

AC 120V/60Hz, Neutral:



Site : Shielding Room

Condition : neutral

Project No. : 2504R28083E-RF Tester: Jason Fan

Test Mode : 2.4G WIFI Transmitting

Note : Adapter 2#

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.163	19.89	11.96	31.85	55.32	-23.47	Average
2	0.163	19.89	24.08	43.97	65.32	-21.35	QP
3	0.221	19.82	16.29	36.11	52.79	-16.68	Average
4	0.221	19.82	25.68	45.50	62.79	-17.29	QP
5	0.321	19.82	9.77	29.59	49.68	-20.09	Average
6	0.321	19.82	24.41	44.23	59.68	-15.45	QP
7	1.014	20.41	0.72	21.13	46.00	-24.87	Average
8	1.014	20.41	17.07	37.48	56.00	-18.52	QP
9	5.013	20.36	-2.28	18.08	50.00	-31.92	Average
10	5.013	20.36	8.39	28.75	60.00	-31.25	QP
11	13.920	20.16	-1.75	18.41	50.00	-31.59	Average
12	13.920	20.16	0.61	20.77	60.00	-39.23	QP

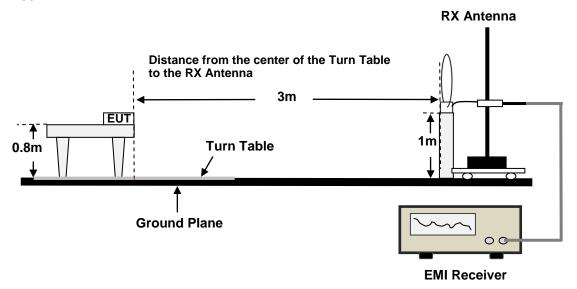
FCC §15.209, §15.205 &§15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

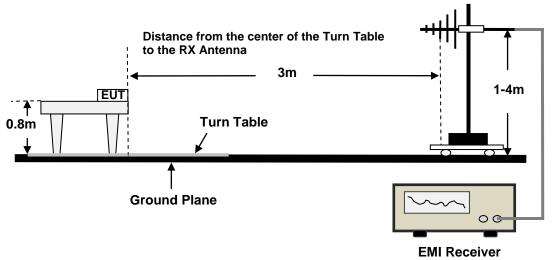
FCC §15.205; §15.209; §15.247(d)

EUT Setup

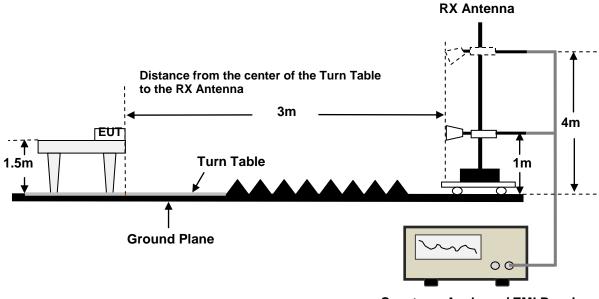
9kHz - 30MHz:



30MHz - 1GHz:



Above 1GHz:



Spectrum Analyzer / EMI Receiver

Boundary of the EUT, local AE and associated cabling and measurement distance for radiated emissions measurements:

The central point of the arrangement shall be positioned at the centre of the turntable. The measurement distance is the shortest horizontal distance between an imaginary circular periphery just encompassing this arrangement and the calibration point of the antenna. See as below Figure C.1 and C.2.

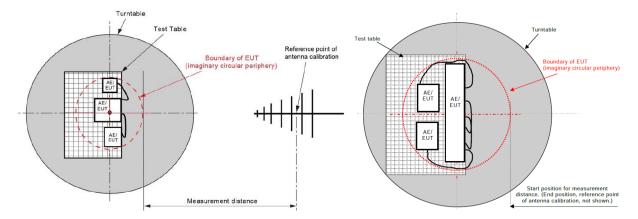


Figure C.1 – Measurement distance

Figure C.2 -Boundary of EUT, Local AE and associated cabling

The radiated emission performed in the 3 meters, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, FCC 15.247 limits.

EMI Test Receiver& Spectrum Analyzer Setup

The system was investigated from 9kHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

9kHz -1000MHz:

Frequency Range	Measurement	RBW	Video B/W	IF B/W	Detector
9kHz - 150kHz	PK	0.3kHz	1kHz	/	PK
	QP/AV	/	/	200Hz	QP/AV
150kHz - 30MHz	PK	10kHz	30kHz	/	PK
	QP/AV	/	/	9kHz	QP/AV
20111- 1000111-	PK	100kHz	300kHz	/	PK
30MHz - 1000MHz	QP	/	/	120kHz	QP

1GHz-25GHz:

Pre-scan:

Measurement	Detector	Duty cycle	RBW	Video B/W
PK	Peak	Any	1MHz	3MHz
A	Dook	>98%	1MHz	3kHz
Ave.	Peak	<98%	1MHz	≥1/T, no less than 5 kHz

Final measurement for emission identified during the pre-scan:

Measurement	Detector	Duty cycle	RBW	Video B/W
PK	Peak	Any	1MHz	3MHz
۸۷۰	Dook	>98%	1MHz	3kHz
Ave.	Peak	<98%	1MHz	≥1/T

Note 1: T is minimum transmission duration

Note 2: The 1GHz-4GHz testing use the notch filter and the 4GHz-18GHz testing use high-pass filter.

Note 3: The band edge testing use 10dB attenuator.

Note 4: The filters and attenuators are all integrated within the filter switch unit.

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

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.

According to ANSI C63.10-2020,9.2: For field strength measurements made at other than the distance specified by the limit, extrapolate the measured field strength to the field strength at the distance specified by the limit using an inverse distance correction factor (20 dB/decade of distance).

$$E_{\textit{SpecLimit}} = E_{\textit{Meas}} + 20 \log \left(\frac{D_{\textit{Meas}}}{D_{\textit{SpecLimit}}} \right)$$

where

 $E_{\text{SpecLimit}}$ is the field strength of the emission at the distance specified by the limit, in dBuV/m is the field strength of the emission at the measurement distance, in dBuV/m

 E_{Meas} is the field strength of the emission at D_{Meas} is the measurement distance, in m

 $D_{\text{SpecLimit}}$ is the distance specified by the limit, in m

Note 1: If the maximized peak measured value is under the QP/Average limit by more than 6dB, then it is unnecessary to perform an QP/Average measurement.

Note 2: For above 1GHz, the test result of peak was 20dB below to the limit of peak, which can be compliant to the average limit, so just peak value was recorded.

Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

Factor = Antenna Factor + Cable Loss - Amplifier Gain

The "Over Limit/Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

Over Limit/Margin = Level / Corrected Amplitude – Limit Level / Corrected Amplitude = Read Level + Factor

Test Data

9kHz-1GHz

Environmental Conditions

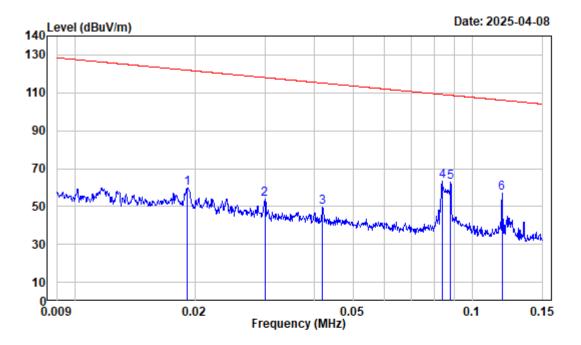
Temperature:	22.1 to 23.5℃
Relative Humidity:	53 to 54 %
ATM Pressure:	100.2 to 101.3 kPa
Test Engineer:	Roger Ling
Test Date:	2025-04-08 to 2025-05-10
EUT Operation Mode:	2.4G WIFI Transmitting

Test Result: Compliance, please refer to the below data.

Note 1: The Loop Antenna were tested in parallel, perpendicular, and ground-parallel. The worst orientation was parallel and the data was recorded in report.

Note 2: The maximum output power mode and channel: 2.4G WIFI 802.11n20 High Channel MIMO was tested.

9kHz~30MHz:



Site : Chamber

Condition : 3m

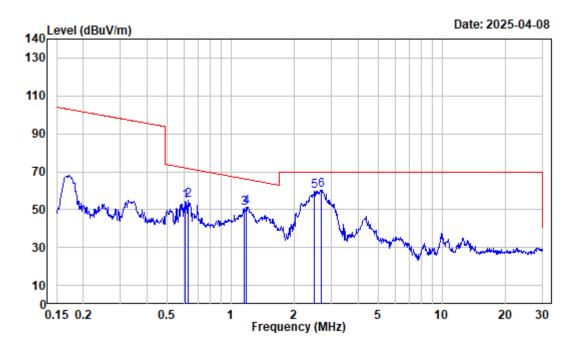
Project No. : 2504R28083E-RF Tester:Roger Ling

Test Mode : 2.4G WIFI Transmitting

Polarization : Parallel Note : Adapter 1#

Receiver Setting: RBW:0.3kHz VBW:1kHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.019	31.77	27.95	59.72	121.97	-62.25	Peak
2	0.030	26.94	26.91	53.85	118.06	-64.21	Peak
3	0.042	24.49	25.33	49.82	115.15	-65.33	Peak
4	0.084	18.15	45.10	63.25	109.14	-45.89	Peak
5	0.088	17.72	45.27	62.99	108.73	-45.74	Peak
6	0.118	15.60	41.64	57.24	106.14	-48.90	Peak



Site : Chamber

Condition : 3m

Project No. : 2504R28083E-RF Tester:Roger Ling

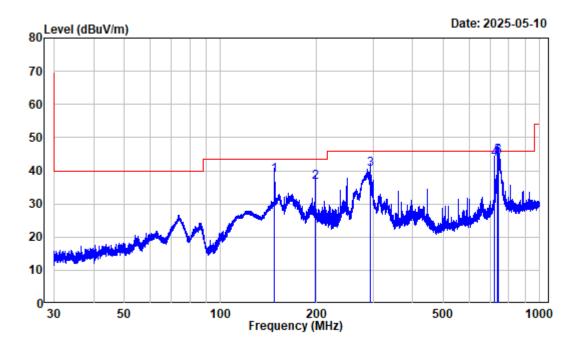
Test Mode : 2.4G WIFI Transmitting

Polarization : Parallel Note : Adapter 1#

Receiver Setting: RBW:10kHz VBW:30kHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.611	1.97	52.38	54.35	71.85	-17.50	Peak
2	0.630	1.73	53.01	54.74	71.56	-16.82	Peak
3	1.153	-2.41	53.22	50.81	66.21	-15.40	Peak
4	1.184	-2.52	54.02	51.50	65.97	-14.47	Peak
5	2.487	-5.64	65.27	59.63	69.54	-9.91	Peak
6	2.678	-5.73	65.99	60.26	69.54	-9.28	Peak

30MHz~1GHz:



Site : Chamber

Condition : 3m HORIZONTAL

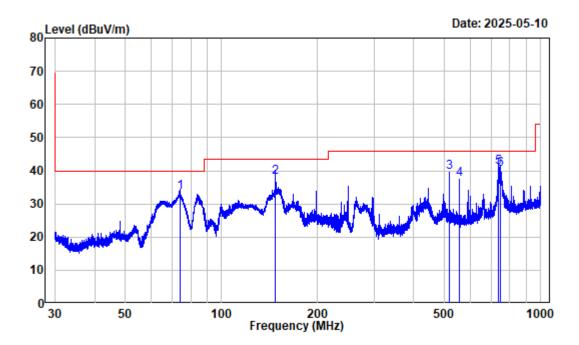
Project No. : 2504R28083E-RF Tester:Roger Ling

Test Mode : 2.4G WIFI Transmitting
Note : Adapter 1#

Note : Adapter 1#

Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	147.404	-15.01	53.62	38.61	43.50	-4.89	QP
2	197.806	-10.41	46.88	36.47	43.50	-7.03	QP
3	294.888	-8.88	49.22	40.34	46.00	-5.66	QP
4	720.146	-0.87	44.40	43.53	46.00	-2.47	QP
5	737.084	-0.56	44.89	44.33	46.00	-1.67	QP
6	741.748	-0.50	44.60	44.10	46.00	-1.90	QP



Site : Chamber Condition : 3m VERTICAL

Project No. : 2504R28083E-RF Tester:Roger Ling

Test Mode : 2.4G WIFI Transmitting

Note : Adapter 1#

Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	74.330	-16.05	49.54	33.49	40.00	-6.51	QP
2	147.404	-15.01	53.05	38.04	43.50	-5.46	QP
3	516.116	-3.78	43.26	39.48	46.00	-6.52	Peak
4	556.287	-3.54	41.05	37.51	46.00	-8.49	Peak
5	737.097	-0.56	41.63	41.07	46.00	-4.93	QP
6	748.138	-0.23	40.62	40.39	46.00	-5.61	QP

1GHz-25GHz

Environmental Conditions

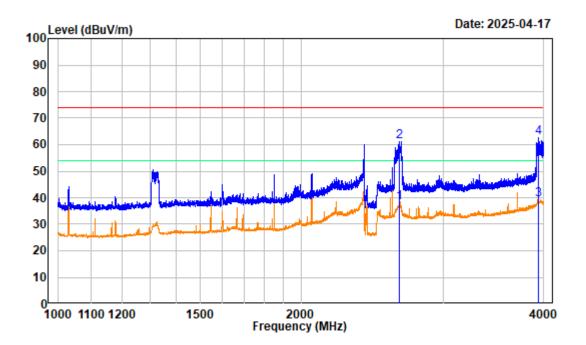
Temperature:	22.3 to 25 °C
Relative Humidity:	51 to 59 %
ATM Pressure:	101.3 kPa
Test Engineer:	Kevin Lv
Test Date:	2025-04-08 to 2025-04-22
EUT Operation Mode:	Transmitting

Test Result: Compliance, please refer to the below data.

Note: For 18GHz-25GHz, the maximum output power mode and channel: 802.11n20 High Channel was tested.

1GHz~4GHz:

For 802.11b mode, ANT0



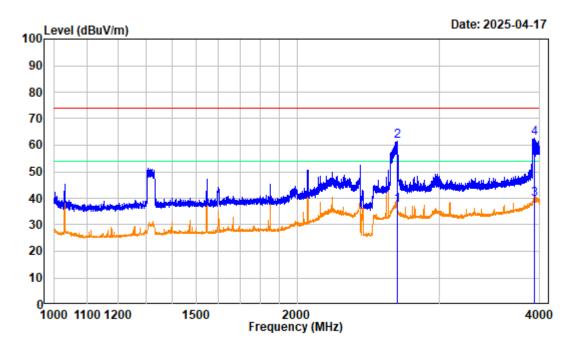
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b Low Channel 2412MHz ANTO

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2652.625	-10.48	48.62	38.14	54.00	-15.86	average
2	2652.625	-10.48	71.66	61.18	74.00	-12.82	peak
3	3944.125	-8.33	47.57	39.24	54.00	-14.76	average
4	3944.125	-8.33	70.89	62.56	74.00	-11.44	peak

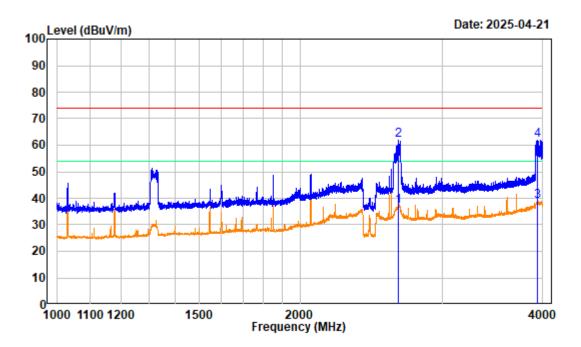


Site : chamber
Condition : 3m VERTICAL
Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b Low Channel 2412MHz ANT0

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2665.375	-10.27	47.75	37.48	54.00	-16.52	average	
2	2665.375	-10.27	71.77	61.50	74.00	-12.50	peak	
3	3937.750	-8.27	47.86	39.59	54.00	-14.41	average	
4	3937.750	-8.27	70.84	62.57	74.00	-11.43	peak	



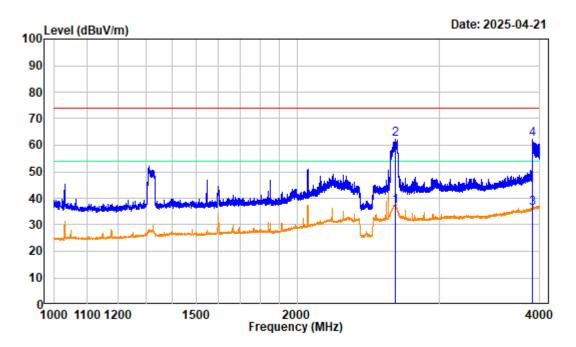
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b Middle Channel 2442MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2647.750	-10.49	47.49	37.00	54.00	-17.00	average	
2	2647.750	-10.49	72.19	61.70	74.00	-12.30	peak	
3	3938.125	-8.27	47.07	38.80	54.00	-15.20	average	
4	3938.125	-8.27	69.99	61.72	74.00	-12.28	peak	

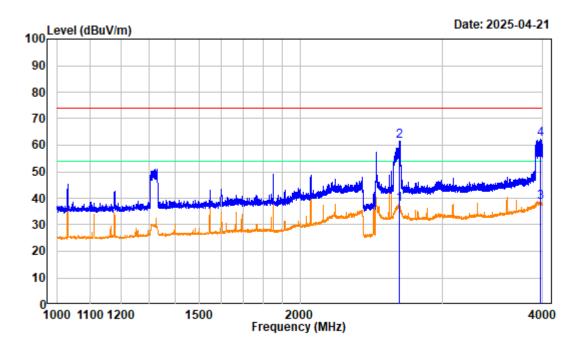


Site : chamber
Condition : 3m VERTICAL
Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b Middle Channel 2442MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2647.750	-10.49	47.57	37.08	54.00	-16.92	average	
2	2647.750	-10.49	72.58	62.09	74.00	-11.91	peak	
3	3921.625	-8.12	44.35	36.23	54.00	-17.77	average	
4	3921.625	-8.12	70.33	62.21	74.00	-11.79	peak	



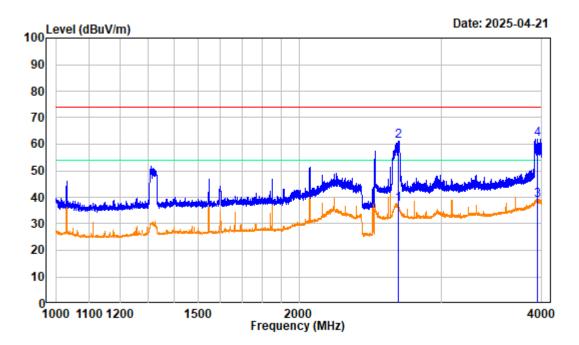
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b High Channel 2472MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		-
1	2660.125	-10.36	48.04	37.68	54.00	-16.32	average	
2	2660.125	-10.36	72.05	61.69	74.00	-12.31	peak	
3	3972.250	-8.27	46.65	38.38	54.00	-15.62	average	
4	3972.250	-8.27	70.62	62.35	74.00	-11.65	peak	



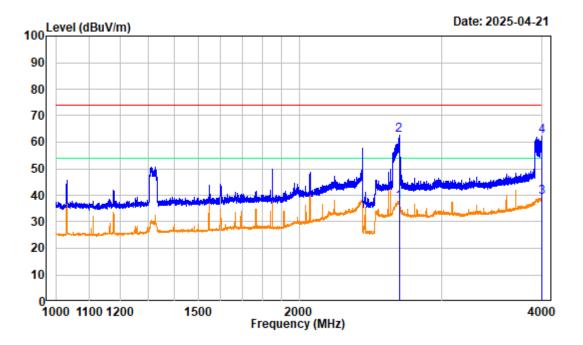
Site : chamber
Condition : 3m VERTICAL
Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		-
1	2658.250	-10.39	47.69	37.30	54.00	-16.70	average	
2	2658.250	-10.39	71.65	61.26	74.00	-12.74	peak	
3	3946.375	-8.36	47.36	39.00	54.00	-15.00	average	
4	3946.375	-8.36	70.31	61.95	74.00	-12.05	peak	

For 802.11b mode, ANT1



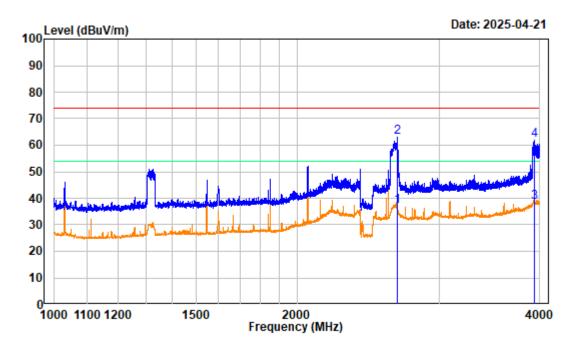
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b low Channel 2412MHz ANT1

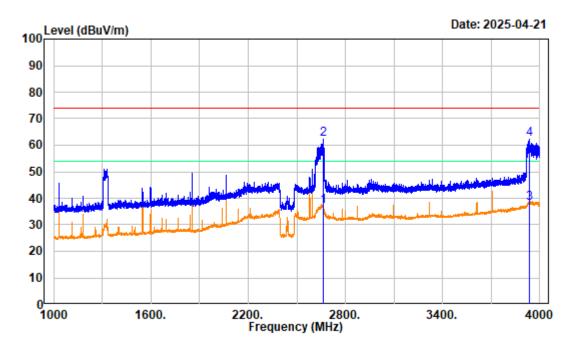
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB	
1	2660.875	-10.35	47.79	37.44	54.00	-16.56	average
2	2660.875	-10.35	72.80	62.45	74.00	-11.55	peak
3	3993.250	-8.15	47.57	39.42	54.00	-14.58	average
4	3993.250	-8.15	70.59	62.44	74.00	-11.56	peak



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b low Channel 2412MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2662.375	-10.33	47.25	36.92	54.00	-17.08	average	
2	2662.375	-10.33	73.26	62.93	74.00	-11.07	peak	
3	3942.625	-8.32	46.92	38.60	54.00	-15.40	average	
4	3942.625	-8.32	70.28	61.96	74.00	-12.04	peak	

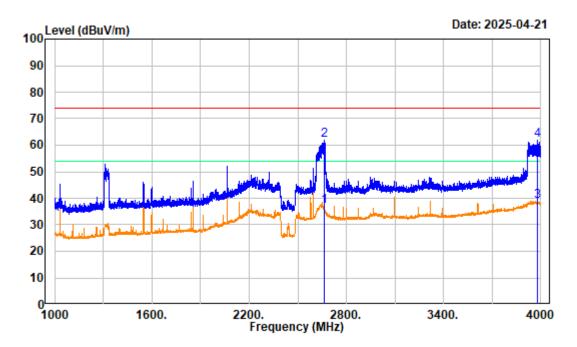


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b Middle Channel 2442MHz ANT1

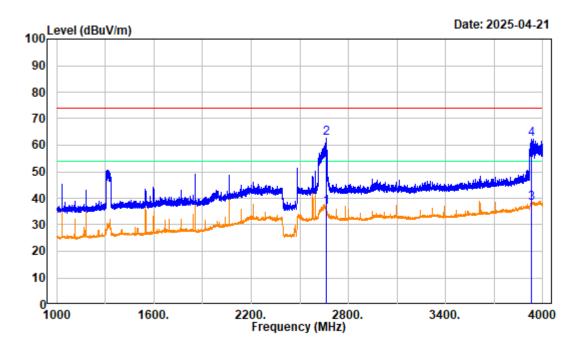
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2664.250	-10.29	47.44	37.15	54.00	-16.85	average	
2	2664.250	-10.29	72.49	62.20	74.00	-11.80	peak	
3	3934.375	-8.24	46.38	38.14	54.00	-15.86	average	
4	3934.375	-8.24	70.41	62.17	74.00	-11.83	peak	



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b Middle Channel 2442MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2666.125	-10.25	47.10	36.85	54.00	-17.15	average	
2	2666.125	-10.25	72.14	61.89	74.00	-12.11	peak	
3	3977.875	-8.23	47.02	38.79	54.00	-15.21	average	
4	3977.875	-8.23	69.96	61.73	74.00	-12.27	peak	

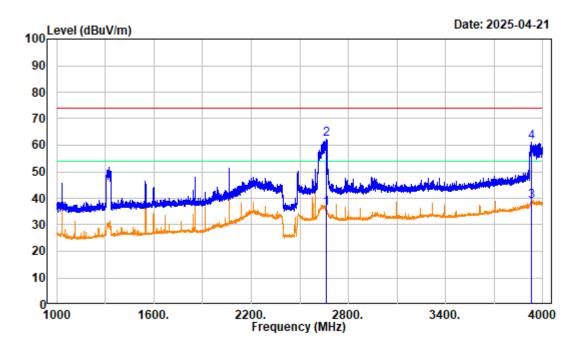


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b High Channel 2472MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		-
1	2666.125	-10.25	46.81	36.56	54.00	-17.44	average	
2	2666.125	-10.25	72.79	62.54	74.00	-11.46	peak	
3	3932.125	-8.22	46.52	38.30	54.00	-15.70	average	
4	3932.125	-8.22	70.50	62.28	74.00	-11.72	peak	

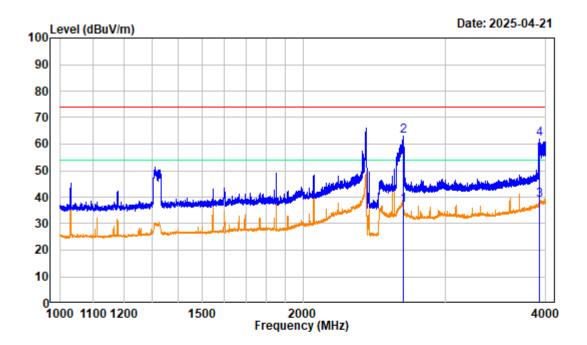


Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b High Channel 2472MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2666.125	-10.25	46.53	36.28	54.00	-17.72	average	
2	2666.125	-10.25	72.47	62.22	74.00	-11.78	peak	
3	3928.750	-8.18	46.93	38.75	54.00	-15.25	average	
4	3928.750	-8.18	69.25	61.07	74.00	-12.93	peak	

For 802.11g mode, ANT0



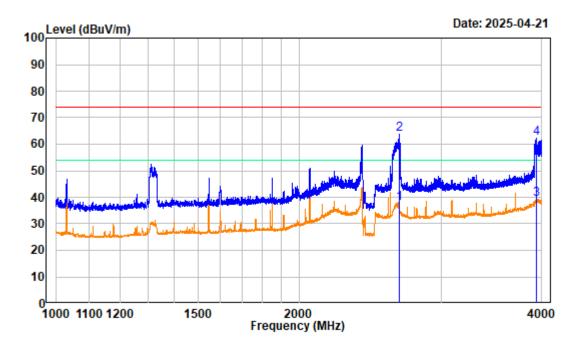
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Low Channel 2412MHz ANT0

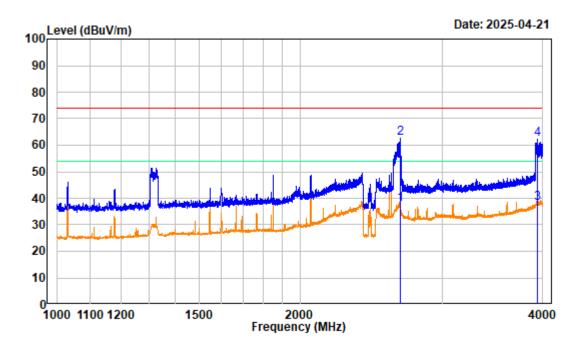
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2667.250	-10.24	47.40	37.16	54.00	-16.84	average	
2	2667.250	-10.24	73.34	63.10	74.00	-10.90	peak	
3	3932.500	-8.21	47.15	38.94	54.00	-15.06	average	
4	3932.500	-8.21	70.12	61.91	74.00	-12.09	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Low Channel 2412MHz ANT0

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2666.125	-10.25	48.08	37.83	54.00	-16.17	average	
2	2666.125	-10.25	74.09	63.84	74.00	-10.16	peak	
3	3940.750	-8.30	47.48	39.18	54.00	-14.82	average	
4	3940.750	-8.30	70.49	62.19	74.00	-11.81	peak	

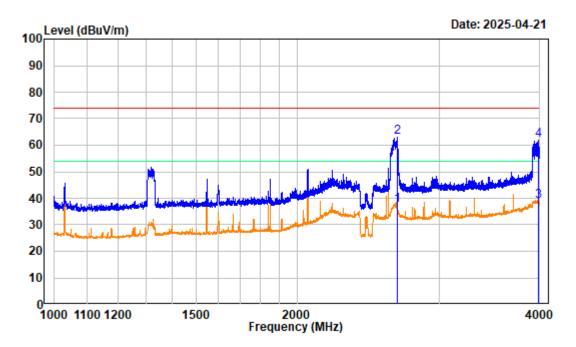


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g Middle Channel 2442MHz ANT0

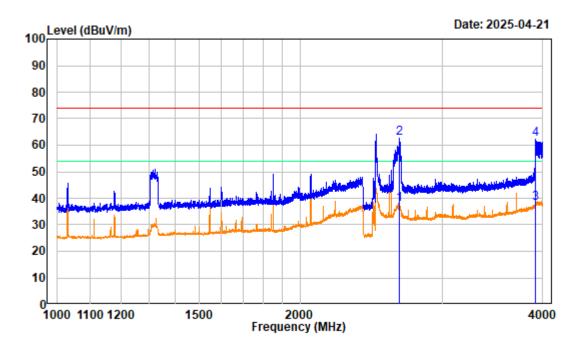
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2663.125	-10.31	47.90	37.59	54.00	-16.41	average	
2	2663.125	-10.31	72.83	62.52	74.00	-11.48	peak	
3	3943.750	-8.33	46.57	38.24	54.00	-15.76	average	
4	3943.750	-8.33	70.60	62.27	74.00	-11.73	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Middle Channel 2442MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2666.125	-10.25	47.65	37.40	54.00	-16.60	average	
2	2666.125	-10.25	73.29	63.04	74.00	-10.96	peak	
3	3984.250	-8.19	47.18	38.99	54.00	-15.01	Average	
4	3984.250	-8.19	70.13	61.94	74.00	-12.06	peak	

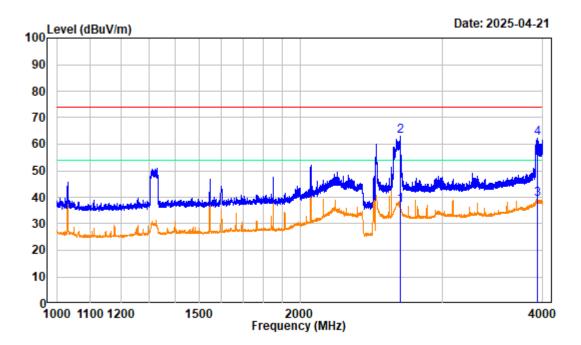


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g High Channel 2472MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2656.375	-10.42	48.18	37.76	54.00	-16.24	average	
2	2656.375	-10.42	73.13	62.71	74.00	-11.29	peak	
3	3922.375	-8.13	46.42	38.29	54.00	-15.71	average	
4	3922.375	-8.13	70.40	62.27	74.00	-11.73	peak	

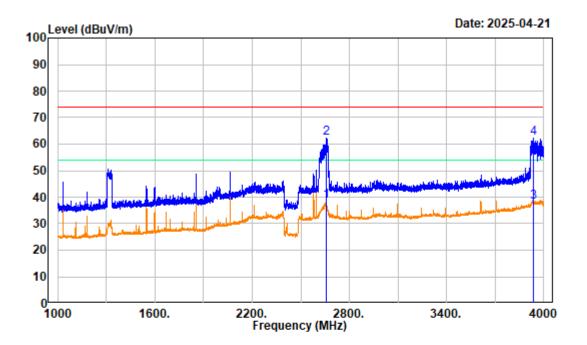


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g High Channel 2472MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2666.500	-10.25	47.05	36.80	54.00	-17.20	average	
2	2666.500	-10.25	73.14	62.89	74.00	-11.11	peak	
3	3940.375	-8.30	47.57	39.27	54.00	-14.73	average	
4	3940.375	-8.30	70.51	62.21	74.00	-11.79	peak	

For 802.11g mode, ANT1



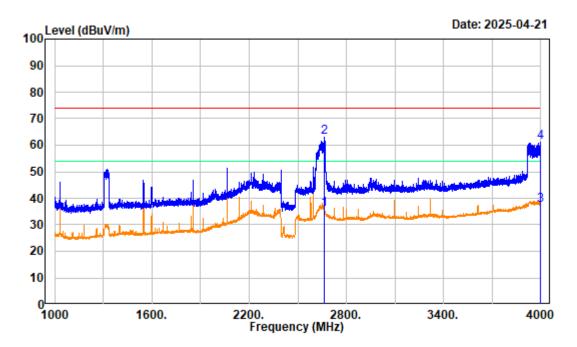
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g low Channel 2412MHz ANT1

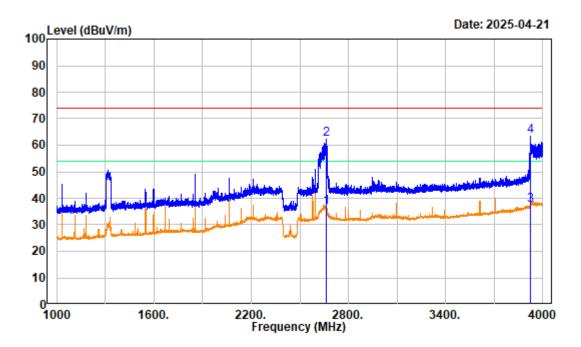
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB	
1	2659.375	-10.37	48.80	38.43	54.00	-15.57	average
2	2659.375	-10.37	72.61	62.24	74.00	-11.76	peak
3	3937.750	-8.27	46.37	38.10	54.00	-15.90	average
4	3937.750	-8.27	70.44	62.17	74.00	-11.83	peak



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g low Channel 2412MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2665.375	-10.27	46.25	35.98	54.00	-18.02	average	
2	2665.375	-10.27	73.17	62.90	74.00	-11.10	peak	
3	3995.875	-8.13	45.65	37.52	54.00	-16.48	average	
4	3995.875	-8.13	69.08	60.95	74.00	-13.05	peak	

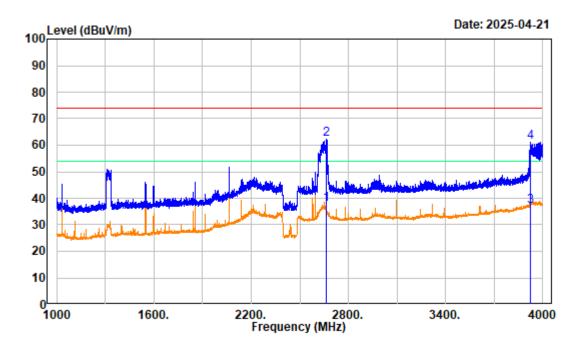


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g Middle Channel 2442MHz ANT1

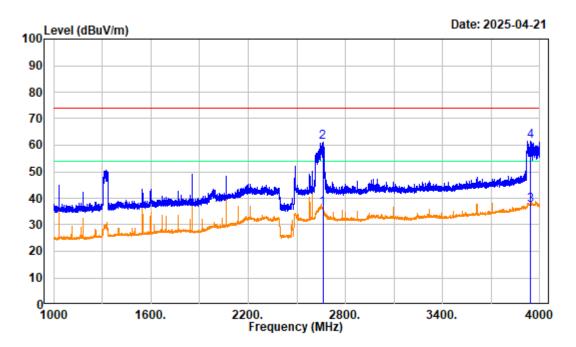
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2666.125	-10.25	46.69	36.44	54.00	-17.56	average	
2	2666.125	-10.25	72.68	62.43	74.00	-11.57	peak	
3	3922.000	-8.12	45.35	37.23	54.00	-16.77	average	
4	3922.000	-8.12	71.39	63.27	74.00	-10.73	peak	



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g Middle Channel 2442MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2663.875	-10.30	47.97	37.67	54.00	-16.33	average	
2	2663.875	-10.30	72.57	62.27	74.00	-11.73	peak	
3	3921.625	-8.12	45.25	37.13	54.00	-16.87	average	
4	3921.625	-8.12	69.33	61.21	74.00	-12.79	peak	

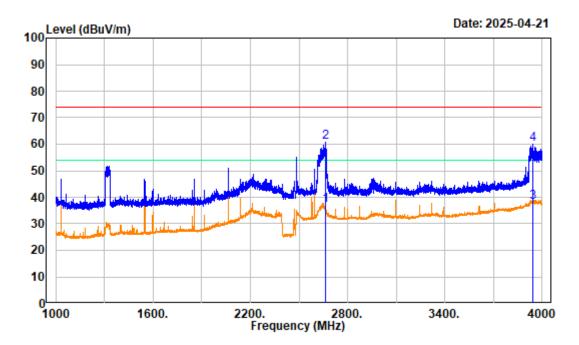


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g High Channel 2472MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2660.875	-10.35	46.64	36.29	54.00	-17.71	average	
2	2660.875	-10.35	71.63	61.28	74.00	-12.72	peak	
3	3941.875	-8.31	45.74	37.43	54.00	-16.57	average	
4	3941.875	-8.31	69.80	61.49	74.00	-12.51	peak	

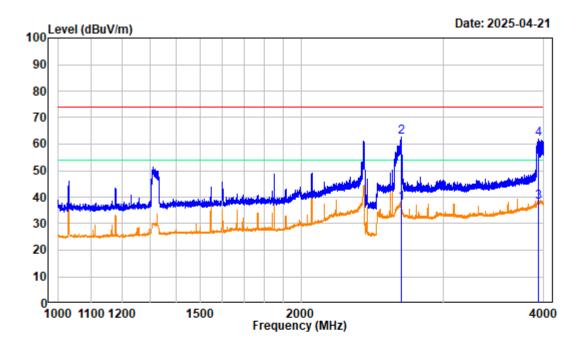


Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g High Channel 2472MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		-
1	2664.250	-10.29	47.20	36.91	54.00	-17.09	average	
2	2664.250	-10.29	70.98	60.69	74.00	-13.31	Peak	
3	3940.000	-8.30	46.41	38.11	54.00	-15.89	average	
4	3940.000	-8.30	68.31	60.01	74.00	-13.99	Peak	

For 802.11n20 mode, MIMO



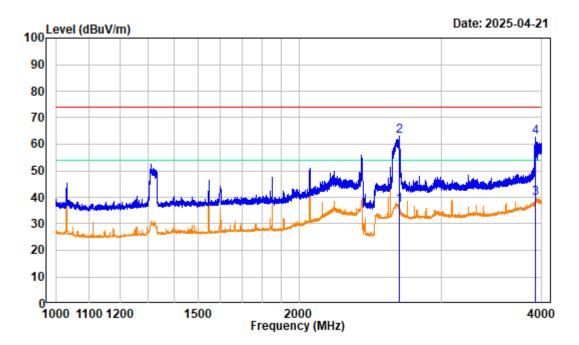
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n20 Low Channel 2412MHz MIMO

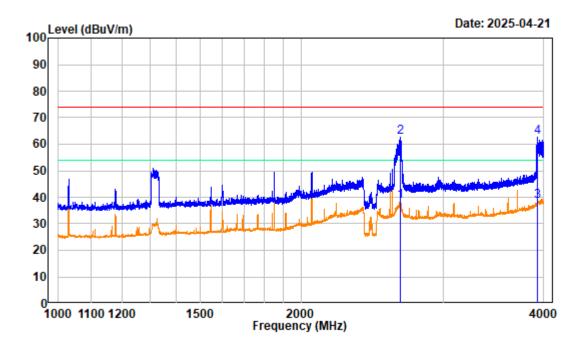
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2666.500	-10.25	47.92	37.67	54.00	-16.33	average	
2	2666.500	-10.25	72.89	62.64	74.00	-11.36	peak	
3	3937.000	-8.27	46.36	38.09	54.00	-15.91	average	
4	3937.000	-8.27	70.29	62.02	74.00	-11.98	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n20 Low Channel 2412MHz MIMO

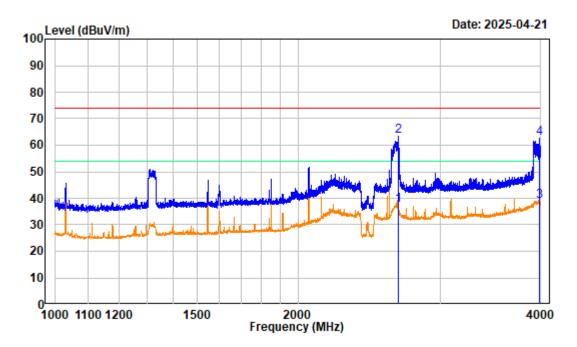
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2666.500	-10.25	47.33	37.08	54.00	-16.92	average	
2	2666.500	-10.25	73.26	63.01	74.00	-10.99	peak	
3	3932.125	-8.22	47.77	39.55	54.00	-14.45	average	
4	3932.125	-8.22	70.80	62.58	74.00	-11.42	peak	



Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

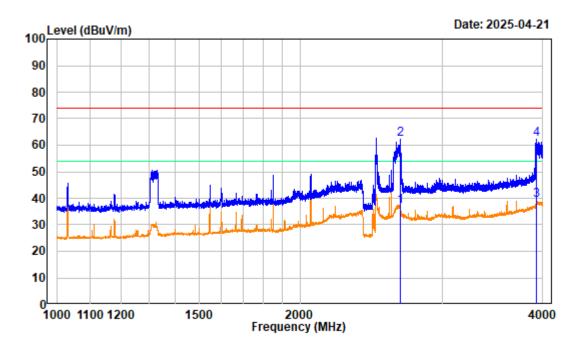
Test Mode : Transmitting Tester:Kevin Lv
Note : 802.11n20 Middle Channel 2442MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		-
1	2659.750	-10.36	48.86	38.50	54.00	-15.50	average	
2	2659.750	-10.36	72.84	62.48	74.00	-11.52	peak	
3	3924.625	-8.15	46.60	38.45	54.00	-15.55	average	
4	3924.625	-8.15	70.62	62.47	74.00	-11.53	peak	



Test Mode : Transmitting Tester: Kevin Lv
Note : 802.11n20 Middle Channel 2442MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2665.375	-10.27	47.55	37.28	54.00	-16.72	average	
2	2665.375	-10.27	73.54	63.27	74.00	-10.73	peak	
3	3981.625	-8.21	46.89	38.68	54.00	-15.32	average	
4	3981.625	-8.21	70.91	62.70	74.00	-11.30	peak	

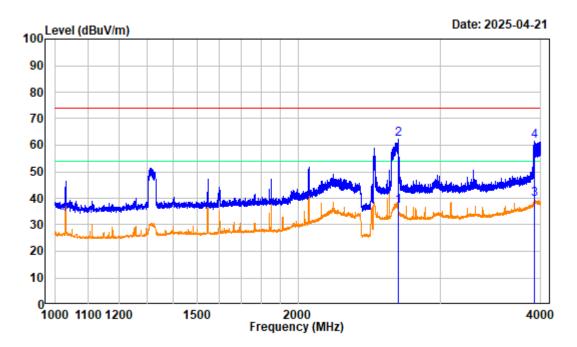


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n20 High Channel 2472MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2666.875	-10.24	47.30	37.06	54.00	-16.94	average	
2	2666.875	-10.24	72.32	62.08	74.00	-11.92	peak	
3	3929.125	-8.18	47.37	39.19	54.00	-14.81	average	
4	3929.125	-8.18	70.35	62.17	74.00	-11.83	peak	

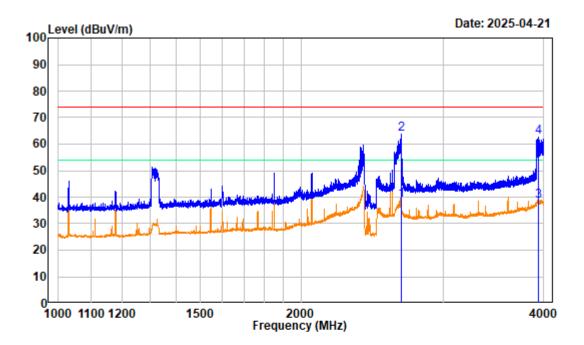


Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n20 High Channel 2472MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2665.750	-10.26	47.41	37.15	54.00	-16.85	average	
2	2665.750	-10.26	72.37	62.11	74.00	-11.89	peak	
3	3927.625	-8.17	47.67	39.50	54.00	-14.50	average	
4	3927.625	-8.17	69.62	61.45	74.00	-12.55	peak	

For 802.11n40 mode, MIMO



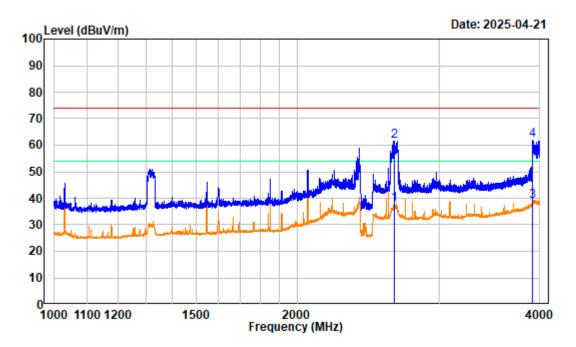
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n40 Low Channel 2422MHz MIMO

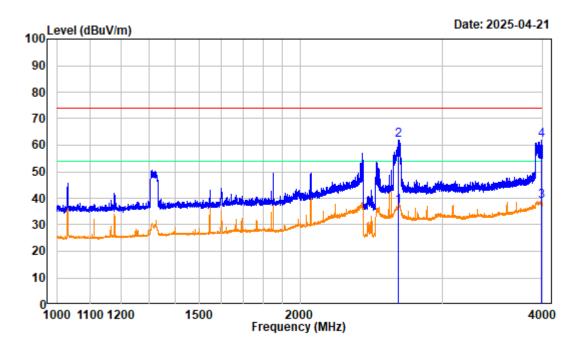
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2661.625	-10.34	49.17	38.83	54.00	-15.17	average	
2	2661.625	-10.34	74.22	63.88	74.00	-10.12	peak	
3	3941.875	-8.31	46.91	38.60	54.00	-15.40	average	
4	3941.875	-8.31	70.86	62.55	74.00	-11.45	peak	



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n40 Low Channel 2422MHz MIMO

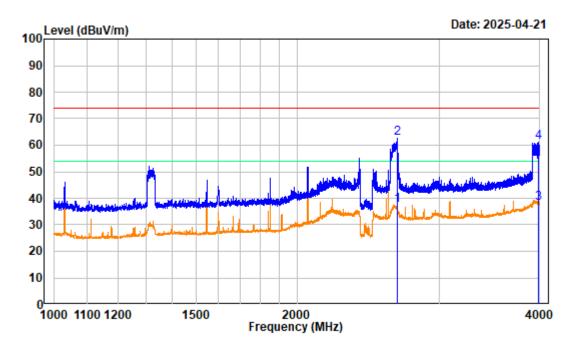
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2642.875	-10.43	48.03	37.60	54.00	-16.40	average	
2	2642.875	-10.43	71.99	61.56	74.00	-12.44	peak	
3	3922.750	-8.12	47.04	38.92	54.00	-15.08	average	
4	3922.750	-8.12	70.10	61.98	74.00	-12.02	peak	



Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

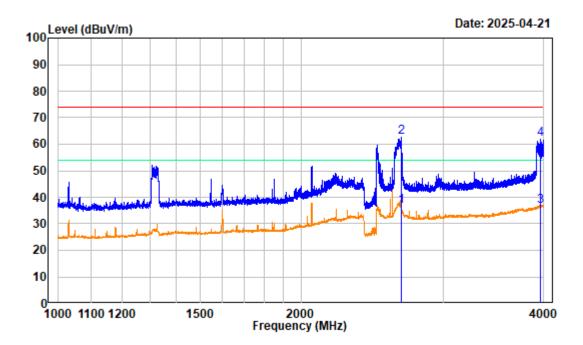
Test Mode : Transmitting Tester:Kevin Lv
Note : 802.11n40 Middle Channel 2442MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2647.000	-10.48	47.44	36.96	54.00	-17.04	average	
2	2647.000	-10.48	72.38	61.90	74.00	-12.10	peak	
3	3981.250	-8.21	47.17	38.96	54.00	-15.04	average	
4	3981.250	-8.21	70.18	61.97	74.00	-12.03	peak	



Test Mode : Transmitting Tester: Kevin Lv
Note : 802.11n40 Middle Channel 2442MHz MIMO

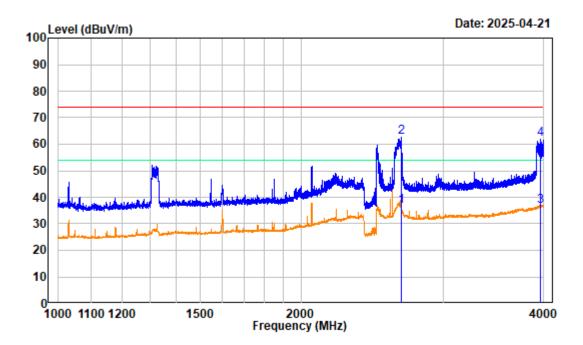
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2667.250	-10.24	47.73	37.49	54.00	-16.51	average	
2	2667.250	-10.24	72.70	62.46	74.00	-11.54	peak	
3	3989.125	-8.18	46.42	38.24	54.00	-15.76	average	
4	3989.125	-8.18	69.48	61.30	74.00	-12.70	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n40 High Channel 2462MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2666.125	-10.25	46.94	36.69	54.00	-17.31	average	
2	2666.125	-10.25	72.91	62.66	74.00	-11.34	peak	
3	3958.000	-8.34	45.06	36.72	54.00	-17.28	average	
4	3958.000	-8.34	70.07	61.73	74.00	-12.27	peak	



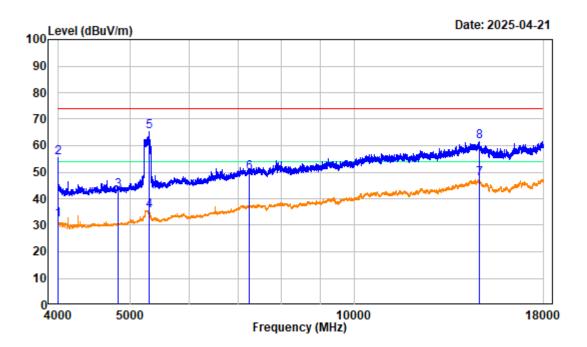
Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n40 High Channel 2462MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2666.125	-10.25	46.94	36.69	54.00	-17.31	average	
2	2666.125	-10.25	72.91	62.66	74.00	-11.34	peak	
3	3958.000	-8.34	45.06	36.72	54.00	-17.28	average	
4	3958.000	-8.34	70.07	61.73	74.00	-12.27	peak	

4GHz~18GHz:

For 802.11b mode, ANT0



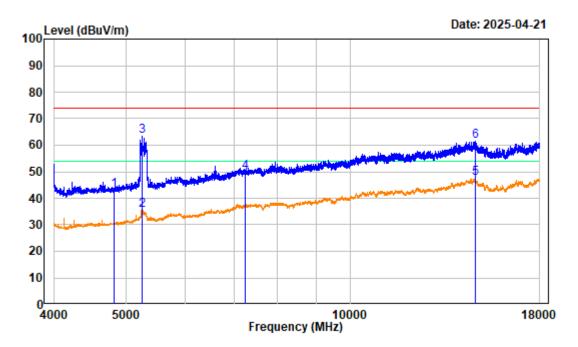
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b Low Channel 2412MHz ANT0

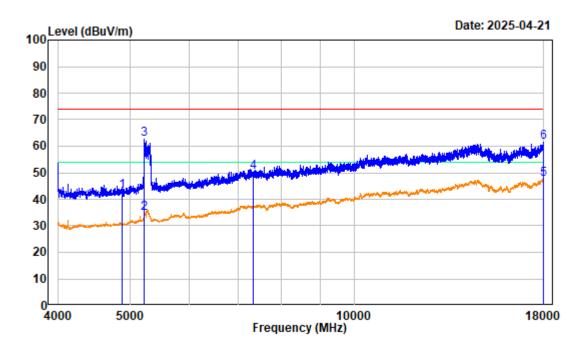
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4000.000	-8.11	40.15	32.04	54.00	-21.96	Average
2	4000.000	-8.11	63.46	55.35	74.00	-18.65	Peak
3	4824.000	-6.61	49.74	43.13	74.00	-30.87	Peak
4	5302.000	-5.94	41.44	35.50	54.00	-18.50	Average
5	5302.000	-5.94	71.35	65.41	74.00	-8.59	peak
6	7235.750	-1.31	51.25	49.94	74.00	-24.06	Peak
7	14759.000	7.94	39.55	47.49	54.00	-6.51	Average
8	14759.000	7.94	53.75	61.69	74.00	-12.31	Peak



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b Low Channel 2412MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
								_
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4824.250	-6.61	49.80	43.19	74.00	-30.81	peak	
2	5254.750	-5.69	41.23	35.54	54.00	-18.46	average	
3	5254.750	-5.69	69.21	63.52	74.00	-10.48	peak	
4	7235.750	-1.31	51.11	49.80	74.00	-24.20	peak	
5	14762.500	7.93	39.43	47.36	54.00	-6.64	Average	
6	14762.500	7.93	53.47	61.40	74.00	-12.60	Peak	

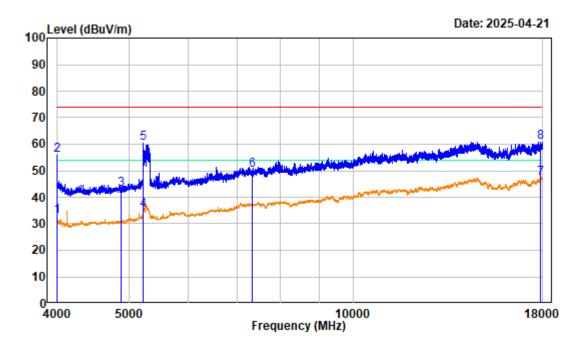


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b Middle Channel 2442MHz ANT0

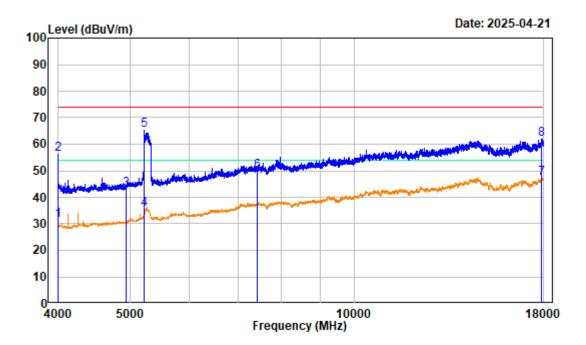
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4883.750	-6.63	49.69	43.06	74.00	-30.94	peak
2	5232.000	-5.66	40.33	34.67	54.00	-19.33	average
3	5232.000	-5.66	68.35	62.69	74.00	-11.31	peak
4	7326.750	-1.25	51.28	50.03	74.00	-23.97	peak
5	17959.750	8.21	39.29	47.50	54.00	-6.50	Average
6	17959.750	8.21	53.26	61.47	74.00	-12.53	Peak



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11b Middle Channel 2442MHz ANT0

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4000.000	-8.11	40.79	32.68	54.00	-21.32	Average
2	4000.000	-8.11	63.81	55.70	74.00	-18.30	Peak
3	4883.750	-6.63	49.60	42.97	74.00	-31.03	Peak
4	5230.250	-5.66	40.94	35.28	54.00	-18.72	average
5	5230.250	-5.66	65.91	60.25	74.00	-13.75	peak
6	7326.750	-1.25	51.60	50.35	74.00	-23.65	Peak
7	17861.750	8.24	39.10	47.34	54.00	-6.66	Average
8	17861.750	8.24	52.59	60.83	74.00	-13.17	Peak

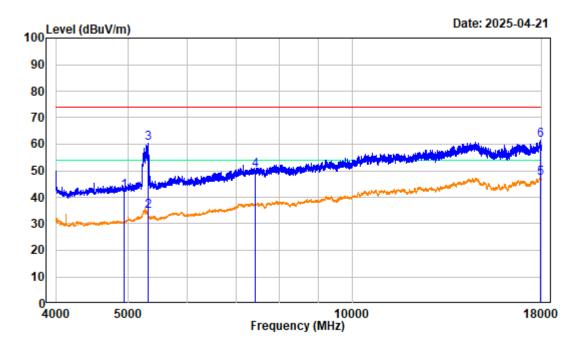


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT0

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4000.000	-8.11	39.25	31.14	54.00	-22.86	Average
2	4000.000	-8.11	64.27	56.16	74.00	-17.84	Peak
3	4943.250	-6.57	49.56	42.99	74.00	-31.01	peak
4	5230.250	-5.66	40.95	35.29	54.00	-18.71	average
5	5230.250	-5.66	70.93	65.27	74.00	-8.73	peak
6	7416.000	-1.28	51.20	49.92	74.00	-24.08	peak
7	17867.000	8.23	39.08	47.31	54.00	-6.69	Average
8	17867.000	8.23	53.78	62.01	74.00	-11.99	Peak

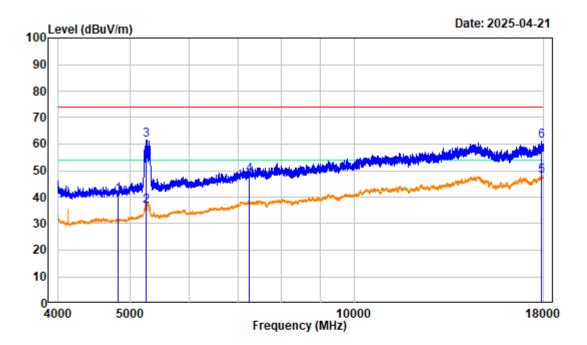


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
				1=	1=			_
	MHZ	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4943.250	-6.57	49.01	42.44	74.00	-31.56	peak	
2	5317.750	-5.90	40.46	34.56	54.00	-19.44	average	
3	5317.750	-5.90	66.42	60.52	74.00	-13.48	peak	
4	7416.000	-1.28	51.54	50.26	74.00	-23.74	peak	
5	17905.500	8.23	38.99	47.22	54.00	-6.78	Average	
6	17905.500	8.23	53.19	61.42	74.00	-12.58	Peak	

For 802.11b mode, ANT1



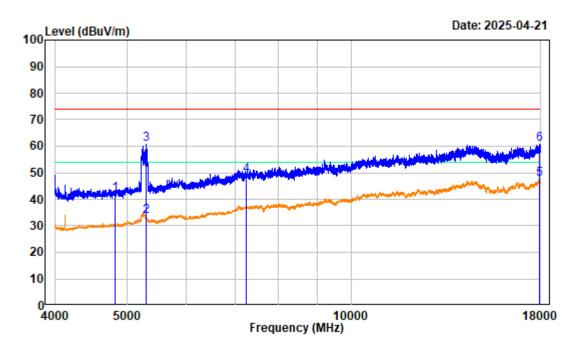
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b low Channel 2412MHz ANT1

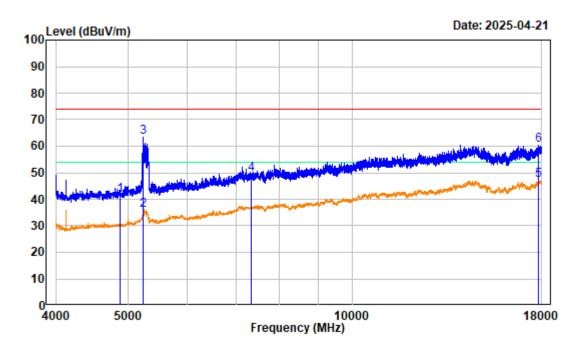
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4824.250	-6.61	47.19	40.58	74.00	-33.42	peak
2	5256.500	-5.70	42.23	36.53	54.00	-17.47	average
3	5256.500	-5.70	67.26	61.56	74.00	-12.44	peak
4	7235.750	-1.31	49.66	48.35	74.00	-25.65	Peak
5	17900.250	8.24	39.56	47.80	54.00	-6.20	average
6	17900.250	8.24	52.79	61.03	74.00	-12.97	peak



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b low Channel 2412MHz ANT1

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4824.250	-6.61	48.66	42.05	74.00	-31.95	peak
2	5314.250	-5.90	39.53	33.63	54.00	-20.37	average
3	5314.250	-5.90	66.60	60.70	74.00	-13.30	peak
4	7235.750	-1.31	50.31	49.00	74.00	-25.00	peak
5	17914.250	8.22	39.15	47.37	54.00	-6.63	average
6	17914.250	8.22	52.55	60.77	74.00	-13.23	peak

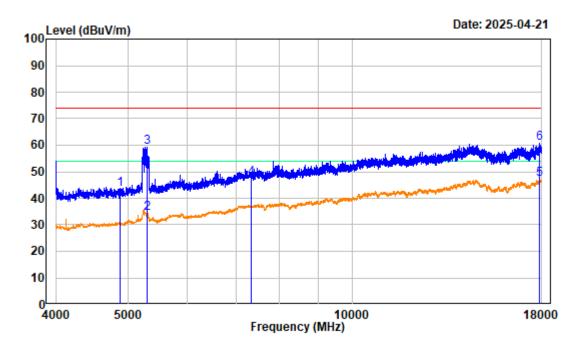


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b Middle Channel 2442MHz ANT1

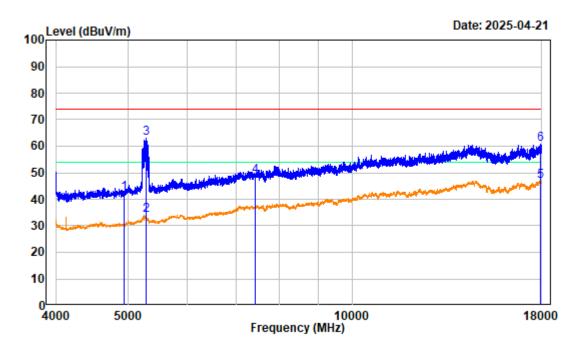
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4883.750	-6.63	48.04	41.41	74.00	-32.59	peak
2	5246.000	-5.66	41.62	35.96	54.00	-18.04	average
3	5246.000	-5.66	68.98	63.32	74.00	-10.68	peak
4	7326.750	-1.25	50.71	49.46	74.00	-24.54	peak
5	17828.500	7.95	39.34	47.29	54.00	-6.71	average
6	17828.500	7.95	52.29	60.24	74.00	-13.76	peak



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b Middle Channel 2442MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4883.750	-6.63	49.95	43.32	74.00	-30.68	peak	
2	5314.250	-5.90	40.29	34.39	54.00	-19.61	average	
3	5314.250	-5.90	65.28	59.38	74.00	-14.62	peak	
4	7326.750	-1.25	48.68	47.43	74.00	-26.57	peak	
5	17863.500	8.23	38.96	47.19	54.00	-6.81	average	
6	17863.500	8.23	52.49	60.72	74.00	-13.28	peak	

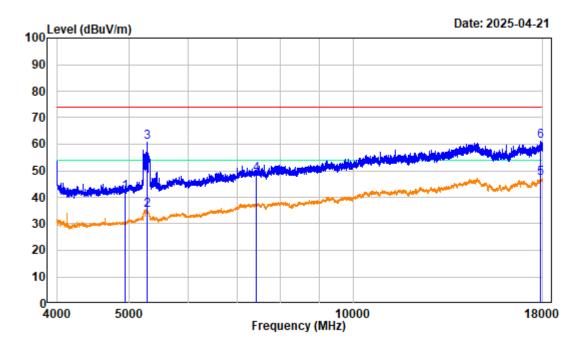


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
								_
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4943.250	-6.57	48.72	42.15	74.00	-31.85	peak	
2	5298.500	-5.95	39.79	33.84	54.00	-20.16	average	
3	5298.500	-5.95	68.82	62.87	74.00	-11.13	peak	
4	7416.000	-1.28	49.82	48.54	74.00	-25.46	Peak	
5	17912.500	8.22	38.64	46.86	54.00	-7.14	average	
6	17912.500	8.22	52.59	60.81	74.00	-13.19	peak	

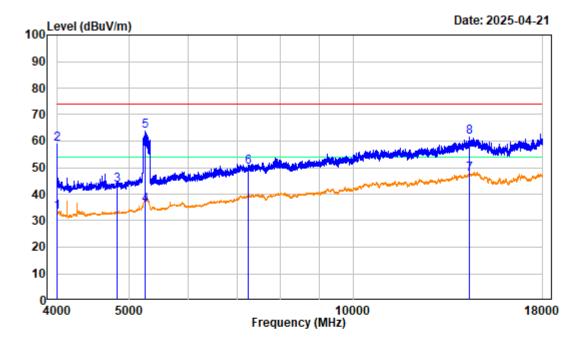


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
								_
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4943.250	-6.57	48.30	41.73	74.00	-32.27	peak	
2	5293.250	-5.91	40.86	34.95	54.00	-19.05	average	
3	5293.250	-5.91	66.84	60.93	74.00	-13.07	peak	
4	7416.000	-1.28	50.13	48.85	74.00	-25.15	peak	
5	17888.000	8.23	38.82	47.05	54.00	-6.95	average	
6	17888.000	8.23	52.84	61.07	74.00	-12.93	peak	

For 802.11g mode, ANT0



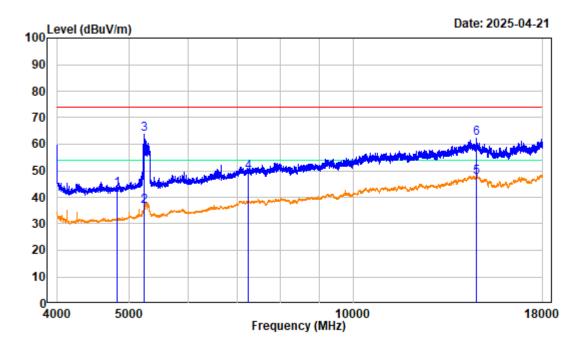
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Low Channel 2412MHz ANT0

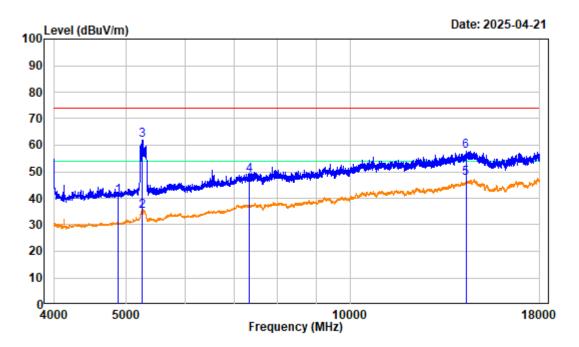
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4000.000	-8.11	41.20	33.09	54.00	-20.91	Average
2	4000.000	-8.11	67.14	59.03	74.00	-14.97	Peak
3	4824.250	-6.61	50.14	43.53	74.00	-30.47	peak
4	5265.250	-5.75	41.51	35.76	54.00	-18.24	average
5	5265.250	-5.75	69.45	63.70	74.00	-10.30	peak
6	7235.750	-1.31	51.66	50.35	74.00	-23.65	peak
7	14360.000	8.73	38.97	47.70	54.00	-6.30	Average
8	14360.000	8.73	52.69	61.42	74.00	-12.58	Peak



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g Low Channel 2412MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	4824.250						peak	
2	5240.750	-5.66	42.41	36.75	54.00	-17.25	average	
3	5240.750	-5.66	69.37	63.71	74.00	-10.29	peak	
4	7235.750	-1.31	50.72	49.41	74.00	-24.59	peak	
5	14678.500	8.30	39.25	47.55	54.00	-6.45	Average	
6	14678.500	8.30	53.78	62.08	74.00	-11.92	Peak	

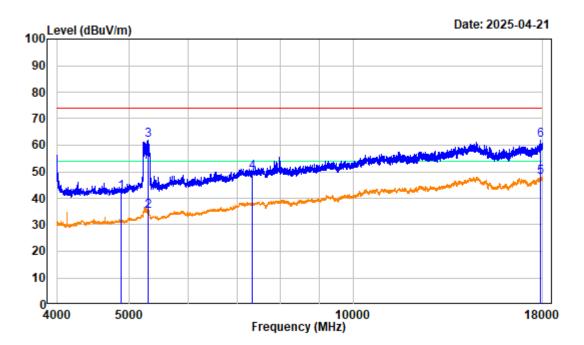


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g Middle Channel 2442MHz ANT0

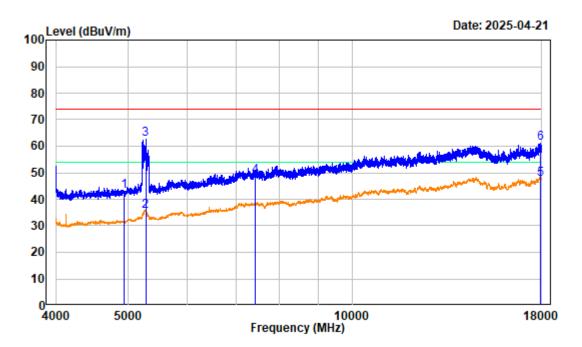
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4883.750	-6.63	47.36	40.73	74.00	-33.27	peak
2	5253.000	-5.68	40.73	35.05	54.00	-18.95	average
3	5253.000	-5.68	67.70	62.02	74.00	-11.98	peak
4	7326.750	-1.25	49.84	48.59	74.00	-25.41	peak
5	14323.250	8.44	39.22	47.66	54.00	-6.34	Average
	14323,250						_



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g Middle Channel 2442MHz ANT0

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4883.750	-6.63	49.07	42.44	74.00	-31.56	peak
2	5309.000	-5.92	40.84	34.92	54.00	-19.08	average
3	5309.000	-5.92	67.85	61.93	74.00	-12.07	peak
4	7326.750	-1.25	50.90	49.65	74.00	-24.35	peak
5	17895.000	8.23	39.51	47.74	54.00	-6.26	Average
6	17895,000	8.23	53.50	61.73	74.00	-12.27	Peak

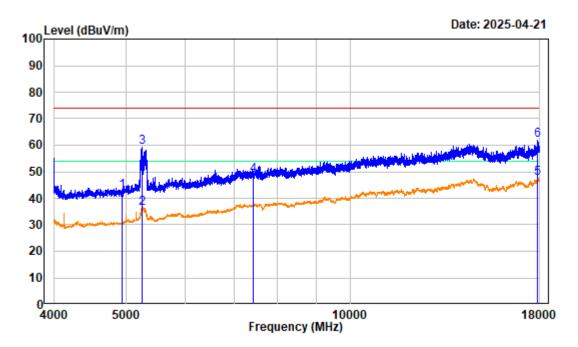


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g High Channel 2472MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		-
1	4943.250	-6.57	49.56	42.99	74.00	-31.01	peak	
2	5282.750	-5.86	41.35	35.49	54.00	-18.51	average	
3	5282.750	-5.86	68.31	62.45	74.00	-11.55	peak	
4	7416.000	-1.28	49.89	48.61	74.00	-25.39	peak	
5	17938.750	8.19	39.45	47.64	54.00	-6.36	Average	
6	17938.750	8.19	52.98	61.17	74.00	-12.83	Peak	

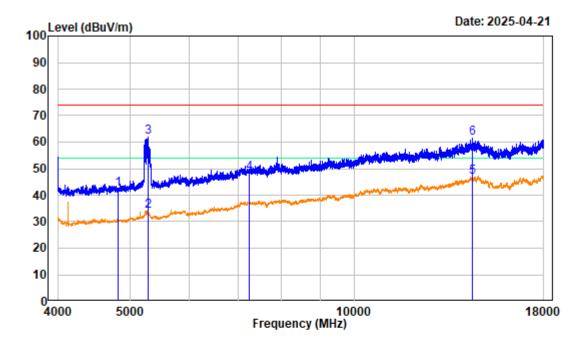


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g High Channel 2472MHz ANT0

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
								_
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4943.250	-6.57	49.27	42.70	74.00	-31.30	peak	
2	5254.750	-5.69	41.91	36.22	54.00	-17.78	average	
3	5254.750	-5.69	64.93	59.24	74.00	-14.76	peak	
4	7416.000	-1.28	50.05	48.77	74.00	-25.23	peak	
5	17881.000	8.23	39.22	47.45	54.00	-6.55	Average	
6	17881.000	8.23	53.78	62.01	74.00	-11.99	Peak	

For 802.11g mode, ANT1



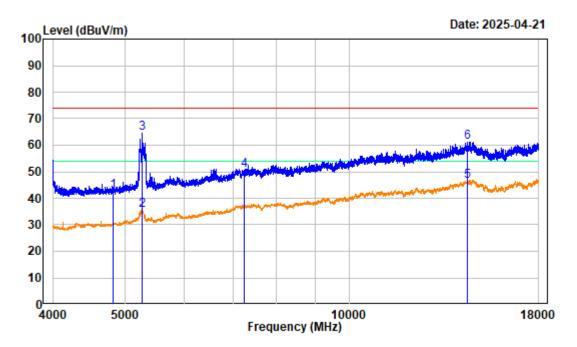
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11g low Channel 2412MHz ANT1

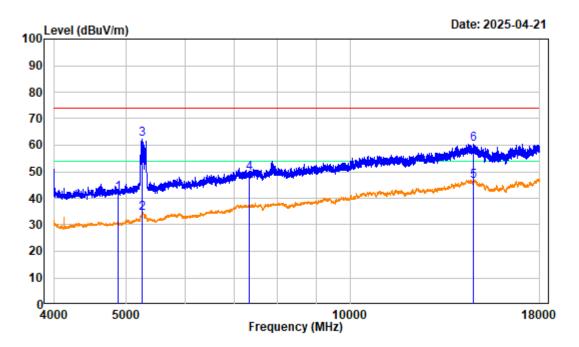
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4824.250	-6.61	49.02	42.41	74.00	-31.59	peak
2	5289.750	-5.89	39.81	33.92	54.00	-20.08	average
3	5289.750	-5.89	67.86	61.97	74.00	-12.03	peak
4	7235.750	-1.31	49.75	48.44	74.00	-25.56	peak
5	14417.750	8.47	38.23	46.70	54.00	-7.30	average
6	14417.750	8.47	53.20	61.67	74.00	-12.33	peak



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g low Channel 2412MHz ANT1

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4824.250	-6.61	49.22	42.61	74.00	-31.39	peak
2	5272.250	-5.79	41.15	35.36	54.00	-18.64	average
3	5272.250	-5.79	70.14	64.35	74.00	-9.65	peak
4	7235.750	-1.31	51.84	50.53	74.00	-23.47	peak
5	14454.500	8.46	37.83	46.29	54.00	-7.71	average
6	14454.500	8.46	52.79	61.25	74.00	-12.75	peak

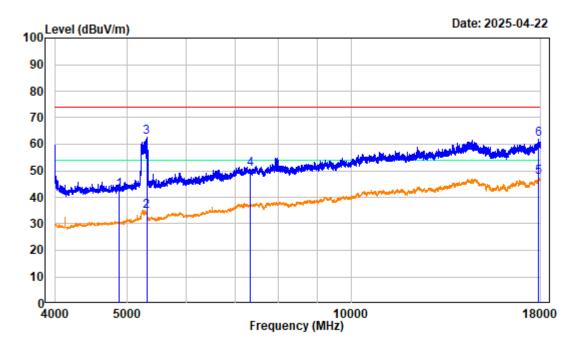


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Middle Channel 2442MHz ANT1

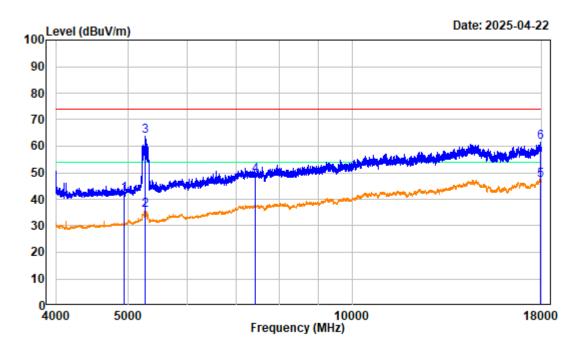
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4883.750	-6.63	48.67	42.04	74.00	-31.96	peak
2	5251.250	-5.66	40.05	34.39	54.00	-19.61	average
3	5251.250	-5.66	68.02	62.36	74.00	-11.64	peak
4	7326.750	-1.25	50.67	49.42	74.00	-24.58	peak
5	14652.250	8.55	37.96	46.51	54.00	-7.49	average
6	14652,250	8.55	51.97	60.52	74.00	-13.48	peak



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Middle Channel 2442MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4883.750	-6.63	49.14	42.51	74.00	-31.49	peak	
2	5316.000	-5.91	40.64	34.73	54.00	-19.27	average	
3	5316.000	-5.91	68.61	62.70	74.00	-11.30	peak	
4	7326.750	-1.25	51.67	50.42	74.00	-23.58	peak	
5	17884.500	8.24	39.12	47.36	54.00	-6.64	average	
6	17884.500	8.24	53.49	61.73	74.00	-12.27	peak	

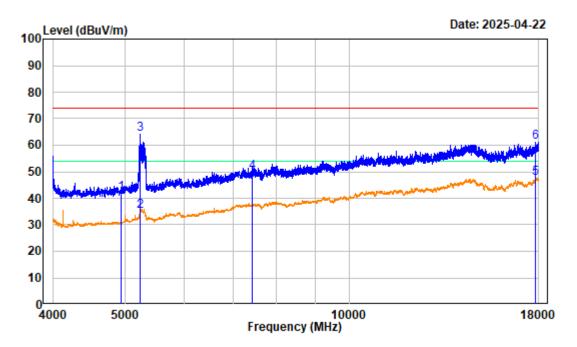


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g High Channel 2472MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
		-dp./	-dp. av	dp. at to	Jp. v//			_
		dB/m						
1	4943.250	-6.57	48.43	41.86	74.00	-32.14	peak	
	5277.500							
	5277.500							
4	7416.000	-1.28	50.34	49.06	74.00	-24.94	peak	
5	17935.250	8.20	39.11	47.31	54.00	-6.69	average	
6	17935.250	8.20	53.17	61.37	74.00	-12.63	peak	

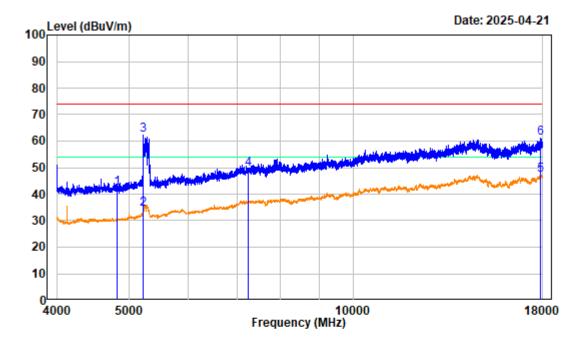


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g High Channel 2472MHz ANT1

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4943.250	-6.57	48.35	41.78	74.00	-32.22	peak	
2	5240.750	-5.66	40.79	35.13	54.00	-18.87	average	
3	5240.750	-5.66	69.81	64.15	74.00	-9.85	peak	
4	7416.000	-1.28	51.07	49.79	74.00	-24.21	peak	
5	17802.250	7.60	39.81	47.41	54.00	-6.59	average	
6	17802.250	7.60	53.49	61.09	74.00	-12.91	peak	

For 802.11n20 mode, MIMO



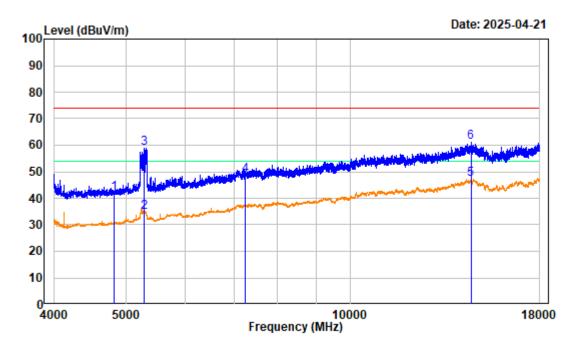
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n20 Low Channel 2412MHz MIMO

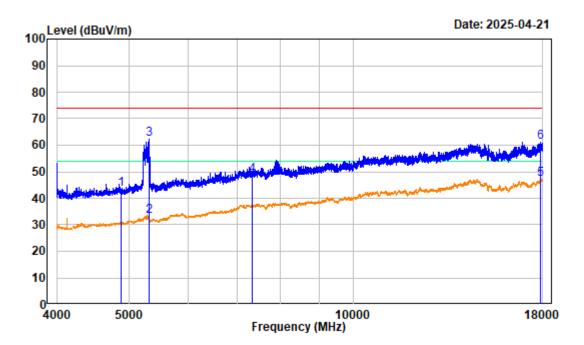
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4824.250	-6.61	49.04	42.43	74.00	-31.57	peak
2	5230.250	-5.66	40.06	34.40	54.00	-19.60	average
3	5230.250	-5.66	68.02	62.36	74.00	-11.64	peak
4	7235.750	-1.31	50.59	49.28	74.00	-24.72	peak
5	17893.250	8.24	38.92	47.16	54.00	-6.84	Average
6	17893.250	8.24	52.77	61.01	74.00	-12.99	Peak



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n20 Low Channel 2412MHz MIMO

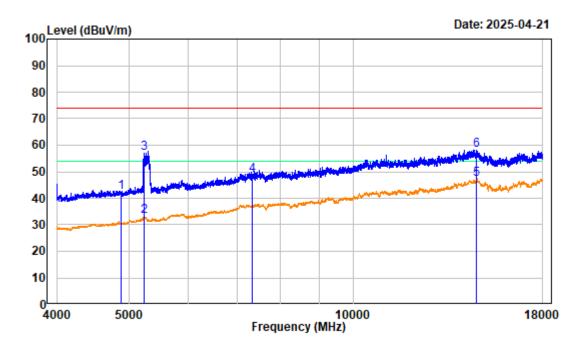
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
								_
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4824.250	-6.61	48.39	41.78	74.00	-32.22	peak	
2	5293.250	-5.91	40.81	34.90	54.00	-19.10	average	
3	5293.250	-5.91	64.76	58.85	74.00	-15.15	peak	
4	7235.750	-1.31	49.93	48.62	74.00	-25.38	peak	
5	14547.250	9.00	38.32	47.32	54.00	-6.68	Average	
6	14547.250	9.00	52.07	61.07	74.00	-12.93	Peak	



Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

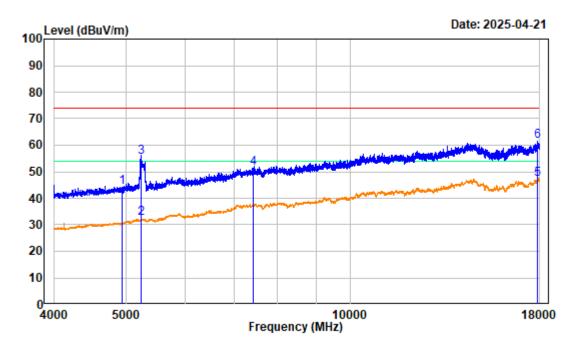
Test Mode : Transmitting Tester:Kevin Lv
Note : 802.11n20 Middle Channel 2442MHz MIMO

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB	
1	4883.750	-6.63	49.91	43.28	74.00	-30.72	peak
2	5323.000	-5.89	39.02	33.13	54.00	-20.87	average
3	5323.000	-5.89	68.00	62.11	74.00	-11.89	peak
4	7326.750	-1.25	49.75	48.50	74.00	-25.50	peak
5	17895.000	8.23	38.98	47.21	54.00	-6.79	Average
6	17895.000	8.23	53.01	61.24	74.00	-12.76	Peak



Test Mode : Transmitting Tester:Kevin Lv
Note : 802.11n20 Middle Channel 2442MHz MIMO

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4883.750	-6.63	49.02	42.39	74.00	-31.61	peak
2	5249.500	-5.66	38.73	33.07	54.00	-20.93	average
3	5249.500	-5.66	62.75	57.09	74.00	-16.91	peak
4	7326.750	-1.25	50.05	48.80	74.00	-25.20	peak
5	14655.750	8.51	38.66	47.17	54.00	-6.83	Average
6	14655.750	8.51	49.68	58.19	74.00	-15.81	Peak

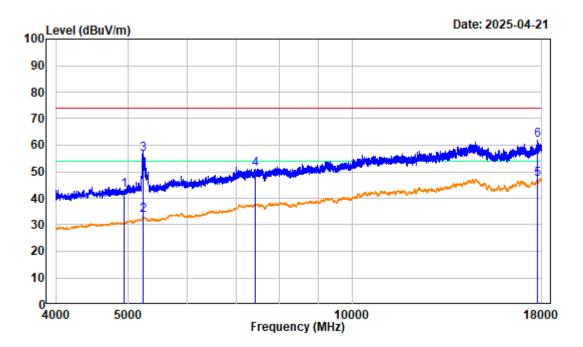


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n20 High Channel 2472MHz MIMO

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4943.250	-6.57	50.79	44.22	74.00	-29.78	peak
2	5247.750	-5.66	38.03	32.37	54.00	-21.63	average
3	5247.750	-5.66	60.98	55.32	74.00	-18.68	peak
4	7416.000	-1.28	52.60	51.32	74.00	-22.68	peak
5	17870.500	8.23	39.12	47.35	54.00	-6.65	Average
6	17870.500	8.23	53.16	61.39	74.00	-12.61	Peak

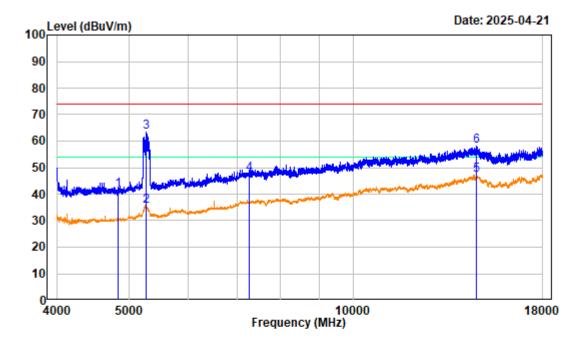


Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n20 High Channel 2472MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
								_
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4943.250	-6.57	49.41	42.84	74.00	-31.16	peak	
2	5247.750	-5.66	39.18	33.52	54.00	-20.48	average	
3	5247.750	-5.66	62.24	56.58	74.00	-17.42	peak	
4	7416.000	-1.28	52.27	50.99	74.00	-23.01	peak	
5	17769.000	7.67	39.66	47.33	54.00	-6.67	Average	
6	17769.000	7.67	54.38	62.05	74.00	-11.95	Peak	

For 802.11n40 mode, MIMO



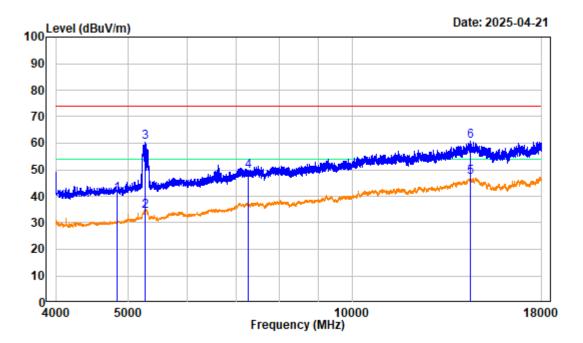
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n40 Low Channel 2422MHz MIMO

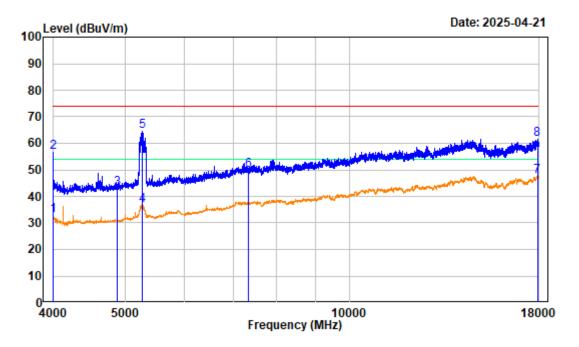
			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4843.500	-6.62	48.09	41.47	74.00	-32.53	Peak
2	5270.500	-5.77	41.29	35.52	54.00	-18.48	average
3	5270.500	-5.77	69.35	63.58	74.00	-10.42	peak
4	7265.500	-1.26	48.95	47.69	74.00	-26.31	Peak
5	14673.250	8.35	38.85	47.20	54.00	-6.80	Average
6	14673.250	8.35	49.69	58.04	74.00	-15.96	Peak



Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n40 Low Channel 2422MHz MIMO

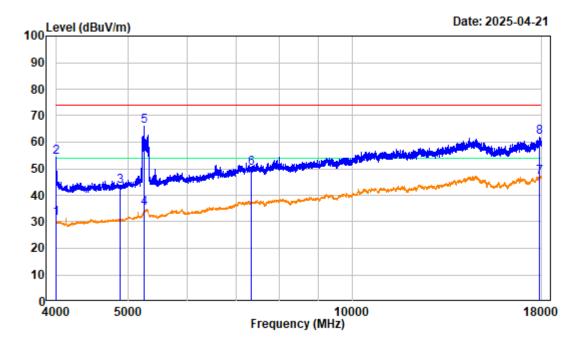
			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
				1=	1=			_
	MHZ	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	4843.500	-6.62	47.23	40.61	74.00	-33.39	Peak	
	5268.750							
3	5268.750	-5.77	66.21	60.44	74.00	-13.56	peak	
4	7265.500	-1.26	50.84	49.58	74.00	-24.42	Peak	
5	14437.000	8.47	38.82	47.29	54.00	-6.71	Average	
6	14437.000	8.47	52.38	60.85	74.00	-13.15	Peak	



Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

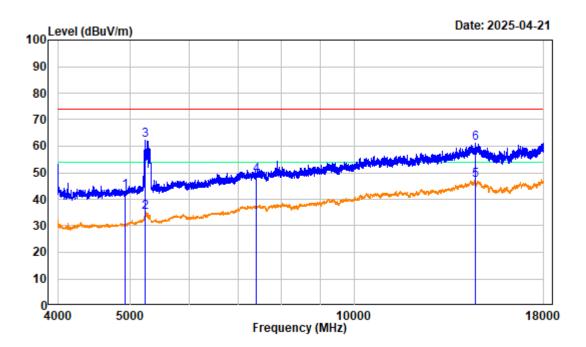
Test Mode : Transmitting Tester:Kevin Lv
Note : 802.11n40 Middle Channel 2442MHz MIMO

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB	
1	4000.000	-8.11	41.02	32.91	54.00	-21.09	Average
2	4000.000	-8.11	64.80	56.69	74.00	-17.31	Peak
3	4883.750	-6.63	49.49	42.86	74.00	-31.14	peak
4	5268.750	-5.77	42.20	36.43	54.00	-17.57	Average
5	5268.750	-5.77	70.25	64.48	74.00	-9.52	peak
6	7326.750	-1.25	51.10	49.85	74.00	-24.15	peak
7	17902.000	8.24	39.42	47.66	54.00	-6.34	Average
8	17902 000	8 24	53 40	61 64	74 00	-12 36	Peak



Test Mode : Transmitting Tester:Kevin Lv
Note : 802.11n40 Middle Channel 2442MHz MIMO

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4000.000	-8.11	39.41	31.30	54.00	-22.70	Average
2	4000.000	-8.11	62.61	54.50	74.00	-19.50	Peak
3	4883.750	-6.63	50.08	43.45	74.00	-30.55	peak
4	5263.500	-5.75	40.71	34.96	54.00	-19.04	Average
5	5263.500	-5.75	71.67	65.92	74.00	-8.08	peak
6	7326.750	-1.25	51.44	50.19	74.00	-23.81	peak
7	17865.250	8.24	38.61	46.85	54.00	-7.15	Average
8	17865.250	8.24	53.65	61.89	74.00	-12.11	Peak

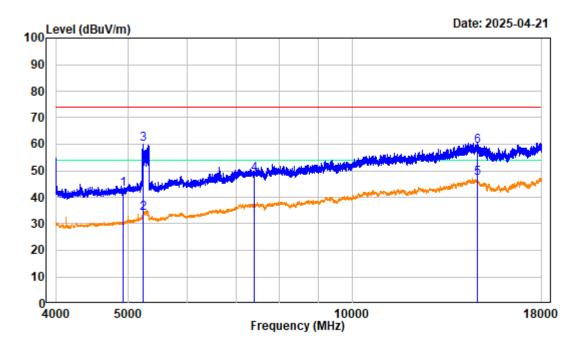


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n40 High Channel 2462MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
		-dp./	-dp. av	dp. at to	Jp. v//			
	MHZ	dB/m	aBuv	aBuv/m	aBuv/m	ав		
1	4924.000	-6.60	49.64	43.04	74.00	-30.96	Peak	
	5246.000							
3	5246.000	-5.66	67.82	62.16	74.00	-11.84	Peak	
4	7386.250	-1.38	50.35	48.97	74.00	-25.03	Peak	
5	14550.750	9.04	38.21	47.25	54.00	-6.75	Average	
6	14550.750	9.04	51.96	61.00	74.00	-13.00	Peak	



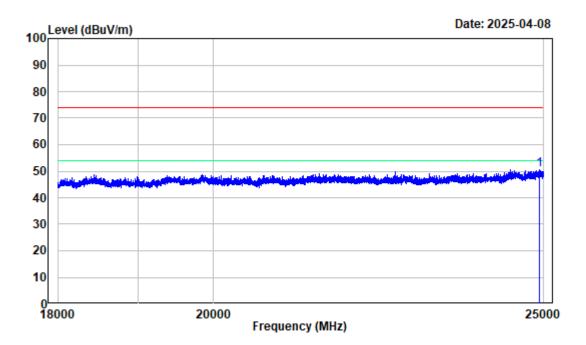
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11n40 High Channel 2462MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		-
1	4924.000	-			-		Peak	
2	5235.500	-5.66	39.71	34.05	54.00	-19.95	Average	
3	5235.500	-5.66	65.67	60.01	74.00	-13.99	Peak	
4	7386.250	-1.38	50.15	48.77	74.00	-25.23	Peak	
5	14746.750	7.98	39.24	47.22	54.00	-6.78	Average	
6	14746.750	7.98	51.44	59.42	74.00	-14.58	Peak	

18GHz~25GHz:

For 802.11n20 mode, MIMO



Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester:Kevin Lv

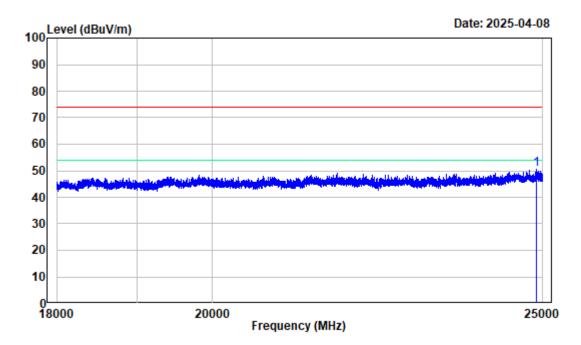
Note : 802.11n20 High channel 2472MHz MIMO

SA setting : Peak:RBW:1MHz,VBW:3MHz

Read Limit Over
Freq Factor Level Level Line Limit Remark

MHz dB/m dBuV dBuV/m dBuV/m dB

1 24921.250 0.45 50.02 50.47 74.00 -23.53 Peak



Test Mode : Transmitting Tester:Kevin Lv

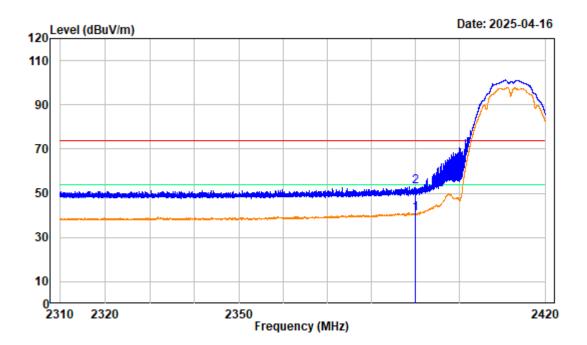
Note : 802.11n20 High channel 2472MHz MIMO

SA setting : Peak:RBW:1MHz,VBW:3MHz

	Freq	Factor	 Level	 Over Limit	Remark
1	MHz 24890.630	dB/m 0.37	 	 dB -23.56	Peak

Band Edge:

For 802.11b mode, ANT0



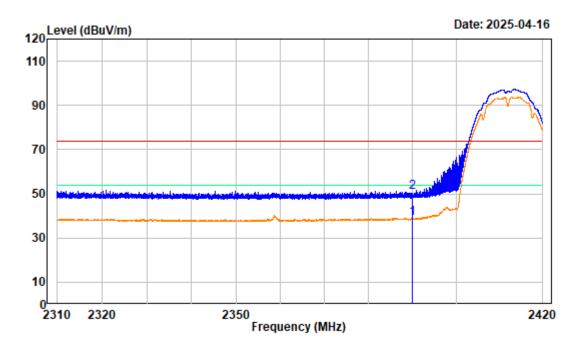
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b Low Channel 2412MHz ANT0

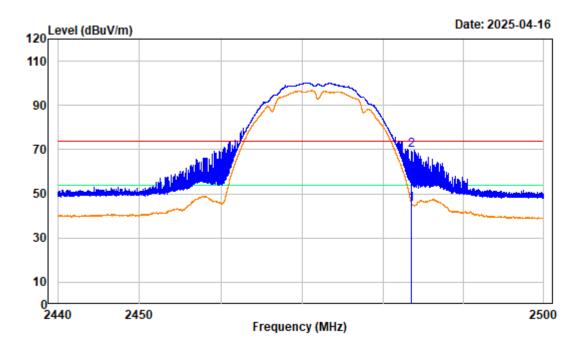
	Freq	Factor			Limit Line		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	-10.24	51.06	40.82	54.00	-13.18	average	
2	2390.000	-10.24	63.08	52.84	74.00	-21.16	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b Low Channel 2412MHz ANT0

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		_
1	2390.000	-10.24	49.17	38.93	54.00	-15.07	average	
2	2390.000	-10.24	60.97	50.73	74.00	-23.27	peak	

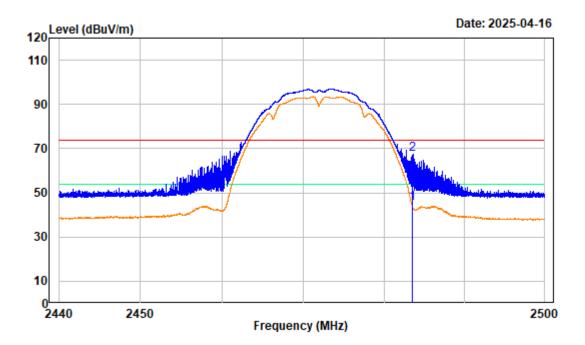


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT0

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2483.500	-10.22	55.54	45.32	54.00	-8.68	average	
2	2483.500	-10.22	79.75	69.53	74.00	-4.47	peak	

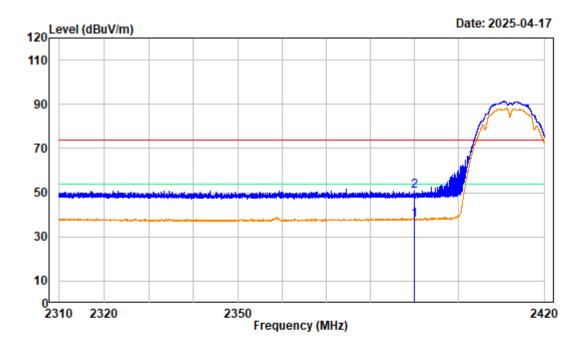


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT0

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	2483.500	-10.22	55.39	45.17	54.00	-8.83	average	
2	2483.500	-10.22	77.54	67.32	74.00	-6.68	peak	

For 802.11b mode, ANT1



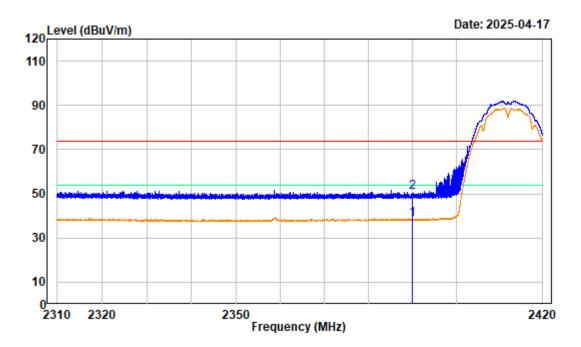
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b Low Channel 2412MHz ANT1

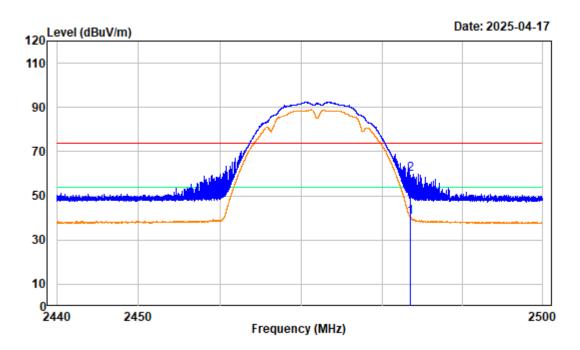
	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		-
1	2390.000	-10.24	47.76	37.52	54.00	-16.48	average	
2	2390.000	-10.24	61.06	50.82	74.00	-23.18	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b Low Channel 2412MHz ANT1

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	-10.24	48.72	38.48	54.00	-15.52	average	
2	2390.000	-10.24	60.79	50.55	74.00	-23.45	peak	

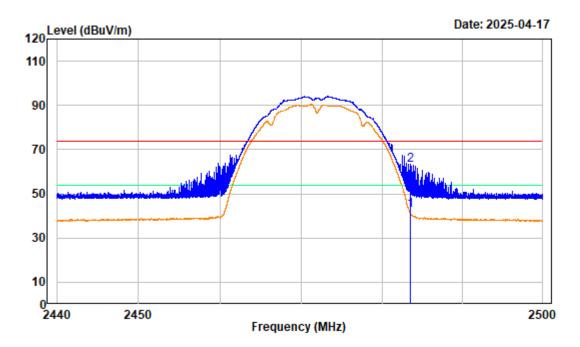


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT1

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2483.500	-10.22	50.52	40.30	54.00	-13.70	average	
2	2483.500	-10.22	70.05	59.83	74.00	-14.17	peak	

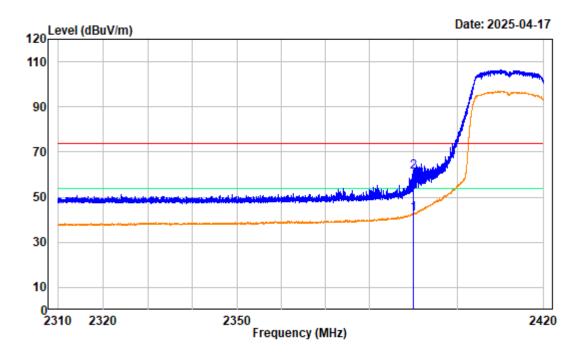


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11b High Channel 2472MHz ANT1

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2483.500	-10.22	52.65	42.43	54.00	-11.57	average	
2	2483.500	-10.22	73.26	63.04	74.00	-10.96	peak	

For 802.11g mode, ANT0



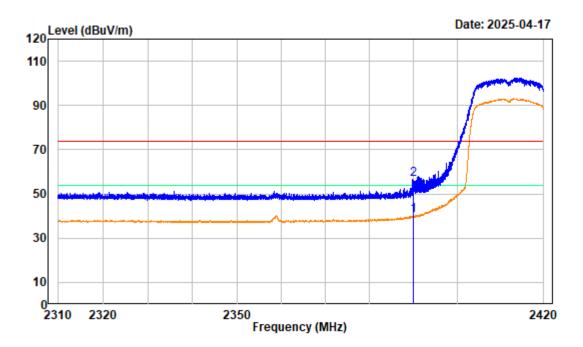
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Low Channel 2412MHz ANTO

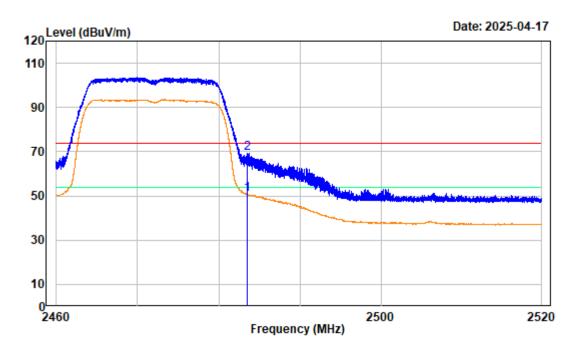
	Freq	Factor		Level		Over Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	-10.24	52.84	42.60	54.00	-11.40	average	
2	2390.000	-10.24	71.20	60.96	74.00	-13.04	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Low Channel 2412MHz ANT0

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	-10.24	50.38	40.14	54.00	-13.86	average	
2	2390.000	-10.24	66.85	56.61	74.00	-17.39	peak	

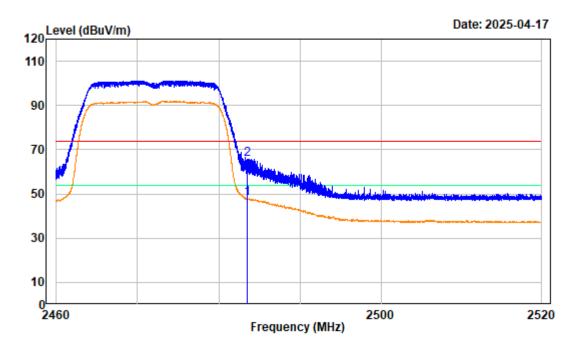


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g High Channel 2472MHz ANT0

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2483.500	-10.22	61.06	50.84	54.00	-3.16	average	
2	2483.500	-10.22	79.60	69.38	74.00	-4.62	peak	

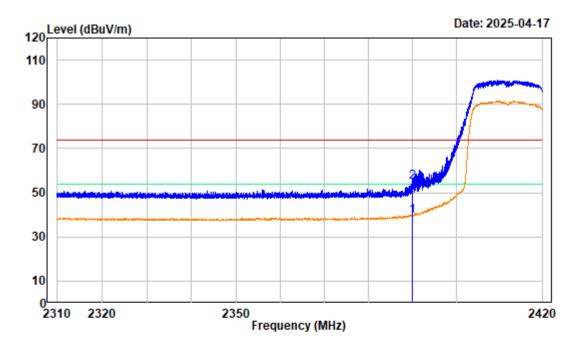


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g High Channel 2472MHz ANT0

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2483.500	-10.22	58.02	47.80	54.00	-6.20	average	
2	2483.500	-10.22	75.80	65.58	74.00	-8.42	peak	

For 802.11g mode, ANT1



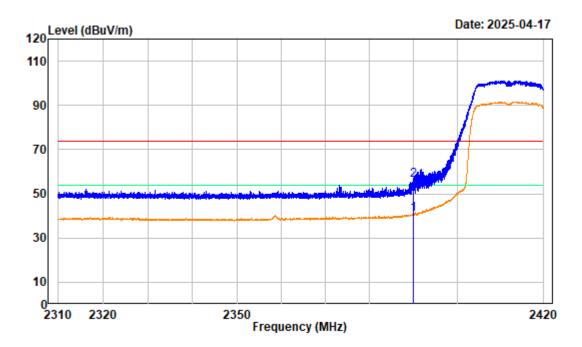
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Low Channel 2412MHz ANT1

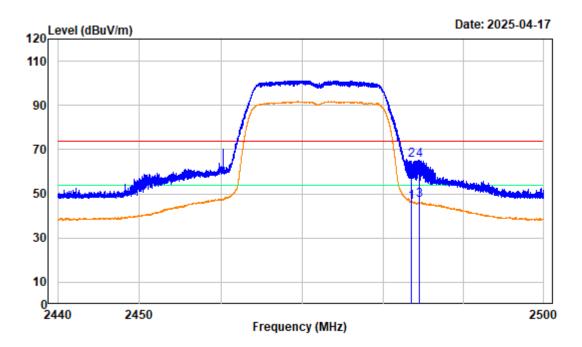
	Freq	Factor		Level		Over Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		-
1	2389.998	-10.24	49.72	39.48	54.00	-14.52	Average	
2	2389.998	-10.24	65.03	54.79	74.00	-19.21	Peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g Low Channel 2412MHz ANT1

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	-10.24	50.85	40.61	54.00	-13.39	average	
2	2390.000	-10.24	66.35	56.11	74.00	-17.89	peak	

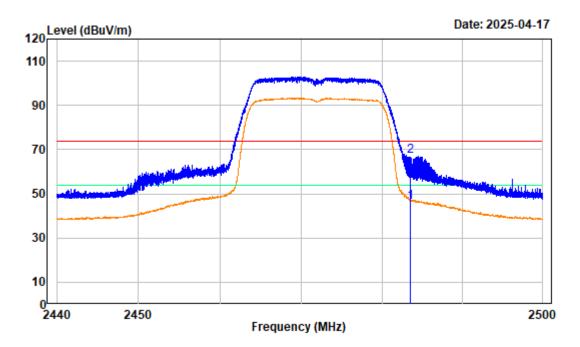


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g High Channel 2472MHz ANT1

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2483.500	-10.22	56.39	46.17	54.00	-7.83	average	
2	2483.500	-10.22	75.54	65.32	74.00	-8.68	peak	
3	2484.468	-10.23	57.40	47.17	54.00	-6.83	Average	
4	2484.468	-10.23	75.55	65.32	74.00	-8.68	Peak	

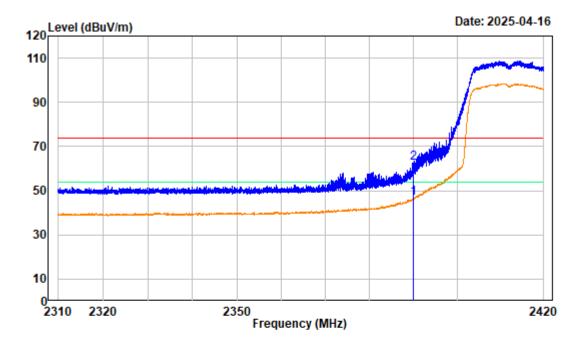


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11g High Channel 2472MHz ANT1

	Freq	Factor			Limit		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.22	56.50	46.28	54.00	-7.72	average
2	2483.500	-10.22	77.10	66.88	74.00	-7.12	peak

For 802.11n20 mode, MIMO



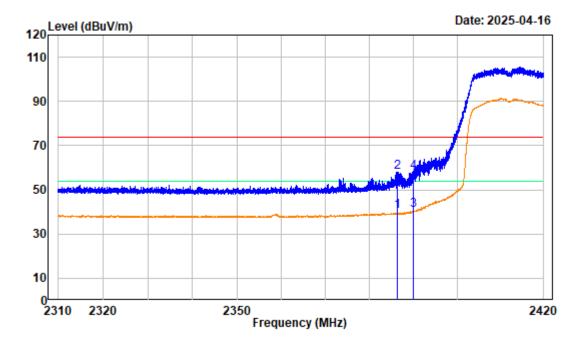
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n20 Low Channel 2412MHz MIMO

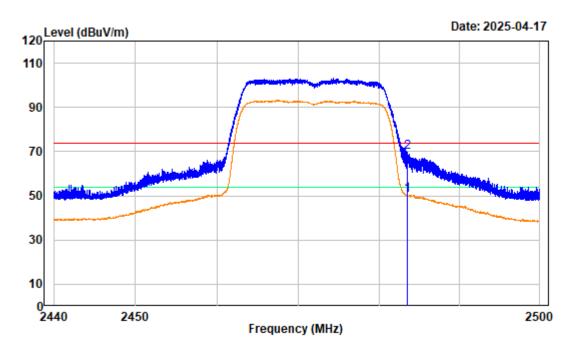
	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		-
1	2390.000	-10.24	57.02	46.78	54.00	-7.22	average	
2	2390.000	-10.24	72.72	62.48	74.00	-11.52	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n20 Low Channel 2412MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		-
1	2386.395	-10.26	50.50	40.24	54.00	-13.76	Average	
2	2386.395	-10.26	68.31	58.05	74.00	-15.95	Peak	
3	2390.000	-10.24	51.19	40.95	54.00	-13.05	average	
4	2390.000	-10.24	68.19	57.95	74.00	-16.05	peak	

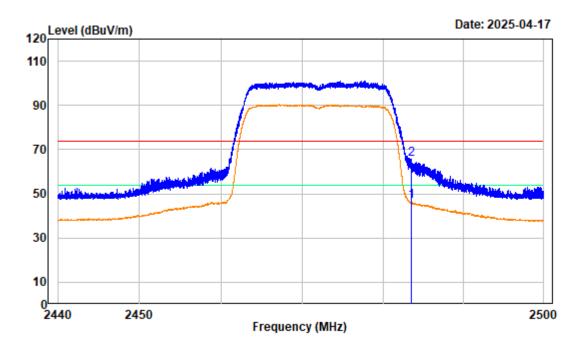


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n20 High Channel 2472MHz MIMO

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2483.500	-10.22	60.39	50.17	54.00	-3.83	average	
2	2483.500	-10.22	79.92	69.70	74.00	-4.30	peak	

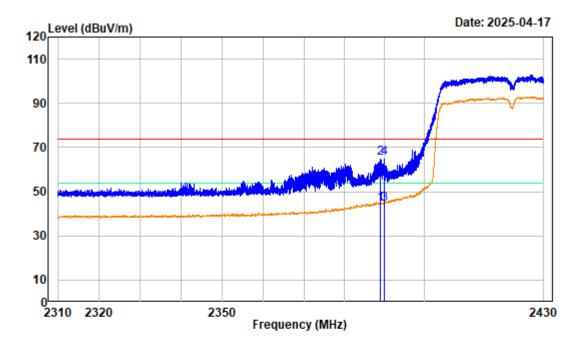


Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n20 High Channel 2472MHz MIMO

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	2483.500	-10.22	56.65	46.43	54.00	-7.57	average	
2	2483.500	-10.22	75.87	65.65	74.00	-8.35	peak	

For 802.11n40 mode, MIMO



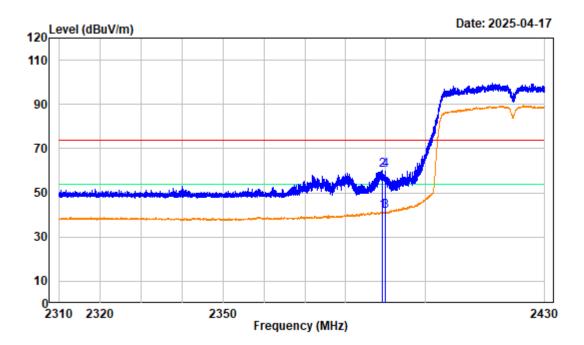
Site : chamber

Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n40 Low Channel 2422MHz MIMO

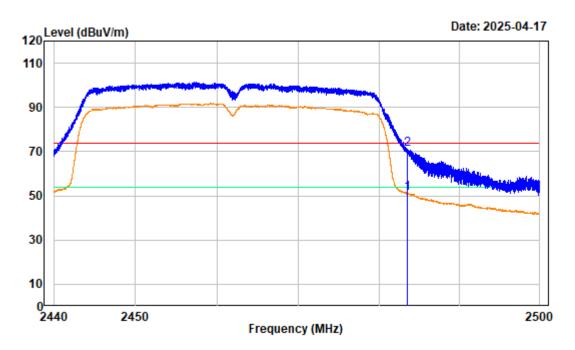
					Limit			
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	2388.990	-10.24	54.61	44.37	54.00	-9.63	Average	
2	2388.990	-10.24	75.45	65.21	74.00	-8.79	Peak	
3	2390.000	-10.24	54.48	44.24	54.00	-9.76	average	
4	2390.000	-10.24	75.26	65.02	74.00	-8.98	peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n40 Low Channel 2422MHz MIMO

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	——dB		-
1	2389.290	-10.24	51.78	41.54	54.00	-12.46	Average	
2	2389.290	-10.24	70.51	60.27	74.00	-13.73	Peak	
3	2390.000	-10.24	51.80	41.56	54.00	-12.44	average	
4	2390.000	-10.24	70.47	60.23	74.00	-13.77	peak	

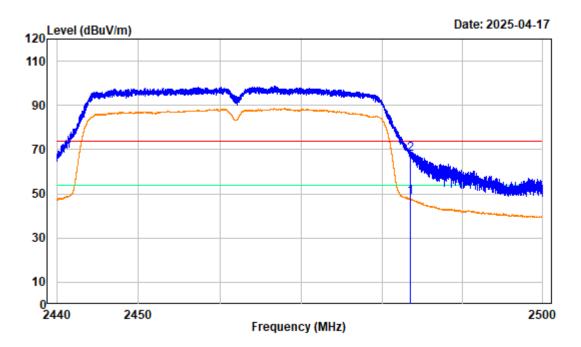


Condition : 3m HORIZONTAL Project No.: 2504R28083E-RF

Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n40 High Channel 2462MHz MIMO

	Freq	Factor			Limit		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		-
1	2483.500	-10.22	61.52	51.30	54.00	-2.70	Average	
2	2483.500	-10.22	81.44	71.22	74.00	-2.78	Peak	



Test Mode : Transmitting Tester: Kevin Lv

Note : 802.11n40 High Channel 2462MHz MIMO

	Freq	Factor		Level		Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.22	58.66	48.44	54.00	-5.56	Average
2	2483.500	-10.22	78.26	68.04	74.00	-5.96	Peak

FCC §15.247(a) (2)-6 dB EMISSION BANDWIDTH& OCCUPIED BANDWIDTH

Applicable Standard

Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Procedure

According to ANSI C63.10-2020, section 11.8 and section 6.9

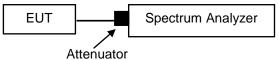
The steps for the first option are as follows:

- 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 × 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.

According to ANSI C63.10-2020, section 7.8.6 and section 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max-hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing spectral plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).



Test Data

FCC §15.247(b) (3)-MAXIMUMCONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §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.

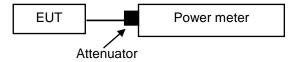
Test Procedure

According to ANSI C63.10-2020, section 11.9.1.2

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast responding diode detector.

According to ANSI C63.10-2020, section 11.9.2.3

- Measurement using a power meter (PM)(Method AVGPM)
 - a) As an alternative to spectrum analyzer or EMI receiver measurements, measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent, if all of the conditions listed below are satisfied:
 - 1) The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.
 - 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
 - 3)The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
 - b) If the transmitter does not transmit continuously, measure the duty cycle, D, of the transmitter output signal as described in 11.6.
 - c) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
 - d) Correct the measurement in dBm by adding [10 log (1 / D)], where D is the duty cycle.



Test Data

FCC §15.247(d)-100kHz BANDWIDTHOF FREQUENCY BAND EDGE

Applicable Standard

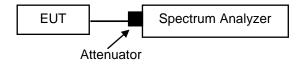
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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. 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 Procedure

According to ANSI C63.10-2020, section 11.11

- a) Set the center frequency and span to encompass frequency range to be measured. Note that the frequency range might need to be divided into multiple frequency ranges to retain frequency resolution. NOTE—the number of points can also be increased for large spans to retain frequency resolution
- b) Set the RBW = 100 kHz.
- c) Set the VBW \geq [3 × RBW].
- d) Detector = peak.
- e) Sweep time = No faster than coupled (auto) time.
- f) Trace mode = max-hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.



Test Data

FCC §15.247(e)-POWER SPECTRAL DENSITY

Applicable Standard

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 Procedure

According to ANSI C63.10-2020, section 11.10.2

Method PKPSD (peak PSD)

The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span >1.5 times the DTS bandwidth.
- c) Set the RBW to 3 kHz \leq RBW \leq 100 kHz.
- d) Set the VBW ≥ [3 × RBW].
- e) Detector = peak.
- f) Sweep time = No faster than coupled (auto) time.
- g) Trace mode = max-hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

According to ANSI C63.10-2020, section 11.10.3

•Method AVGPSD-1: (for duty cycle ≥ 98%)

The following procedure may be used when the maximum (average) conducted output power was used to determine compliance to the fundamental output power limit. This is the baseline method for determining the maximum (average) conducted PSD level. If the instrument has a power averaging (rms) detector, then it must be used; otherwise, use the sample detector. The EUT must be configured to transmit continuously (D \geq 98%), or else sweep triggering/signal gating must be implemented to help ensure that measurements are made only when the EUT is transmitting at its maximum power control level (no transmitter OFF time to be considered):

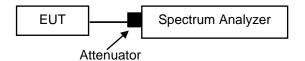
- a) Set instrument center frequency to DTS channel center frequency.
- b) Set span to > 1.5 times the OBW.
- c) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
- d) Set VBW ≥ [3 × RBW].
- e) Detector = power averaging (rms) or sample detector (when rms not available).
- f) Ensure that the number of measurement points in the sweep ≥ [2 × span / RBW].
- g) Sweep time = auto couple.
- h) Employ trace averaging (rms) mode over a minimum of 100 traces.
- i) Use the peak marker function to determine the maximum amplitude level.
- j) If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat (note that this might require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

According to ANSI C63.10-2020, section 11.10.5

•Method AVGPSD-2: (for duty cycle < 98% and constant duty cycle)

The following procedure is applicable when the EUT cannot be configured to transmit continuously (i.e.,D < 98%), when sweep triggering/signal gating cannot be used to measure only when the EUT is transmitting at its maximum power control level, and when the transmission duty cycle is constant (i.e., duty cycle variations are less than $\pm 2\%$):

- a) Measure the duty cycle (D) of the transmitter output signal as described in 11.6.
- b) Set instrument center frequency to DTS channel center frequency.
- c) Set span to > 1.5 times the OBW.
- d) Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- e) Set VBW ≥ [3 × RBW].
- f) Detector = power averaging (rms) or sample detector (when rms not available).
- g) Ensure that the number of measurement points in the sweep ≥ [2 × span / RBW].
- h) Sweep time = auto couple.
- i) Do not use sweep triggering; allow sweep to "free run."
- j) Employ trace averaging (rms) mode over a minimum of 100 traces.
- k) Use the peak marker function to determine the maximum amplitude level.
- I) Add [10 log (1 / D)], where D is the duty cycle measured in step a), to the measured PSD to compute the average PSD during the actual transmission time.
- m) If measured value exceeds requirement specified by regulatory agency, then reduce RBW (but no less than 3 kHz) and repeat (note that this might require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).



Test Data

APPENDIX (RF TEST RESULTS)

6dB Emission Bandwidth

Test Information:

Sample No.:	30OX-1	Test Date:	2025/05/06
Test Site:	RF	Test Mode:	Transmitting
Tester:	Cayde Hou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.1	Relative Humidity: (%)	64	ATM Pressure: (kPa)	100.2
-------------------	------	------------------------------	----	---------------------	-------