

TEST REPORT

of

FCC Part 15 Subpart C

Limited Modular Approval

☐ New Application; ☐ Class I PC; ☒ Class II PC

Product: **Digital Transmission Systems**
Brand: **DynaScan**
Main Model: **FBP206**
Series Model: **N/A**
Model Difference: **N/A**
FCC ID: **2AKWYFBP206**
FCC Rule Part: **§15.247, Cat: DTS**
Reference: **ANSI C63.10: 2013**
KDB 558074 D01 v05r02
Applicant: **Dynascan Technology Corp.**
Address: **6F., No. 88, Wenmao Rd., Guishan Dist., Taoyuan City**
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Test Performed by:



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Report No.: **ISL-23LR0131FC DTS**

Issue Date : **October 31, 2023**



Test results given in this report apply only to the specific sample(s) tested and are traceable to national or international standard through calibration of the equipment and evaluating measurement uncertainty herein. The uncertainty of the measurement does not include in consideration of the test result unless the customer required the determination of uncertainty via the agreement, regulation or standard document specification. This test report shall not be reproduced except in full, without the written approval of International Standards Laboratory Corp.

VERIFICATION OF COMPLIANCE

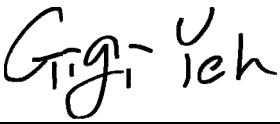
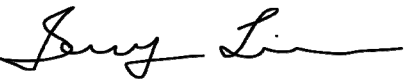
Applicant: Dynascan Technology Corp.
Equipment Under Test: Digital Transmission Systems
Brand: DynaScan
Main Model: FBP206
Series Model: N/A
Model Difference: N/A
FCC ID: 2AKWYFBP206
Date of Test: September 18, 2023 ~ October 31, 2023
Date of EUT Received: September 18, 2023

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC Part 15.247	Complied

We hereby certify that:

All the tests in this report have been performed and recorded in accordance with the standards described above and performed by an independent electromagnetic compatibility consultant, International Standards Laboratory Corp.

The test results contained in this report accurately represent the measurements of the characteristics and the energy generated by sample equipment under test at the time of the test. The sample equipment tested as described in this report is in compliance with the limits of above standards.

Test By:	 Jason Chao / Senior Engineer	Date:	October 31, 2023
Prepared By:	 Gigi Yeh / Senior Engineer	Date:	October 31, 2023
Approved By:	 Jerry Liu / Manager	Date:	October 31, 2023

Version

Version No.	Date	Description
00	October 31, 2023	This report is a Class II change partial report. Therefore, only test item of Radiated Spurious Emissions tests and Effective Radiated Power and Conducted Emission tests and Band-edges tests were performed for this report. Other testing data please refer to Intertek report no.: 220500397THC-001 & 220500398THC-001 (Limited module, Brand: DynScan, Model: FBP206, FCC ID: 2AKWYFBP206).

TABLE OF CONTENTS

1. General.....	5
1.1 DESCRIPTION OF EUT	5
1.2 SPECIAL ACCESSORIES	7
1.3 EQUIPMENT MODIFICATIONS	7
2. System Test Configuration.....	7
2.1 EUT CONFIGURATION.....	7
2.2 EUT EXERCISE	7
2.3 TEST PROCEDURE.....	7
2.4 CONFIGURATION OF TESTED SYSTEM.....	8
2.5 SUMMARY OF TEST RESULTS.....	9
3. Description of Test Modes.....	9
4. AC Line Conducted Emission Test.....	10
4.1 STANDARD APPLICABLE	10
4.2 MEASUREMENT PROCEDURE.....	10
4.3 MEASUREMENT RESULT.....	11
5. Peak Output Power Measurement	13
5.1 STANDARD APPLICABLE	13
5.2 MEASUREMENT PROCEDURE.....	13
5.3 MEASUREMENT RESULT.....	14
6. Radiated Spurious Emission Test.....	15
6.1 STANDARD APPLICABLE	15
6.2 MEASUREMENT PROCEDURE.....	15
6.3 FIELD STRENGTH CALCULATION	16
6.4 MEASUREMENT RESULT.....	17
7. 100kHz Bandwidth of Band Edges Measurement	46
7.1 STANDARD APPLICABLE	46
7.2 MEASUREMENT PROCEDURE.....	46
7.3 FIELD STRENGTH CALCULATION	46
7.4 MEASUREMENT RESULT.....	47
8. Appendix	63
8.1 APPENDIX A: EQUIPMENT LIST	63
8.2 APPENDIX B: UNCERTAINTY OF MEASUREMENT.....	65
8.3 APPENDIX C: TEST SETUP	66
8.4 APPENDIX D: PHOTOGRAPHS OF SETUP	69
8.5 APPENDIX E: PHOTOGRAPHS OF EUT	74

RF power setting:	Mode	Freq. (MHz)	power set			
			Chain 0	Chain 1	Chain 2	Chain 3
	802.11b	2412	105	105	113	113
		2437	110	105	113	113
		2462	107	104	120	115
	802.11g	2412	85	85	90	90
		2437	98	96	105	102
		2462	96	94	101	93
	802.11n HT20	2412	90	93	98	88
		2437	97	97	103	93
		2462	95	94	101	93
	802.11n HT40	2422	73	73	73	73
		2437	100	92	105	95
		2452	80	80	83	83

	Antenna Type	Brand	Model	Peak Gain (dBi)	Frequency Range	Connector Type
1	PIFA	INPAQ	RFMTA34071AIMLB401	-3.04 dB	2400-2500MHz	IPEX(Gold)
				-2.31 dB	5150-5850MHz	

1.2 Special Accessories

Not available for this EUT intended for grant.

1.3 Equipment Modifications

Not available for this EUT intended for grant.

2. System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The EUT (Transmitter) was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 AC Line Conducted Emissions

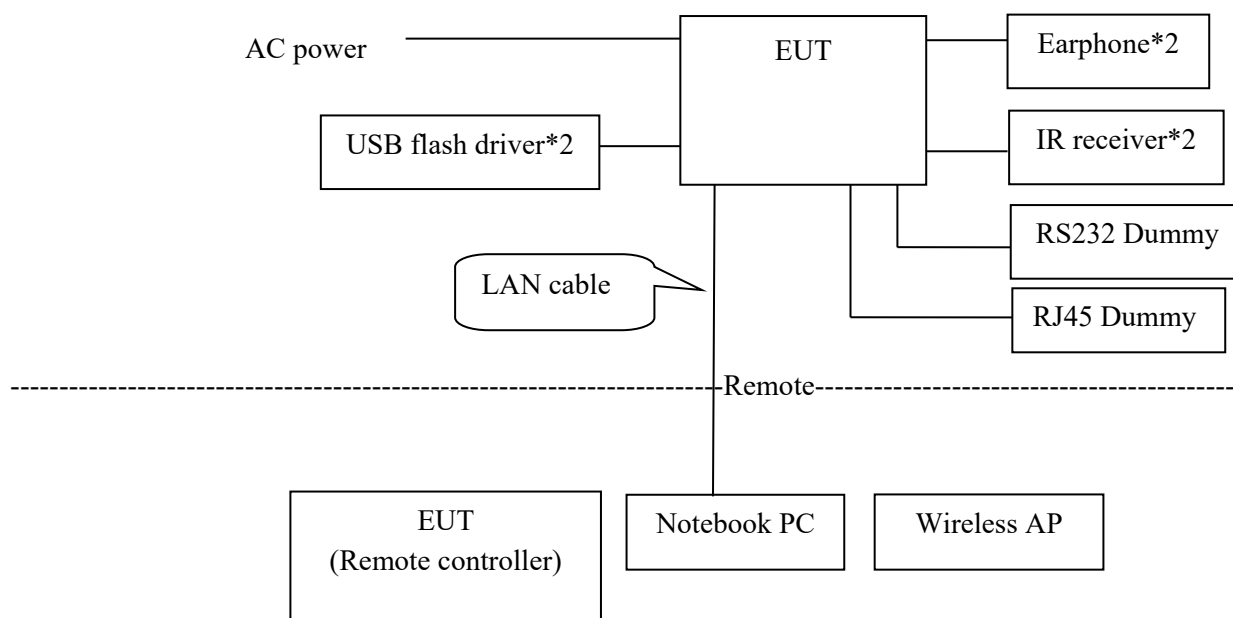
The EUT is placed on a turn table which is 0.8 m above ground plane. According to ANSI C63.10 and RSS-Gen. AC Line Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR 16-1-1 Quasi-Peak and Average detector mode.

2.3.2 Radiated Emissions

The EUT is placed on a turn table which is 0.8 m/1.5m (Frequency above 1GHz) above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to ANSI C63.10.

2.4 Configuration of Tested System

Configuration of Tested System (Fixed channel)



Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1	Notebook PC	Lenovo	TP00018A	R9-KD8WD	10m	1.8m
2	USB flash driver*2	Transcend	TS16GJF700	NA	NA	NA
3	Earphone*2	HTC	RC-E160	NA	1.4m	NA
4	Wireless AP	NETGEAR	RAXE500	NA	NA	1.8m
5	RS232 dummy	NA	NA	NA	1.5m	NA
6	RJ45 dummy	NA	NA	NA	1.5m	NA
7	IR receiver	Dynascan	NA	NA	2m	NA
8	Remote controller	Dynascan	NA	NA	NA	NA

2.5 Summary of Test Results

FCC Rules	Description Of Test	Result
§15.207(a)	AC Power Line Conducted Emission	Compliant
§15.247(b) (3), (4)	Peak Output Power/ EIRP	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edges	Compliant
§15.247(d)	Spurious Emission	Compliant

3. Description of Test Modes

The EUT has been tested under engineering operating condition.

Test program used to control the EUT for staying in continuous transmitting mode is programmed.

Note: Test item list below has been re-verified:

1. AC Power Line Conducted Emission
2. RF Output power
3. Transmitter spurious emissions below 1GHz
4. Transmitter spurious emissions above 1GHz
5. 100 kHz Bandwidth of Frequency Band Edges

Radiated emission test was performed on EUT under continuously transmitting mode. The worst case occurred at 802.11b channel 11(2462MHz).

		Radiated emission		
2.4G Mode	channel	9k~30MHz	30M~1GHz	above 1GHz
802.11b	1			V
	6			V
	11	V	V	V
802.11g	1			V
	6			V
	11			V
802.11n(HT20)	1			V
	6			V
	11			V
802.11n(HT40)	3			V
	6			V
	9			V

4. AC Line Conducted Emission Test

4.1 Standard Applicable

According to §15.207, frequency range within 150kHz to 30MHz shall not exceed the Limit table as below.

Frequency range MHz	Limits dB(μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Note

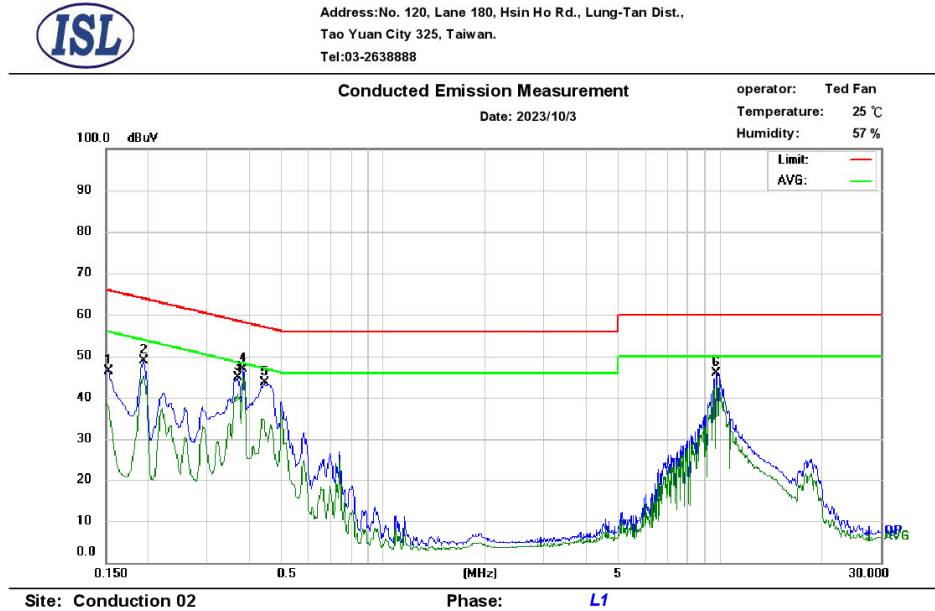
- 1.The lower limit shall apply at the transition frequencies
- 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

4.2 Measurement Procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.
4. Both 120V & 240V have been verified, and 120V/60Hz was defined as the worst-case and record in the report.

4.3 Measurement Result

- Line



No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	0.154	35.26	25.38	9.64	44.90	65.78	-20.88	35.02	55.78	-20.76
2	0.193	39.33	35.82	9.64	48.97	63.92	-14.95	45.46	53.92	-8.46
3	0.368	34.92	30.24	9.64	44.56	58.54	-13.98	39.88	48.54	-8.66
4*	0.384	37.27	35.78	9.65	46.92	58.19	-11.27	45.43	48.19	-2.76
5	0.443	33.87	24.56	9.65	43.52	57.01	-13.49	34.21	47.01	-12.80
6	9.713	36.03	33.12	9.88	45.91	60.00	-14.09	43.00	50.00	-7.00

Note:

Margin = QP/AVG Emission - Limit

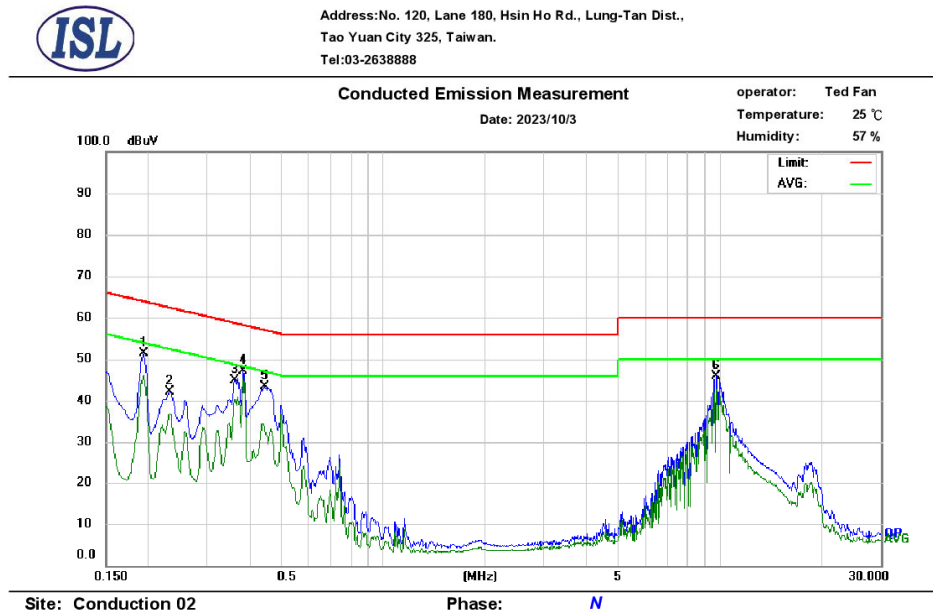
QP/AVG Emission = QP_R/AVG_R + Correct Factor

Correct Factor = LISN Loss + Cable Loss

The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.

If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

- Neutral



No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	0.193	41.71	36.40	9.63	51.34	63.92	-12.58	46.03	53.92	-7.89
2	0.231	32.49	27.17	9.64	42.13	62.41	-20.28	36.81	52.41	-15.60
3	0.361	35.17	30.70	9.64	44.81	58.69	-13.88	40.34	48.69	-8.35
4*	0.384	37.49	35.79	9.65	47.14	58.19	-11.05	45.44	48.19	-2.75
5	0.443	33.64	24.33	9.65	43.29	57.01	-13.72	33.98	47.01	-13.03
6	9.713	36.07	32.93	9.90	45.97	60.00	-14.03	42.83	50.00	-7.17

Note:

Margin = QP/AVG Emission - Limit

QP/AVG Emission = QP_R/AVG_R + Correct Factor

Correct Factor = LISN Loss + Cable Loss

The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.

If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

5. Peak Output Power Measurement

5.1 Standard Applicable

According to §15.247

(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.

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(c) Operation with directional antenna gains greater than 6 dBi.

(1) Fixed point-to-point operation:

(i) Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

(ii) Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted output power.

5.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter or spectrum analyzer with proper instrument's parameters.
3. Record the max. reading.
4. Repeat above procedures until all frequency measured were complete.

5.3 Measurement Result

Peak Power

Mode	Freq. (MHz)	Output Power (dBm)				Duty Factor (dB)	Total Output Power (dBm)	Output Power Limit (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3			
802.11b	2412	20.147	19.428	20.269	19.349	0.134	22.947	30
	2437	19.957	18.497	19.613	18.773	0.134	22.432	30
	2462	20.166	18.661	20.344	18.206	0.134	22.623	30
802.11g	2412	21.461	19.830	20.890	18.846	0.172	23.904	30
	2437	22.281	21.74	22.753	21.761	0.172	25.201	30
	2462	23.351	21.172	22.694	19.593	0.172	25.579	30
802.11n HT20	2412	21.776	20.502	22.207	18.763	0.148	27.174	30
	2437	22.329	21.986	22.248	21.323	0.148	28.158	30
	2462	23.051	20.944	22.682	19.391	0.148	27.919	30
802.11n HT40	2422	18.561	16.882	17.496	15.165	0.319	23.533	30
	2437	22.789	20.897	22.336	21.323	0.319	28.242	30
	2452	19.770	18.059	19.456	16.879	0.319	25.029	30

6. Radiated Spurious Emission Test

6.1 Standard Applicable

According to §15.247(d), all other emissions outside these bands shall not exceed the general radiated emission limits specified in §15.209(a). And according to §15.33(a)(1), for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

6.2 Measurement Procedure

1. The EUT was placed on a turn table which is 0.8m/1.5m above ground plane in 966 chamber.
2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
4. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. Repeat above procedures until all frequency measured were complete.

Test receiver setting	: Blew 1GHz
Detector	: Average (9kHz – 90kHz, 110kHz – 90kHz), Quasi-Peak
Bandwidth	: 200Hz, 120kHz
Test spectrum setting	: Above 1GHz
Peak	: RBW=1MHz, VBW $\geq$ 3*RBW, Sweep=auto
Average	: RBW=1MHz, VBW $\geq$ 1/T _{on} , Sweep=auto

6.3 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

Remark:

<1GHz

1. No further spurious emissions detected from the lowest internal frequency and 30MHz.
2. Measuring frequencies from the lowest internal frequency to the 1GHz.
3. Radiated emissions measured in frequency range from 9kHz to 1000MHz were made with an instrument detector setting 9-90kHz/110-490kHz using PK/AV and other Frequency Band using PK/QP
4. Measurement result within this frequency range shown “ - ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

>1GHz

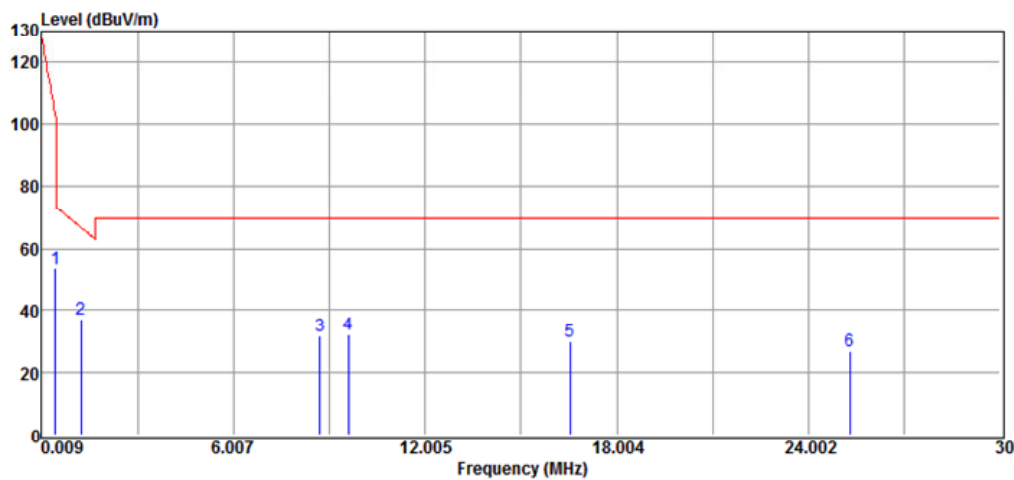
- 5 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 6 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 7 Measurement of data within this frequency range shown “ - ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

6.4 Measurement Result

6.4.1 Radiated Spurious Emission Measurement Result (below 1GHz)

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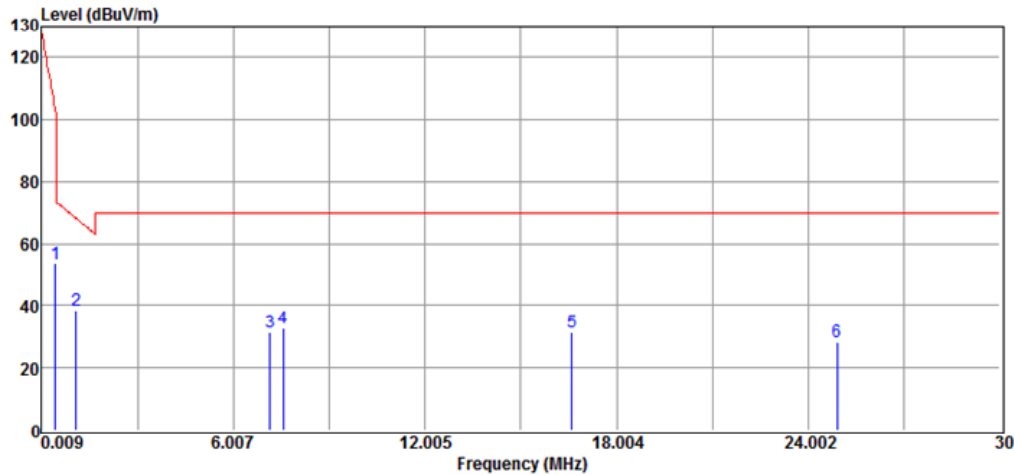
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	0.43	37.61	15.90	53.51	103.62	-50.11	Peak	Perpendicular
2	1.24	27.10	10.08	37.18	66.78	-29.60	Peak	Perpendicular
3	8.71	24.07	7.81	31.88	69.54	-37.66	Peak	Perpendicular
4	9.61	24.50	7.68	32.18	69.54	-37.36	Peak	Perpendicular
5	16.53	23.05	7.06	30.11	69.54	-39.43	Peak	Perpendicular
6	25.29	21.28	5.54	26.82	69.54	-42.72	Peak	Perpendicular

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Test Mode : 802.11b high ch. tx Tested by : Jason Chao

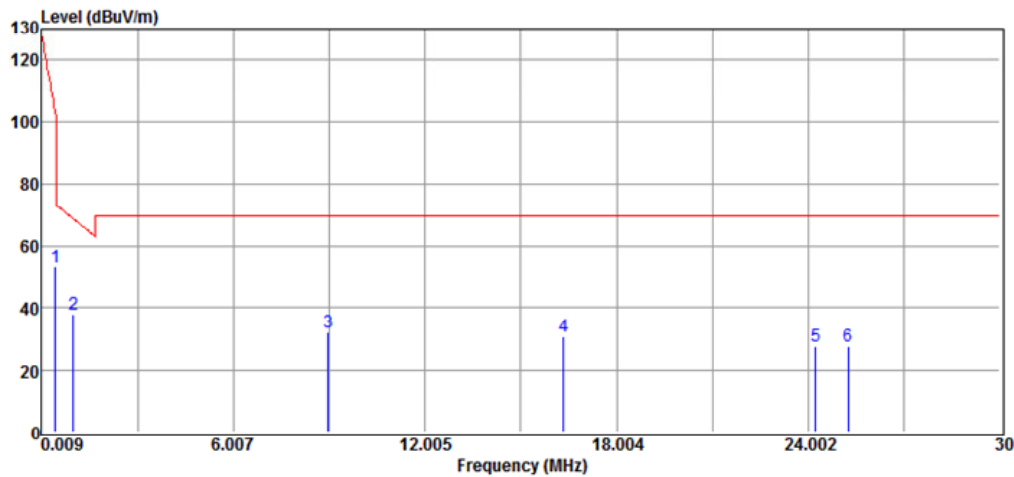


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	0.43	37.76	15.90	53.66	103.62	-49.96	Peak	Parallel
2	1.09	27.82	10.55	38.37	68.02	-29.65	Peak	Parallel
3	7.15	23.33	8.12	31.45	69.54	-38.09	Peak	Parallel
4	7.57	24.50	8.10	32.60	69.54	-36.94	Peak	Parallel
5	16.59	24.33	7.06	31.39	69.54	-38.15	Peak	Parallel
6	24.90	22.68	5.68	28.36	69.54	-41.18	Peak	Parallel

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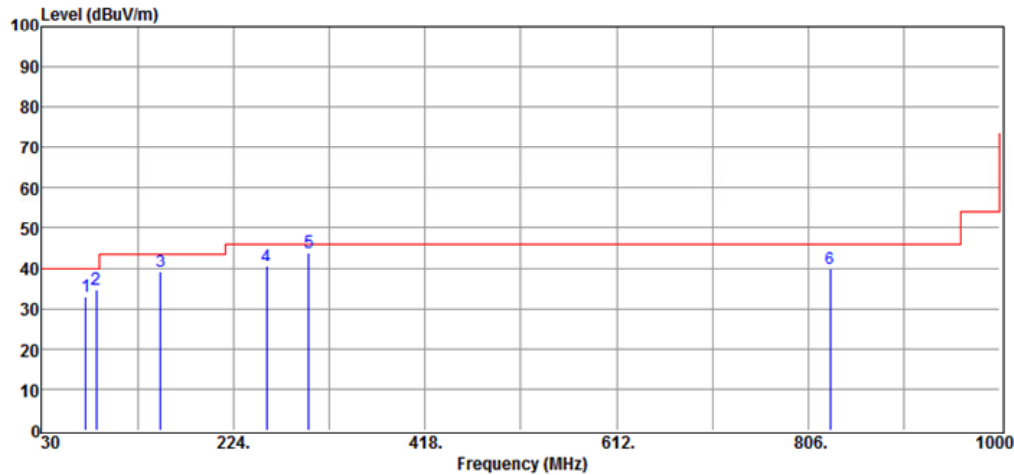
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No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	0.43	37.40	15.90	53.30	103.62	-50.32	Peak	Ground parallel
2	1.00	26.96	10.87	37.83	68.77	-30.94	Peak	Ground parallel
3	8.98	24.39	7.73	32.12	69.54	-37.42	Peak	Ground parallel
4	16.35	23.76	7.07	30.83	69.54	-38.71	Peak	Ground parallel
5	24.24	22.62	5.29	27.91	69.54	-41.63	Peak	Ground parallel
6	25.26	22.35	5.56	27.91	69.54	-41.63	Peak	Ground parallel

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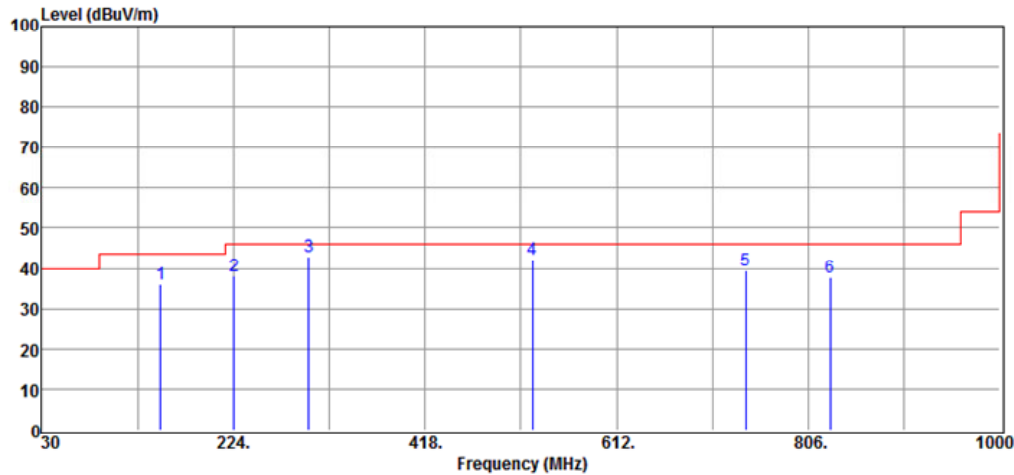
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	74.62	46.56	-13.53	33.03	40.00	-6.97	Peak	VERTICAL
2	85.29	50.54	-15.90	34.64	40.00	-5.36	Peak	VERTICAL
3	150.28	49.23	-10.12	39.11	43.50	-4.39	Peak	VERTICAL
4	257.95	51.36	-10.93	40.43	46.00	-5.57	Peak	VERTICAL
5	300.63	53.34	-9.49	43.85	46.00	-2.15	Peak	VERTICAL
6	828.31	38.10	1.65	39.75	46.00	-6.25	Peak	VERTICAL

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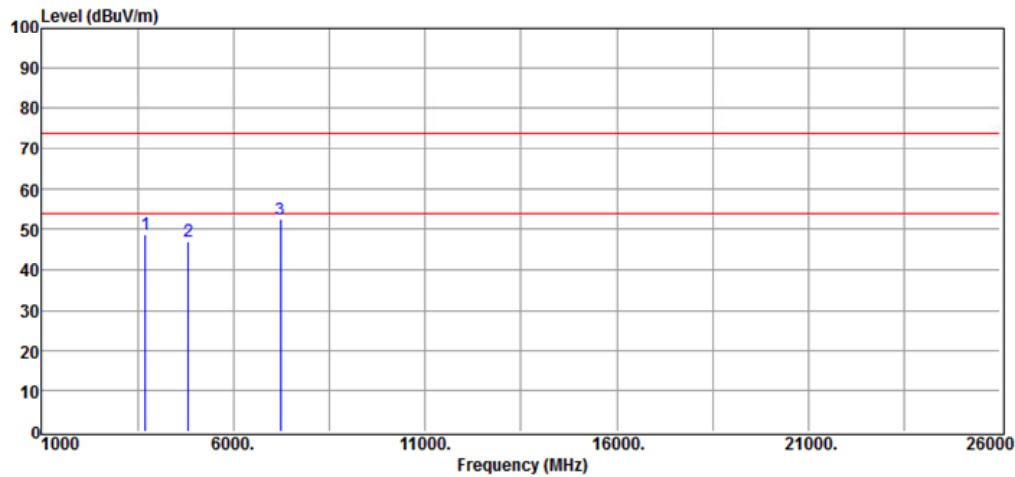


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	150.28	46.24	-10.12	36.12	43.50	-7.38	Peak	HORIZONTAL
2	224.97	51.31	-13.20	38.11	46.00	-7.89	Peak	HORIZONTAL
3	300.63	52.50	-9.49	43.01	46.00	-2.99	Peak	HORIZONTAL
4	526.64	46.18	-3.79	42.39	46.00	-3.61	Peak	HORIZONTAL
5	742.95	38.94	0.66	39.60	46.00	-6.40	Peak	HORIZONTAL
6	828.31	36.06	1.65	37.71	46.00	-8.29	Peak	HORIZONTAL

6.4.2 Radiated Spurious Emission Measurement Result (above 1GHz)

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

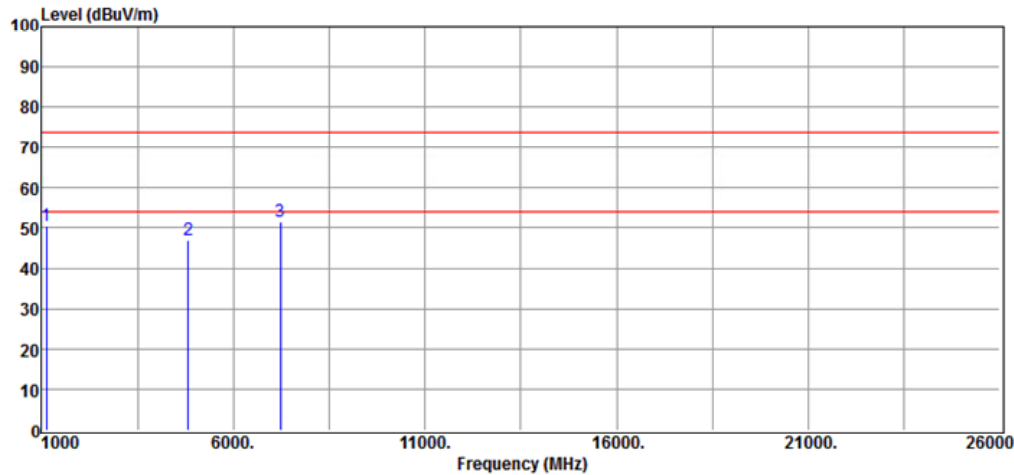
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b low ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	3700.00	44.70	4.05	48.75	74.00	-25.25	Peak	VERTICAL
2	4824.00	41.48	5.73	47.21	74.00	-26.79	Peak	VERTICAL
3	7236.00	43.34	9.13	52.47	74.00	-21.53	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

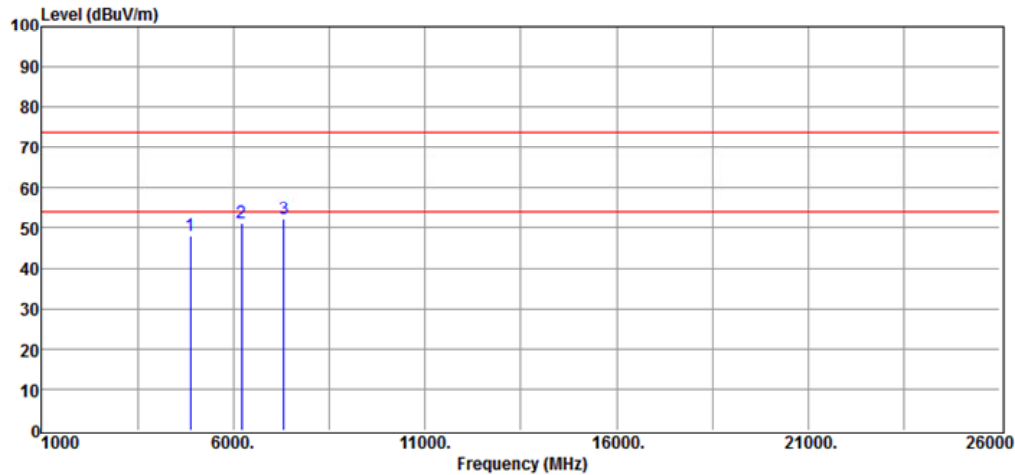
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b low ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	1125.00	55.98	-5.48	50.50	74.00	-23.50	Peak	HORIZONTAL
2	4824.00	41.32	5.73	47.05	74.00	-26.95	Peak	HORIZONTAL
3	7236.00	42.49	9.13	51.62	74.00	-22.38	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address:No.120,Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwa
Date: 2023-10-16

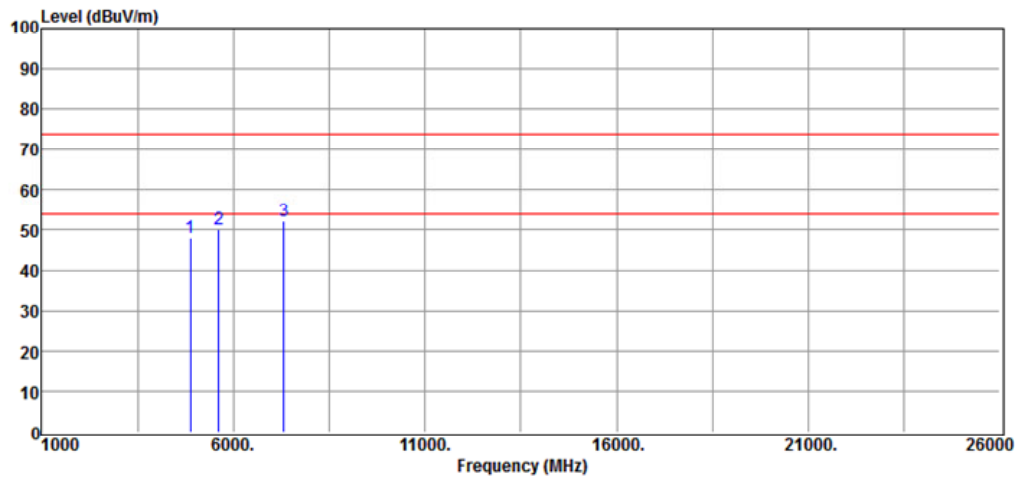
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b mid ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4874.00	42.05	5.93	47.98	74.00	-26.02	Peak	VERTICAL
2	6225.00	42.86	8.29	51.15	74.00	-22.85	Peak	VERTICAL
3	7311.00	42.93	9.15	52.08	74.00	-21.92	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b mid ch. tx Tested by : Jason Chao

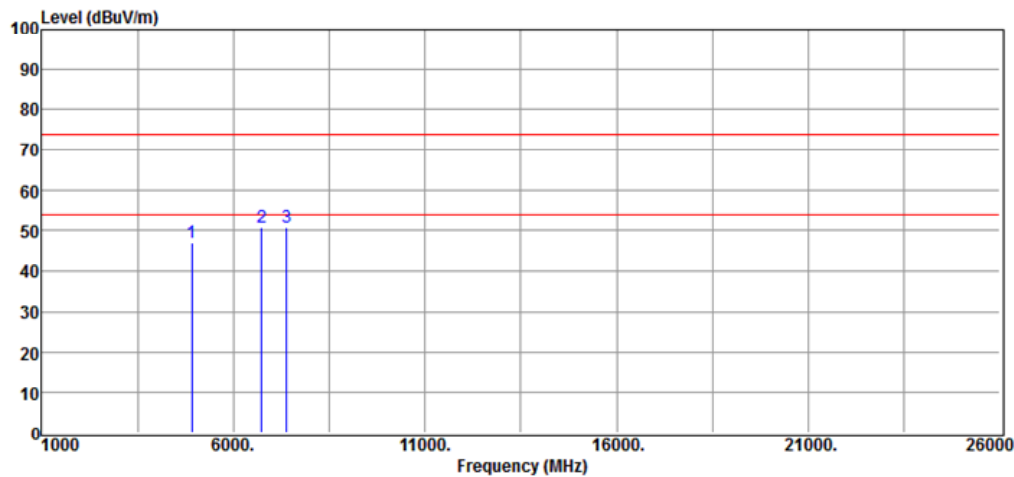


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4874.00	42.12	5.93	48.05	74.00	-25.95	Peak	HORIZONTAL
2	5625.00	43.01	7.27	50.28	74.00	-23.72	Peak	HORIZONTAL
3	7311.00	43.10	9.15	52.25	74.00	-21.75	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan

Date: 2023-10-16

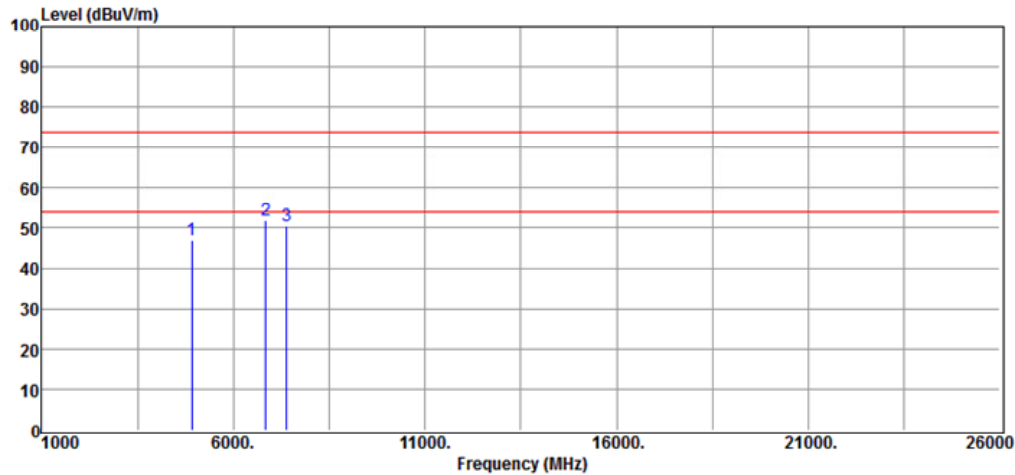
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4924.00	41.04	6.02	47.06	74.00	-26.94	Peak	VERTICAL
2	6750.00	42.39	8.60	50.99	74.00	-23.01	Peak	VERTICAL
3	7386.00	41.71	9.11	50.82	74.00	-23.18	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

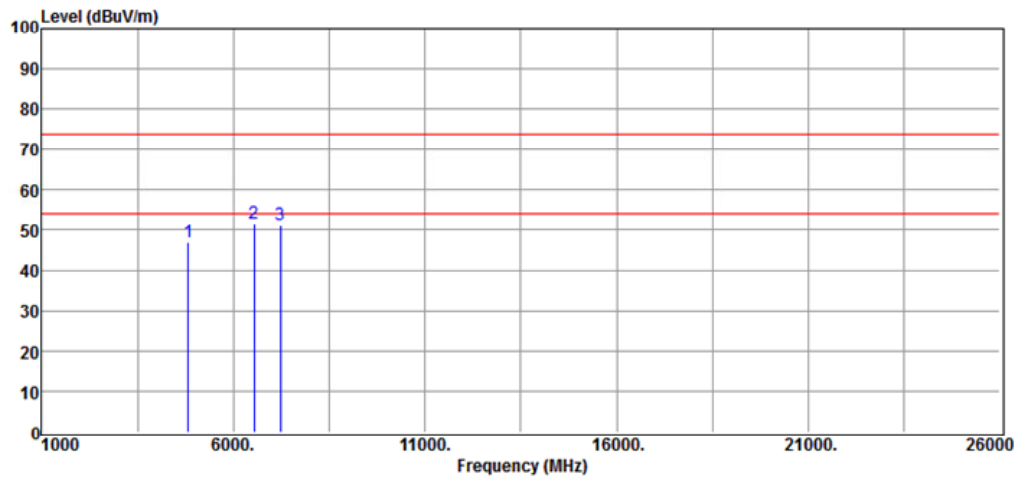
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4924.00	41.01	6.02	47.03	74.00	-26.97	Peak	HORIZONTAL
2	6850.00	43.00	8.75	51.75	74.00	-22.25	Peak	HORIZONTAL
3	7386.00	41.54	9.11	50.65	74.00	-23.35	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

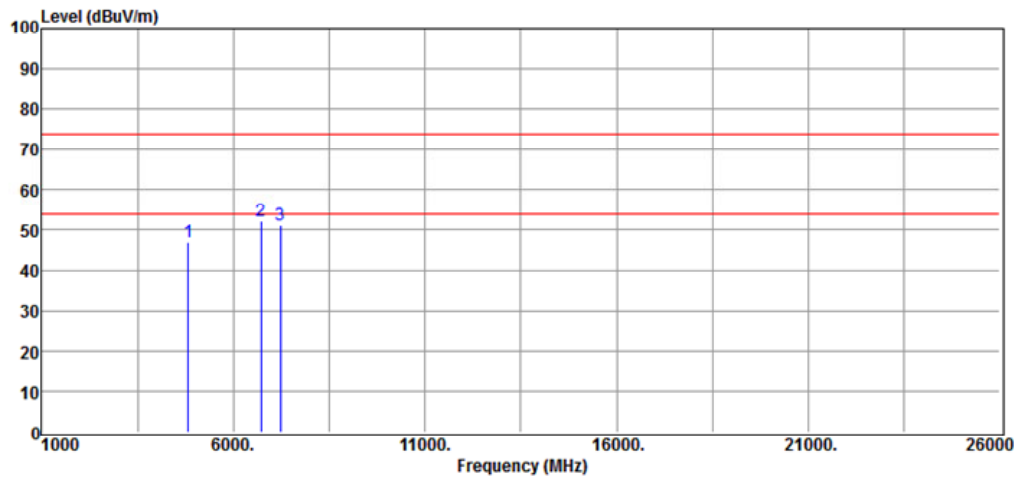
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g low ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4824.00	41.34	5.73	47.07	74.00	-26.93	Peak	VERTICAL
2	6550.00	42.99	8.61	51.60	74.00	-22.40	Peak	VERTICAL
3	7236.00	42.22	9.13	51.35	74.00	-22.65	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

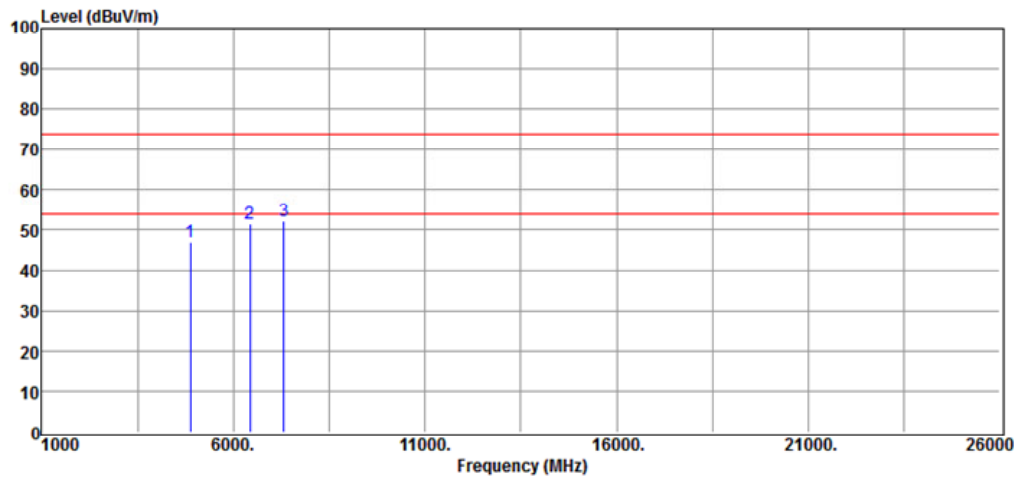
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g low ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4824.00	41.49	5.73	47.22	74.00	-26.78	Peak	HORIZONTAL
2	6725.00	43.61	8.59	52.20	74.00	-21.80	Peak	HORIZONTAL
3	7236.00	42.22	9.13	51.35	74.00	-22.65	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

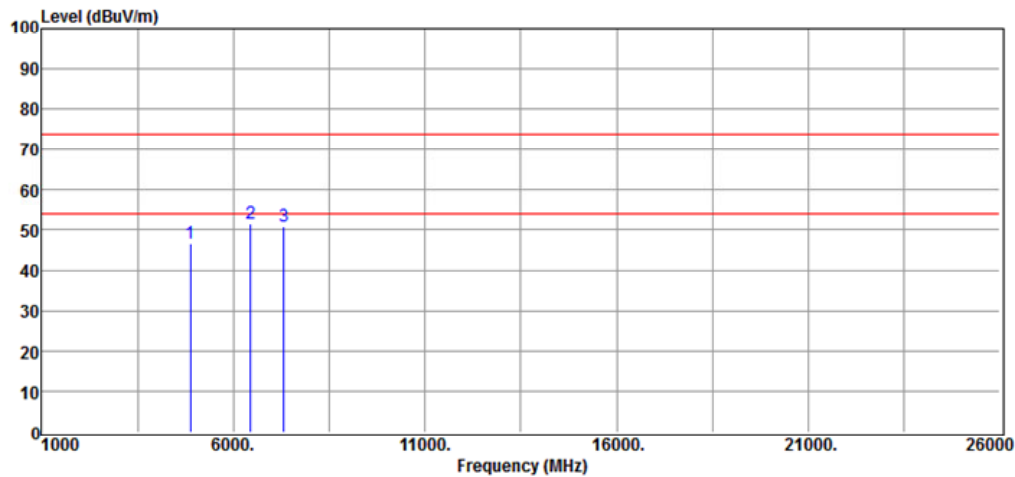
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g mid ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4874.00	41.27	5.93	47.20	74.00	-26.80	Peak	VERTICAL
2	6425.00	42.80	8.60	51.40	74.00	-22.60	Peak	VERTICAL
3	7311.00	43.03	9.15	52.18	74.00	-21.82	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

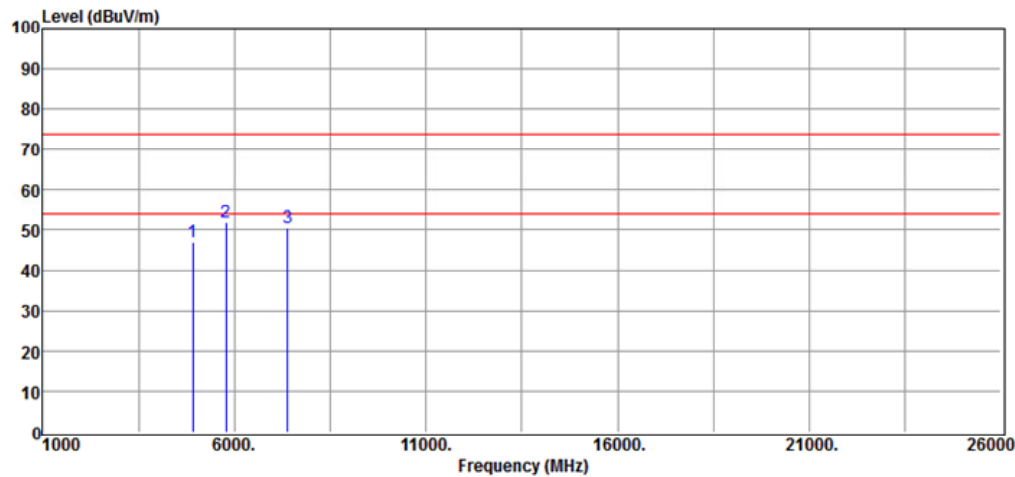
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g mid ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4874.00	40.91	5.93	46.84	74.00	-27.16	Peak	HORIZONTAL
2	6450.00	42.97	8.56	51.53	74.00	-22.47	Peak	HORIZONTAL
3	7311.00	41.66	9.15	50.81	74.00	-23.19	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

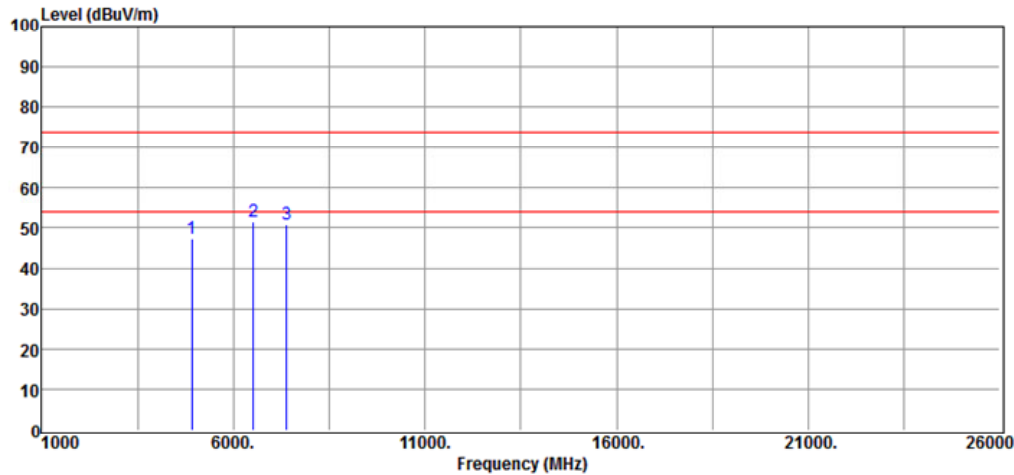
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4924.00	41.12	6.02	47.14	74.00	-26.86	Peak	VERTICAL
2	5775.00	44.45	7.60	52.05	74.00	-21.95	Peak	VERTICAL
3	7386.00	41.41	9.11	50.52	74.00	-23.48	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

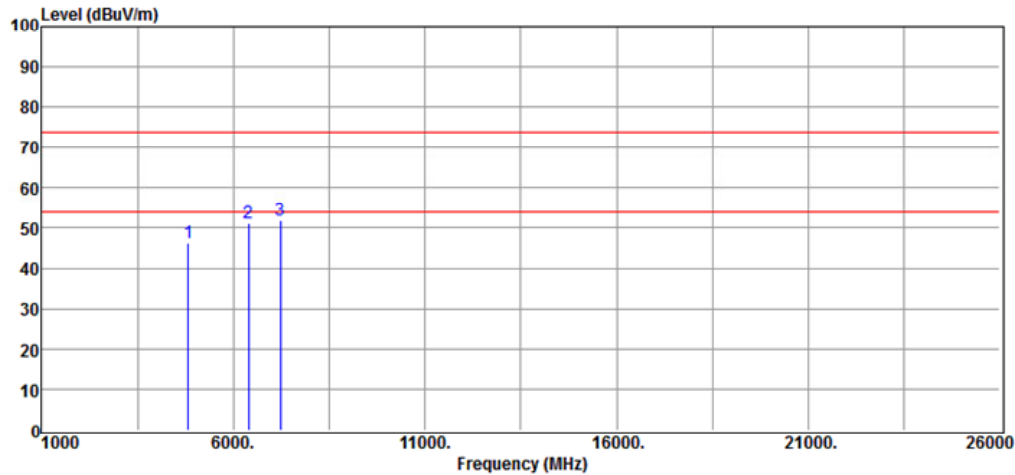
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4924.00	41.44	6.02	47.46	74.00	-26.54	Peak	HORIZONTAL
2	6525.00	42.87	8.60	51.47	74.00	-22.53	Peak	HORIZONTAL
3	7386.00	41.83	9.11	50.94	74.00	-23.06	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address:No.120,Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwa
Date: 2023-10-16

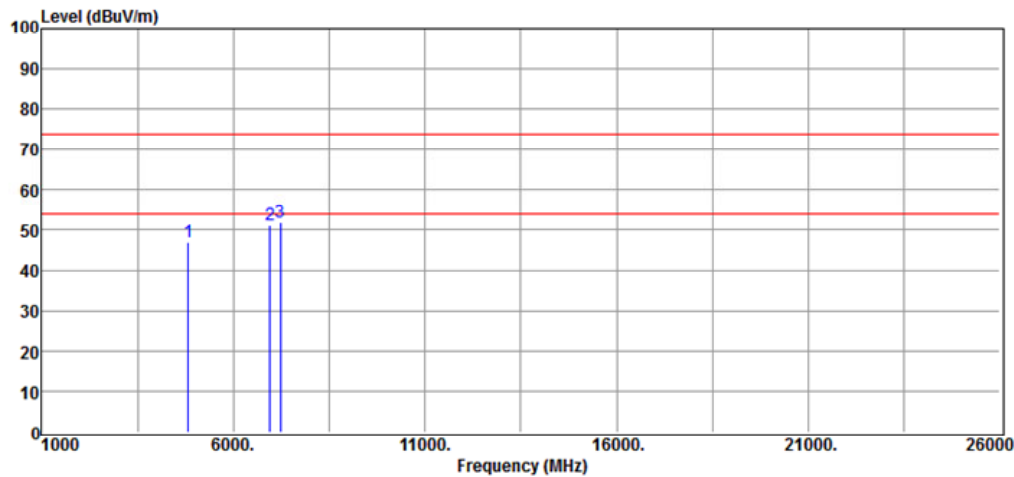
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 low ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4824.00	40.82	5.73	46.55	74.00	-27.45	Peak	VERTICAL
2	6400.00	42.47	8.64	51.11	74.00	-22.89	Peak	VERTICAL
3	7236.00	42.89	9.13	52.02	74.00	-21.98	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

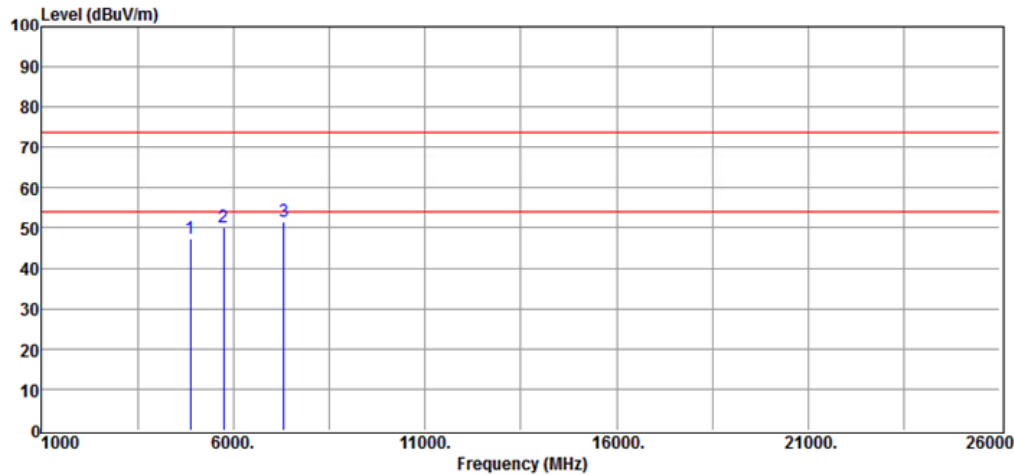
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 low ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4824.00	41.18	5.73	46.91	74.00	-27.09	Peak	HORIZONTAL
2	6950.00	42.37	8.89	51.26	74.00	-22.74	Peak	HORIZONTAL
3	7236.00	42.59	9.13	51.72	74.00	-22.28	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

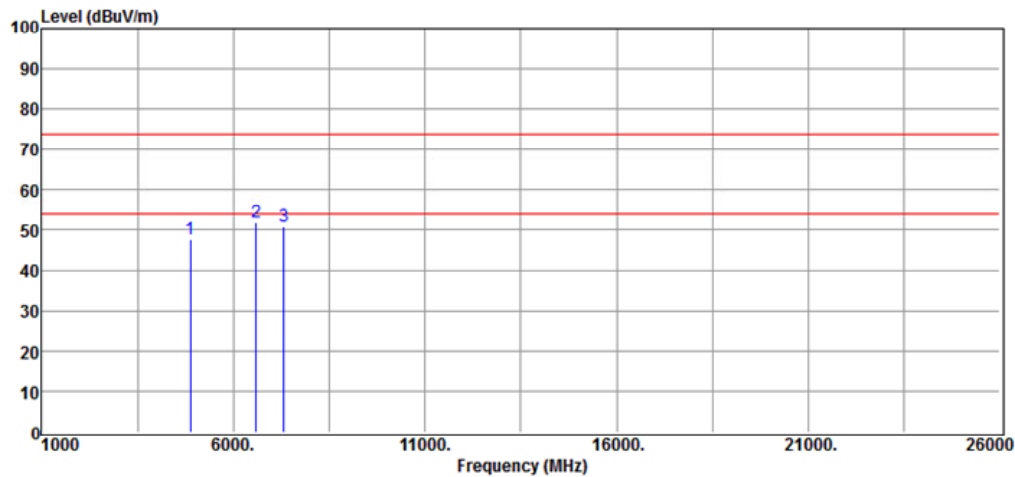
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 mid ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4874.00	41.38	5.93	47.31	74.00	-26.69	Peak	VERTICAL
2	5750.00	42.71	7.58	50.29	74.00	-23.71	Peak	VERTICAL
3	7311.00	42.34	9.15	51.49	74.00	-22.51	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

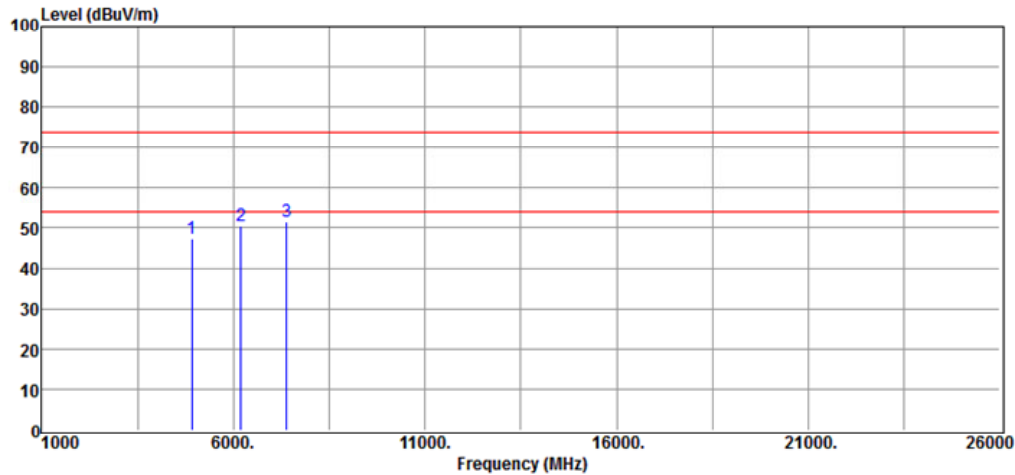
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 mid ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4874.00	41.74	5.93	47.67	74.00	-26.33	Peak	HORIZONTAL
2	6600.00	43.28	8.54	51.82	74.00	-22.18	Peak	HORIZONTAL
3	7311.00	41.85	9.15	51.00	74.00	-23.00	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

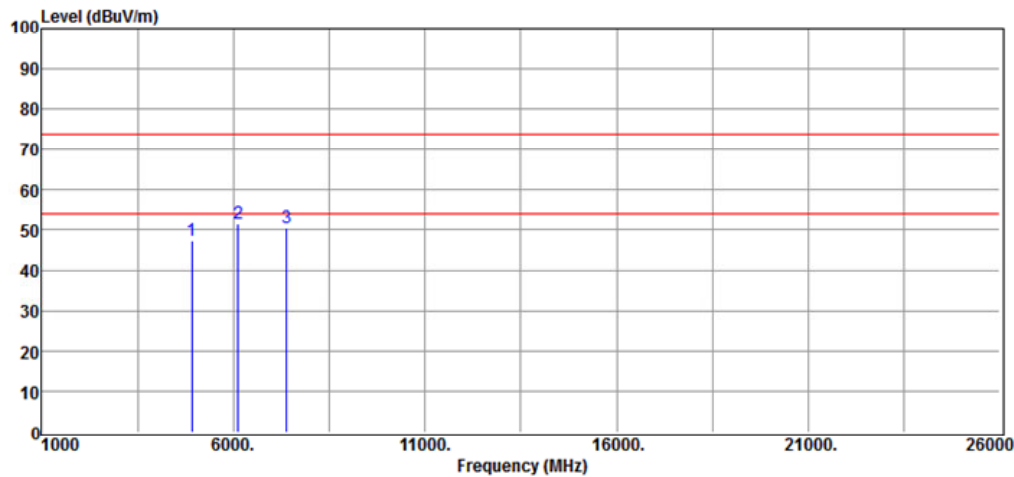
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4924.00	41.35	6.02	47.37	74.00	-26.63	Peak	VERTICAL
2	6200.00	42.45	8.23	50.68	74.00	-23.32	Peak	VERTICAL
3	7386.00	42.44	9.11	51.55	74.00	-22.45	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

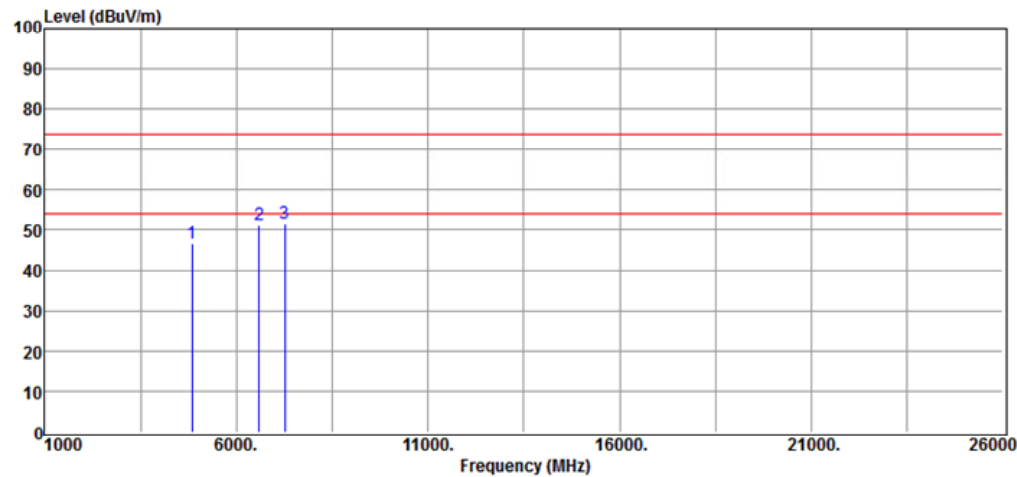
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4924.00	41.42	6.02	47.44	74.00	-26.56	Peak	HORIZONTAL
2	6125.00	43.32	8.24	51.56	74.00	-22.44	Peak	HORIZONTAL
3	7386.00	41.47	9.11	50.58	74.00	-23.42	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address:No.120,Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwa
Date: 2023-10-16

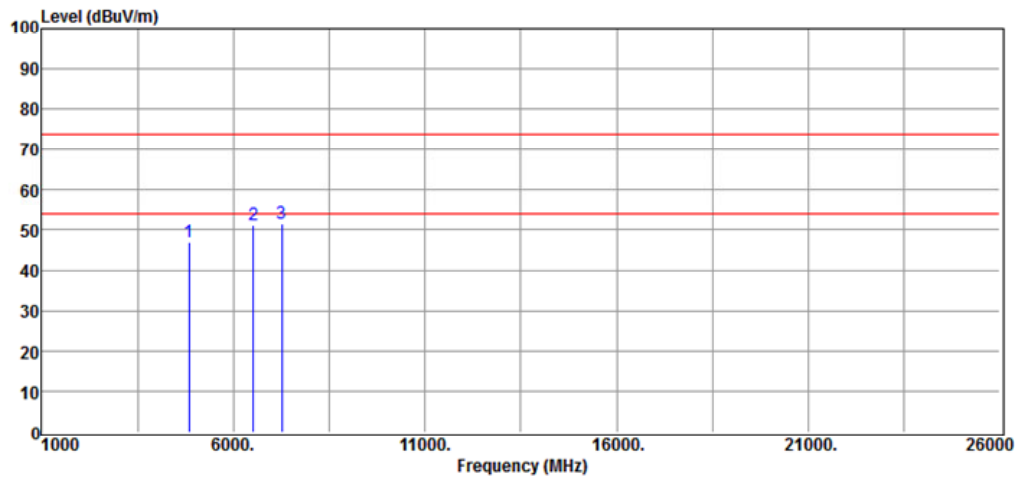
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 low ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4844.00	40.80	5.83	46.63	74.00	-27.37	Peak	VERTICAL
2	6600.00	42.60	8.54	51.14	74.00	-22.86	Peak	VERTICAL
3	7266.00	42.35	9.15	51.50	74.00	-22.50	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

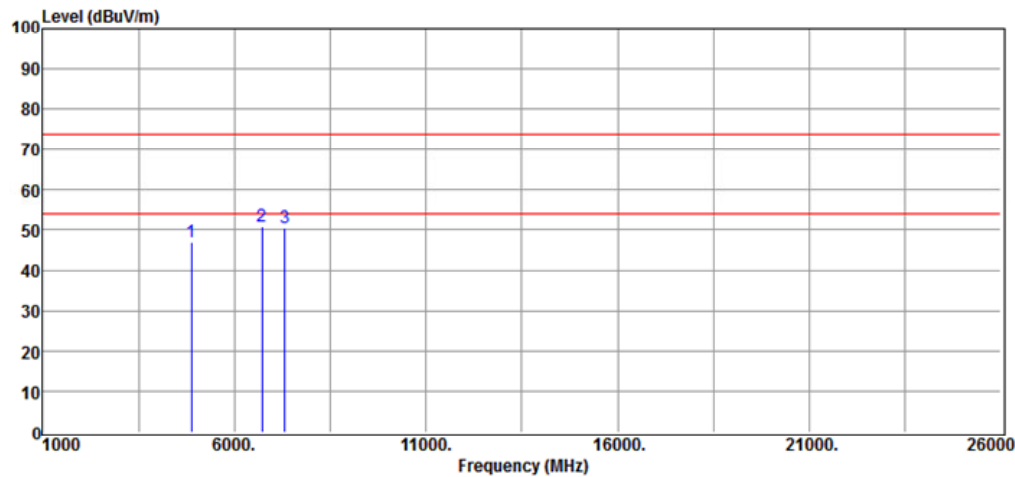
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 low ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4844.00	41.22	5.83	47.05	74.00	-26.95	Peak	HORIZONTAL
2	6525.00	42.46	8.60	51.06	74.00	-22.94	Peak	HORIZONTAL
3	7266.00	42.41	9.15	51.56	74.00	-22.44	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

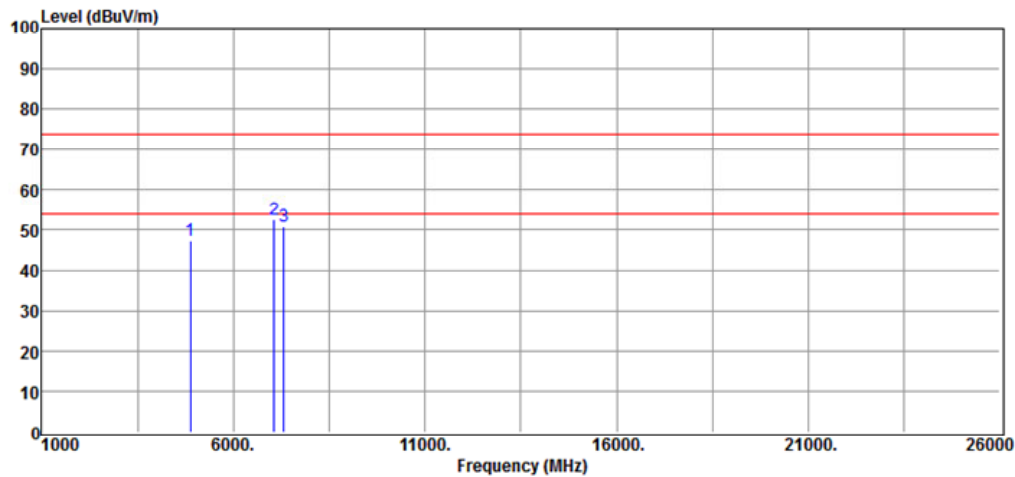
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 mid ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4874.00	41.01	5.93	46.94	74.00	-27.06	Peak	VERTICAL
2	6725.00	42.19	8.59	50.78	74.00	-23.22	Peak	VERTICAL
3	7311.00	41.52	9.15	50.67	74.00	-23.33	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

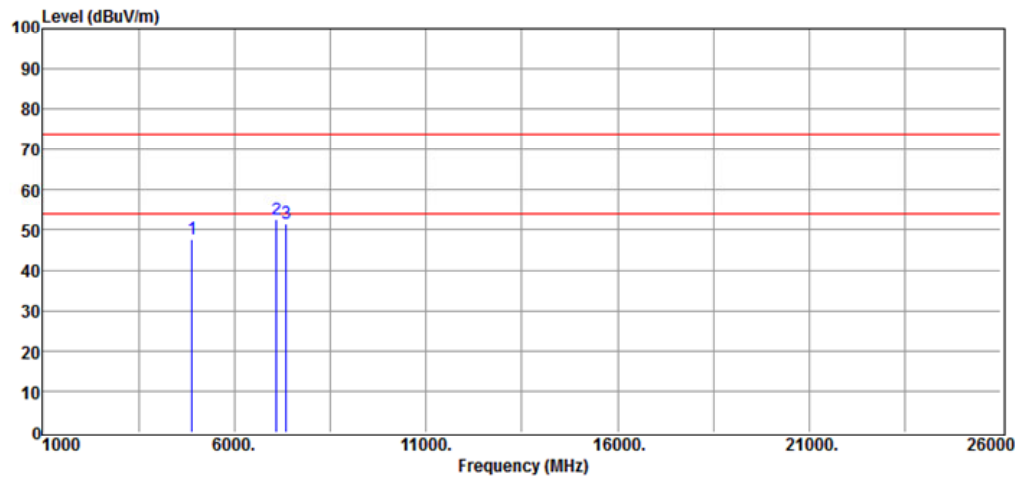
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 mid ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4874.00	41.36	5.93	47.29	74.00	-26.71	Peak	HORIZONTAL
2	7075.00	43.56	8.90	52.46	74.00	-21.54	Peak	HORIZONTAL
3	7311.00	41.80	9.15	50.95	74.00	-23.05	Peak	HORIZONTAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

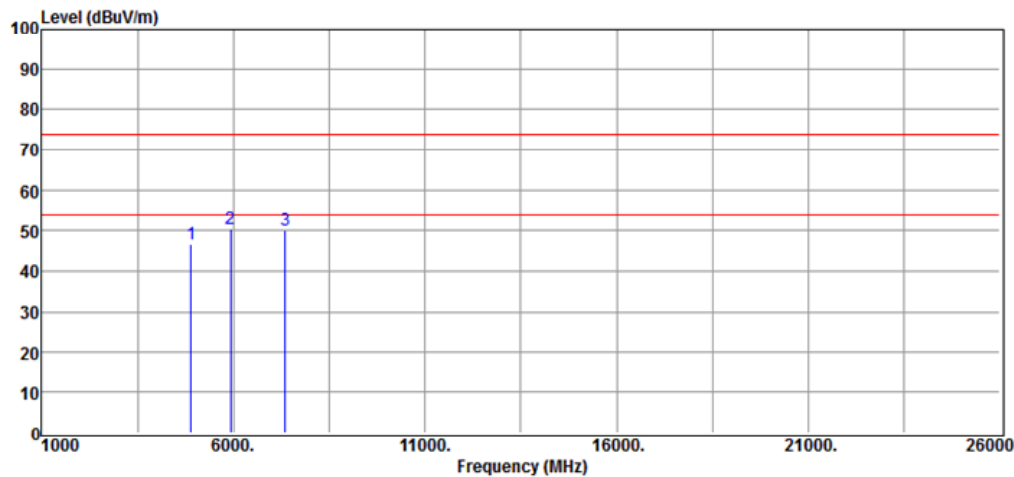
Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4904.00	41.65	6.00	47.65	74.00	-26.35	Peak	VERTICAL
2	7100.00	43.63	8.96	52.59	74.00	-21.41	Peak	VERTICAL
3	7356.00	42.33	9.09	51.42	74.00	-22.58	Peak	VERTICAL

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-16

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 high ch. tx Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	4904.00	40.68	6.00	46.68	74.00	-27.32	Peak	HORIZONTAL
2	5925.00	42.78	7.82	50.60	74.00	-23.40	Peak	HORIZONTAL
3	7356.00	41.13	9.09	50.22	74.00	-23.78	Peak	HORIZONTAL

7. 100kHz Bandwidth of Band Edges Measurement

7.1 Standard Applicable

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, 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).

7.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = operating frequency.
4. Set the spectrum analyzer as RBW=1MHz, VBW $\geq$ 3*RBW (for Peak); VBW $\geq$ 1/T_{on} (for Average), Sweep = auto.
5. Mark Peak, 2.390GHz and 2.4835GHz and record the max. level.
6. Repeat above procedures until all frequency measured were complete.

7.3 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

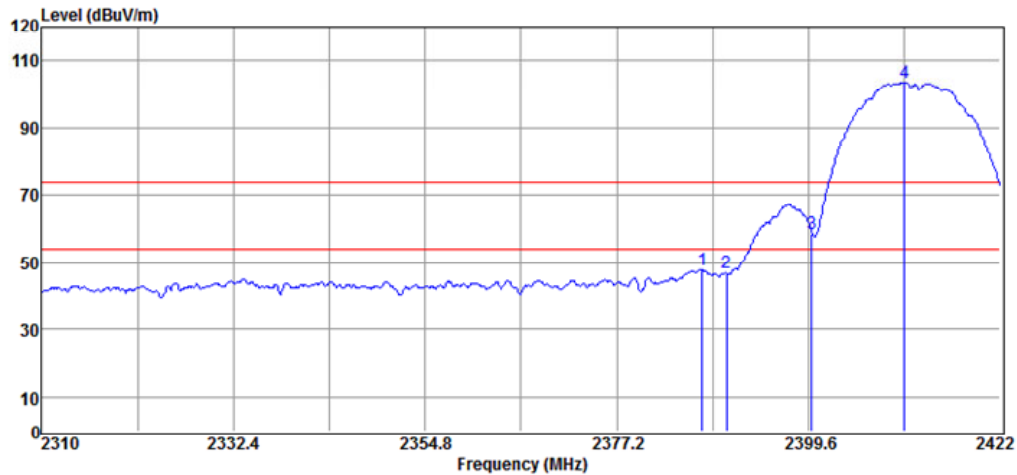
Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

7.4 Measurement Result

International Standard Laboratory Corp.
 Company Address: No. 120, Lane 180, Hsin Ho Rd.
 Lung-Tan Dist., Tao Yuan City 325, Taiwan

Date: 2023-10-12

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
 Test Mode : 802.11b low ch. band edge Tested by : Jason Chao

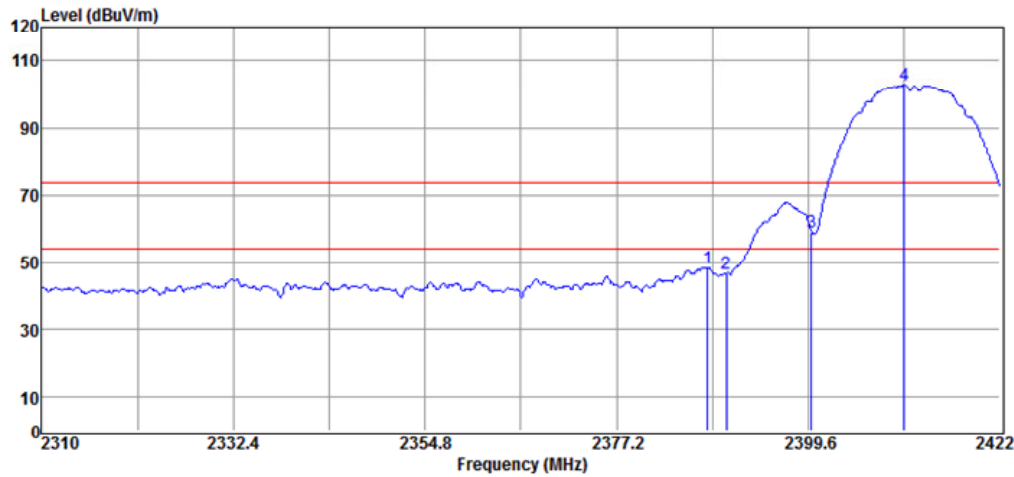


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2387.17	51.06	-3.18	47.88	74.00	-26.12	Peak	VERTICAL
2	2390.00	50.02	-3.18	46.84	74.00	-27.16	Peak	VERTICAL
3	2400.00	61.60	-3.17	58.43	83.69	-25.26	Peak	VERTICAL
4	2410.80	106.84	-3.15	103.69	--	F	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
 Company Address: No. 120, Lane 180, Hsin Ho Rd.
 Lung-Tan Dist., Tao Yuan City 325, Taiwan
 Date: 2023-10-12

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
 Test Mode : 802.11b low ch. band edge Tested by : Jason Chao

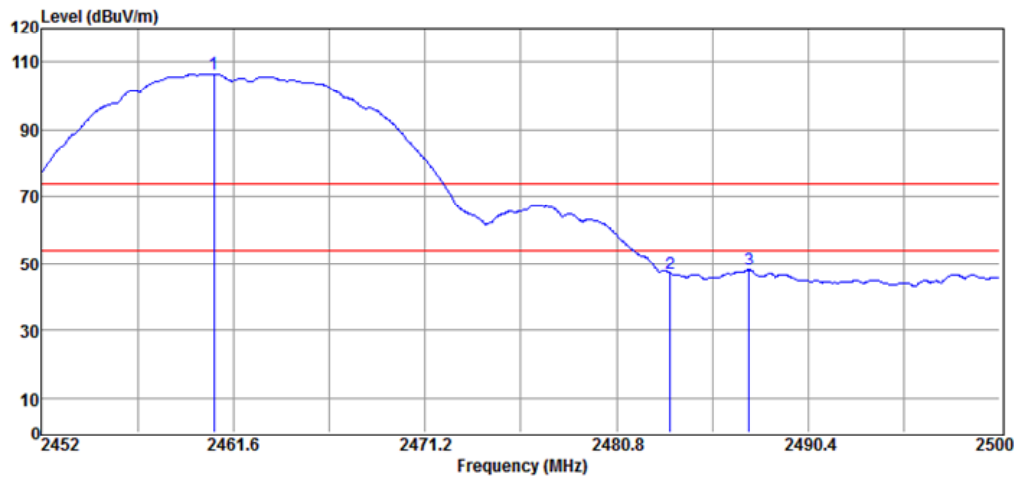


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2387.84	51.61	-3.18	48.43	74.00	-25.57	Peak	HORIZONTAL
2	2390.00	49.70	-3.18	46.52	74.00	-27.48	Peak	HORIZONTAL
3	2400.00	62.05	-3.17	58.88	82.59	-23.71	Peak	HORIZONTAL
4	2410.80	105.74	-3.15	102.59	--	F	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-12

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b high ch. band edge Tested by : Jason Chao

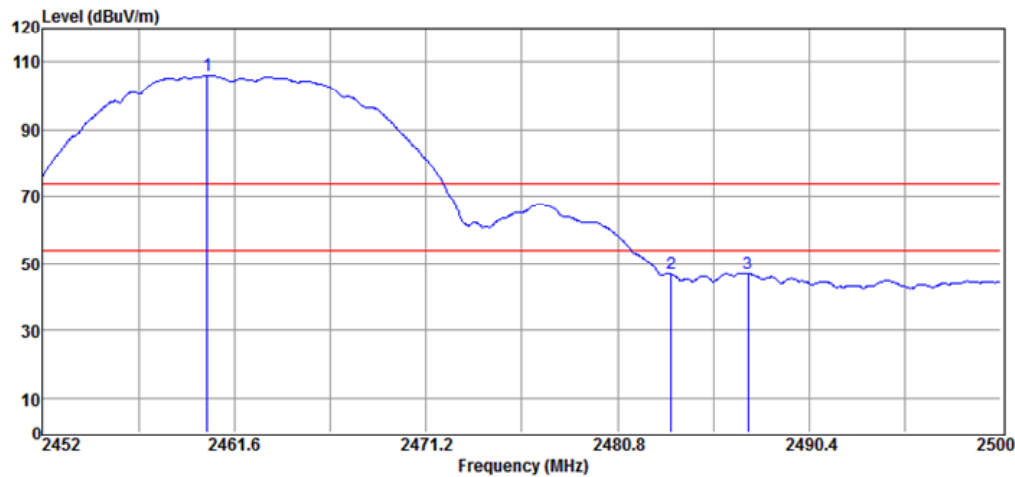


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2460.64	109.66	-3.09	106.57	--	F	Peak	VERTICAL
2	2483.50	49.99	-2.88	47.11	74.00	-26.89	Peak	VERTICAL
3	2487.42	50.99	-2.87	48.12	74.00	-25.88	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-12

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11b high ch. band edge Tested by : Jason Chao

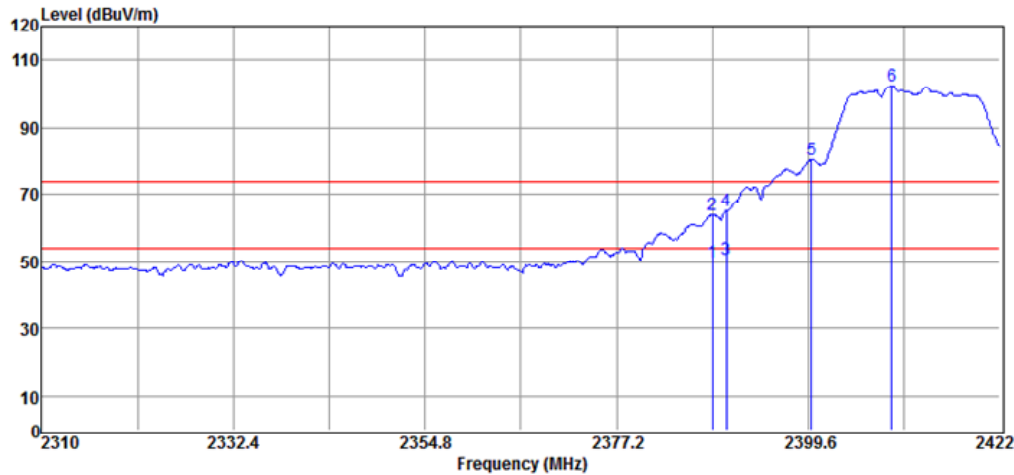


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2460.26	109.02	-3.10	105.92	--	F	Peak	HORIZONTAL
2	2483.50	49.72	-2.88	46.84	74.00	-27.16	Peak	HORIZONTAL
3	2487.33	49.96	-2.87	47.09	74.00	-26.91	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address:No.120,Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-24

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g low ch. band edge Tested by : Jason Chao

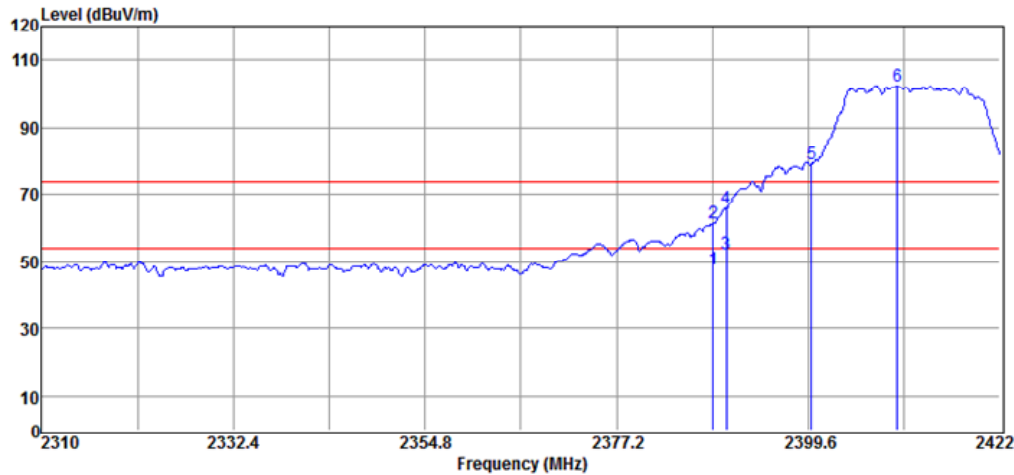


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2388.40	50.13	-0.10	50.03	54.00	-3.97	Average	VERTICAL
2	2388.40	64.17	-0.10	64.07	74.00	-9.93	Peak	VERTICAL
3	2390.00	50.79	-0.10	50.69	54.00	-3.31	Average	VERTICAL
4	2390.00	65.15	-0.10	65.05	74.00	-8.95	Peak	VERTICAL
5	2400.00	80.60	-0.07	80.53	82.32	-1.79	Peak	VERTICAL
6	2409.34	102.38	-0.06	102.32	--	F	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-24

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g low ch. band edge Tested by : Jason Chao

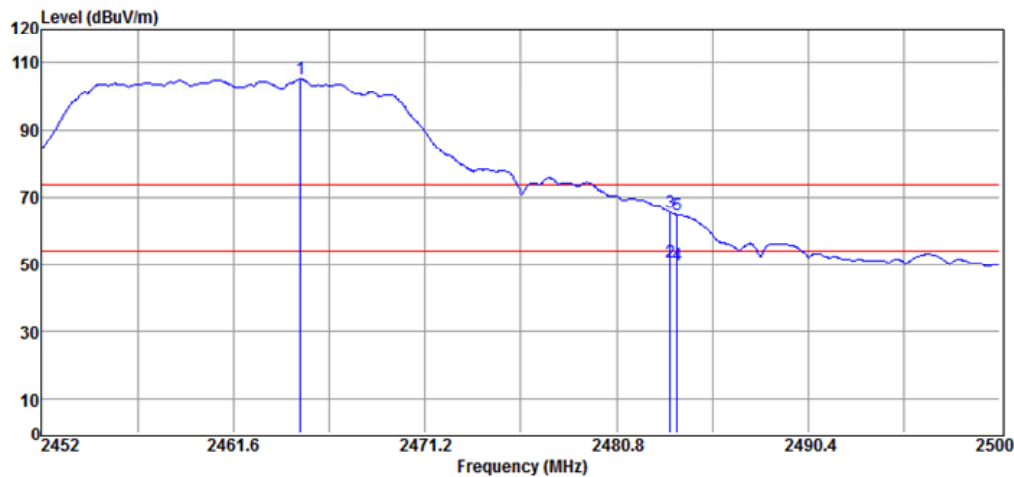


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2388.51	47.81	-0.10	47.71	54.00	-6.29	Average	HORIZONTAL
2	2388.51	61.44	-0.10	61.34	74.00	-12.66	Peak	HORIZONTAL
3	2390.00	52.56	-0.10	52.46	54.00	-1.54	Average	HORIZONTAL
4	2390.00	66.03	-0.10	65.93	74.00	-8.07	Peak	HORIZONTAL
5	2400.00	79.31	-0.07	79.24	82.37	-3.13	Peak	HORIZONTAL
6	2410.02	102.43	-0.06	102.37	--	F	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-24

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g high ch. band edge Tested by : Jason Chao

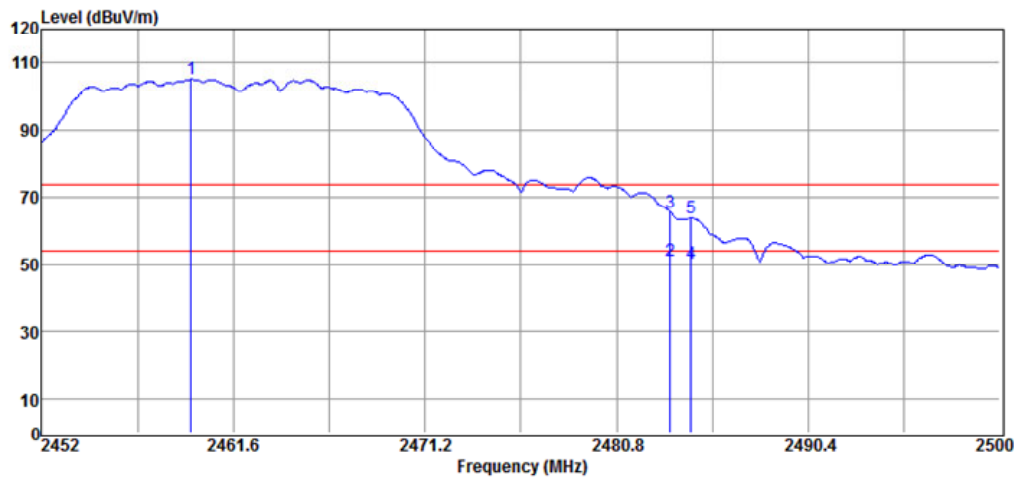


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2464.96	104.97	0.10	105.07	--	F	Peak	VERTICAL
2	2483.50	50.66	0.22	50.88	54.00	-3.12	Average	VERTICAL
3	2483.50	65.30	0.22	65.52	74.00	-8.48	Peak	VERTICAL
4	2483.82	49.73	0.22	49.95	54.00	-4.05	Average	VERTICAL
5	2483.82	64.68	0.22	64.90	74.00	-9.10	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-24

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11g high ch. band edge Tested by : Jason Chao

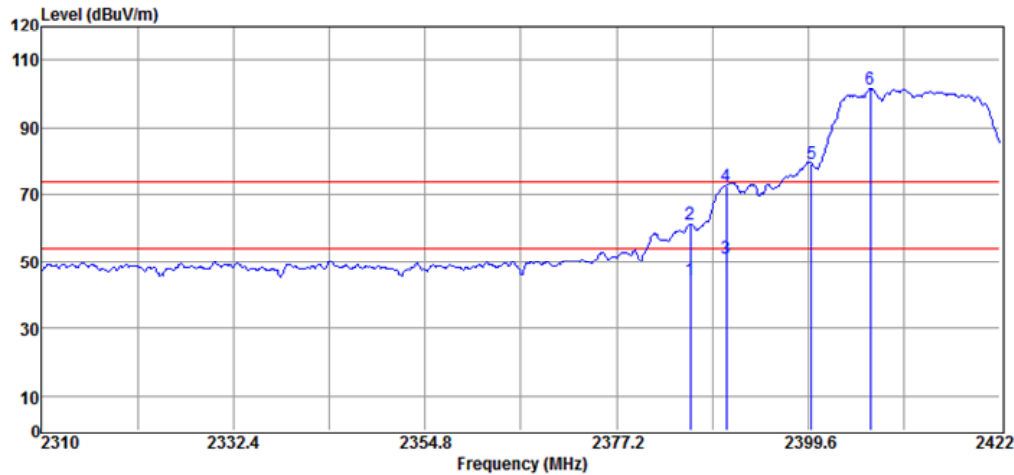


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2459.49	104.91	0.05	104.96	--	F	Peak	HORIZONTAL
2	2483.50	51.11	0.22	51.33	54.00	-2.67	Average	HORIZONTAL
3	2483.50	65.48	0.22	65.70	74.00	-8.30	Peak	HORIZONTAL
4	2484.54	50.01	0.23	50.24	54.00	-3.76	Average	HORIZONTAL
5	2484.54	63.55	0.23	63.78	74.00	-10.22	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
 Company Address: No. 120, Lane 180, Hsin Ho Rd.
 Lung-Tan Dist., Tao Yuan City 325, Taiwan
 Date: 2023-10-24

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
 Test Mode : 802.11n20 low ch. band edge Tested by : Jason Chao

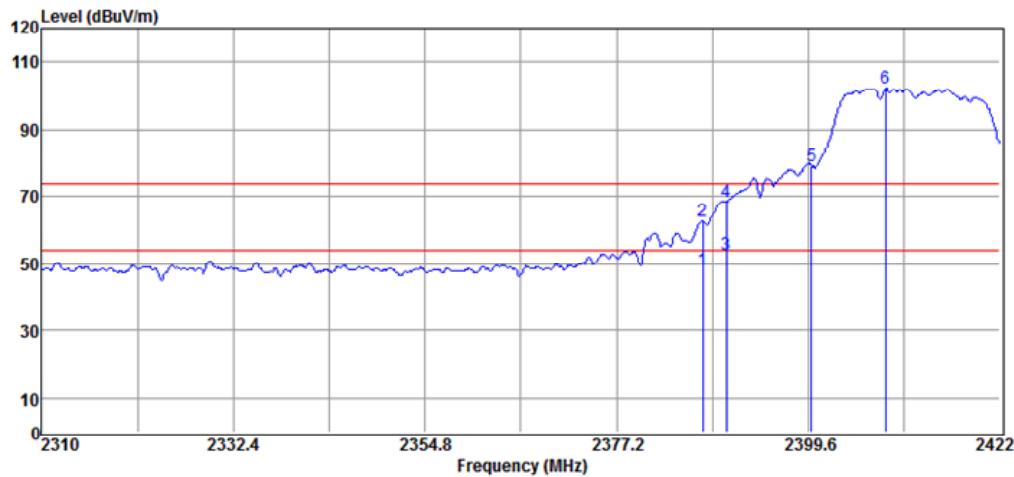


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2385.82	44.84	-0.12	44.72	54.00	-9.28	Average	VERTICAL
2	2385.82	61.22	-0.12	61.10	74.00	-12.90	Peak	VERTICAL
3	2390.00	51.22	-0.10	51.12	54.00	-2.88	Average	VERTICAL
4	2390.00	72.85	-0.10	72.75	74.00	-1.25	Peak	VERTICAL
5	2400.00	79.29	-0.07	79.22	81.43	-2.21	Peak	VERTICAL
6	2406.88	101.49	-0.06	101.43	--	F	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-30

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 low ch. band edge Tested by : Jason Chao

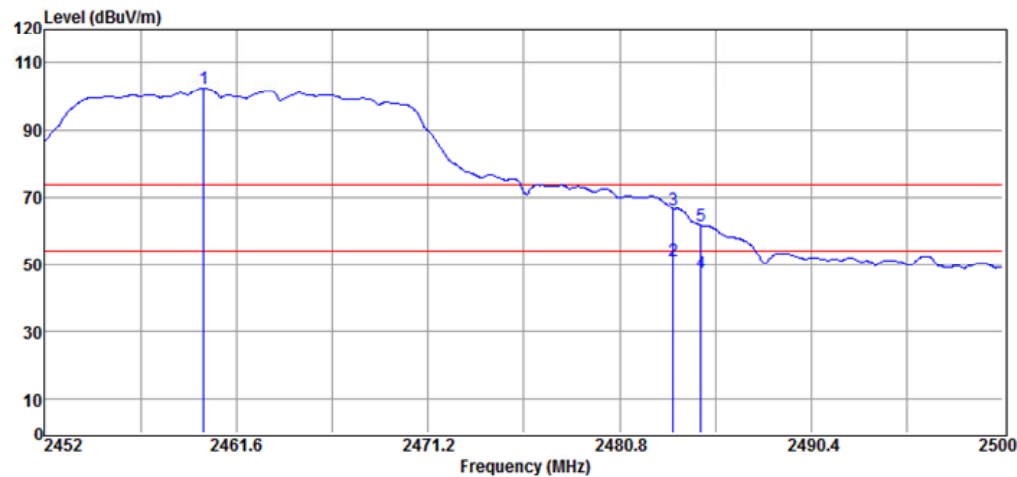


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2387.28	48.54	-0.11	48.43	54.00	-5.57	Average	HORIZONTAL
2	2387.28	62.73	-0.11	62.62	74.00	-11.38	Peak	HORIZONTAL
3	2390.00	53.08	-0.10	52.98	54.00	-1.02	Average	HORIZONTAL
4	2390.00	68.50	-0.10	68.40	74.00	-5.60	Peak	HORIZONTAL
5	2400.00	79.26	-0.07	79.19	82.22	-3.03	Peak	HORIZONTAL
6	2408.67	102.28	-0.06	102.22	--	F	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address:No.120,Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwa
Date: 2023-10-24

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 high ch. band edge Tested by : Jason Chao

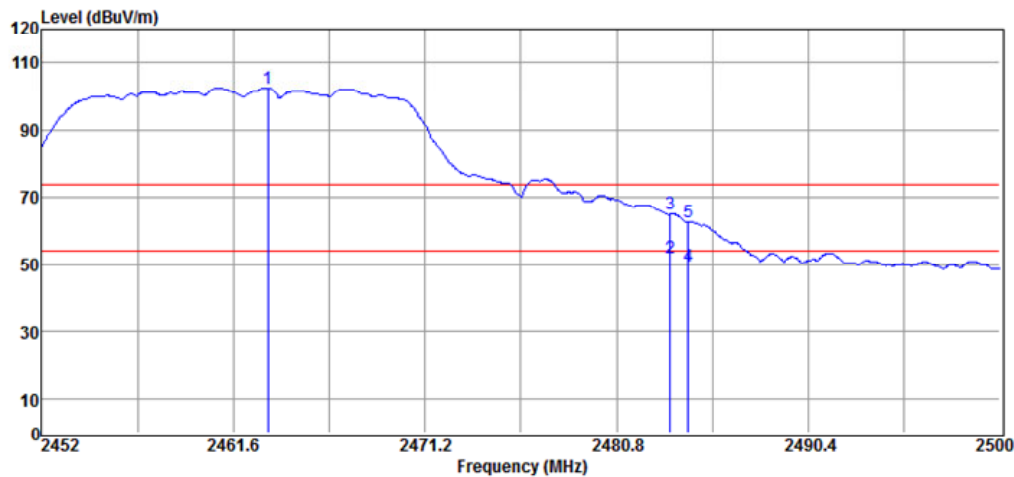


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2459.97	102.19	0.05	102.24	--	F	Peak	VERTICAL
2	2483.50	50.72	0.22	50.94	54.00	-3.06	Average	VERTICAL
3	2483.50	66.27	0.22	66.49	74.00	-7.51	Peak	VERTICAL
4	2484.88	47.07	0.24	47.31	54.00	-6.69	Average	VERTICAL
5	2484.88	61.38	0.24	61.62	74.00	-12.38	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-24

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n20 high ch. band edge Tested by : Jason Chao

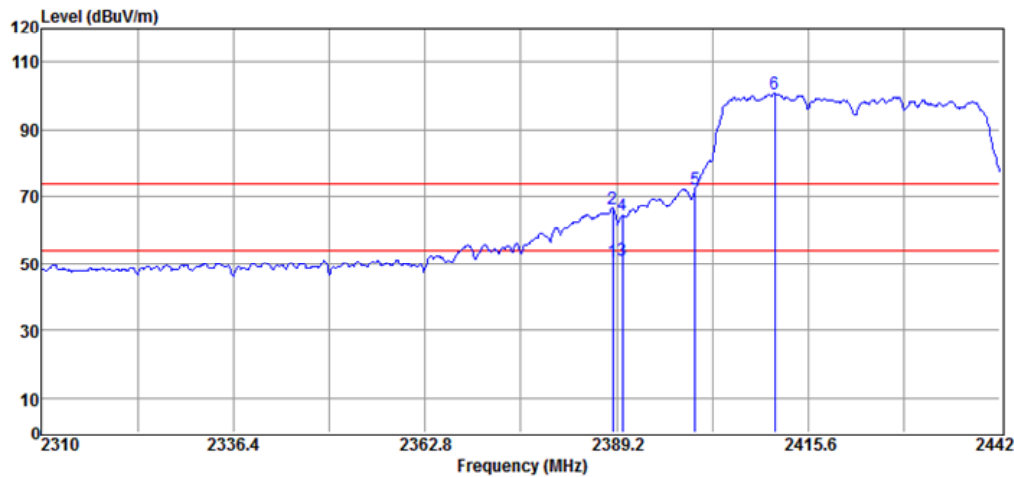


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2463.33	102.38	0.08	102.46	--	F	Peak	HORIZONTAL
2	2483.50	51.76	0.22	51.98	54.00	-2.02	Average	HORIZONTAL
3	2483.50	64.78	0.22	65.00	74.00	-9.00	Peak	HORIZONTAL
4	2484.40	49.37	0.23	49.60	54.00	-4.40	Average	HORIZONTAL
5	2484.40	62.46	0.23	62.69	74.00	-11.31	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
 Company Address: No. 120, Lane 180, Hsin Ho Rd.
 Lung-Tan Dist., Tao Yuan City 325, Taiwan
 Date: 2023-10-25

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
 Test Mode : 802.11n40 low ch. band edge Tested by : Jason Chao

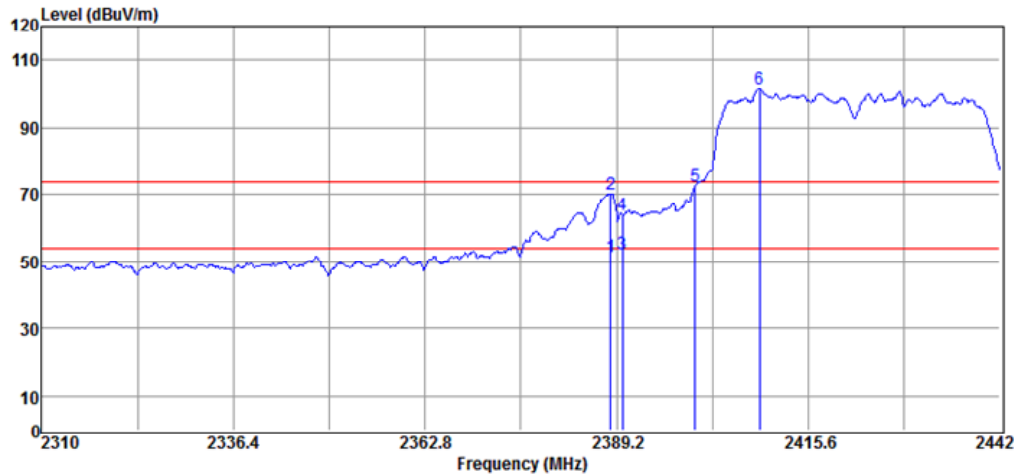


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2388.67	50.90	-0.10	50.80	54.00	-3.20	Average	VERTICAL
2	2388.67	66.61	-0.10	66.51	74.00	-7.49	Peak	VERTICAL
3	2390.00	51.31	-0.10	51.21	54.00	-2.79	Average	VERTICAL
4	2390.00	64.26	-0.10	64.16	74.00	-9.84	Peak	VERTICAL
5	2400.00	72.11	-0.07	72.04	80.48	-8.44	Peak	VERTICAL
6	2410.98	100.54	-0.06	100.48	--	F	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address: No. 120, Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwan
Date: 2023-10-25

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 low ch. band edge Tested by : Jason Chao

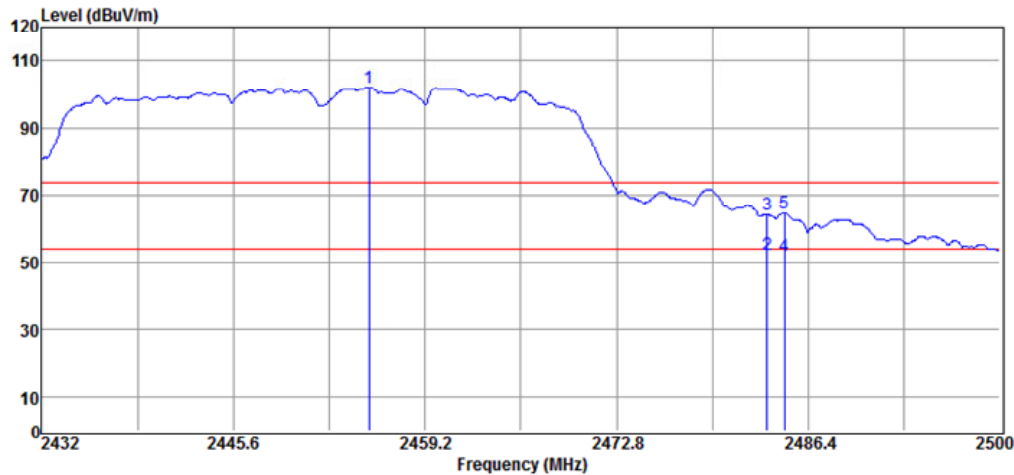


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2388.41	51.53	-0.10	51.43	54.00	-2.57	Average	HORIZONTAL
2	2388.41	70.37	-0.10	70.27	74.00	-3.73	Peak	HORIZONTAL
3	2390.00	52.43	-0.10	52.33	54.00	-1.67	Average	HORIZONTAL
4	2390.00	64.20	-0.10	64.10	74.00	-9.90	Peak	HORIZONTAL
5	2400.00	72.70	-0.07	72.63	81.39	-8.76	Peak	HORIZONTAL
6	2408.87	101.45	-0.06	101.39	--	F	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address:No.120,Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwa
Date: 2023-10-25

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 high ch. band edge Tested by : Jason Chao

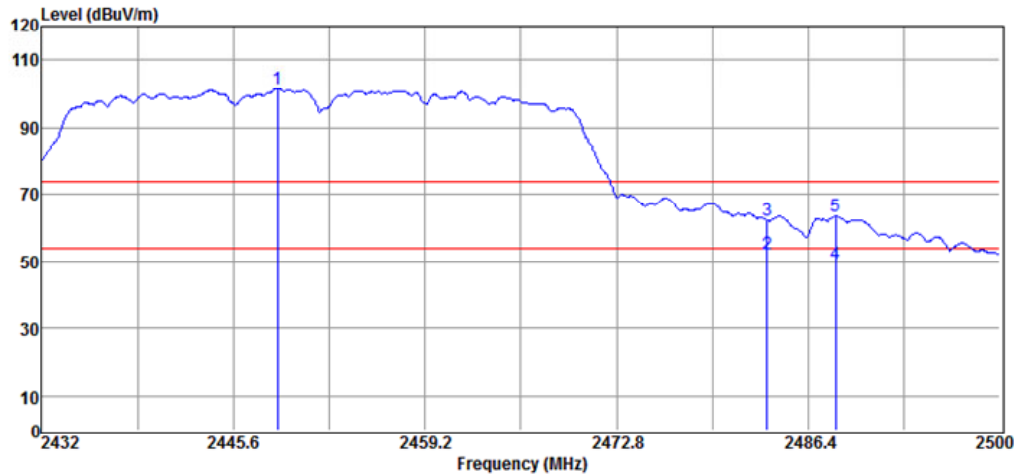


No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2455.26	101.87	0.02	101.89	--	F	Peak	VERTICAL
2	2483.50	52.23	0.22	52.45	54.00	-1.55	Average	VERTICAL
3	2483.50	64.04	0.22	64.26	74.00	-9.74	Peak	VERTICAL
4	2484.70	51.58	0.23	51.81	54.00	-2.19	Average	VERTICAL
5	2484.70	64.57	0.23	64.80	74.00	-9.20	Peak	VERTICAL

Note: "F" denotes fundamental frequency.

International Standard Laboratory Corp.
Company Address:No.120,Lane 180, Hsin Ho Rd.
Lung-Tan Dist., Tao Yuan City 325, Taiwa
Date: 2023-10-25

Project Number. : 23LR0131 Temp.(°C)/RH(%) : 25/60
Test Mode : 802.11n40 high ch. band edge Tested by : Jason Chao



No	Freq MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol V/H
1	2448.73	101.53	-0.02	101.51	--	F	Peak	HORIZONTAL
2	2483.50	52.30	0.22	52.52	54.00	-1.48	Average	HORIZONTAL
3	2483.50	62.17	0.22	62.39	74.00	-11.61	Peak	HORIZONTAL
4	2488.37	49.08	0.26	49.34	54.00	-4.66	Average	HORIZONTAL
5	2488.37	63.21	0.26	63.47	74.00	-10.53	Peak	HORIZONTAL

Note: "F" denotes fundamental frequency.

8. Appendix

8.1 Appendix A: Equipment List

Location	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Conduction 02	EMI Receiver 19	R&S	ESR3	102460	05/08/2023	05/08/2024
Conduction 02	Coaxial Cable-01	HUBER+SUHNER	RG 400/U	Coaxial Cable-01	09/11/2023	09/11/2024
Conduction 02	LISN 26	R&S	ENV216	102378	12/08/2022	12/08/2023
Conduction 02	LISN 15	R&S	ENV216	101335	12/08/2022	12/08/2023
Conduction 02	ISN T8 CAT6A 02	SCHWARZBECK	NTFM 8158	NTFM 8158-00370	07/07/2023	07/07/2024
Conduction 02	ISN T4 07	TESEQ	ISN T400A	30449	08/05/2023	08/05/2024
Conduction 02	ISN T8 10	TESEQ	ISN T800	42773	08/07/2023	08/07/2024
Conduction 02	CDN ISN ST08A 1	Teseq GmbH	CDN ISN ST08A	43352	09/27/2023	09/27/2024
Conduction 02	Capacitive Voltage Probe 01	SCHAFFNER	CVP 2200A	18711	02/22/2023	02/22/2024
Conduction 02	Current Probe	SCHAFFNER	SMZ 11	18030	02/22/2023	02/22/2024

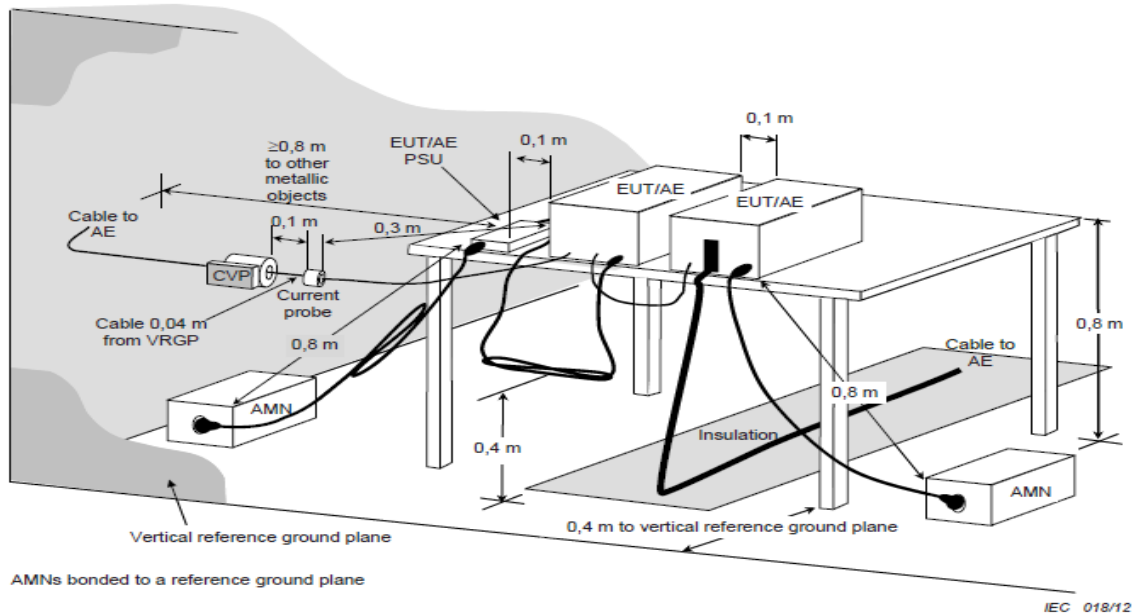
Location Conducted	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Chamber 19	Spectrum analyzer	R&S	FSV40	101919	08/16/2023	08/16/2024
Chamber 19	EMI Receiver	R&S	ESR3	102461	05/08/2023	05/08/2024
Chamber 19	Loop Antenna	EM	EM-6879	271	10/02/2023	10/02/2024
Chamber 19	Bilog Antenna (30MHz-1GHz)	Schwarzbeck	VULB9168 w 6dB Att.	9168-736	03/09/2023	03/09/2024
Chamber 19	Horn antenna (1GHz-18GHz)	ETS • LINDGREN	3117	00218718	10/04/2023	10/04/2024
Chamber 19	Horn antenna (18GHz-26GHz)	Com-power	AH-826	081001	11/24/2022	11/24/2023
Chamber 19	Horn antenna (26GHz-40GHz)	Com-power	AH-640	100A	03/25/2023	03/25/2024
Chamber 19	Preamplifier (9kHz-3GHz)	EM	EM330	060822	01/05/2023	01/05/2024
Chamber 19	Preamplifier (1GHz-26GHz)	HP	8449B	3008A02471	10/26/2022	10/26/2023
Chamber 19	Preamplifier (26GHz-40GHz)	MITEQ	JS4-26004000-27-5A	818471	05/04/2023	05/04/2024
Chamber 19	RF Cable (9kHz-26.5GHz)	Huber Suhner & Woken	Sucoflex 104A & 18GHz SMA(M)-SMA(M)-10M	MY817/4A & 20200525	12/21/2022	12/21/2023
Chamber 19	RF Cable (18GHz-40GHz)	HUBER SUHNER	Sucoflex 102	27963/2&37421/2	11/23/2022	11/23/2023
Chamber 19	Signal Generator	Anritsu	MG3692A	20311	12/29/2022	12/29/2023
Chamber 19	Test Software	Audix	E3 Ver:6.120203b	N/A	N/A	N/A

Location Conducted	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Conducted	Power Meter	Anritsu	ML2495A	1116010	09/27/2023	09/27/2024
Conducted	Power Sensor	Anritsu	MA2411B	34NKF50	09/27/2023	09/27/2024
Conducted	Power Sensor	DARE	RPR3006W	13I00030SNO33	01/06/2023	01/06/2024
Conducted	Power Sensor	DARE	RPR3006W	13I00030SNO34	01/06/2023	01/06/2024
Conducted	Power Sensor	DARE	RPR3006W	14I00889SNO35	06/21/2023	06/21/2024
Conducted	Power Sensor	DARE	RPR3006W	14I00889SNO36	06/21/2023	06/21/2024
Conducted	Temperature Chamber	KSON	THS-B4H100	2287	05/17/2023	05/17/2024
Conducted	DC Power supply	ABM	8185D	N/A	01/04/2023	01/04/2024
Conducted	AC Power supply	EXTECH	CFC105W	NA	N/A	N/A
Conducted	Spectrum analyzer	Keysight	N9010A	MY56070257	09/26/2023	09/26/2024
Conducted	Test Software	DARE	Radiation Ver:2013.1.23	NA	NA	NA
Conducted	Test Software	R&S	CMUGO Ver:2.0.0	N/A	N/A	N/A
Conducted	Universal Radio Comm. Tester	R&S	CMU200	111968	11/19/2022	11/19/2023
Conducted	Wideband Radio Comm. Tester	R&S	CMW500	1201.002K50108793-JG	10/31/2022	10/31/2023
Conducted	BT Simulator	Agilent	N4010A	MY48100200	NA	NA
Conducted	Signal Generator	Agilent	E4438C	MY49071550	12/28/2022	12/28/2023
Conducted	Signal Generator	Keysight	N5182B	MY53052399	12/28/2022	12/28/2023
Conducted (TS8997)	Wideband Radio Comm. Tester	R&S	CMW500	168811	09/13/2023	09/13/2024
Conducted (TS8997)	UP/DOWN converter	R&S	CMW-Z800A	100566	09/13/2023	09/13/2024
Conducted (TS8997)	Signal Generator	R&S	SMB100A	183701	09/14/2023	09/14/2024
Conducted (TS8997)	Vector Signal Generator	R&S	SMM100A	101908	09/13/2023	09/13/2024
Conducted (TS8997)	Signal analyzer 40GHz	R&S	FSV40	101884	09/13/2023	09/13/2024
Conducted (TS8997)	OSP150 extension unit CAM-BUS	R&S	OSP150	101107	09/15/2023	09/15/2024
Conducted (TS8997)	Test Software	R&S	EMC32 Ver: 11.60.00	NA	NA	NA

8.2 Appendix B: Uncertainty of Measurement

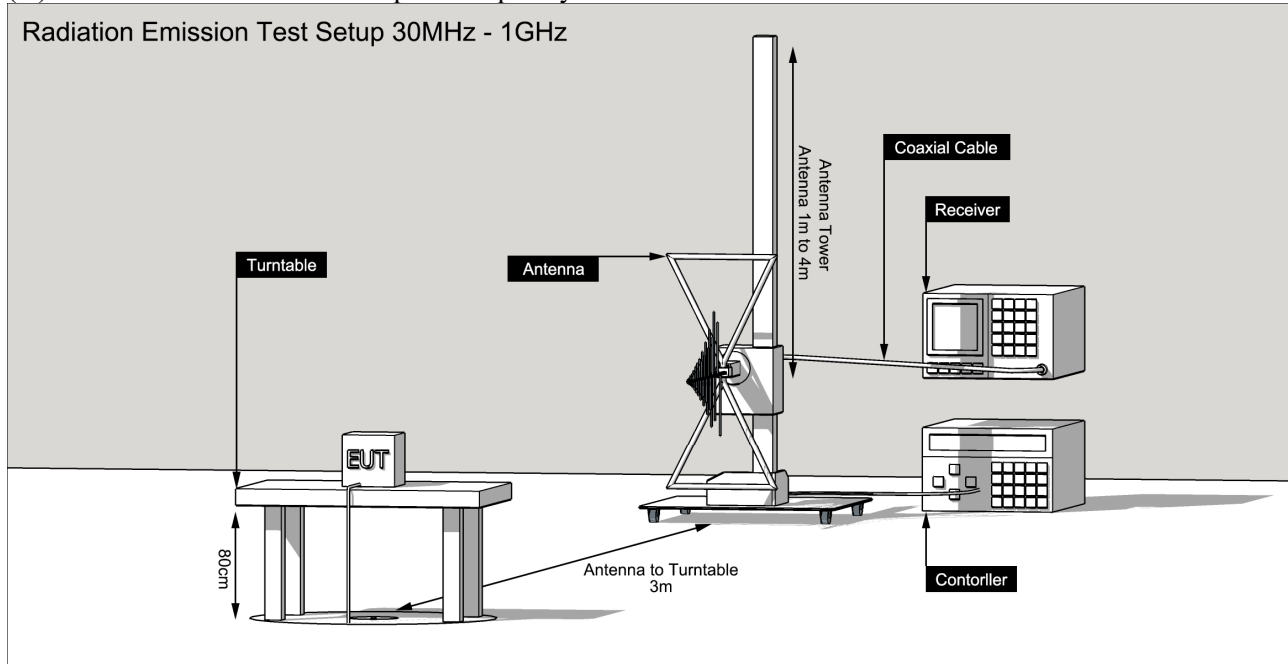
ISO/IEC 17025 requires that an estimate of measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$)).

Parameters	Uncertainty ($k=2$)
Conducted Emission (AC power line)	± 0.64 dB
Spurious emissions, radiated	± 3.5 dB
RF power, conducted	± 1.6 dB
Power Density	± 1.7 dB
RF Frequency	$\pm 0.0041\%$
Time	$\pm 0.01\%$
DC Voltage	$\pm 0.03\%$

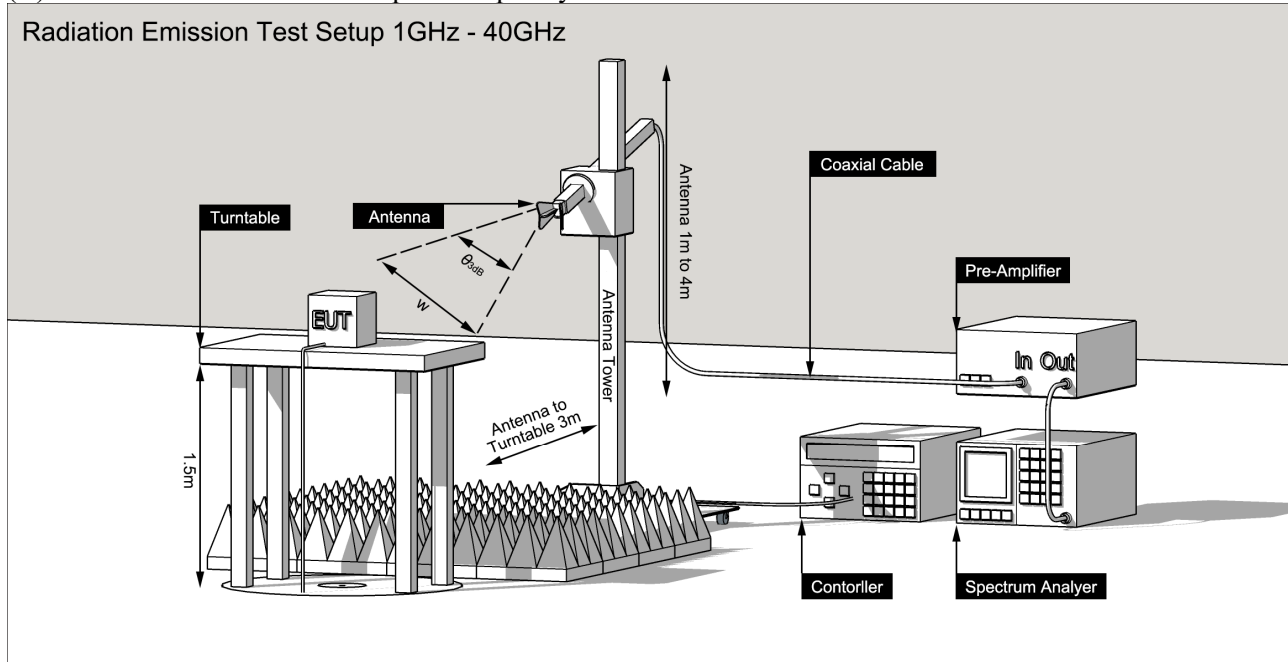


Radiated Spurious Emission Test & 100kHz Bandwidth of Band Edges Measurement Test Setup

(A) Radiated Emission Test Setup for frequency below 1000MHz



(B) Radiated Emission Test Setup for frequency above 1 GHz



RF Conducted Measurement Test Setup

