FCC Radio Test Report

FCC ID: GSSVS20455

Report No.	:	BTL-FCC-4-2501T005
Equipment	:	WPD-900
Model Name	:	VS20455, WPD-900-TX
Brand Name	:	ViewSonic
Applicant	:	ViewSonic Corporation
Address	:	10 Pointe Dr. Suite 200. Brea, CA 92821 United States
Radio Function	:	RLAN 5 GHz (U-NII 1, U-NII 3)
FCC Rule Part(s)	:	FCC CFR Title 47, Part 15, Subpart E (15.407)
Measurement Procedure(s)	:	ANSI C63.10-2013
Date of Receipt	:	2025/1/6
Date of Test	:	2025/1/6~2025/2/25
Issued Date	:	2025/3/19

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

Prepared by :

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Approved by :

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0659

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** assumes no responsibility for the data provided by the Customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

CONTENTS

REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCC-4-2501T005	R00	Original Report.	2025/3/19	Valid

1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

Standard(s) Section	Description	Result	Remark
15.207	AC Power Line Conducted Emissions	Pass	------
15.205 15.209 15.407(b)	Radiated Emissions	Pass	------
15.407(a) 15.407(e)	Bandwidth	Pass	------
15.407(a)	Output Power	Pass	------
15.407(a)	Power Spectral Density	Pass	------
15.203	Antenna Requirement	Pass	------
15.407(c)	Automatically Discontinue Transmission	------	NOTE (3)

NOTE:
(1) ”N/A” denotes test is not applicable in this Test Report.
(2) The report format version is TP.1.1.1.
(3) The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

1.1 TEST FACILITY

The test locations stated below are under the TAF Accreditation Number 0659.
The satellite facilities under the test firm used to collect the test data in this report are:
No. 91, Ln. 298, Wengong 1st Rd., Guishan Dist., Taoyuan City 333001, Taiwan

☒ C01 ☒ CB02 ☐ TR02

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**, where expanded uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k = 2**, providing a level of confidence of approximately **95 %**. The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cispr} requirement.

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U (dB)
C01	CISPR	150 kHz ~ 30MHz	3.4

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	U (dB)
CB02	CISPR	0.009 GHz ~ 0.03 GHz	3.2
		30 MHz ~ 1000 MHz	6.0
		1 GHz ~ 6 GHz	3.8
		6 GHz ~ 18 GHz	3.8
		18 GHz ~ 40GHz	3.7

C. Conducted test:

Test Item	U, (dB)
Occupied Bandwidth	6.5%
Output power (Power Sensor)	0.4341
Output power (Spectrum)	0.9867
Power Spectral Density	0.6590
Conducted Spurious emissions	0.5420
Conducted Band edges	0.5335
Frequency Stability	0.16Hz

NOTE:
Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

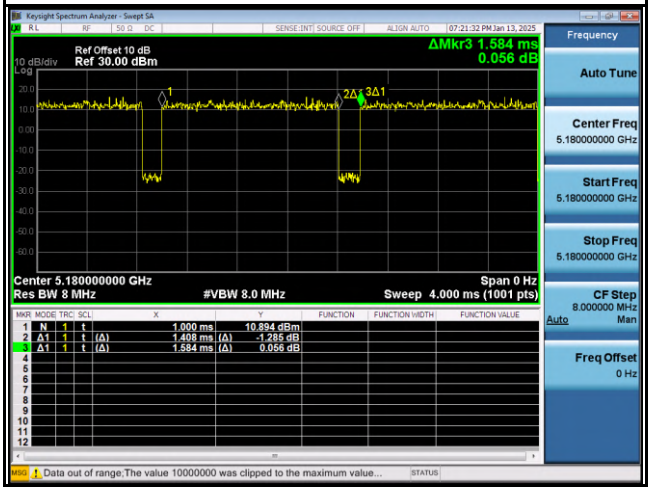
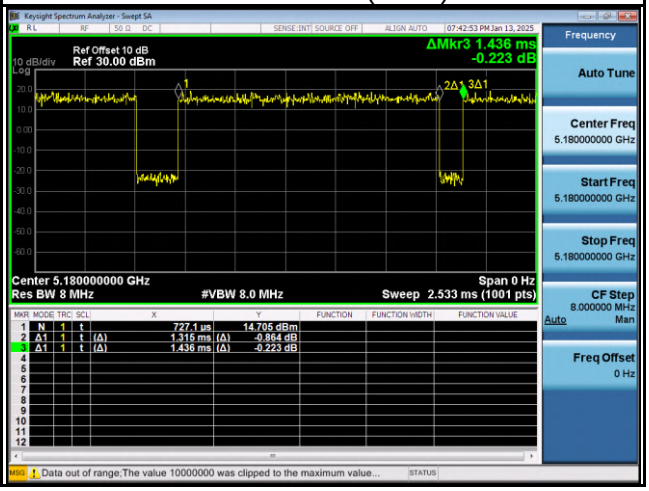
1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Environment Condition	Test Voltage	Tested by
AC Power Line Conducted Emissions	20-25 ℃, 55-62 %	AC 120V	Rui Huang Nero Hsieh
Radiated emissions below 1 GHz	Refer to data	AC 120V	Nero Hsieh
Radiated emissions above 1 GHz	Refer to data	AC 120V	Nero Hsieh Jason Yang
Bandwidth	25 ℃, 60 %	AC 120V	Nero Hsieh
Output Power	25 ℃, 60 %	AC 120V	Nero Hsieh
Power Spectral Density	25 ℃, 60 %	AC 120V	Nero Hsieh

1.4 DUTY CYCLE

If duty cycle is ≥ 98 %, duty factor is not required.
If duty cycle is < 98 %, duty factor shall be considered.

Remark	Delta 1			Delta 2	On Time/Period	10 log(1/Duty Cycle)
Mode	ON (ms)	Numbers (ON)	On Time (B) (ms)	Period (ON+OFF) (ms)	Duty Cycle (%)	Duty Factor (dB)
IEEE 802.11a	1.408	1	1.408	1.584	88.89%	0.51
IEEE 802.11n (HT20)	1.315	1	1.315	1.436	91.57%	0.38

IEEE 802.11a	IEEE 802.11n (HT20)
	

2 GENERAL INFORMATION

2.1 DESCRIPTION OF EUT

Equipment	WPD-900
Model Name	VS20455, WPD-900-TX
Brand Name	ViewSonic
Model difference	Different models distribute to different area.
Power Source	Supplied from USB port.
Power Rating	DC 5V/ 1A
Operation Band	UNII-1: 5150 MHz to 5250 MHz UNII-3: 5725 MHz to 5850 MHz
Operation Frequency	UNII-1: 5180 MHz to 5240 MHz UNII-3: 5745 MHz to 5825 MHz
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6 Mbps 802.11n: Up to 150 Mbps
Output Power Max. for UNII-1	IEEE 802.11a: 13.55 dBm (0.0226 W) IEEE 802.11n (HT20): 15.75 dBm (0.0376 W)
Output Power Max. for UNII-3	IEEE 802.11a: 12.35 dBm (00172 W) IEEE 802.11n (HT20): 15.93 dBm (0.0392 W)
Test Software Version	RTL8723FU MV Version 0.0001.1020.2018
Test Model	VS20455
Sample Status	Engineering Sample
EUT Modification(s)	N/A

NOTE:
(1) The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

(2) Channel List:

IEEE 802.11a IEEE 802.11n (HT20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40)		IEEE 802.11ac (VHT80)	
UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	-	-	-	-
40	5200	-	-	-	-
44	5220	-	-	-	-
48	5240	-	-	-	-

IEEE 802.11a IEEE 802.11n (HT20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40)		IEEE 802.11ac (VHT80)	
UNII-3		UNII-3		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	-	-	-	-
153	5765	-	-	-	-
157	5785	-	-	-	-
161	5805	-	-	-	-
165	5825	-			

(3) Table for Filed Antenna:

Antenna	Brand Name	Model Name	Type	Frequency (MHz)	Gain (dBi)
1	Shenzhen RedbirdTekTechnology Co., Ltd.	ANT000102	PIFA	5150-5250~ 5725-5850	2

Note:
(a) The EUT incorporates a CDD function. Physically, the EUT provides one completed transmitters and receivers (1T1R)
(b) Directional Gain=2 dBi. (The value is declared by manufacturer.) < 6dBi.
(c) For Power Spectral Density
The Direction Gain is less than 6dBi, so power spectral density limits will not be reduced.
(d) For Output Power
For N_{ANT}= 1<5, Direction Gain= G_{ANT} + 0 = 2 + 0 = 2
The Direction Gain is less than 6dBi, so output power limits will not be reduced.

(4) The above Antenna information is derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
(5)

TX Mode / Operating Mode	1TX
IEEE 802.11a	V (Ant. 1)
IEEE 802.11n (HT20)	V (Ant. 1)

2.2 TEST MODES

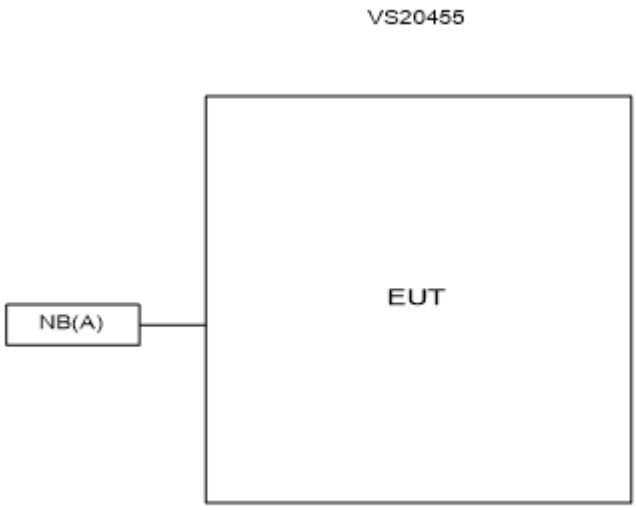
Test Items	Test mode	Channel	Note
AC power line conducted emissions	Normal/Idle	-	-
Transmitter Radiated Emissions (below 1GHz)	TX Mode_IEEE 802.11n (HT20)	149	-
Transmitter Radiated Emissions (above 1GHz)	TX Mode_IEEE 802.11a	36/48, 52/64 100/140, 149/165	Bandedge
	TX Mode_IEEE 802.11n (HT20)		
	TX Mode_IEEE 802.11a	36/40/48 52/60/64 100/116/140 149/157/165	Harmonic
	TX Mode_IEEE 802.11n (HT20)	36/40/48 52/60/64 100/116/140 149/157/165	
Transmitter Radiated Emissions (above 18GHz)	TX Mode_IEEE 802.11a	36/40/48 52/60/64 100/116/140 149/157/165	
	TX Mode_IEEE 802.11n (HT20)		
Bandwidth	TX Mode_IEEE 802.11a	36/40/48 52/60/64 100/116/140 149/157/165	-
	TX Mode_IEEE 802.11n (HT20)	36/40/48 52/60/64 100/116/140 149/157/165	
Power Spectral Density & Output Power	TX Mode_IEEE 802.11a	36/40/48 52/60/64 100/116/140 149/157/165	-
	TX Mode_IEEE 802.11n (HT20)	36/40/48 52/60/64 100/116/140 149/157/165	

NOTE:
(1) For radiated emission band edge test, both Vertical and Horizontal are evaluated, but only the worst case (Horizontal) is recorded.
(2) All X, Y and Z axes are evaluated, but only the worst case (Y axis) is recorded.

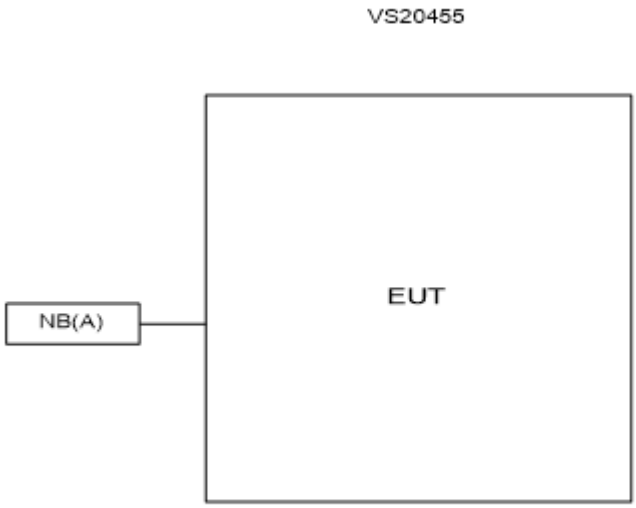
2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 2.4.

AC power line conducted emissions



Radiated Emissions



2.4 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Remarks
A	Notebook PC	Lenovo	21C2SA2100	Furnished by test lab.

Item	Cable Type	Ferrite Core	Length	Shielded	Remarks
1	-	-	-	-	-

3 AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56 *	56 - 46 *
0.50 - 5.0	56	46
5.0 - 30.0	60	50

NOTE:
(1) The tighter limit applies at the band edges.
(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
(3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)
Margin Level = Measurement Value – Limit Value
Calculation example:

Reading Level (dBμV)		Correct Factor (dB)		Measurement Value (dBμV)
38.22	+	3.45	=	41.67

Measurement Value (dBμV)		Limit Value (dBμV)		Margin Level (dB)
41.67	-	60	=	-18.33

The following table is the setting of the receiver.

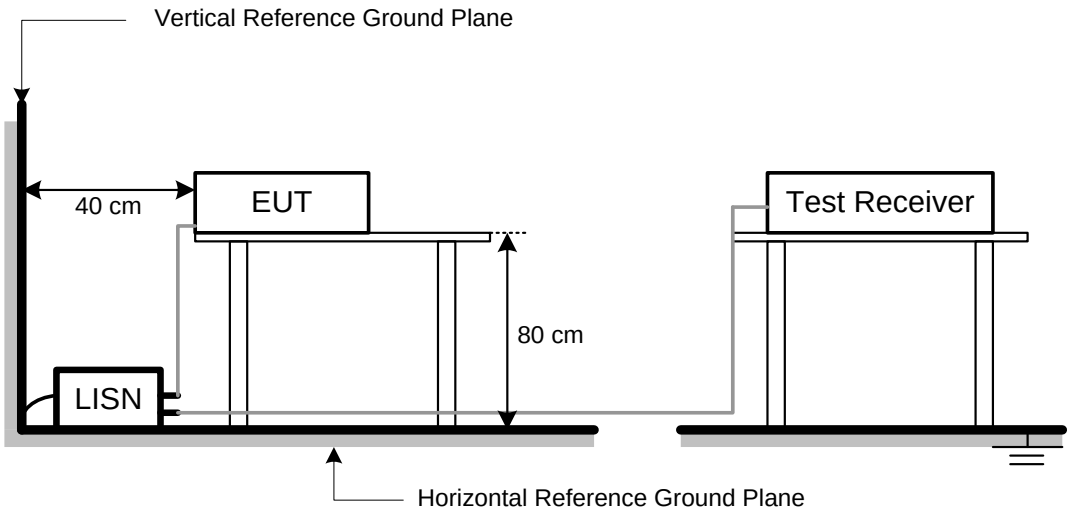
Receiver Parameter	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

3.2 TEST PROCEDURE

a. The EUT was placed 0.8 m above the horizontal ground plane with the EUT being connected to the power mains through a line impedance stabilization network (LISN).
All other support equipment were powered from an additional LISN(s).
The LISN provides 50 Ohm/50uH of impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle to keep the cable above 40 cm.
c. Excess I/O cables that are not connected to a peripheral shall be bundled in the center.
The end of the cable will be terminated, using the correct terminating impedance.
The overall length shall not exceed 1 m.
d. The LISN is spaced at least 80 cm from the nearest part of the EUT chassis.
e. For the actual test configuration, please refer to the related Item - EUT TEST PHOTO.

NOTE:
(1) In the results, each reading is marked as Peak, QP or AVG per the detector used.
BW=9 kHz (6 dB Bandwidth)
(2) All readings are Peak unless otherwise stated QP or AVG in column of Note. Both the QP and the AVG readings must be less than the limit for compliance.

3.3 TEST SETUP



3.4 TEST RESULT

Please refer to the APPENDIX A.

4 RADIATED EMISSIONS TEST

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205, then the 15.209 limit in the table below has to be followed.

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000 MHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.3
5250-5350	-27	68.3
5470-5725	-27	68.3
5725-5850	-27 (NOTE 2)	68.3
	10 (NOTE 2)	105.3
	15.6 (NOTE 2)	110.9
	27 (NOTE 2)	122.3

NOTE:

(1) The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

(2) According to FCC 16-24,All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain (if use)
Margin Level = Measurement Value - Limit Value
Calculation example:

Reading Level (dBμV)		Correct Factor (dB/m)		Measurement Value (dBμV/m)
36.23	+	-11.97	=	24.26

Measurement Value (dBμV/m)		Limit Value (dBμV/m)		Margin Level (dB)
24.26	-	40	=	-15.74

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average

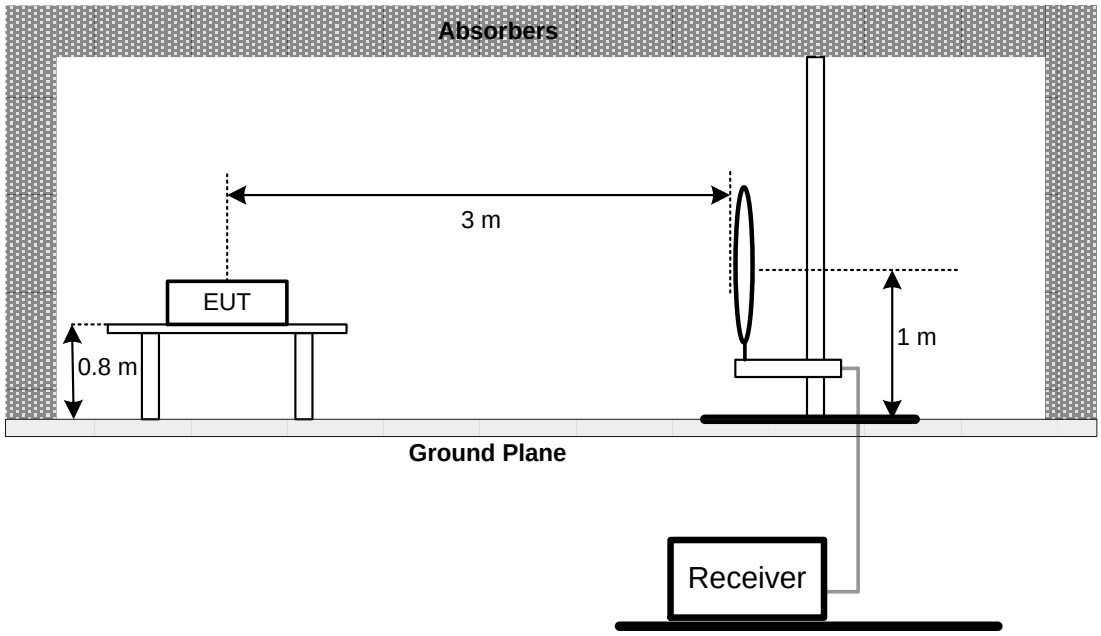
Spectrum Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9KHz~90KHz for PK/AVG detector
Start ~ Stop Frequency	90KHz~110KHz for QP detector
Start ~ Stop Frequency	110KHz~490KHz for PK/AVG detector
Start ~ Stop Frequency	490KHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

4.2 TEST PROCEDURE

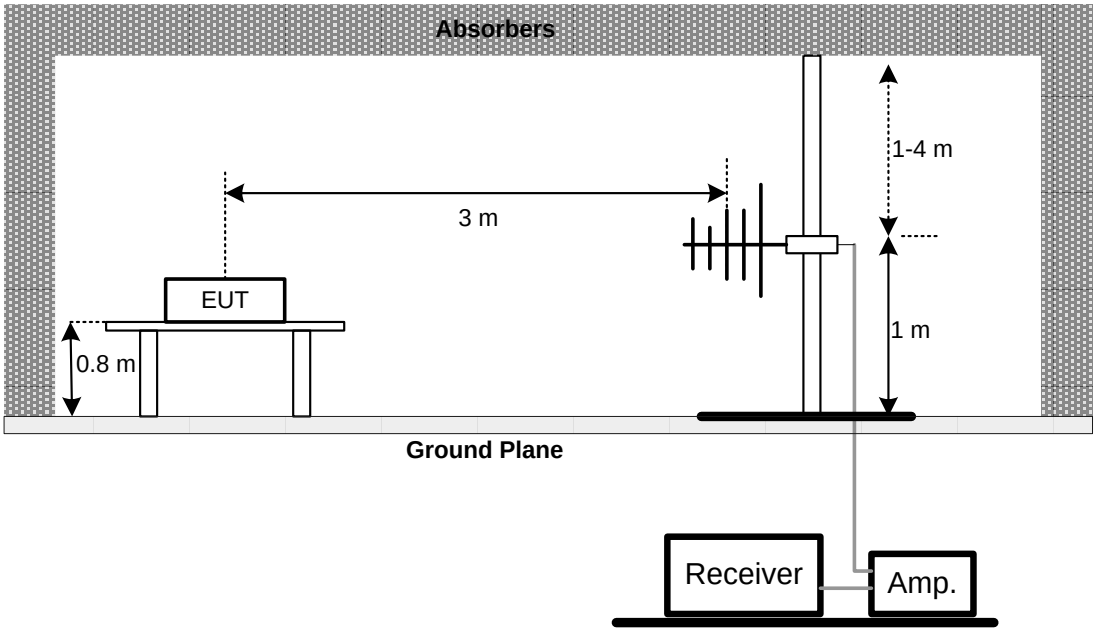
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
c. The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5 m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform. (below 1GHz)
h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn‘t perform. (above 1GHz)
i. For the actual test configuration, please refer to the related Item – EUT TEST PHOTO.

4.3 TEST SETUP

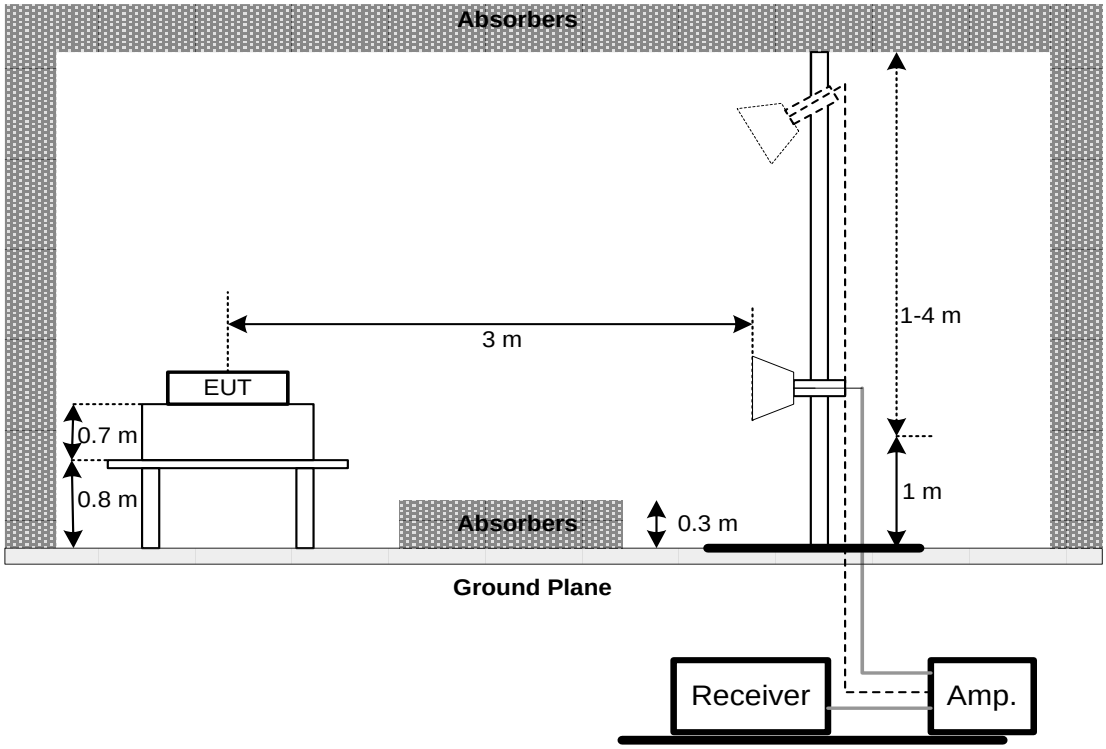
9 kHz to 30 MHz



30 MHz to 1 GHz



Above 1 GHz


Absorbers
3 m
1-4 m
EUT
0.7 m
0.8 m
Absorbers
0.3 m
1 m
Ground Plane
Receiver
Amp.

4.4 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.5 TEST RESULT – BELOW 30 MHZ

There were no emissions found below 30 MHz within 20 dB of the limit.

4.6 TEST RESULT – 30 MHZ TO 1 GHZ

Please refer to the APPENDIX B.

4.7 TEST RESULT – ABOVE 1 GHZ

Please refer to the APPENDIX C.

NOTE:

(1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5 BANDWIDTH TEST

5.1 LIMIT

FCC Part15, Subpart E (15.407)		
Section	Test Item	Frequency Range (MHz)
15.407(a)	26 dB Bandwidth	5150-5250
		5250-5350
		5470-5725
	Minimum 500 kHz 6 dB Bandwidth	5725-5850

5.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. Spectrum Setting:

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> 26 dB Bandwidth
RBW	300 kHz(Bandwidth 20 MHz) 1 MHz(Bandwidth 40 MHz and 80 MHz)
VBW	1 MHz(Bandwidth 20 MHz) 3 MHz(Bandwidth 40 MHz and 80 MHz)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3 TEST SETUP

5.4 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.5 TEST RESULT

Please refer to the APPENDIX D.

6 OUTPUT POWER TEST

6.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Maximum Output Power	Fixed:1 Watt (30 dBm) Mobile and portable: 250 mW (24 dBm)	5150-5250
		250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz	5250-5350
			5470-5725
		1 Watt (30dBm)	5725-5850
Note: The maximum e.i.r.p at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW(21 dBm).			

6.2 TEST PROCEDURE

a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.

b. The maximum peak conducted output power was performed in accordance with method of clause E. 3. a) FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
a)Method PM (Measurement using an RF average power meter):
(i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied
The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
(ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in II.B.
(iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
(iv) Adjust the measurement in dBm by adding 10 log (1/x) where x is the duty cycle (e.g., 10 log (1/0.25) if the duty cycle is 25%).

6.3 TEST SETUP

6.4 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.5 TEST RESULT

Please refer to the APPENDIX E.

7 POWER SPECTRAL DENSITY

7.1 LIMIT

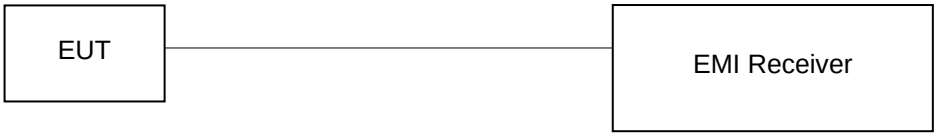
FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Power Spectral Density	Other than Mobile and portable: 17 dBm/MHz Mobile and portable: 11 dBm/MHz	5150-5250
		11 dBm/MHz	5250-5350
			5470-5725
		30 dBm/500 kHz	5725-5850

7.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. Spectrum Setting:

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1 MHz
VBW	≥ 3 MHz
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

7.3 TEST SETUP



7.4 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.5 TEST RESULT

Please refer to the APPENDIX F.

8 LIST OF MEASURING EQUIPMENTS

AC Power Line Conducted Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	TWO-LINE V-NETWORK	R&S	ENV216	101339	2024/3/28	2025/3/27
2	Test Cable	EMCI	EMCRG142S-SM-SM-5000	230609	2024/8/10	2025/8/9
3	Test Cable	EMCI	EMC104-SM-SM-6000	240635	2024/7/15	2025/7/14
4	Measurement Software	Farad	EZ_EMC (Ver.E-LAB-5A2.22021)	N/A	N/A	N/A

Radiated Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Log-Bicon Antenna	Schwarzbeck	VULB 9168	01577	2024/7/17	2025/7/16
2	Attenuator	EMCI	EMCI-N-6-05	AT-N0575	2024/7/17	2025/7/16
3	Pre-Amplifier	EMCI	EMC001330	980909	2024/8/9	2025/8/8
4	Test Cable	EMCI	EMC104-SM-SM-6000	230540	2024/8/10	2025/8/9
5	Test Cable	EMCI	EMC104-SM-SM-2500	230541	2024/8/10	2025/8/9
6	Test Cable	EMCI	EMC104-SM-SM-1000	230546	2024/8/10	2025/8/9
7	MXE EMI Receiver	Keysight	N9038A	MY50018009	2024/8/30	2025/8/29
8	Horn Antenna	RFSPIN	DRH18-E	KV2D02A18ES	2024/6/7	2025/6/6
9	Pre-Amplifier	EMCI	EMC118A45SE	980962	2024/8/9	2025/8/8
10	Horn Antenna	Schwarzbeck	BBHA 9170	01228	2024/6/12	2025/6/11
11	Pre-Amplifier	EMCI	EMC184045SE	980918	2024/8/9	2025/8/8
12	Test Cable	EMCI	EMC104-35M-35M-1000	230547	2024/8/10	2025/8/9
13	Test Cable	EMCI	EMC104-35M-35M-4700	230548	2024/8/10	2025/8/9
14	Measurement Software	Farad	EZ_EMC (Ver. NB-03A1-01)	N/A	N/A	N/A

Bandwidth						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	MXE EMI Receiver	Keysight	N9038A	MY50018009	2024/8/30	2025/8/29

Output Power						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	MXE EMI Receiver	Keysight	N9038A	MY50018009	2024/8/30	2025/8/29

Power Spectral Density						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	MXE EMI Receiver	Keysight	N9038A	MY50018009	2024/8/30	2025/8/29

Remark: “N/A” denotes no model name, no serial no. or no calibration specified.
All calibration period of equipment list is one year.

9 EUT TEST PHOTO

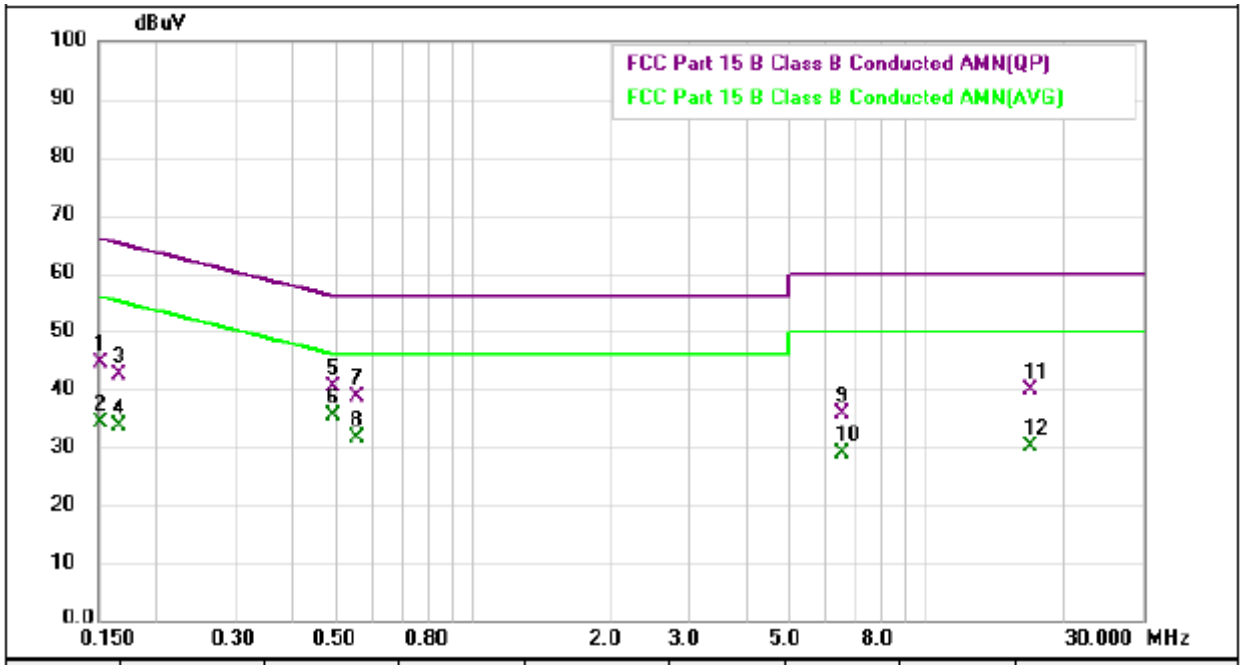
Please refer to document Appendix No.TP-2501T005-FCC-1 (APPENDIX-TEST PHOTOS).

10 EUT PHOTOS

Please refer to document Appendix No.EP-2501T005-1, EP-2501T005-2 (APPENDIX-EUT PHOTOS).

APPENDIX A AC POWER LINE CONDUCTED EMISSIONS

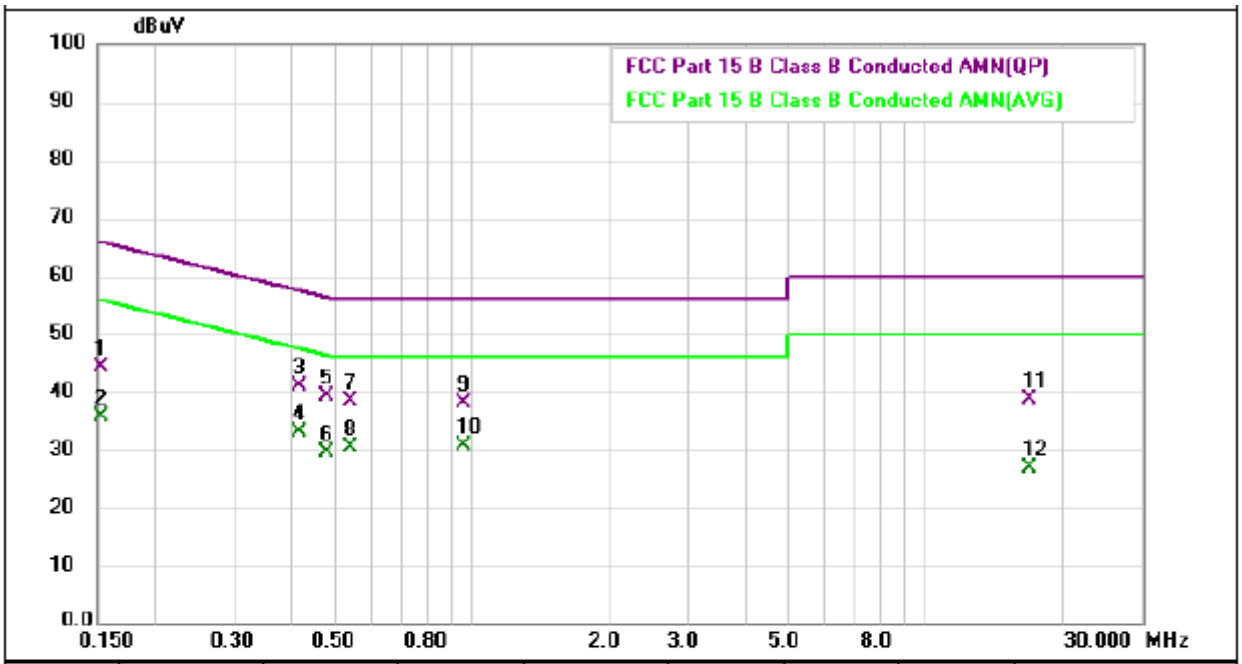
Test Mode	Normal	Tested Date	2025/1/22
Test Frequency	-	Phase	Line



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
1		0.150000	34.80	9.63	44.43	66.00	-21.57	QP	
2		0.150000	24.60	9.63	34.23	56.00	-21.77	AVG	
3		0.165750	32.80	9.64	42.44	65.17	-22.73	QP	
4		0.165750	23.90	9.64	33.54	55.17	-21.63	AVG	
5		0.492000	30.70	9.64	40.34	56.13	-15.79	QP	
6	*	0.492000	25.80	9.64	35.44	46.13	-10.69	AVG	
7		0.555000	28.90	9.64	38.54	56.00	-17.46	QP	
8		0.555000	21.90	9.64	31.54	46.00	-14.46	AVG	
9		6.519750	26.00	9.79	35.79	60.00	-24.21	QP	
10		6.519750	19.20	9.79	28.99	50.00	-21.01	AVG	
11		17.034000	30.10	9.88	39.98	60.00	-20.02	QP	
12		17.034000	20.30	9.88	30.18	50.00	-19.82	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

Test Mode	Normal	Tested Date	2025/1/22
Test Frequency	-	Phase	Neutral

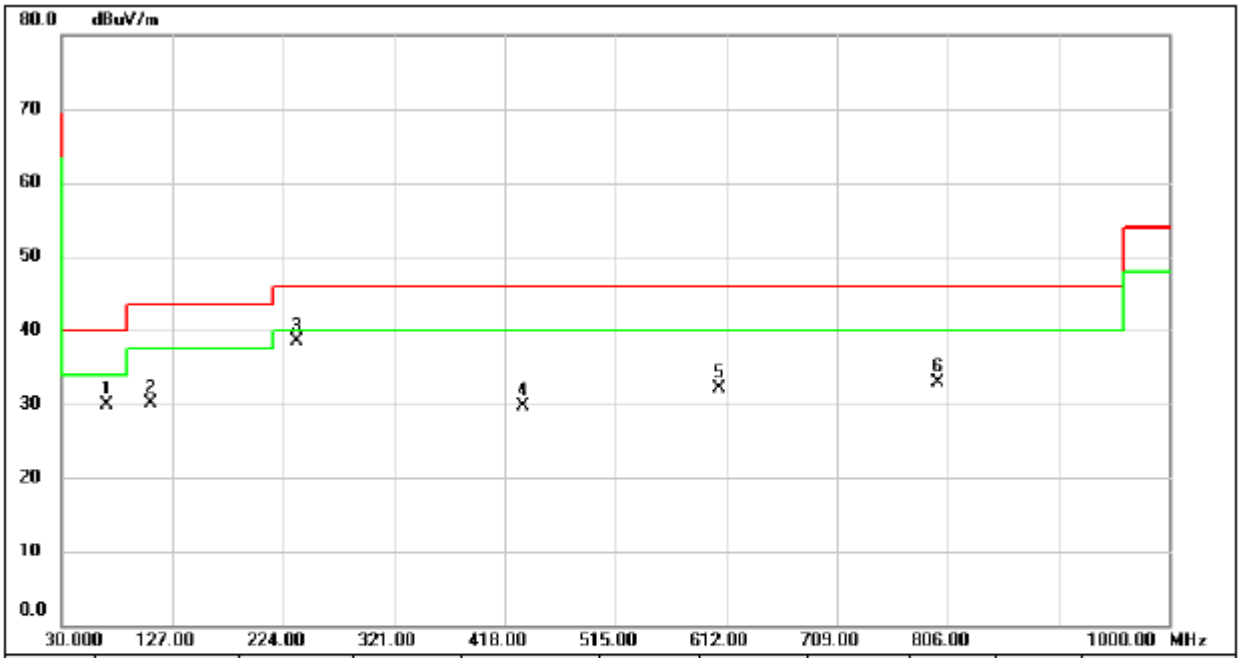


No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
1		0.152250	34.70	9.64	44.34	65.88	-21.54	QP	
2		0.152250	26.00	9.64	35.64	55.88	-20.24	AVG	
3		0.415500	31.30	9.64	40.94	57.54	-16.60	QP	
4	*	0.415500	23.40	9.64	33.04	47.54	-14.50	AVG	
5		0.478500	29.60	9.64	39.24	56.37	-17.13	QP	
6		0.478500	20.00	9.64	29.64	46.37	-16.73	AVG	
7		0.541500	28.70	9.64	38.34	56.00	-17.66	QP	
8		0.541500	20.90	9.64	30.54	46.00	-15.46	AVG	
9		0.957750	28.40	9.65	38.05	56.00	-17.95	QP	
10		0.957750	21.00	9.65	30.65	46.00	-15.35	AVG	
11		17.038500	28.70	9.95	38.65	60.00	-21.35	QP	
12		17.038500	17.10	9.95	27.05	50.00	-22.95	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

APPENDIX B RADIATED EMISSIONS - 30 MHZ TO 1 GHZ

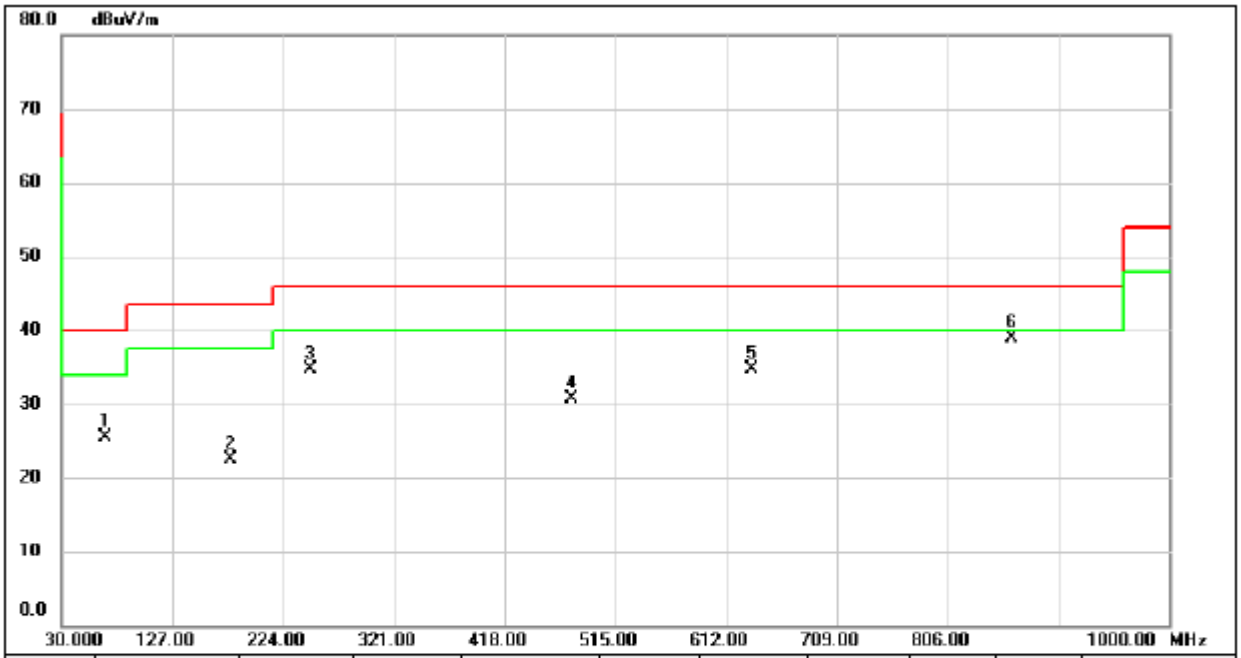
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/3
Test Frequency	CH149: 5745 MHz	Polarization	Vertical
Temp	19℃	Hum.	58%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		68.8000	44.68	-14.75	29.93	40.00	-10.07	peak	100	155	
2		108.5700	46.29	-16.23	30.06	43.50	-13.44	peak	100	213	
3	*	235.6400	53.04	-14.48	38.56	46.00	-7.44	peak	100	1	
4		433.5200	38.29	-8.51	29.78	46.00	-16.22	peak	100	200	
5		606.1800	37.47	-5.35	32.12	46.00	-13.88	peak	100	258	
6		797.2700	35.33	-2.41	32.92	46.00	-13.08	peak	100	206	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/3
Test Frequency	CH149: 5745 MHz	Polarization	Horizontal
Temp	19℃	Hum.	58%

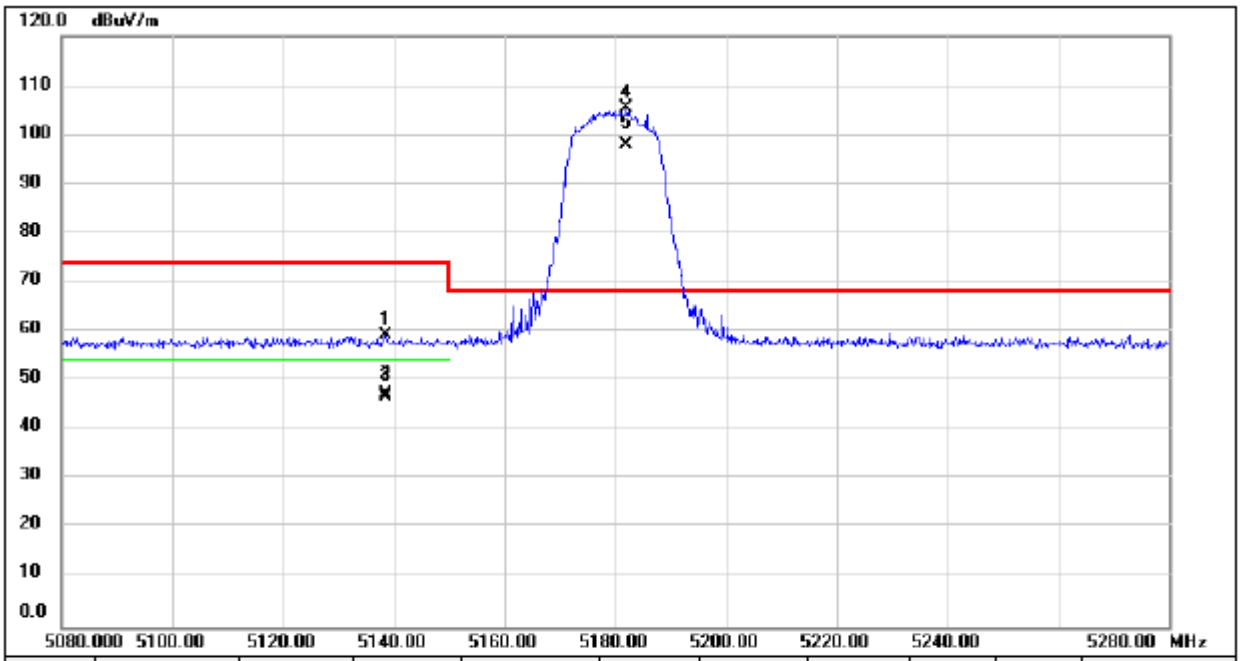


No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		67.8300	40.13	-14.54	25.59	40.00	-14.41	peak	100	140	
2		178.4100	36.38	-13.96	22.42	43.50	-21.08	peak	100	2	
3		247.2800	48.42	-13.79	34.63	46.00	-11.37	peak	100	198	
4		477.1700	38.48	-7.78	30.70	46.00	-15.30	peak	100	192	
5		634.3100	39.58	-4.87	34.71	46.00	-11.29	peak	100	283	
6	*	862.2600	40.68	-1.74	38.94	46.00	-7.06	peak	100	276	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

APPENDIX C RADIATED EMISSIONS - ABOVE 1 GHZ

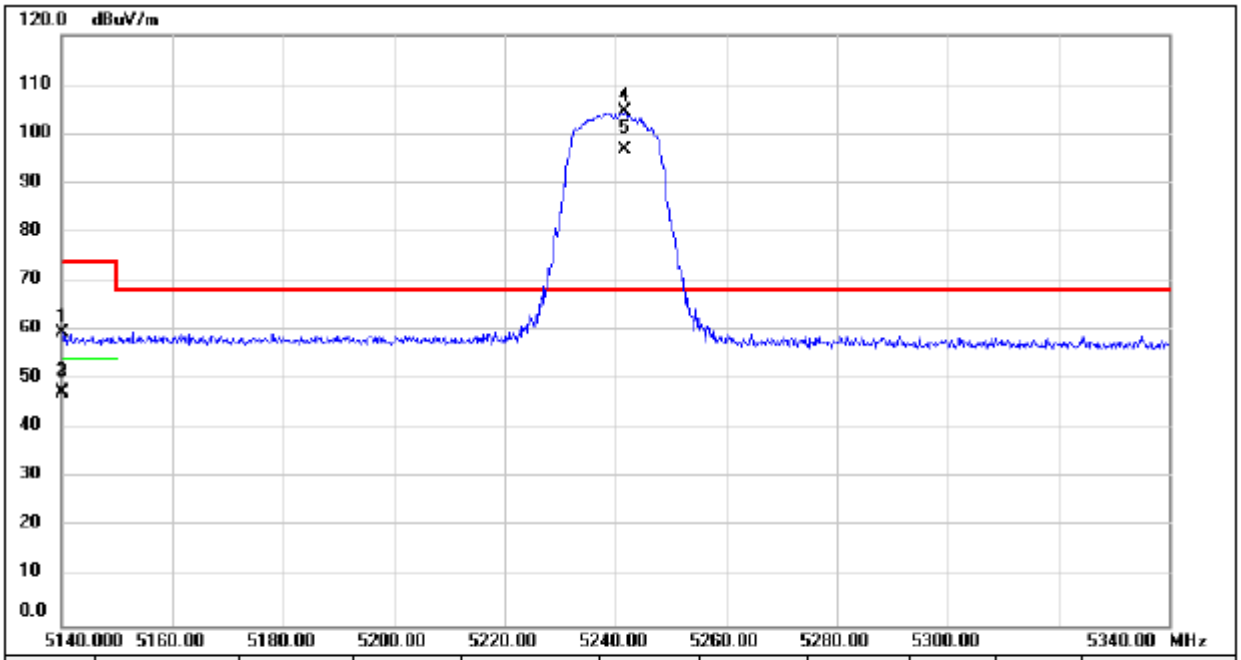
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Horizontal
Temp	20℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		5138.600	48.76	10.47	59.23	74.00	-14.77	peak			
2		5138.600	36.75	10.47	47.22	54.00	-6.78	AVG			DCF:0.51dB
3		5138.600	36.24	10.47	46.71	54.00	-7.29	AVG			
4	*	5182.000	94.87	10.49	105.36	68.20	37.16	peak			
5	X	5182.000	87.47	10.49	97.96	68.20	29.76	AVG			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) X and * represent fundamental frequency and with no limit.

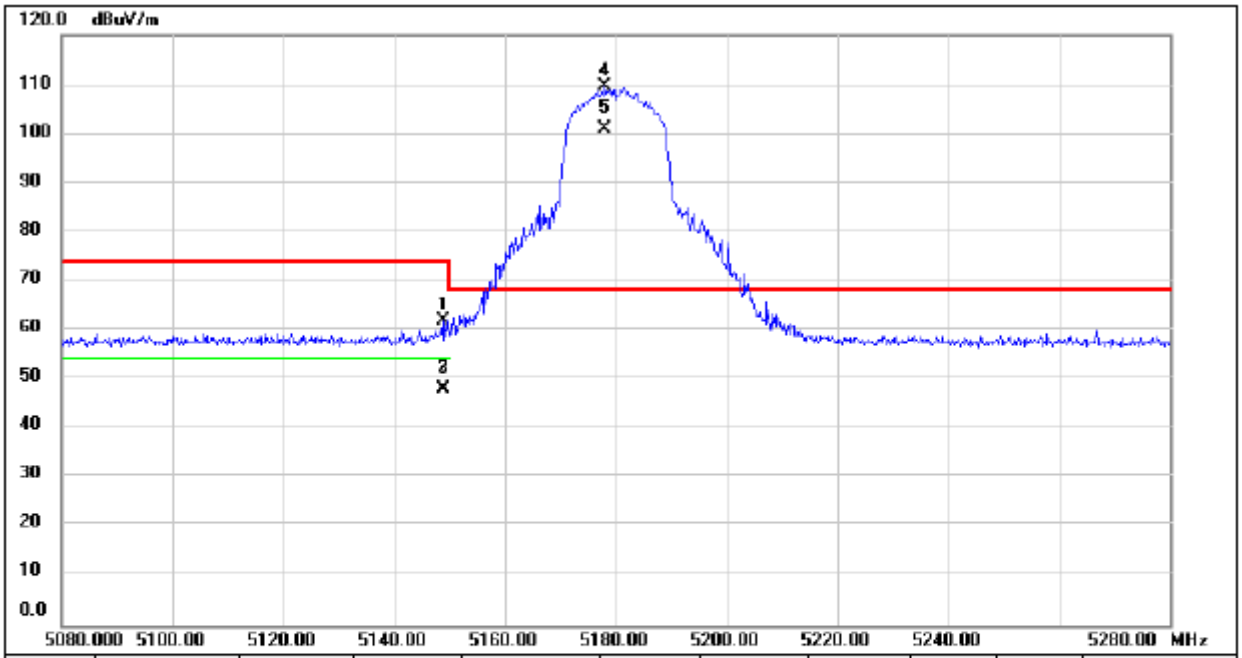
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Horizontal
Temp	20℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		5140.200	49.05	10.47	59.52	74.00	-14.48	peak			
2		5140.200	37.21	10.47	47.68	54.00	-6.32	AVG			DCF:0.51dB
3		5140.200	36.70	10.47	47.17	54.00	-6.83	AVG			
4	*	5241.600	94.09	10.50	104.59	68.20	36.39	peak			
5	X	5241.600	86.18	10.50	96.68	68.20	28.48	AVG			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) X and * represent fundamental frequency and with no limit.

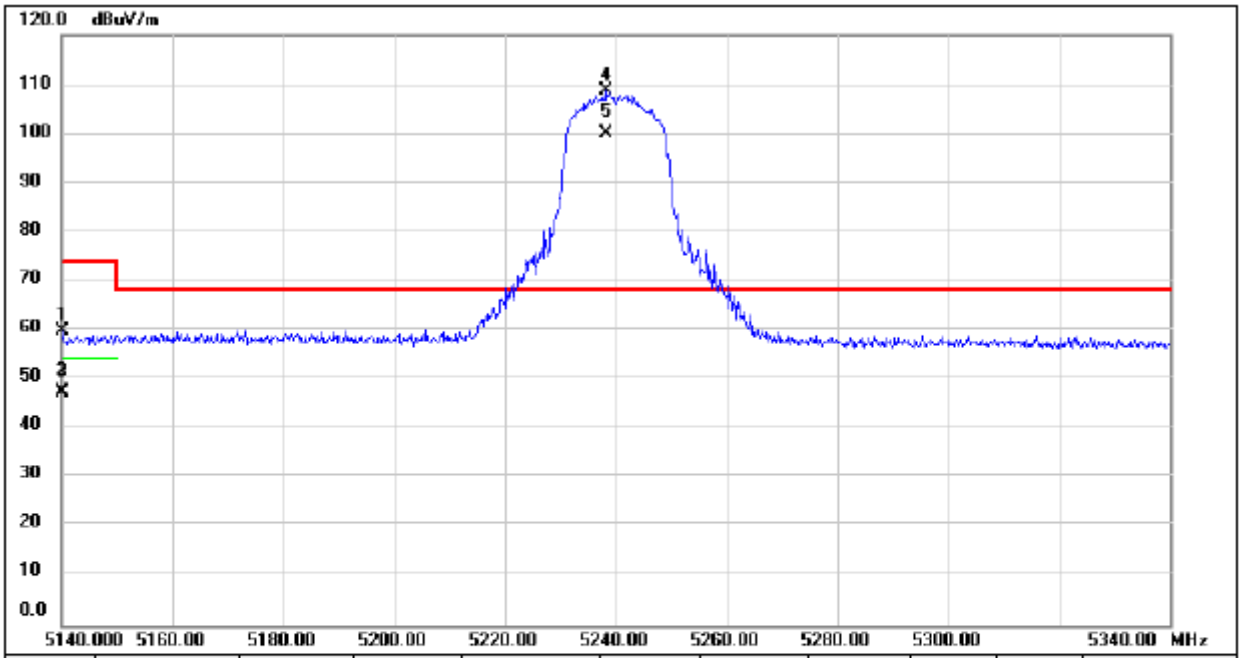
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Horizontal
Temp	20℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		5149.000	51.37	10.48	61.85	74.00	-12.15	peak			
2		5149.000	37.82	10.48	48.30	54.00	-5.70	AVG			DCF:0.38dB
3		5149.000	37.44	10.48	47.92	54.00	-6.08	AVG			
4	*	5178.000	99.12	10.48	109.60	68.20	41.40	peak			
5	X	5178.000	90.44	10.48	100.92	68.20	32.72	AVG			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) X and * represent fundamental frequency and with no limit.

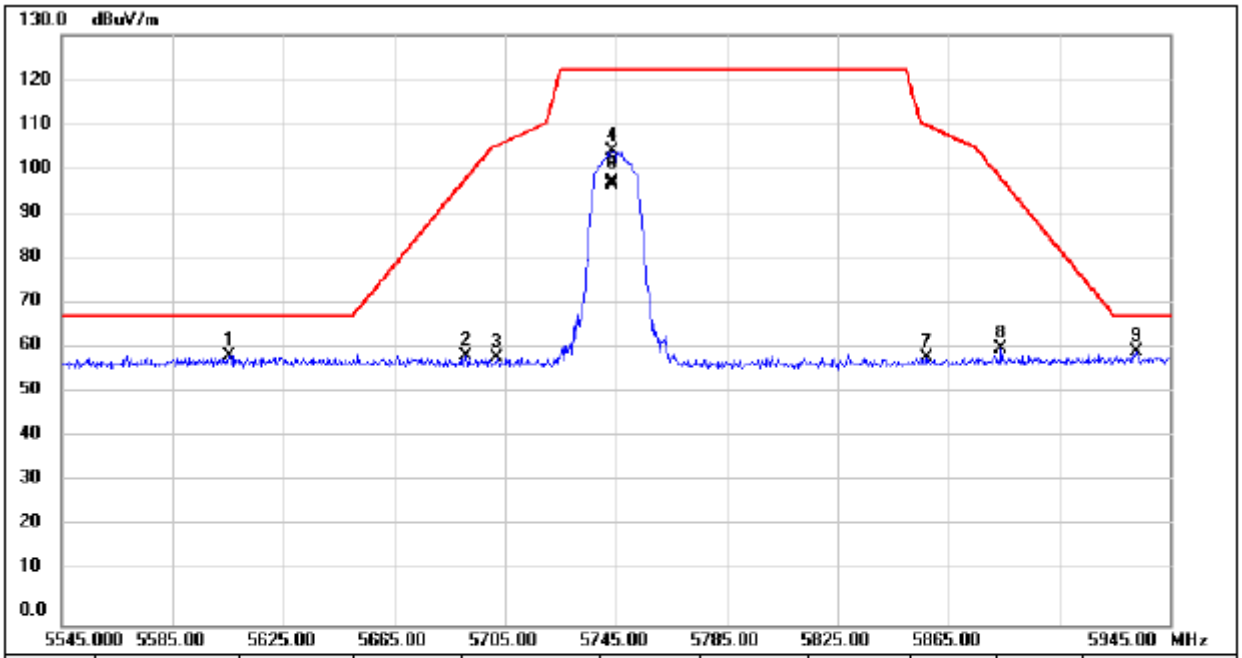
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Horizontal
Temp	20℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		5140.200	49.41	10.47	59.88	74.00	-14.12	peak			
2		5140.200	37.03	10.47	47.50	54.00	-6.50	AVG			DCF:0.38dB
3		5140.200	36.65	10.47	47.12	54.00	-6.88	AVG			
4	*	5238.400	98.39	10.50	108.89	68.20	40.69	peak			
5	X	5238.400	89.40	10.50	99.90	68.20	31.70	AVG			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) X and * represent fundamental frequency and with no limit.

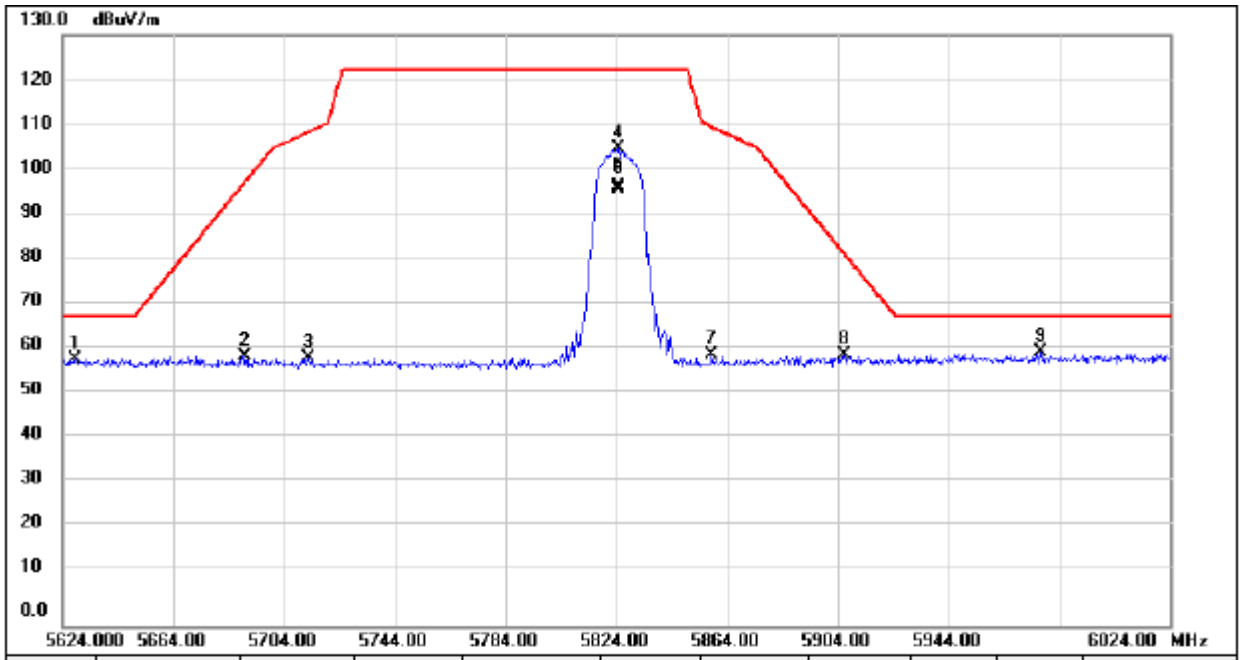
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	CH149: 5745 MHz	Polarization	Horizontal
Temp	20℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		5605.400	48.58	10.79	59.37	68.20	-8.83	peak			
2		5690.600	48.39	10.96	59.35	98.27	-38.92	peak			
3		5702.200	48.11	10.99	59.10	105.82	-46.72	peak			
4		5743.800	93.51	11.08	104.59	122.20	-17.61	peak			
5		5743.800	86.49	11.08	97.57	122.20	-24.63	AVG			DCF:0.51dB
6		5743.800	85.98	11.08	97.06	122.20	-25.14	AVG			
7		5857.000	47.55	11.31	58.86	110.24	-51.38	peak			
8		5884.200	49.43	11.37	60.80	98.37	-37.57	peak			
9	*	5933.000	48.67	11.47	60.14	68.20	-8.06	peak			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) X and * represent fundamental frequency and with no limit.

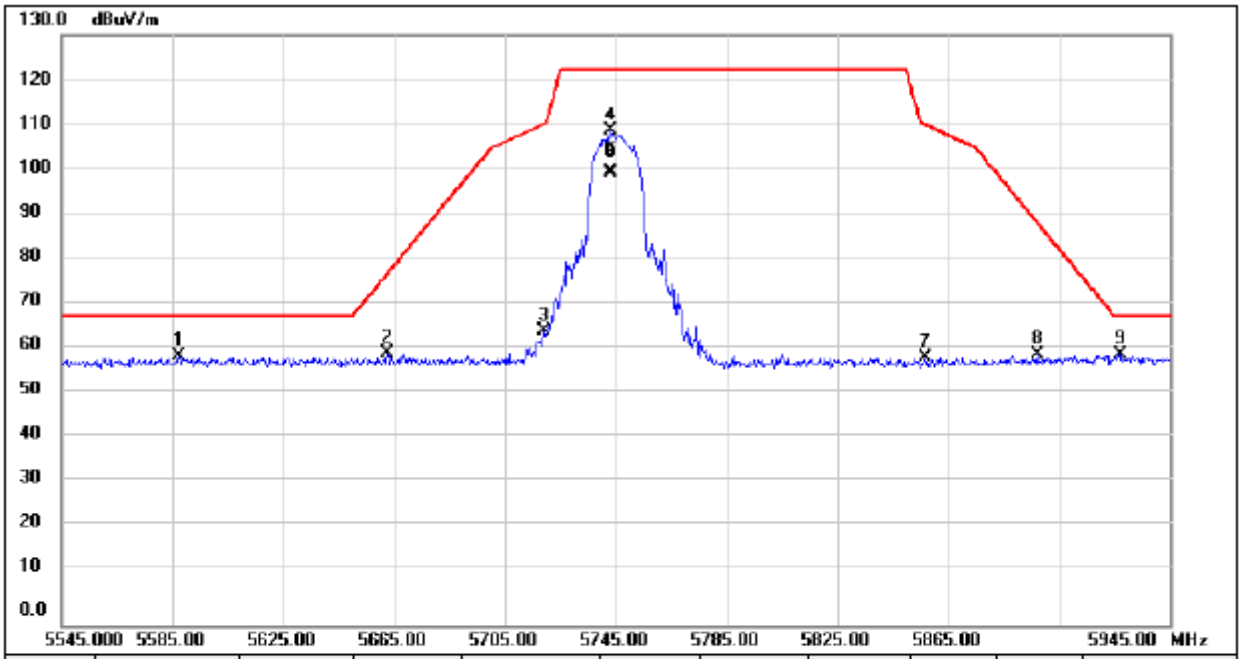
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	CH165: 5825 MHz	Polarization	Horizontal
Temp	20℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		5628.400	47.92	10.84	58.76	68.20	-9.44	peak			
2		5689.600	48.43	10.96	59.39	97.53	-38.14	peak			
3		5712.800	47.99	11.01	59.00	108.79	-49.79	peak			
4		5824.800	93.95	11.24	105.19	122.20	-17.01	peak			
5		5824.800	85.32	11.24	96.56	122.20	-25.64	AVG			DCF:0.51dB
6		5824.800	84.81	11.24	96.05	122.20	-26.15	AVG			
7		5858.400	48.35	11.33	59.68	109.85	-50.17	peak			
8		5906.400	48.22	11.41	59.63	81.93	-22.30	peak			
9	*	5977.200	48.73	11.57	60.30	68.20	-7.90	peak			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) X and * represent fundamental frequency and with no limit.

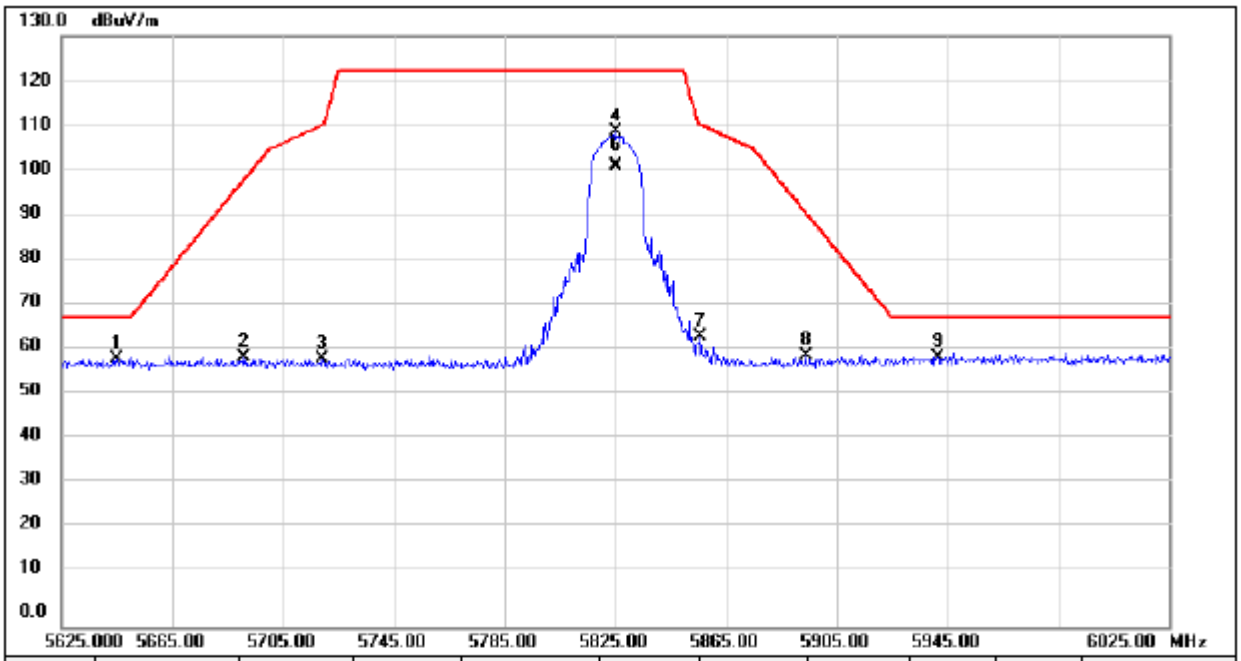
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH149: 5745 MHz	Polarization	Horizontal
Temp	20℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		5587.400	48.66	10.75	59.41	68.20	-8.79	peak			
2		5662.600	48.95	10.91	59.86	77.55	-17.69	peak			
3		5719.400	53.79	11.02	64.81	110.63	-45.82	peak			
4		5743.400	97.93	11.08	109.01	122.20	-13.19	peak			
5		5743.400	88.83	11.08	99.91	122.20	-22.29	AVG			DCF:0.38dB
6		5743.400	88.45	11.08	99.53	122.20	-22.67	AVG			
7		5856.600	47.76	11.31	59.07	110.35	-51.28	peak			
8		5897.000	48.09	11.39	59.48	88.88	-29.40	peak			
9	*	5927.000	48.15	11.46	59.61	68.20	-8.59	peak			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) X and * represent fundamental frequency and with no limit.

Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH165: 5825 MHz	Polarization	Horizontal
Temp	20℃	Hum.	59%

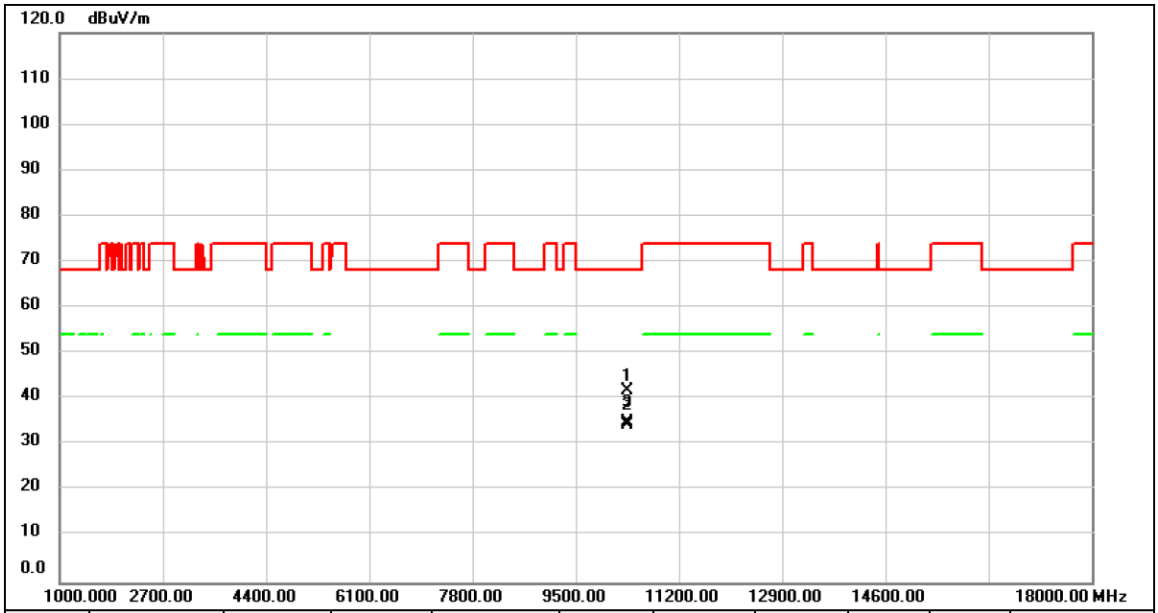


No.		Freq. (MHz)	Reading (dBuV)	Factor (dB)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		5645.000	48.24	10.87	59.11	68.20	-9.09	peak			
2		5691.000	48.32	10.96	59.28	98.56	-39.28	peak			
3		5719.400	47.82	11.02	58.84	110.63	-51.79	peak			
4		5825.400	97.83	11.26	109.09	122.20	-13.11	peak			
5		5825.400	89.88	11.26	101.14	122.20	-21.06	AVG			
6		5825.400	90.26	11.26	101.52	122.20	-20.68	AVG			DCF:0.38dB
7		5855.800	52.53	11.31	63.84	110.58	-46.74	peak			
8		5893.800	48.35	11.39	59.74	91.25	-31.51	peak			
9	*	5941.400	47.88	11.48	59.36	68.20	-8.84	peak			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) X and * represent fundamental frequency and with no limit.

Above 1G

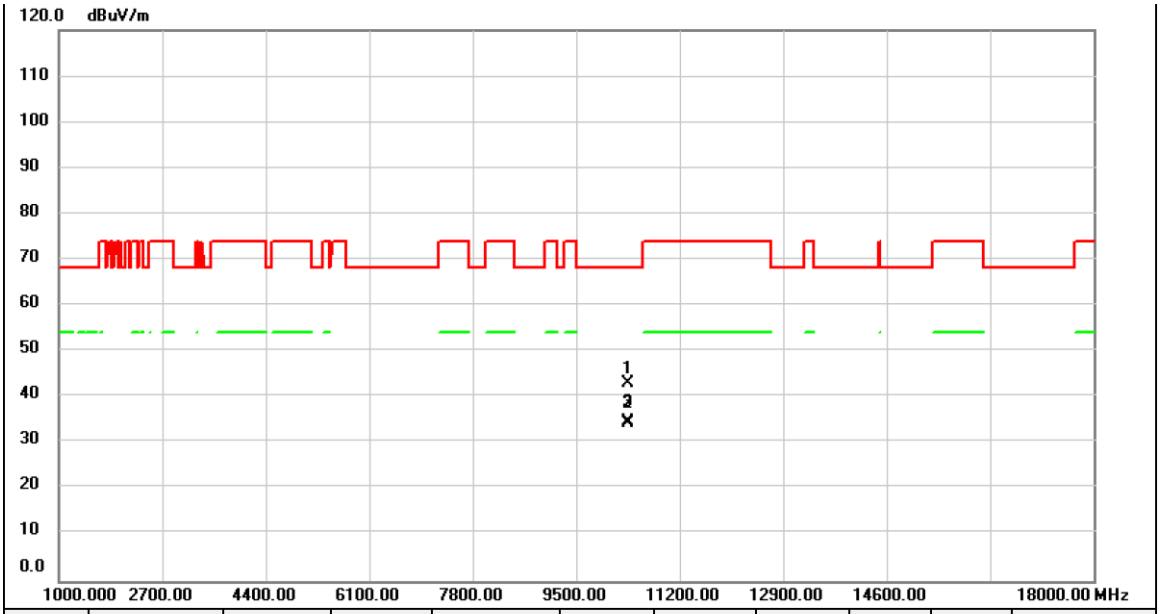
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10360.000	37.84	3.86	41.70	68.20	-26.50	peak	100	29	
2		10360.000	30.48	3.86	34.34	68.20	-33.86	AVG	100	29	
3		10360.000	30.99	3.86	34.85	68.20	-33.35	AVG	100	29	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

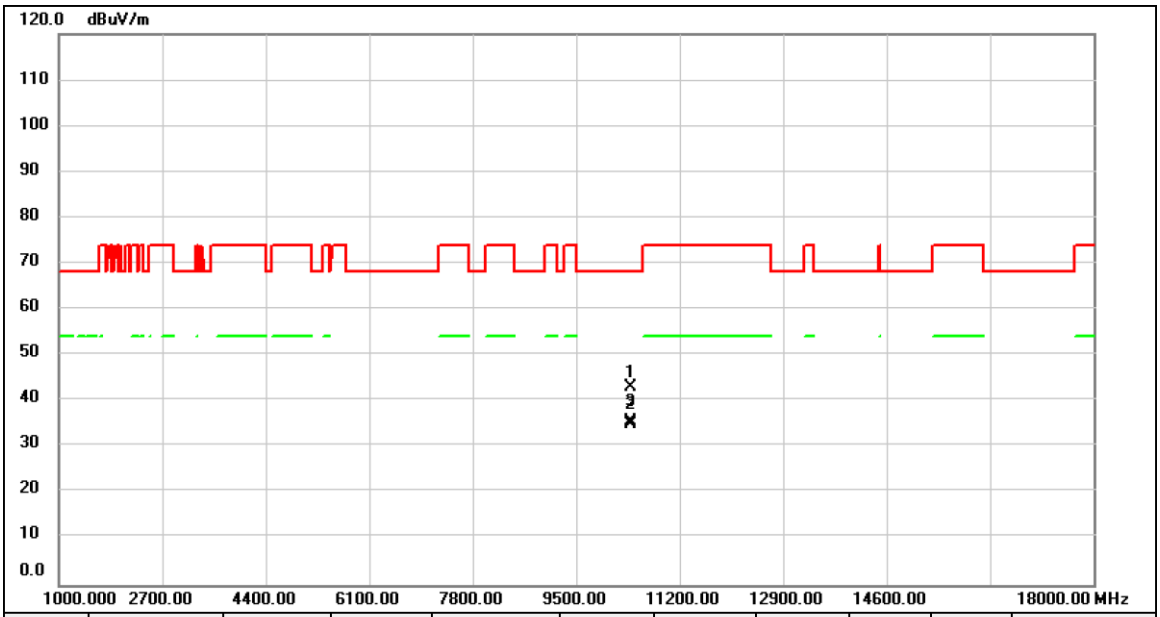
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10360.000	39.19	3.86	43.05	68.20	-25.15	peak	100	250	
2		10360.000	30.37	3.86	34.23	68.20	-33.97	AVG	100	250	
3		10360.000	30.88	3.86	34.74	68.20	-33.46	AVG	100	250	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

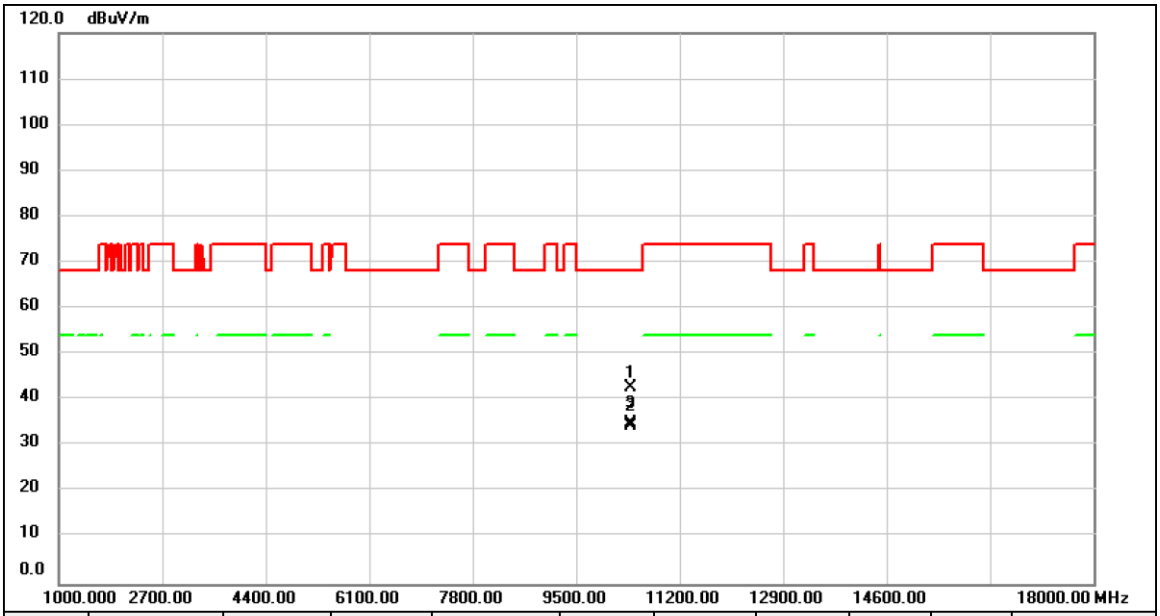
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5200MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10400.000	39.08	3.87	42.95	68.20	-25.25	peak	100	43	
2		10400.000	31.16	3.87	35.03	68.20	-33.17	AVG	100	43	
3		10400.000	31.67	3.87	35.54	68.20	-32.66	AVG	100	43	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

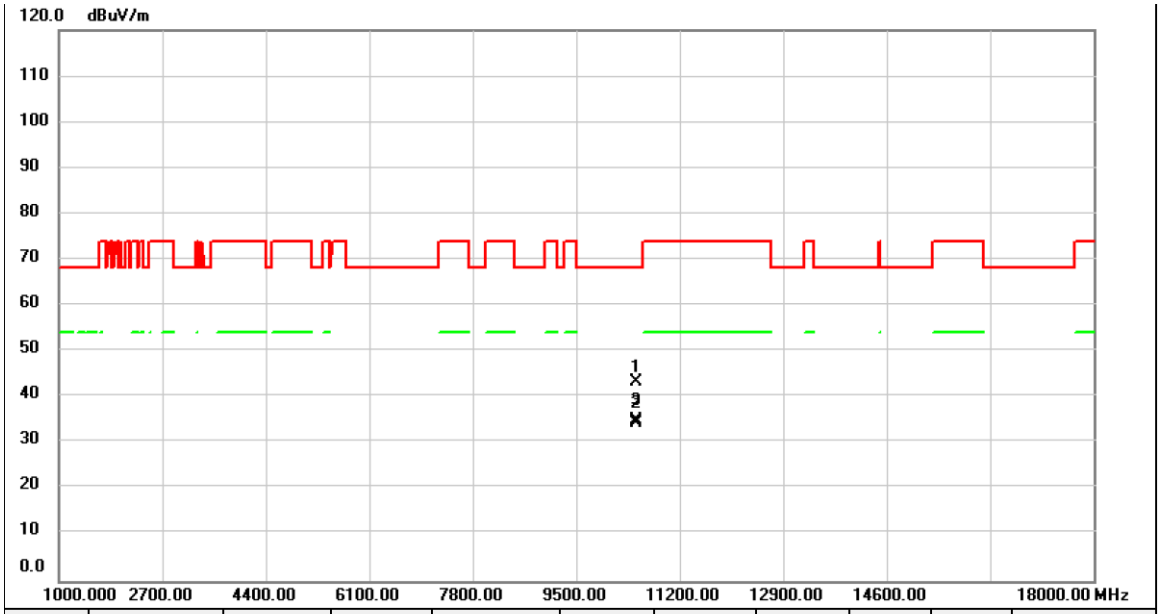
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5200MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10400.000	38.80	3.87	42.67	68.20	-25.53	peak	100	297	
2		10400.000	30.48	3.87	34.35	68.20	-33.85	AVG	100	297	
3		10400.000	30.99	3.87	34.86	68.20	-33.34	AVG	100	297	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

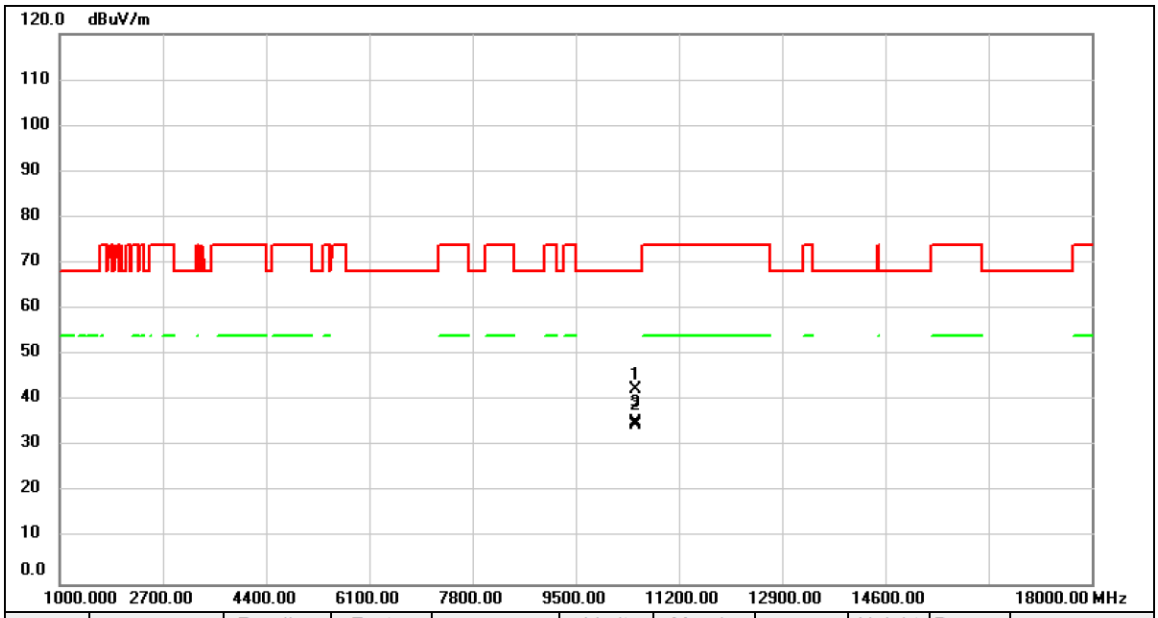
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10480.000	39.46	3.87	43.33	68.20	-24.87	peak	100	294	
2		10480.000	30.50	3.87	34.37	68.20	-33.83	AVG	100	294	
3		10480.000	31.01	3.87	34.88	68.20	-33.32	AVG	100	294	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

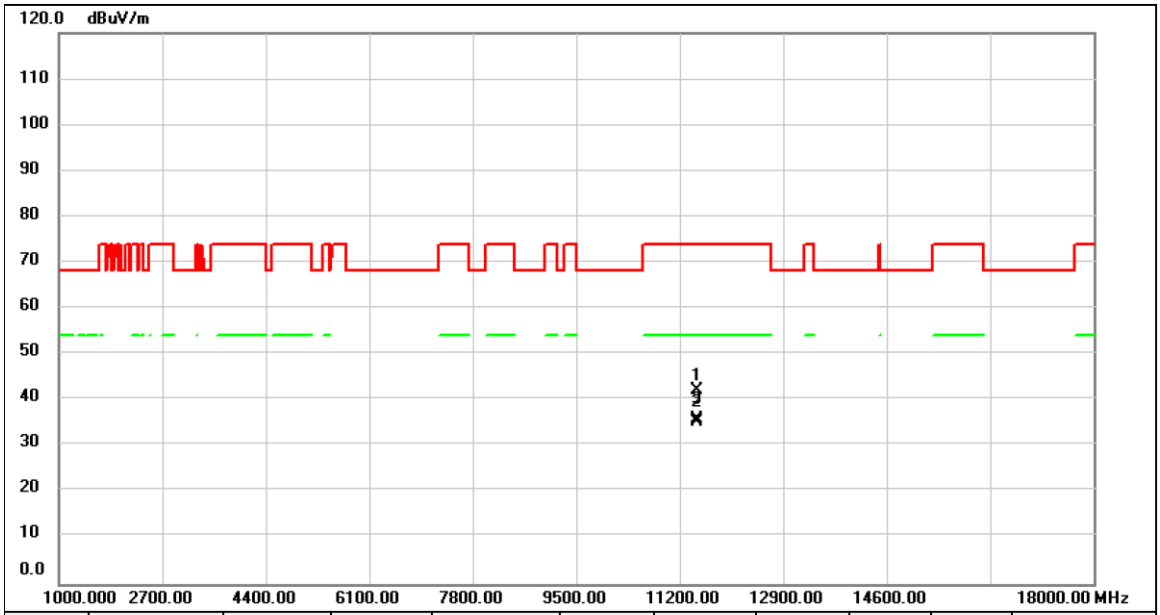
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10480.000	38.66	3.87	42.53	68.20	-25.67	peak	100	310	
2		10480.000	30.79	3.87	34.66	68.20	-33.54	AVG	100	310	
3		10480.000	31.30	3.87	35.17	68.20	-33.03	AVG	100	310	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

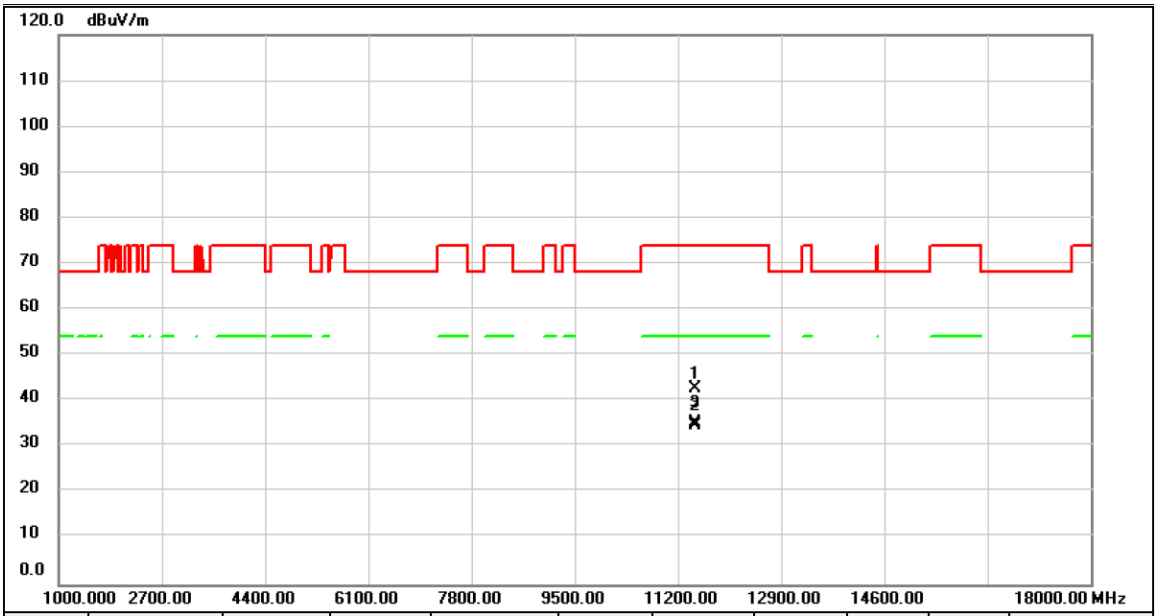
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5745MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11490.000	37.97	4.32	42.29	74.00	-31.71	peak	100	95	
2		11490.000	31.05	4.32	35.37	54.00	-18.63	AVG	100	95	
3	*	11490.000	31.56	4.32	35.88	54.00	-18.12	AVG	100	95	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

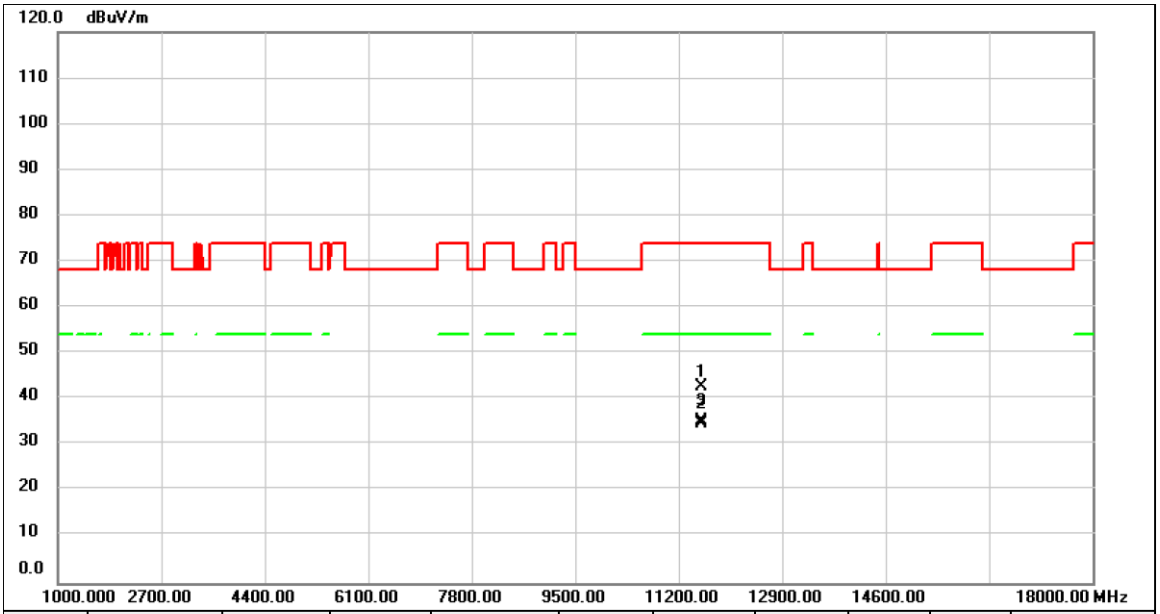
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5745MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11490.000	38.51	4.32	42.83	74.00	-31.17	peak	100	42	
2		11490.000	30.37	4.32	34.69	54.00	-19.31	AVG	100	42	
3	*	11490.000	30.88	4.32	35.20	54.00	-18.80	AVG	100	42	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

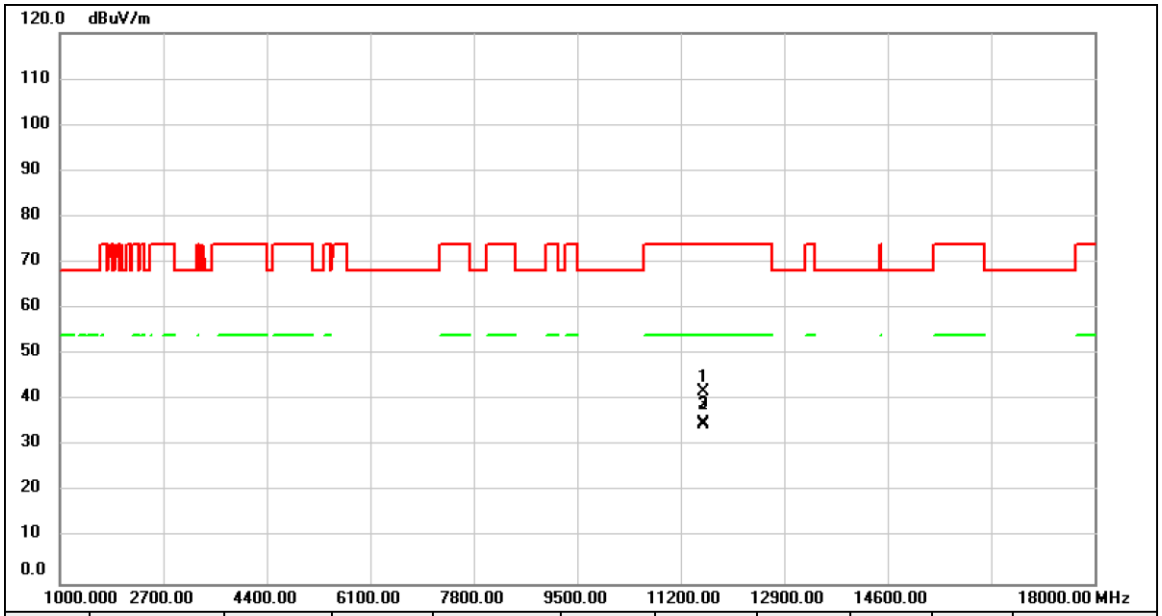
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5785MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11570.000	38.52	4.31	42.83	74.00	-31.17	peak	100	42	
2		11570.000	30.38	4.31	34.69	54.00	-19.31	AVG	100	42	
3	*	11570.000	30.89	4.31	35.20	54.00	-18.80	AVG	100	42	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

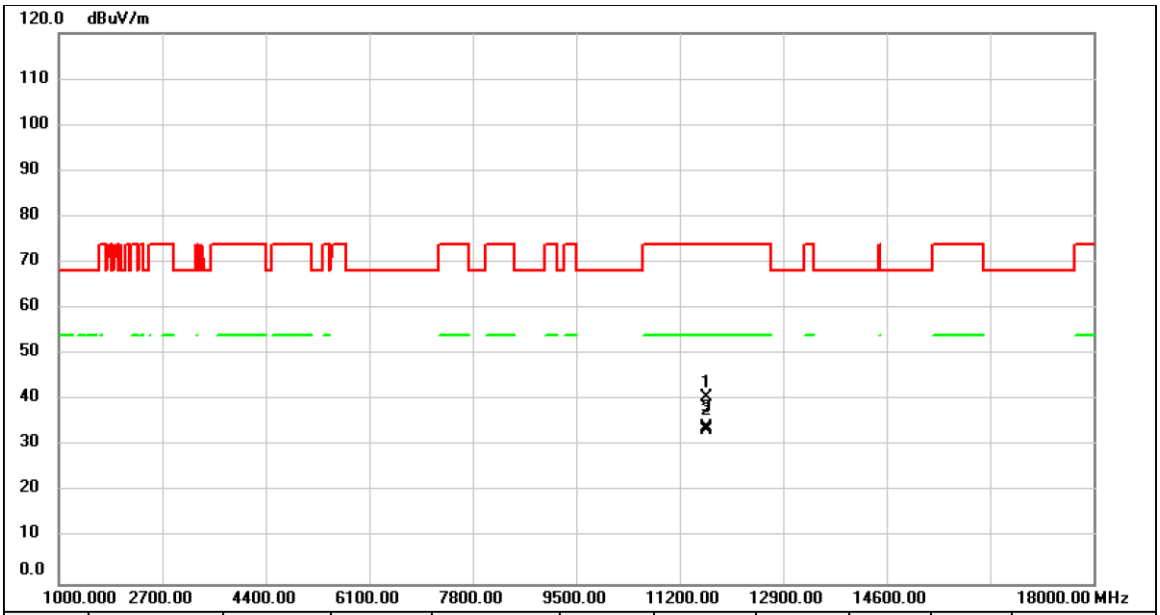
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5785MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11570.000	37.53	4.31	41.84	74.00	-32.16	peak	100	271	
2		11570.000	30.20	4.31	34.51	54.00	-19.49	AVG	100	271	
3	*	11570.000	30.71	4.31	35.02	54.00	-18.98	AVG	100	271	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

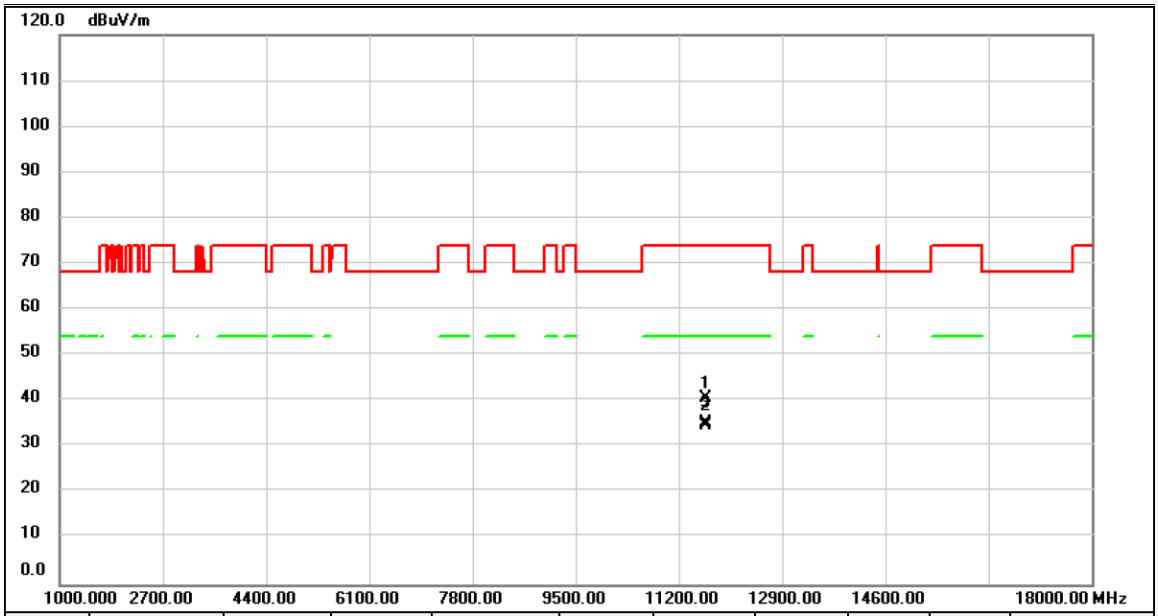
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5825MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11650.000	36.24	4.32	40.56	74.00	-33.44	peak	100	245	
2		11650.000	29.23	4.32	33.55	54.00	-20.45	AVG	100	245	
3	*	11650.000	29.74	4.32	34.06	54.00	-19.94	AVG	100	245	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

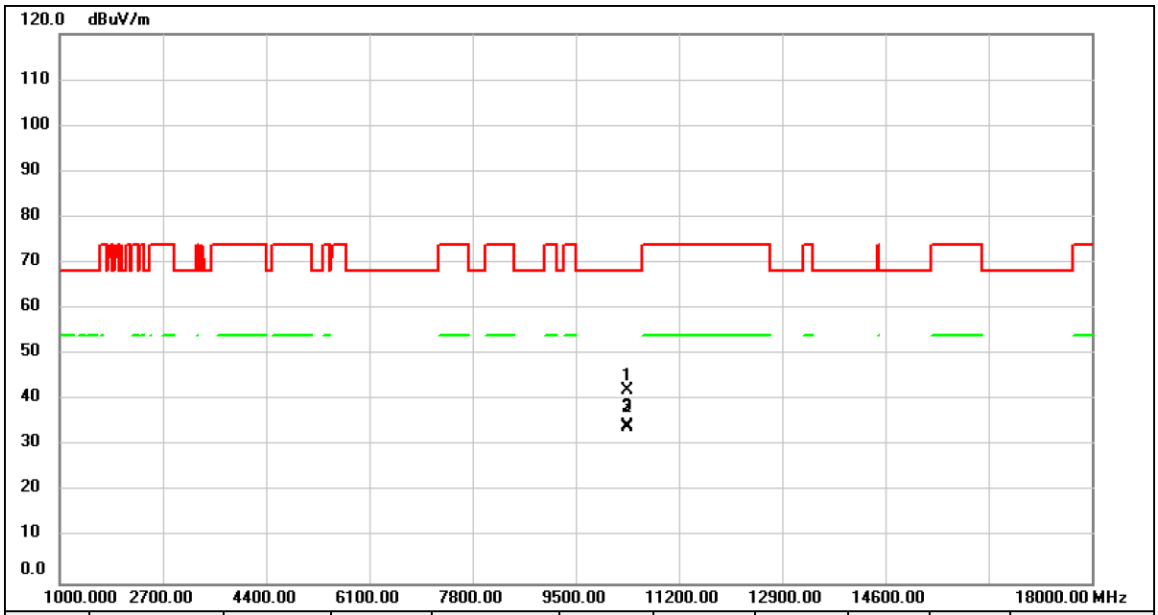
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5825MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11650.000	36.19	4.32	40.51	74.00	-33.49	peak	100	206	
2		11650.000	30.27	4.32	34.59	54.00	-19.41	AVG	100	206	
3	*	11650.000	30.78	4.32	35.10	54.00	-18.90	AVG	100	206	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

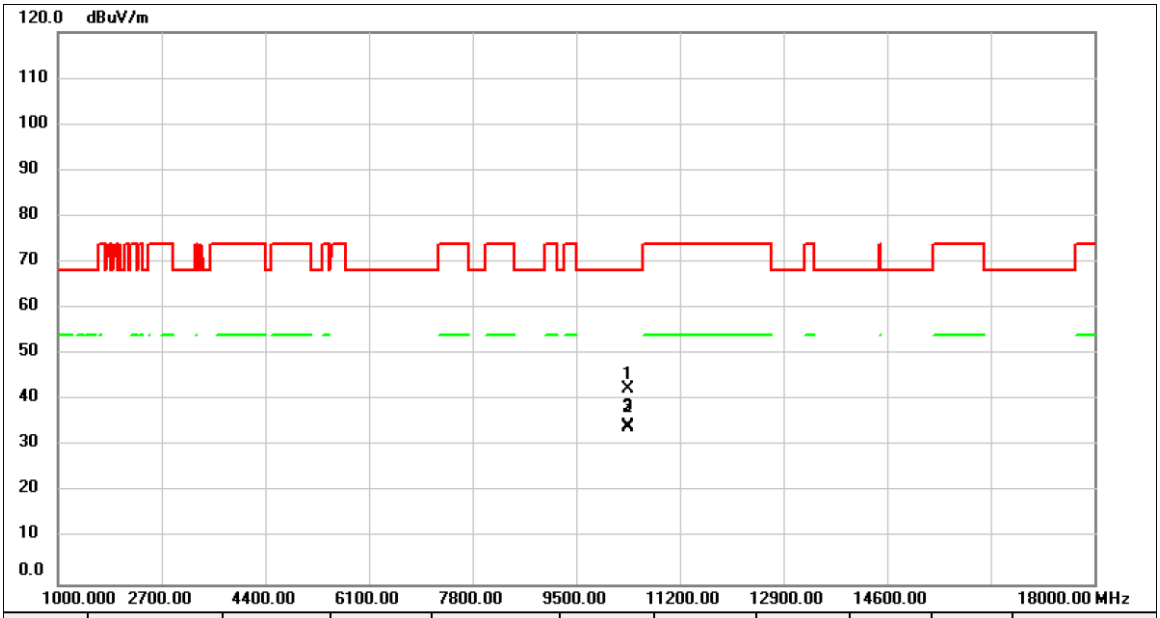
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10360.000	38.26	3.86	42.12	68.20	-26.08	peak	100	28	
2		10360.000	30.18	3.86	34.04	68.20	-34.16	AVG	100	28	
3		10360.000	30.56	3.86	34.42	68.20	-33.78	AVG	100	28	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

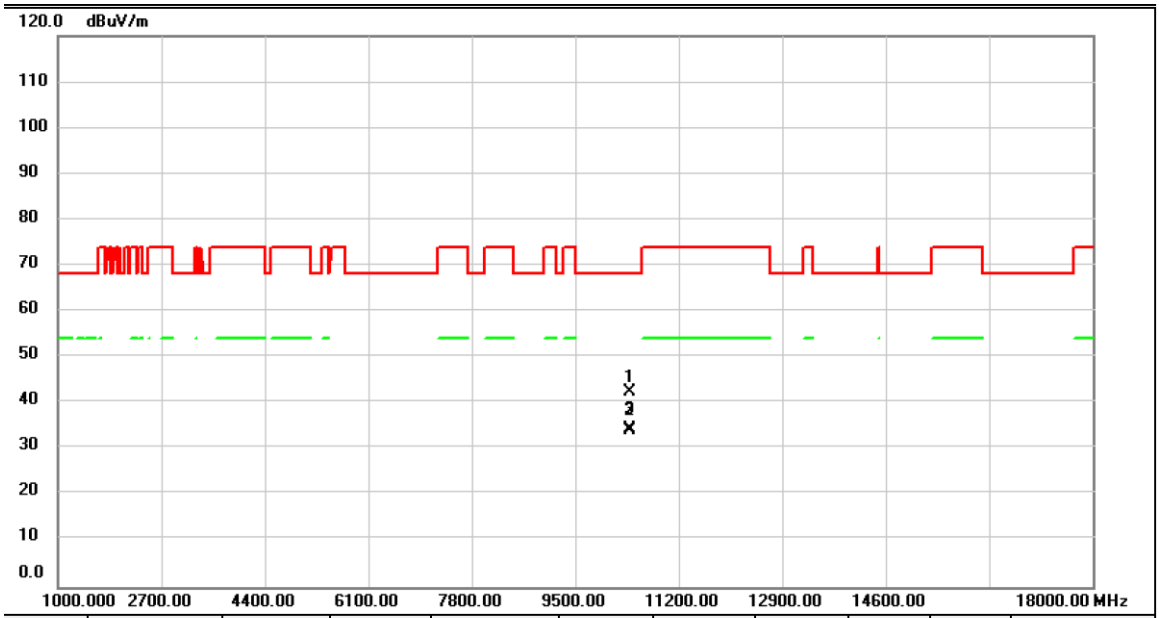
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10360.000	38.45	3.86	42.31	68.20	-25.89	peak	100	322	
2		10360.000	30.18	3.86	34.04	68.20	-34.16	AVG	100	322	
3		10360.000	30.56	3.86	34.42	68.20	-33.78	AVG	100	322	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

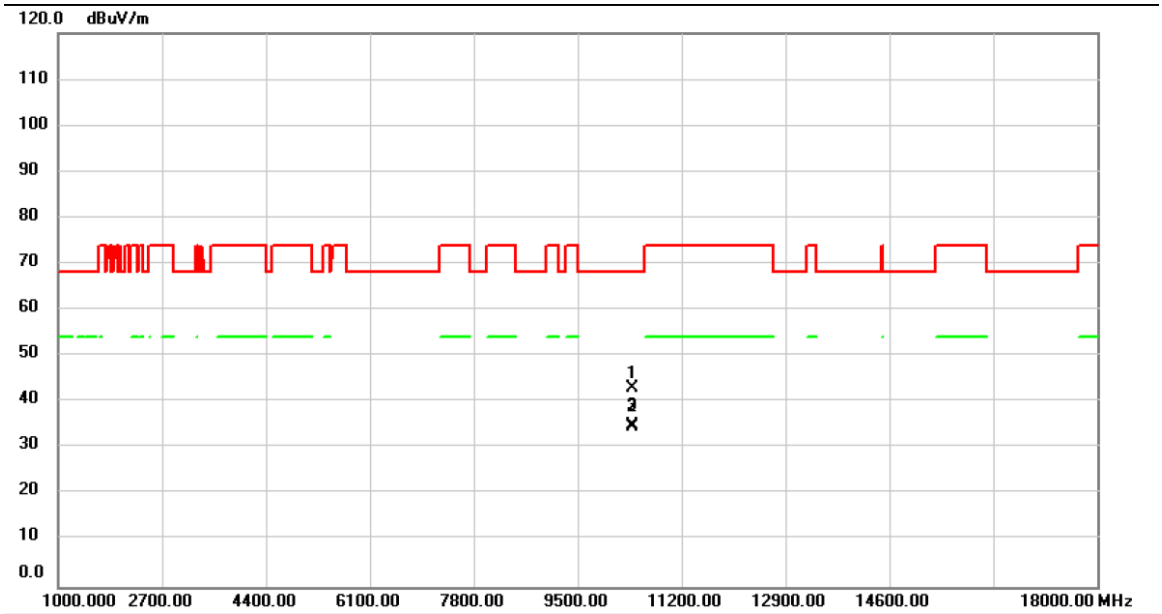
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5200MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10400.000	38.51	3.87	42.38	68.20	-25.82	peak	100	50	
2		10400.000	30.19	3.87	34.06	68.20	-34.14	AVG	100	50	
3		10400.000	30.57	3.87	34.44	68.20	-33.76	AVG	100	50	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

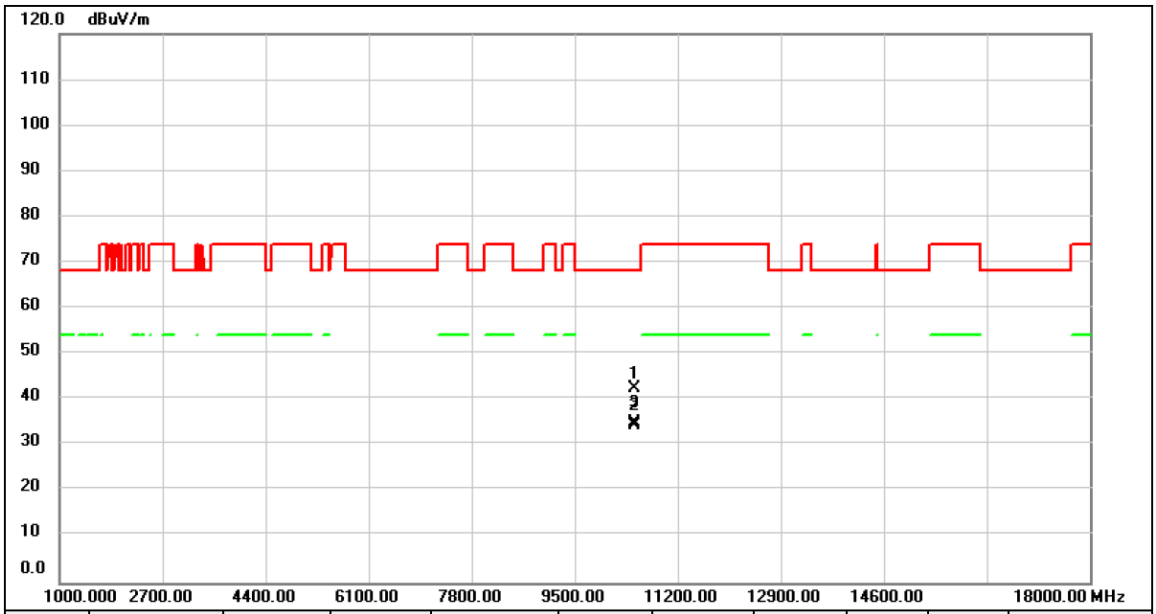
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5200MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10400.000	39.05	3.87	42.92	68.20	-25.28	peak	100	360	
2		10400.000	30.67	3.87	34.54	68.20	-33.66	AVG	100	360	
3		10400.000	31.05	3.87	34.92	68.20	-33.28	AVG	100	360	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

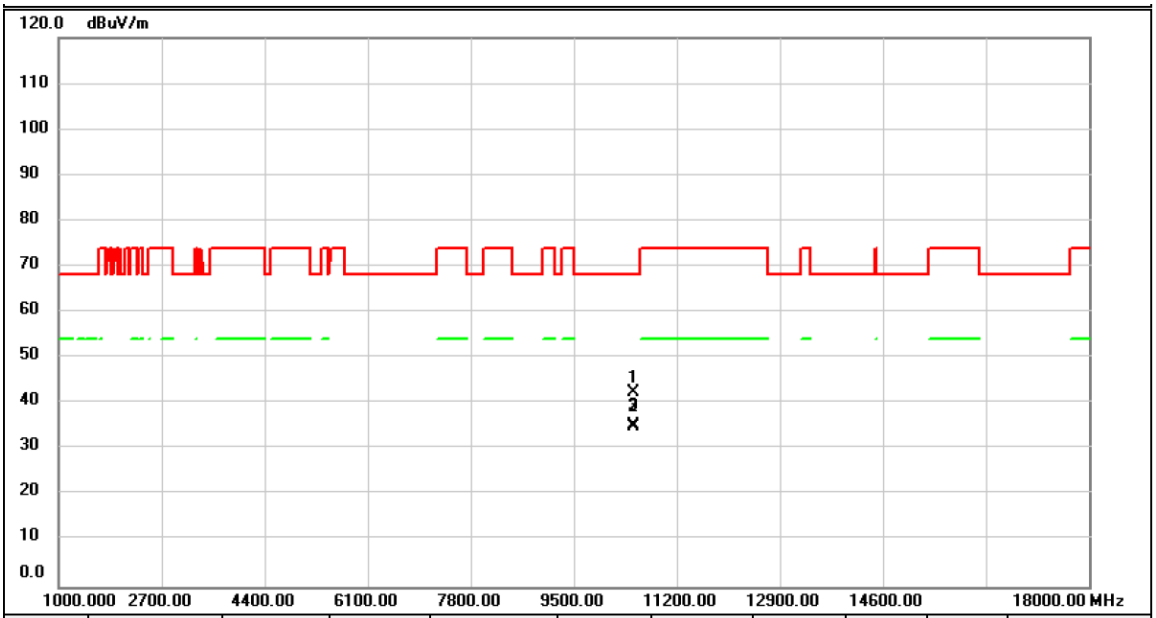
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10480.000	38.64	3.87	42.51	68.20	-25.69	peak	100	305	
2		10480.000	30.58	3.87	34.45	68.20	-33.75	AVG	100	305	
3		10480.000	30.96	3.87	34.83	68.20	-33.37	AVG	100	305	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

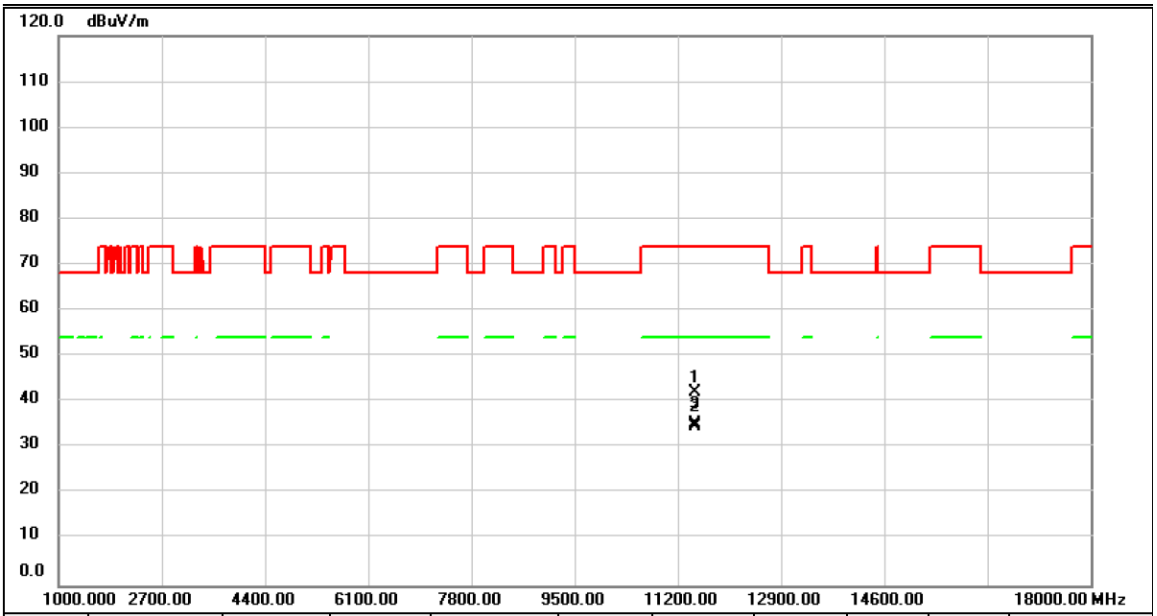
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	10480.000	38.73	3.87	42.60	68.20	-25.60	peak	100	32	
2		10480.000	31.10	3.87	34.97	68.20	-33.23	AVG	100	32	
3		10480.000	31.48	3.87	35.35	68.20	-32.85	AVG	100	32	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

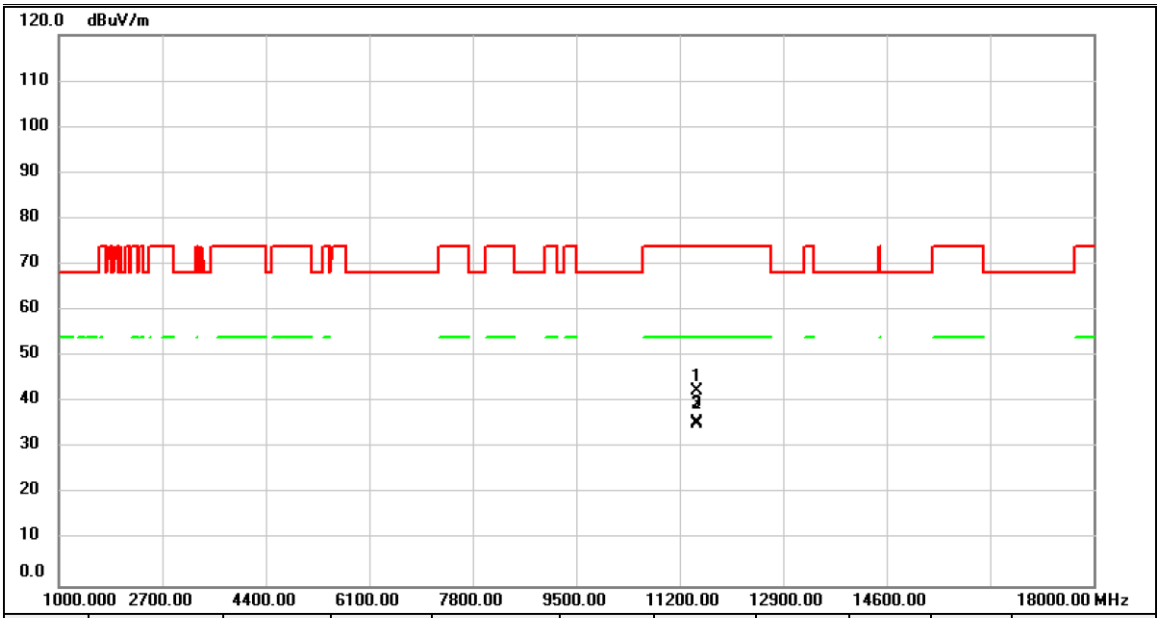
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH149: 5745 MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11490.000	37.77	4.32	42.09	74.00	-31.91	peak	100	290	
2		11490.000	30.48	4.32	34.80	54.00	-19.20	AVG	100	290	
3	*	11490.000	30.86	4.32	35.18	54.00	-18.82	AVG	100	290	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

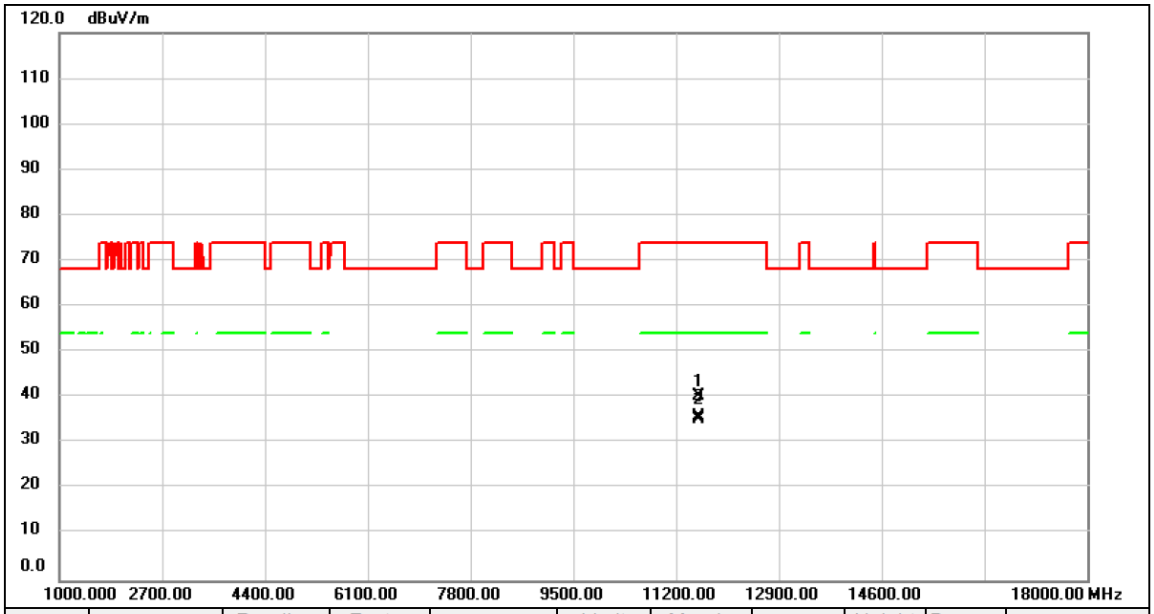
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH149: 5745 MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11490.000	38.16	4.32	42.48	74.00	-31.52	peak	100	285	
2		11490.000	30.94	4.32	35.26	54.00	-18.74	AVG	100	285	
3	*	11490.000	31.32	4.32	35.64	54.00	-18.36	AVG	100	285	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

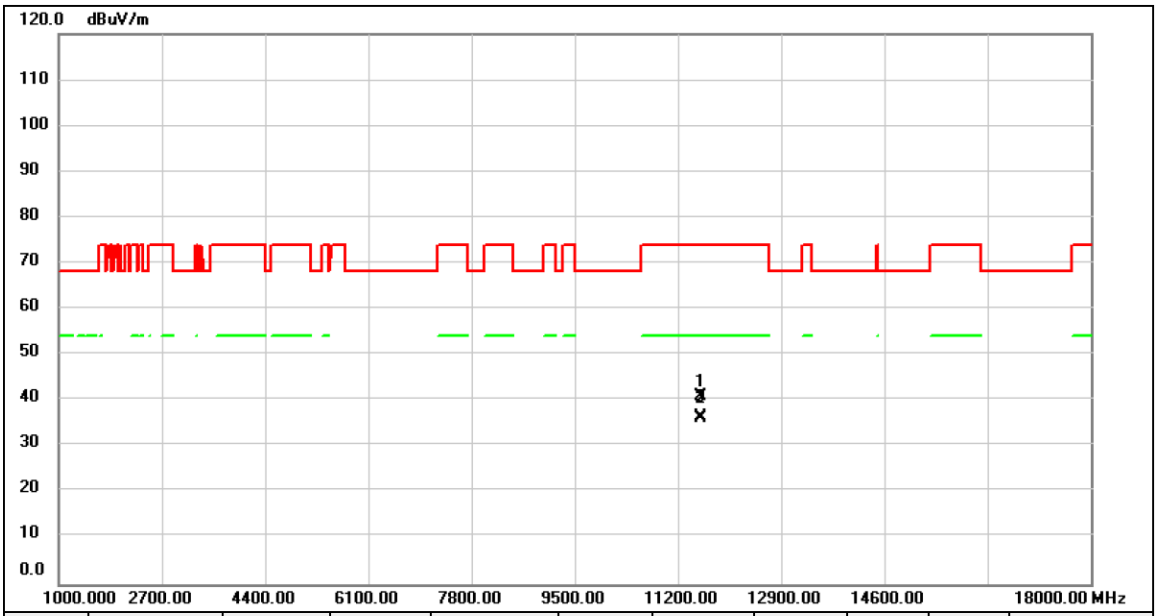
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH157: 5785 MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11570.000	36.08	4.31	40.39	74.00	-33.61	peak	100	84	
2		11570.000	31.02	4.31	35.33	54.00	-18.67	AVG	100	84	
3	*	11570.000	31.40	4.31	35.71	54.00	-18.29	AVG	100	84	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

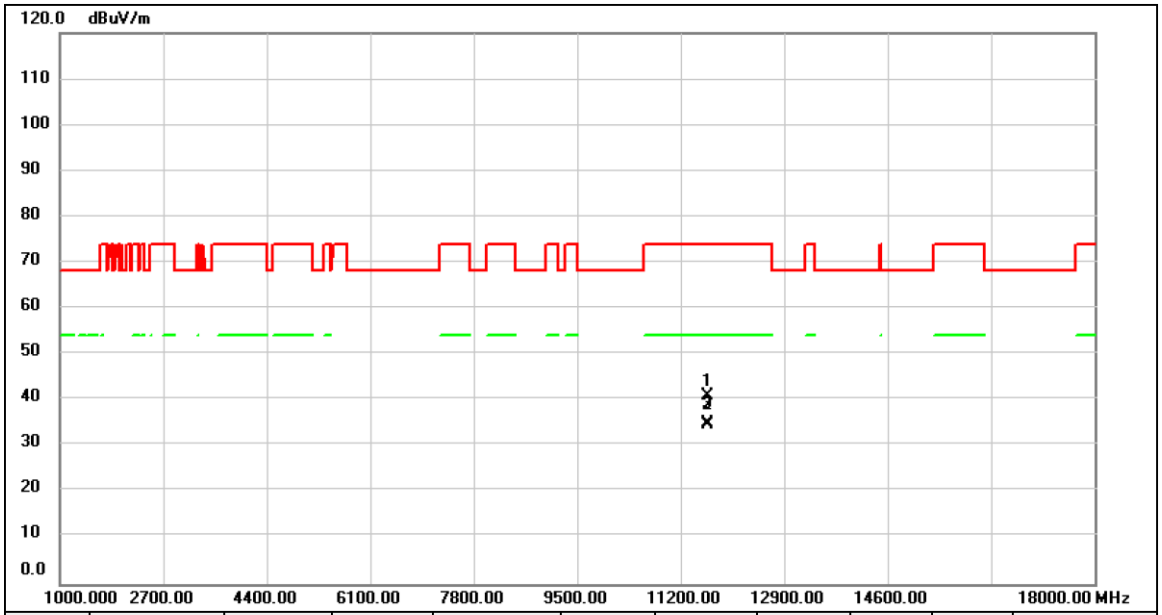
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH157: 5785 MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11570.000	36.79	4.31	41.10	74.00	-32.90	peak	100	310	
2		11570.000	31.79	4.31	36.10	54.00	-17.90	AVG	100	310	
3	*	11570.000	32.17	4.31	36.48	54.00	-17.52	AVG	100	310	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

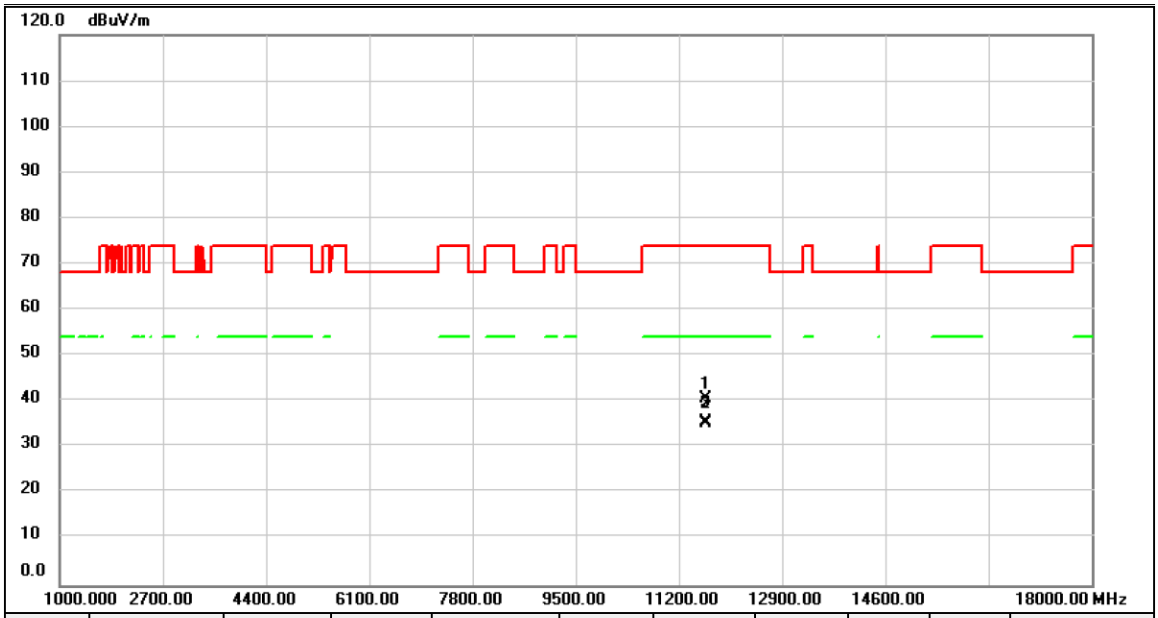
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH165: 5825 MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11650.000	36.67	4.32	40.99	74.00	-33.01	peak	100	52	
2		11650.000	30.38	4.32	34.70	54.00	-19.30	AVG	100	52	
3	*	11650.000	30.76	4.32	35.08	54.00	-18.92	AVG	100	52	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH165: 5825 MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%

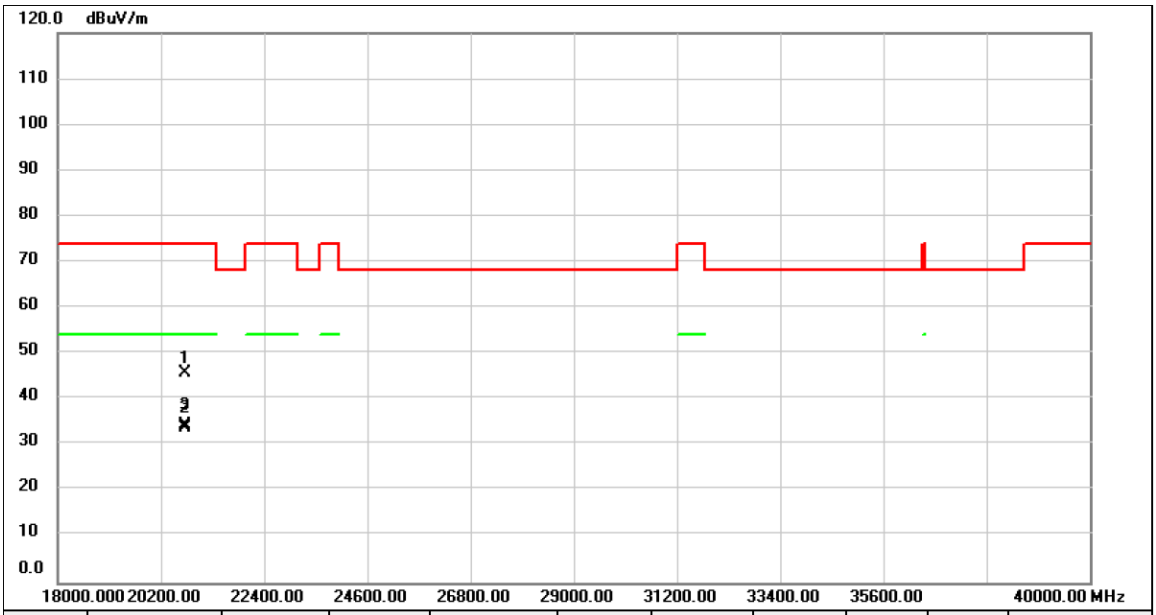


No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		11650.000	36.20	4.32	40.52	74.00	-33.48	peak	100	192	
2		11650.000	30.79	4.32	35.11	54.00	-18.89	AVG	100	192	
3	*	11650.000	31.17	4.32	35.49	54.00	-18.51	AVG	100	192	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

Above 18G

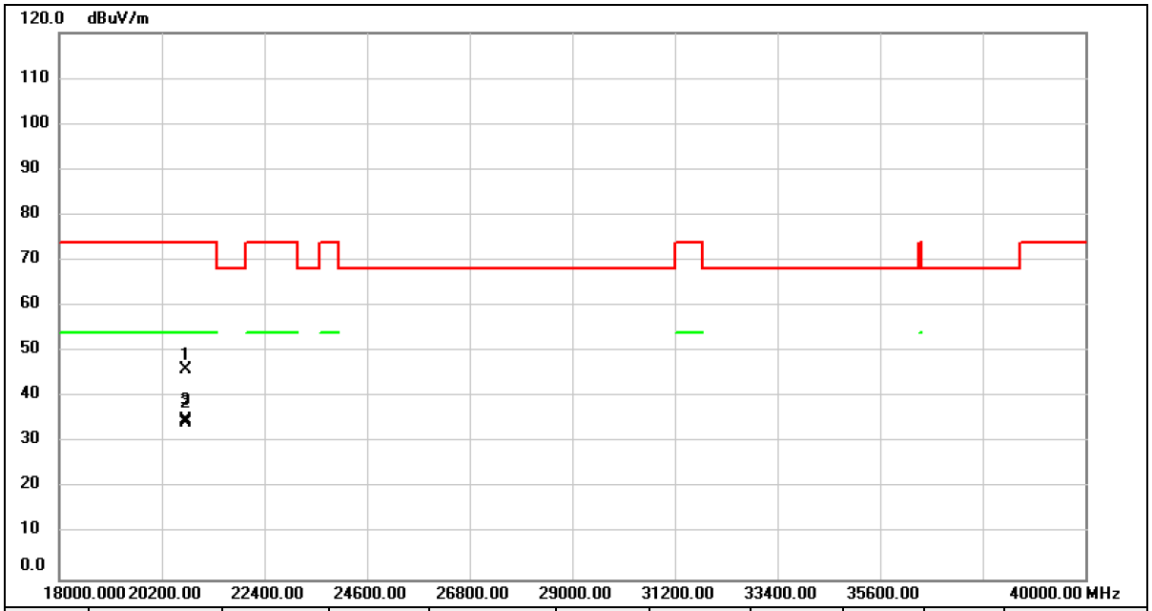
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20720.000	53.27	-7.49	45.78	74.00	-28.22	peak	100	241	
2		20720.000	41.33	-7.49	33.84	54.00	-20.16	AVG	100	241	
3	*	20720.000	41.84	-7.49	34.35	54.00	-19.65	AVG	100	241	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

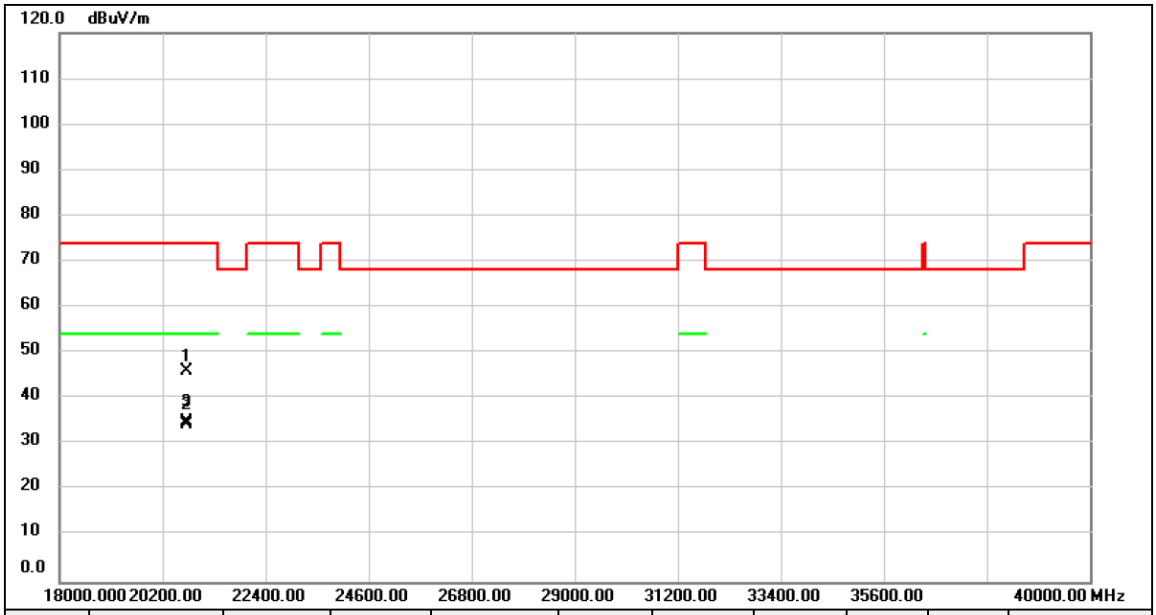
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20720.000	53.55	-7.49	46.06	74.00	-27.94	peak	100	123	
2		20720.000	41.94	-7.49	34.45	54.00	-19.55	AVG	100	123	
3	*	20720.000	42.45	-7.49	34.96	54.00	-19.04	AVG	100	123	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

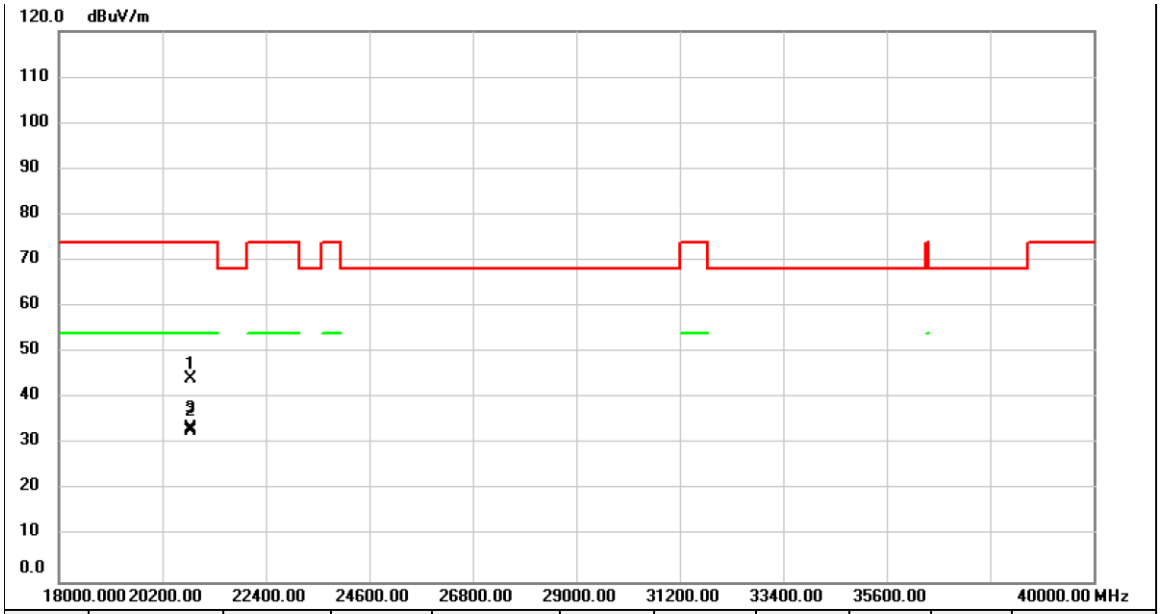
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5200MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20720.000	53.55	-7.49	46.06	74.00	-27.94	peak	100	123	
2		20720.000	41.94	-7.49	34.45	54.00	-19.55	AVG	100	123	
3	*	20720.000	42.45	-7.49	34.96	54.00	-19.04	AVG	100	123	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

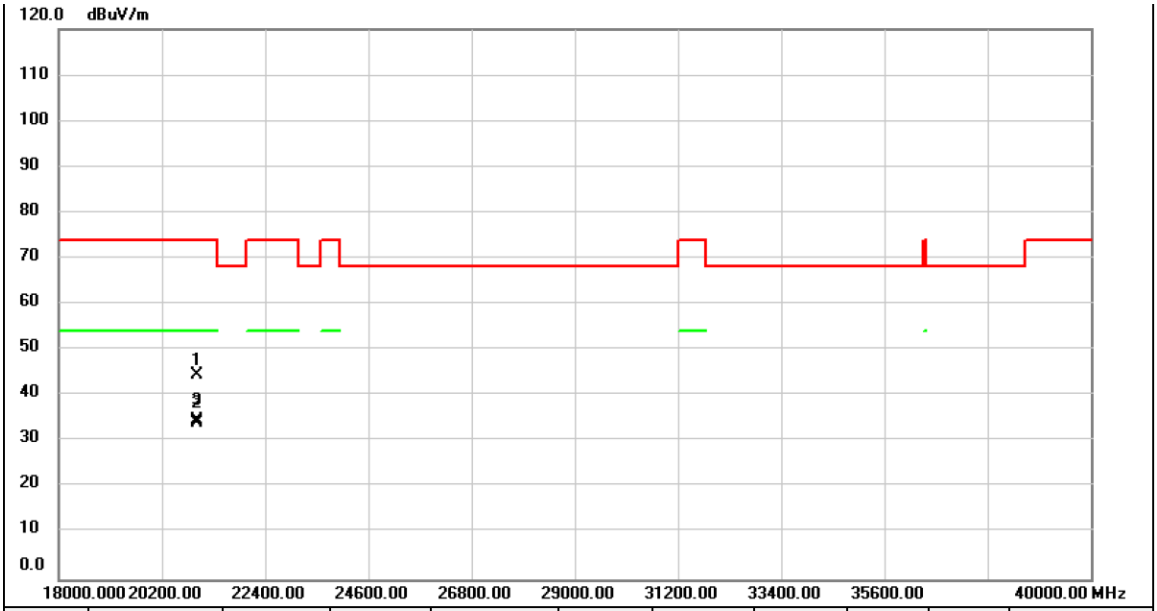
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5200MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20800.000	51.62	-7.37	44.25	74.00	-29.75	peak	100	167	
2		20800.000	40.36	-7.37	32.99	54.00	-21.01	AVG	100	167	
3	*	20800.000	40.87	-7.37	33.50	54.00	-20.50	AVG	100	167	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

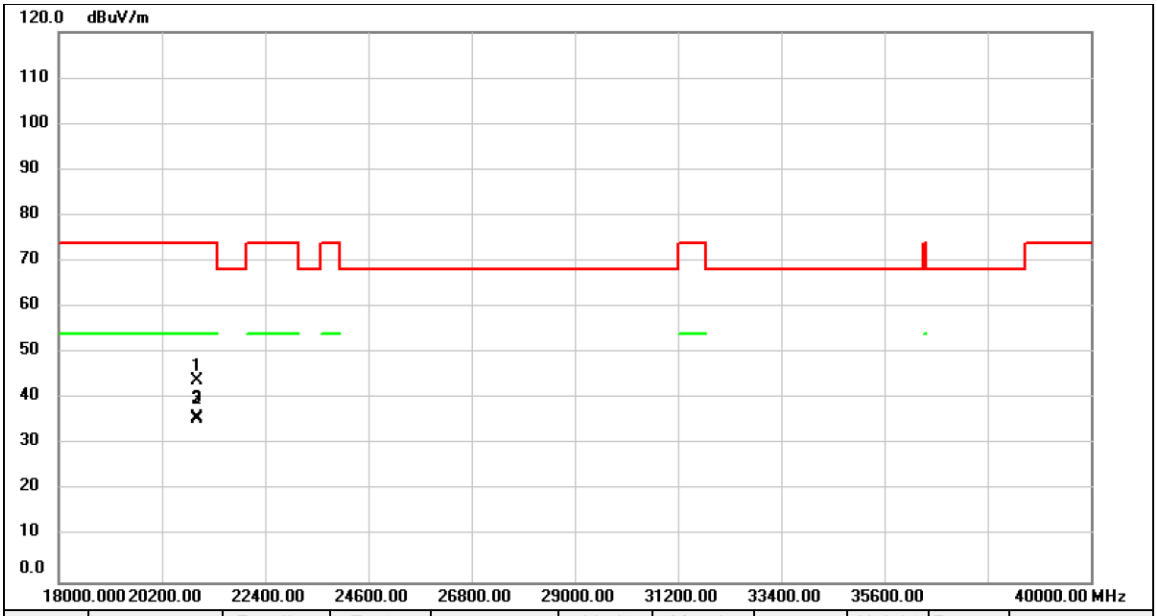
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20960.000	51.80	-7.18	44.62	74.00	-29.38	peak	100	51	
2		20960.000	41.30	-7.18	34.12	54.00	-19.88	AVG	100	51	
3	*	20960.000	41.81	-7.18	34.63	54.00	-19.37	AVG	100	51	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

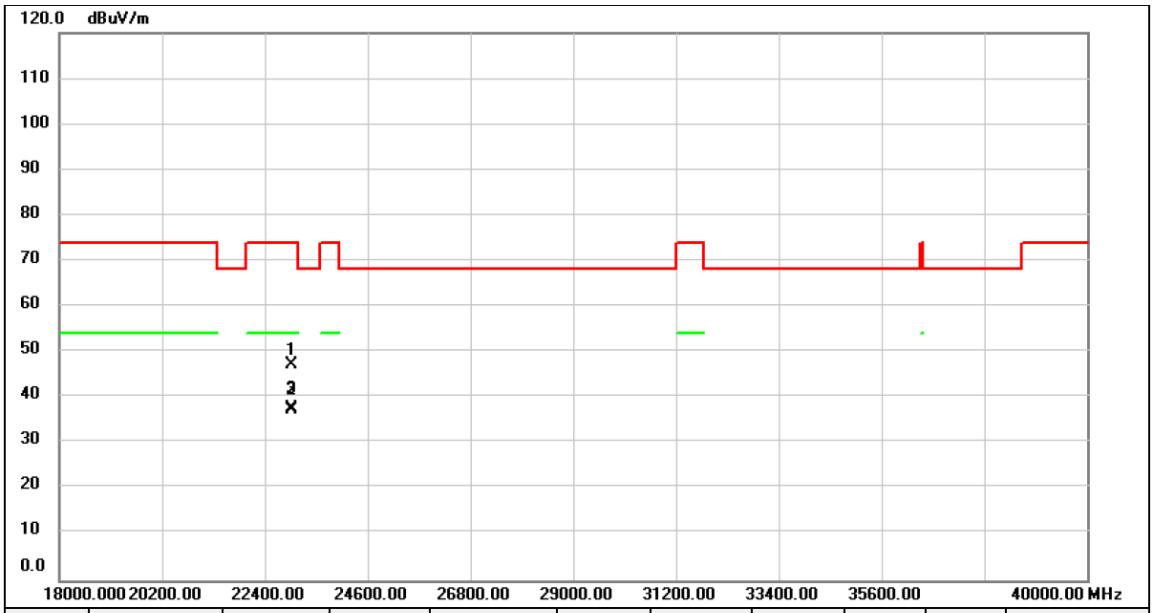
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20960.000	51.09	-7.18	43.91	74.00	-30.09	peak	100	342	
2		20960.000	42.63	-7.18	35.45	54.00	-18.55	AVG	100	342	
3	*	20960.000	43.14	-7.18	35.96	54.00	-18.04	AVG	100	342	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

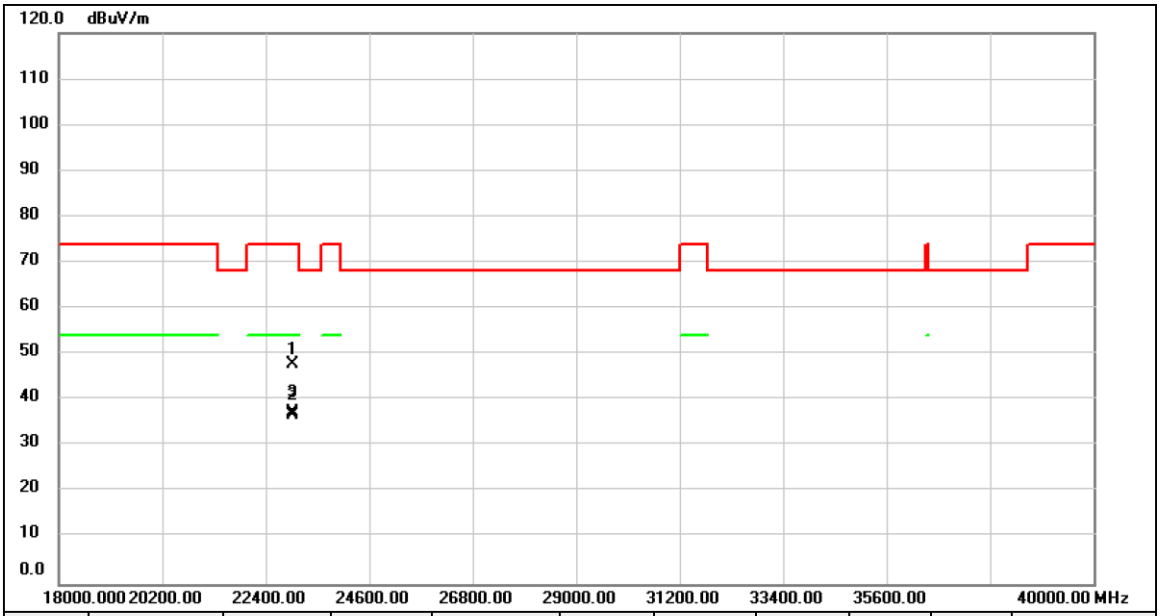
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5745MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		22980.000	52.31	-5.02	47.29	74.00	-26.71	peak	100	326	
2		22980.000	42.31	-5.02	37.29	54.00	-16.71	AVG	100	326	
3	*	22980.000	42.82	-5.02	37.80	54.00	-16.20	AVG	100	326	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

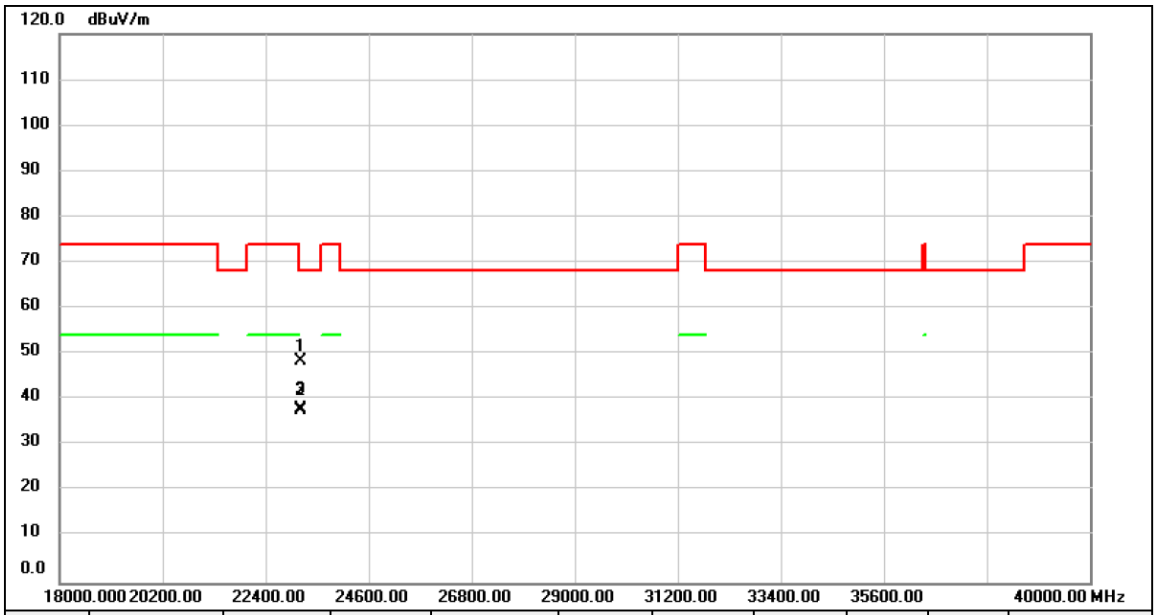
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5745MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		22980.000	52.94	-5.02	47.92	74.00	-26.08	peak	100	73	
2		22980.000	41.80	-5.02	36.78	54.00	-17.22	AVG	100	73	
3	*	22980.000	42.31	-5.02	37.29	54.00	-16.71	AVG	100	73	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

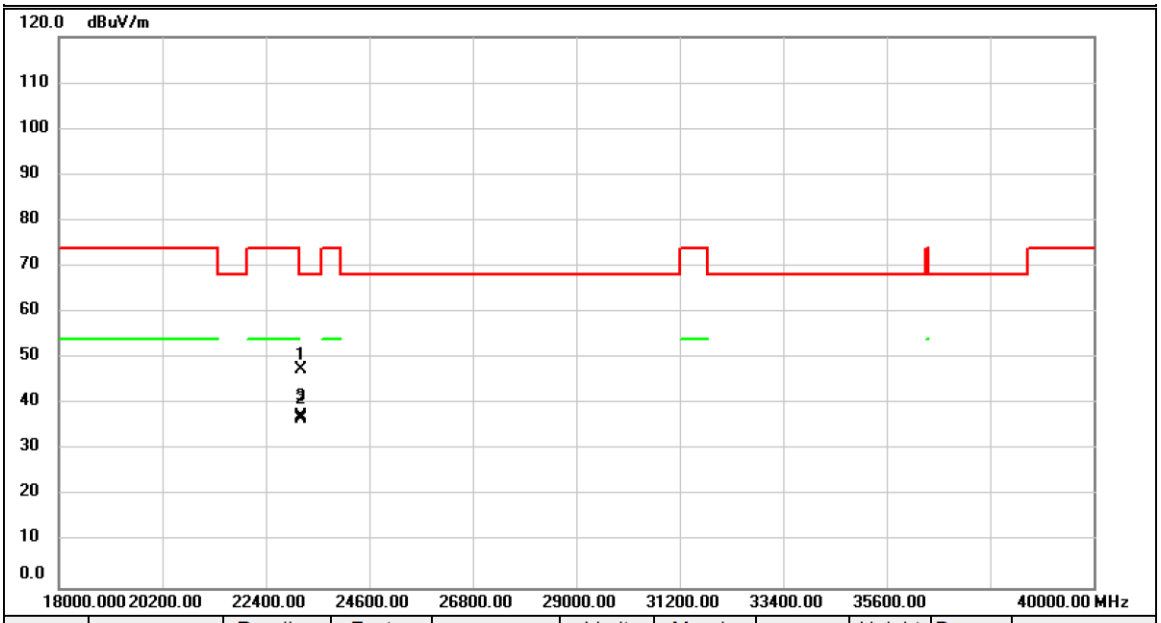
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5785MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	23140.000	53.18	-4.80	48.38	68.20	-19.82	peak	100	112	
2		23140.000	42.31	-4.80	37.51	68.20	-30.69	AVG	100	112	
3		23140.000	42.82	-4.80	38.02	68.20	-30.18	AVG	100	112	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

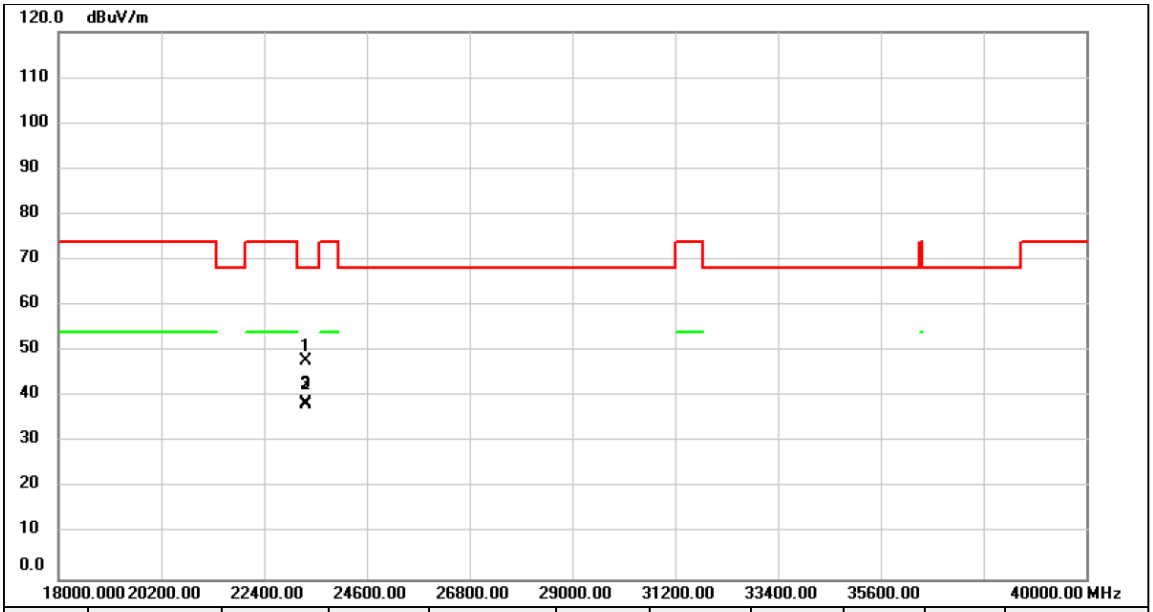
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5785MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	23140.000	52.31	-4.80	47.51	68.20	-20.69	peak	100	147	
2		23140.000	41.59	-4.80	36.79	68.20	-31.41	AVG	100	147	
3		23140.000	42.10	-4.80	37.30	68.20	-30.90	AVG	100	147	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

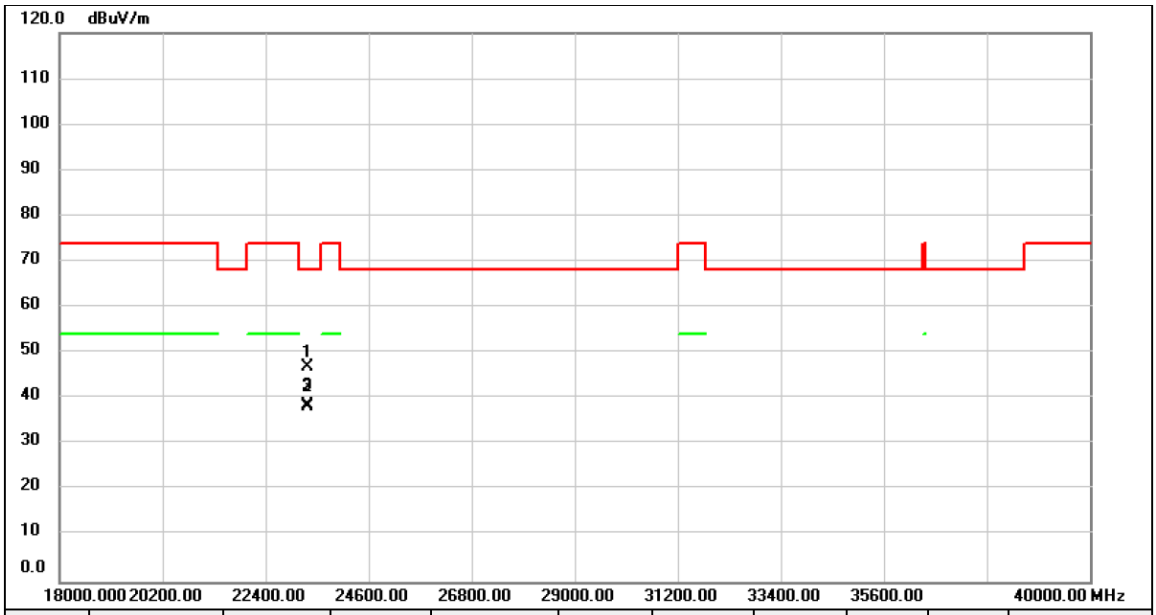
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5825MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	23300.000	52.40	-4.61	47.79	68.20	-20.41	peak	100	69	
2		23300.000	42.73	-4.61	38.12	68.20	-30.08	AVG	100	69	
3		23300.000	43.24	-4.61	38.63	68.20	-29.57	AVG	100	69	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

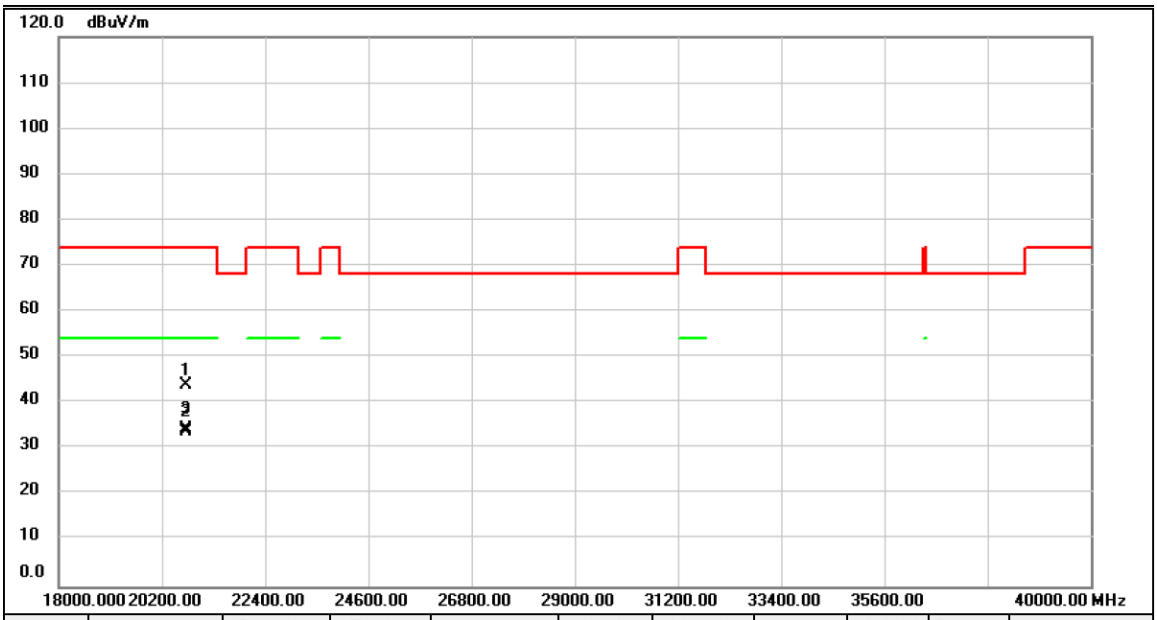
Test Mode	IEEE 802.11a	Test Date	2025/2/4
Test Frequency	5825MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	23300.000	51.64	-4.61	47.03	68.20	-21.17	peak	100	34	
2		23300.000	42.73	-4.61	38.12	68.20	-30.08	AVG	100	34	
3		23300.000	43.24	-4.61	38.63	68.20	-29.57	AVG	100	34	DCF:0.51dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

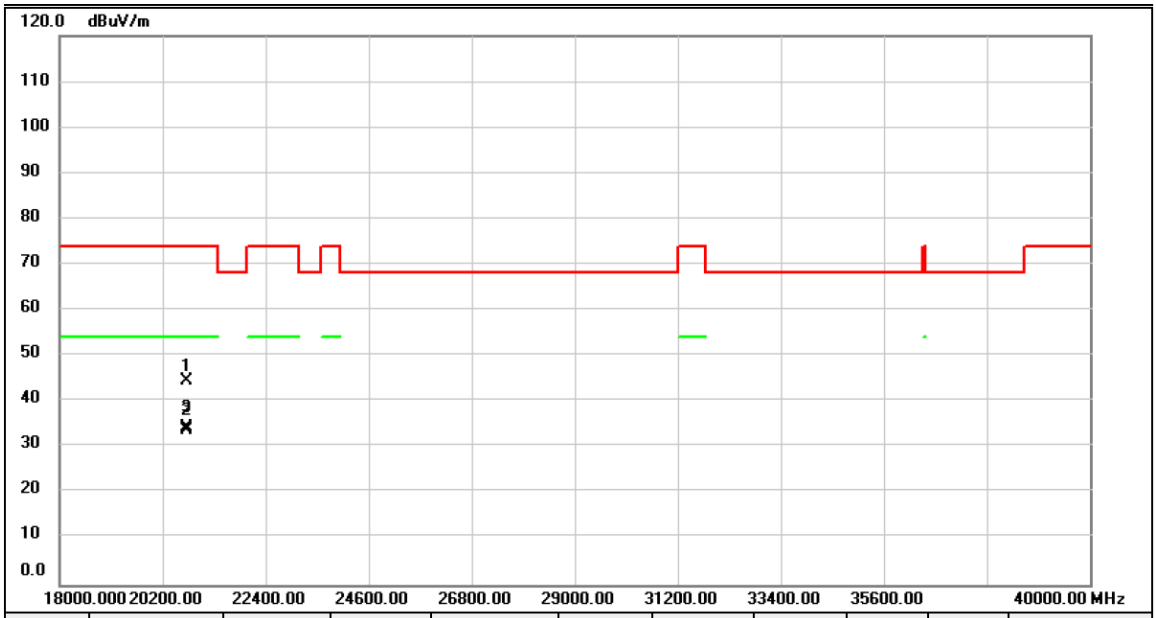
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20720.000	51.51	-7.49	44.02	74.00	-29.98	peak	100	173	
2		20720.000	41.33	-7.49	33.84	54.00	-20.16	AVG	100	173	
3	*	20720.000	41.71	-7.49	34.22	54.00	-19.78	AVG	100	173	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

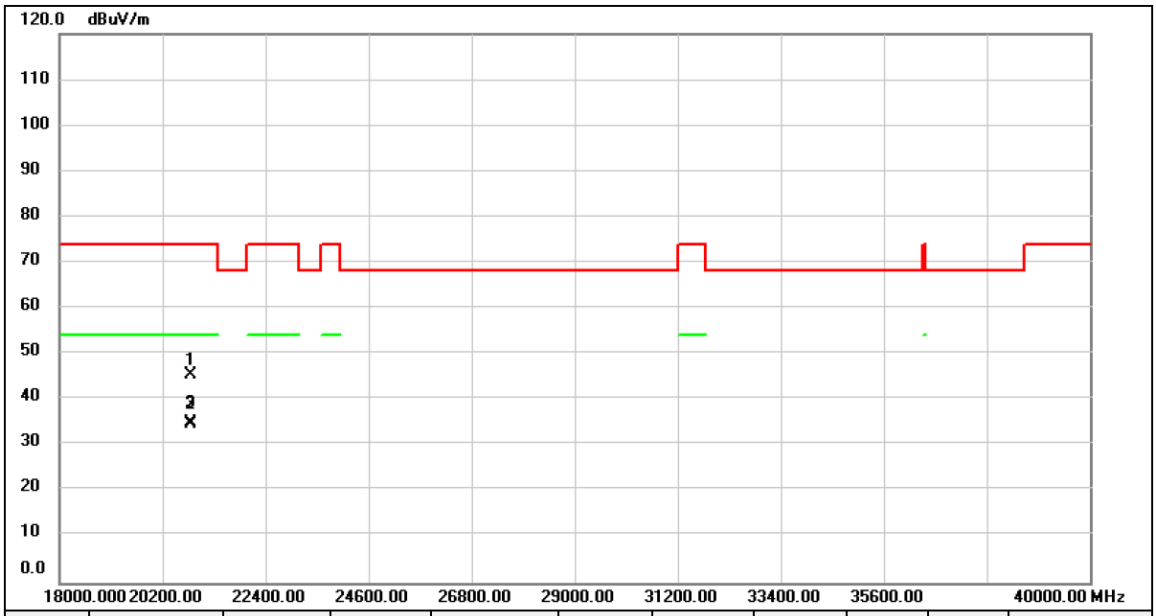
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5180MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20720.000	51.94	-7.49	44.45	74.00	-29.55	peak	100	274	
2		20720.000	41.32	-7.49	33.83	54.00	-20.17	AVG	100	274	
3	*	20720.000	41.70	-7.49	34.21	54.00	-19.79	AVG	100	274	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

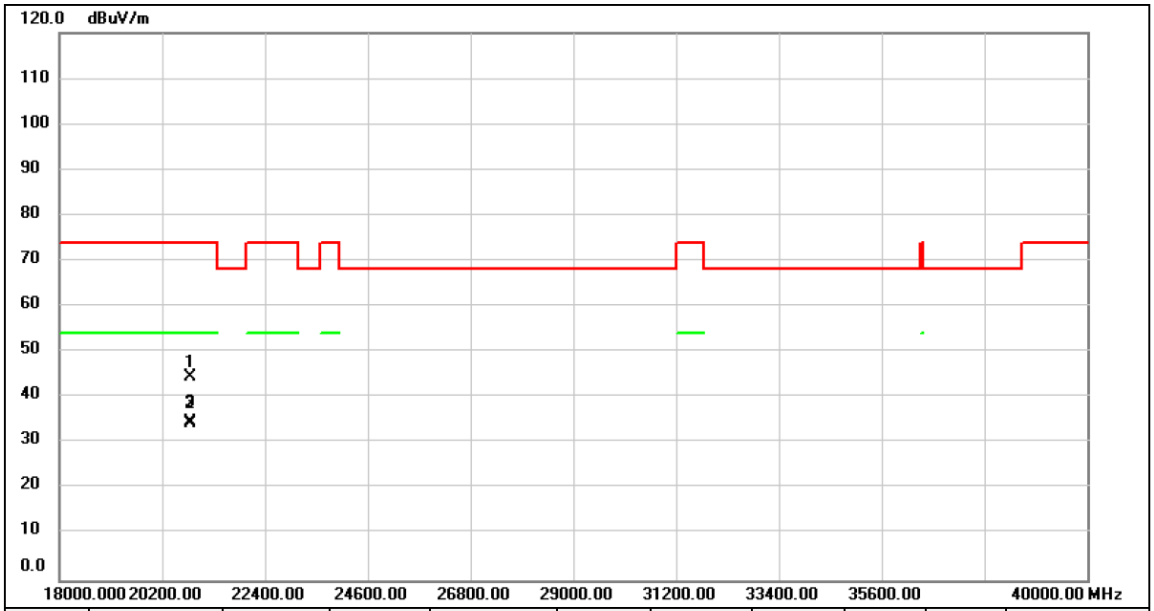
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5200MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20800.000	52.94	-7.37	45.57	74.00	-28.43	peak	100	69	
2		20800.000	41.93	-7.37	34.56	54.00	-19.44	AVG	100	69	
3	*	20800.000	42.31	-7.37	34.94	54.00	-19.06	AVG	100	69	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

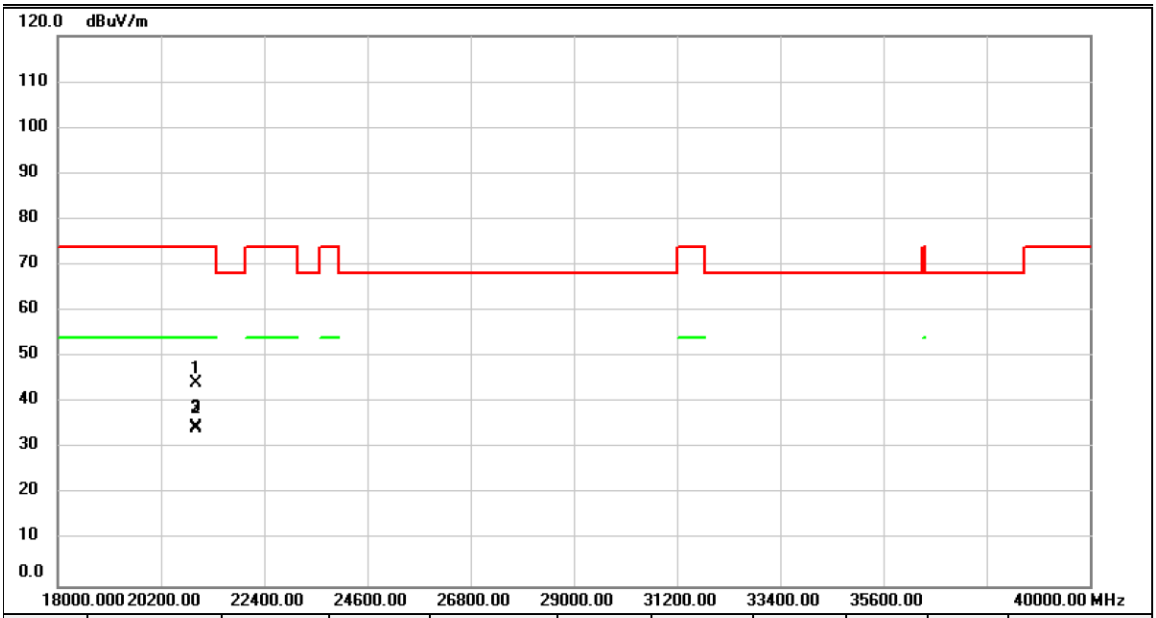
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5200MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20800.000	51.94	-7.37	44.57	74.00	-29.43	peak	100	360	
2		20800.000	41.61	-7.37	34.24	54.00	-19.76	AVG	100	360	
3	*	20800.000	41.99	-7.37	34.62	54.00	-19.38	AVG	100	360	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

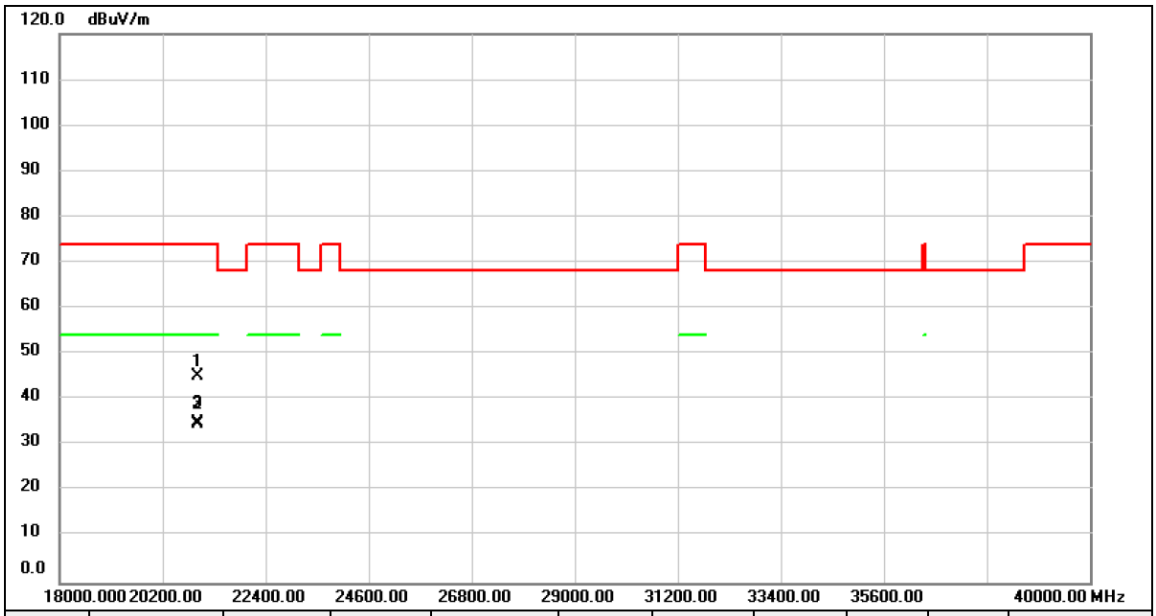
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20960.000	51.31	-7.18	44.13	74.00	-29.87	peak	100	173	
2		20960.000	41.60	-7.18	34.42	54.00	-19.58	AVG	100	173	
3	*	20960.000	41.98	-7.18	34.80	54.00	-19.20	AVG	100	173	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

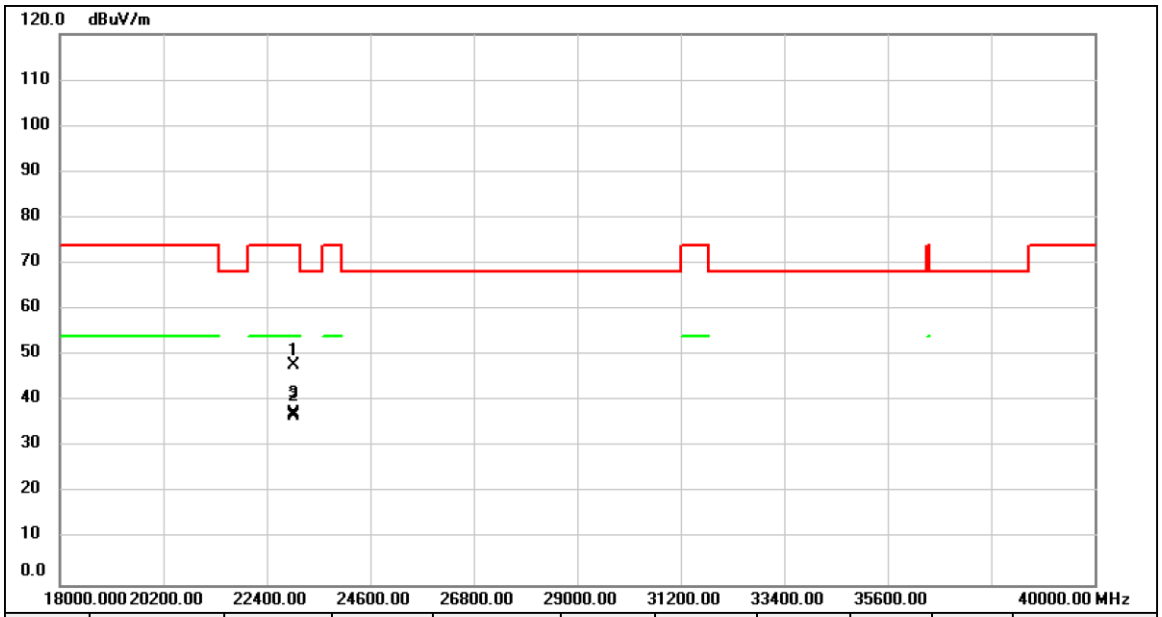
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	5240MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		20960.000	52.29	-7.18	45.11	74.00	-28.89	peak	100	257	
2		20960.000	41.88	-7.18	34.70	54.00	-19.30	AVG	100	257	
3	*	20960.000	42.26	-7.18	35.08	54.00	-18.92	AVG	100	257	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

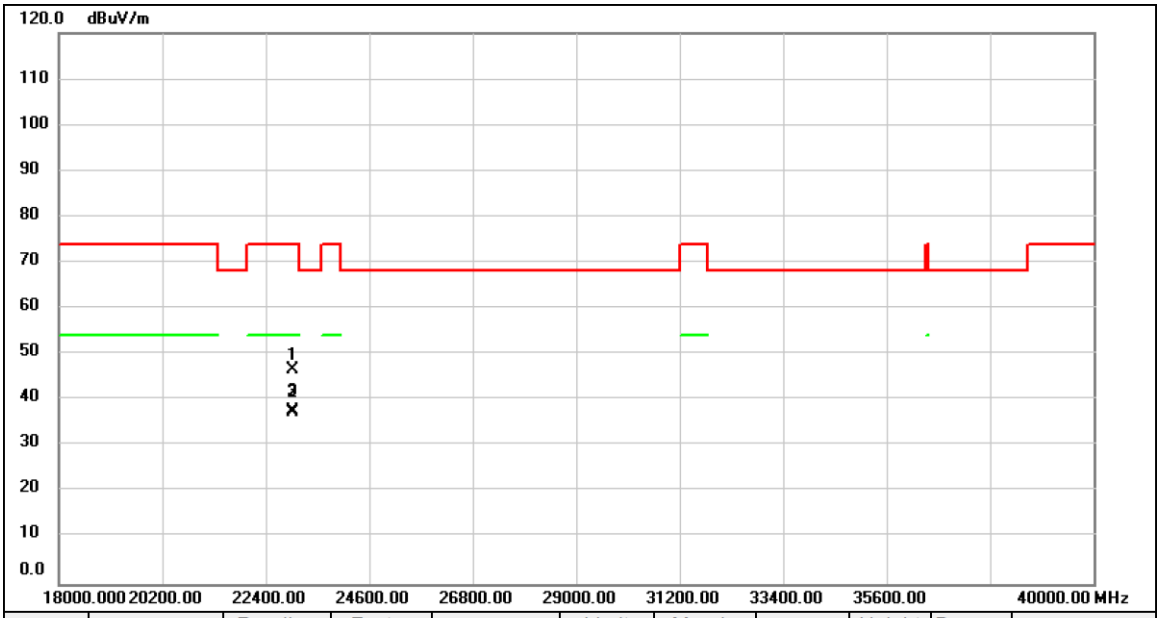
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH149: 5745 MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		22980.000	52.94	-5.02	47.92	74.00	-26.08	peak	100	39	
2		22980.000	41.88	-5.02	36.86	54.00	-17.14	AVG	100	39	
3	*	22980.000	42.26	-5.02	37.24	54.00	-16.76	AVG	100	39	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

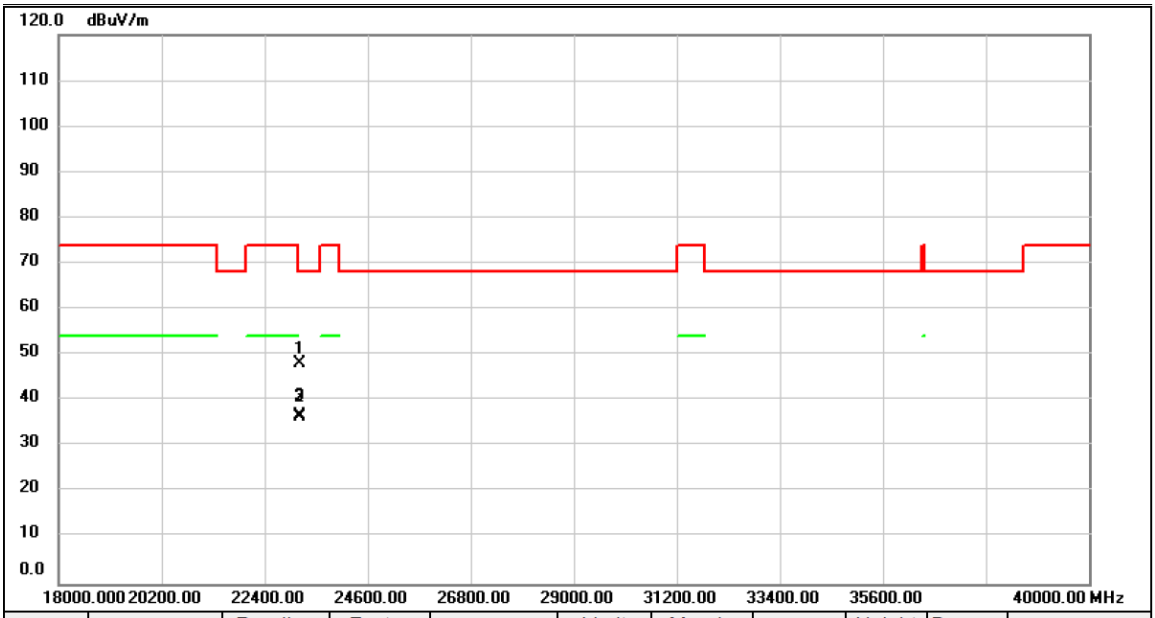
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH149: 5745 MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		22980.000	51.76	-5.02	46.74	74.00	-27.26	peak	100	311	
2		22980.000	42.42	-5.02	37.40	54.00	-16.60	AVG	100	311	
3	*	22980.000	42.80	-5.02	37.78	54.00	-16.22	AVG	100	311	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

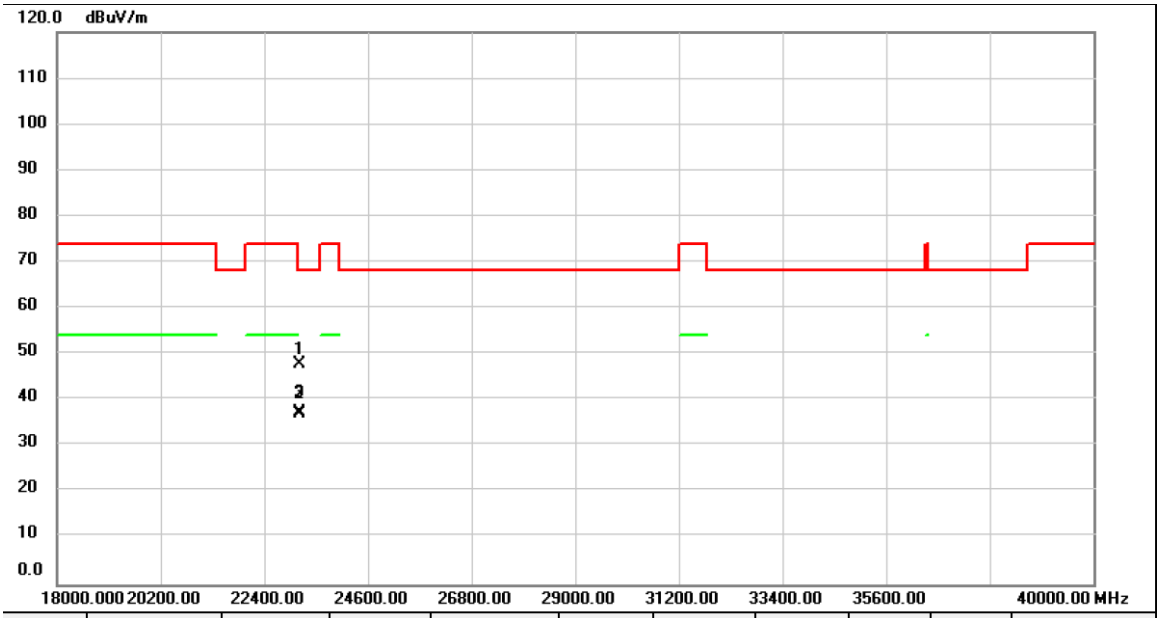
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH157: 5785 MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	23140.000	52.91	-4.80	48.11	68.20	-20.09	peak	100	243	
2		23140.000	41.31	-4.80	36.51	68.20	-31.69	AVG	100	243	
3		23140.000	41.69	-4.80	36.89	68.20	-31.31	AVG	100	243	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

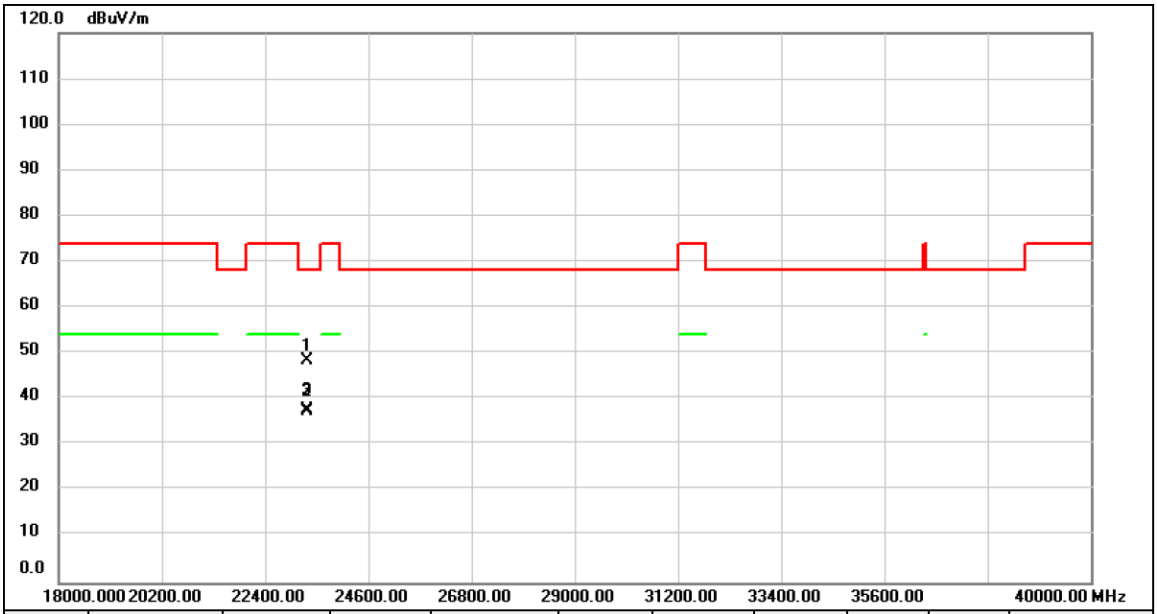
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH157: 5785 MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	23140.000	52.68	-4.80	47.88	68.20	-20.32	peak	100	134	
2		23140.000	41.72	-4.80	36.92	68.20	-31.28	AVG	100	134	
3		23140.000	42.10	-4.80	37.30	68.20	-30.90	AVG	100	134	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

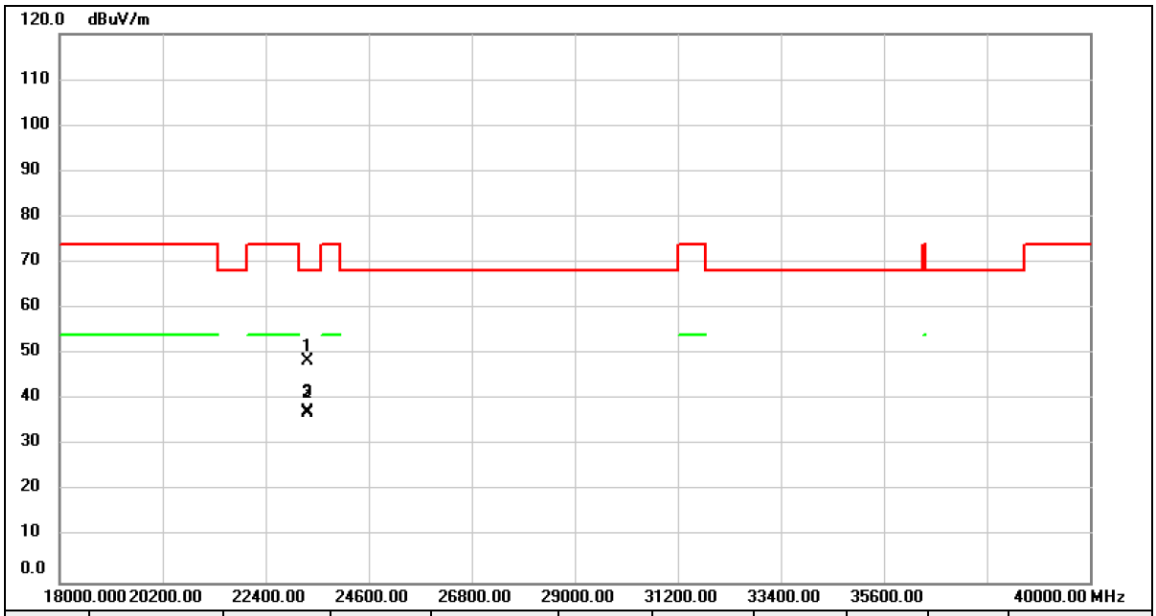
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH165: 5825 MHz	Polarization	Vertical
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	23300.000	53.18	-4.61	48.57	68.20	-19.63	peak	100	1	
2		23300.000	41.92	-4.61	37.31	68.20	-30.89	AVG	100	1	
3		23300.000	42.30	-4.61	37.69	68.20	-30.51	AVG	100	1	DCF:0.38dB

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

Test Mode	IEEE 802.11n (HT20)	Test Date	2025/2/4
Test Frequency	CH165: 5825 MHz	Polarization	Horizontal
Temp	21℃	Hum.	59%



No.		Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Meas. Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	23300.000	52.95	-4.61	48.34	68.20	-19.86	peak	100	67	
2		23300.000	41.66	-4.61	37.05	68.20	-31.15	AVG	100	67	
3		23300.000	42.04	-4.61	37.43	68.20	-30.77	AVG	100	67	DCF:0.38dB

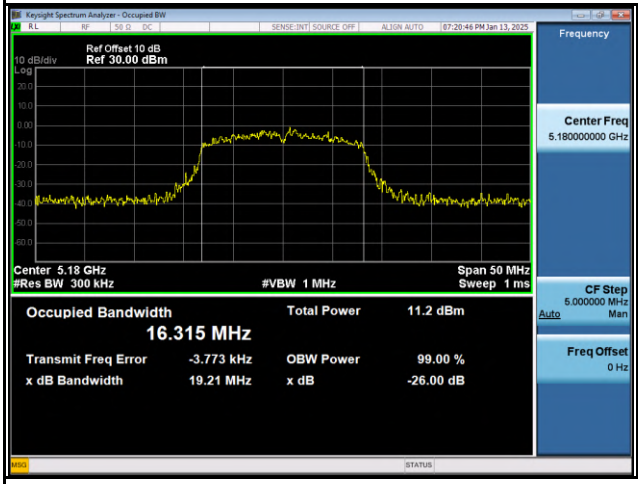
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) *: Maximum data x: Over limit !: Over margin

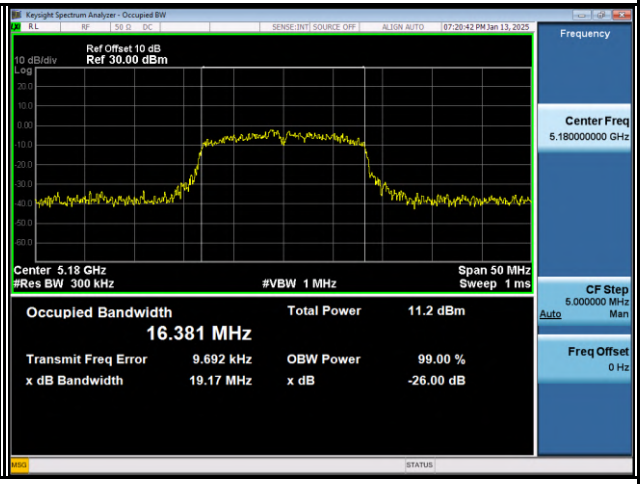
APPENDIX D BANDWIDTH

Test Mode	IEEE 802.11a

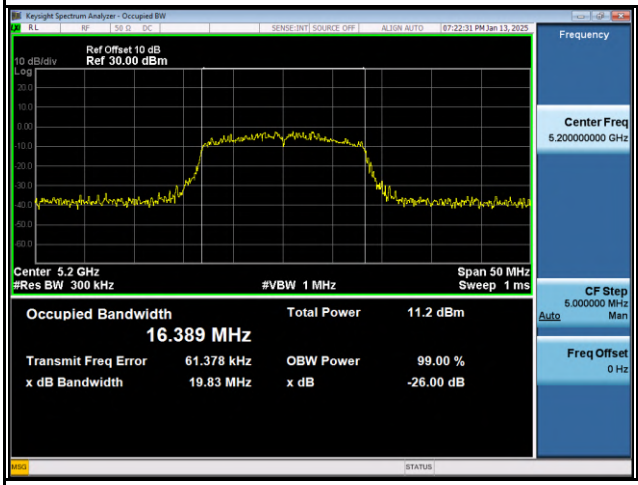
Test Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
5180	19.21	16.38
5200	19.83	16.33
5240	19.01	16.36

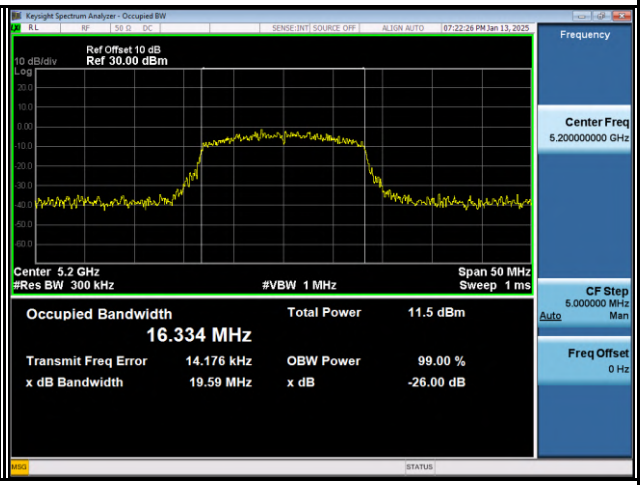
5180 MHz



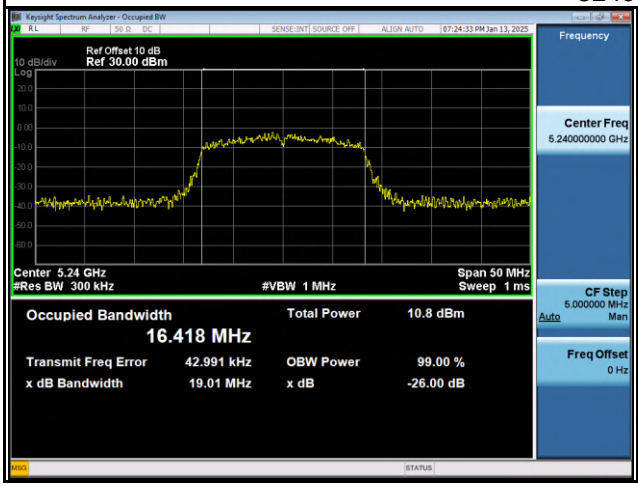


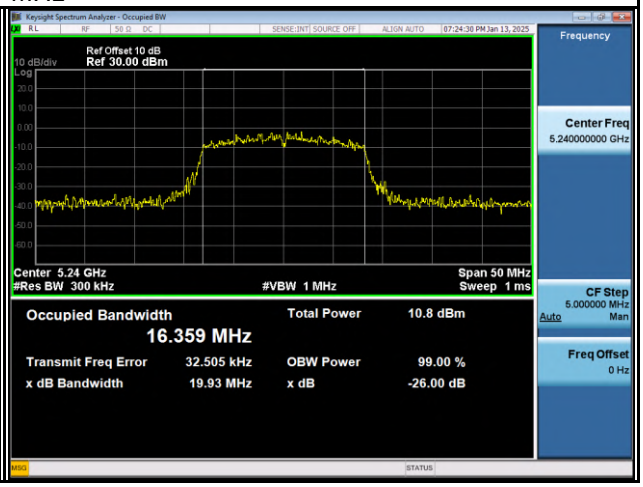
5200 MHz





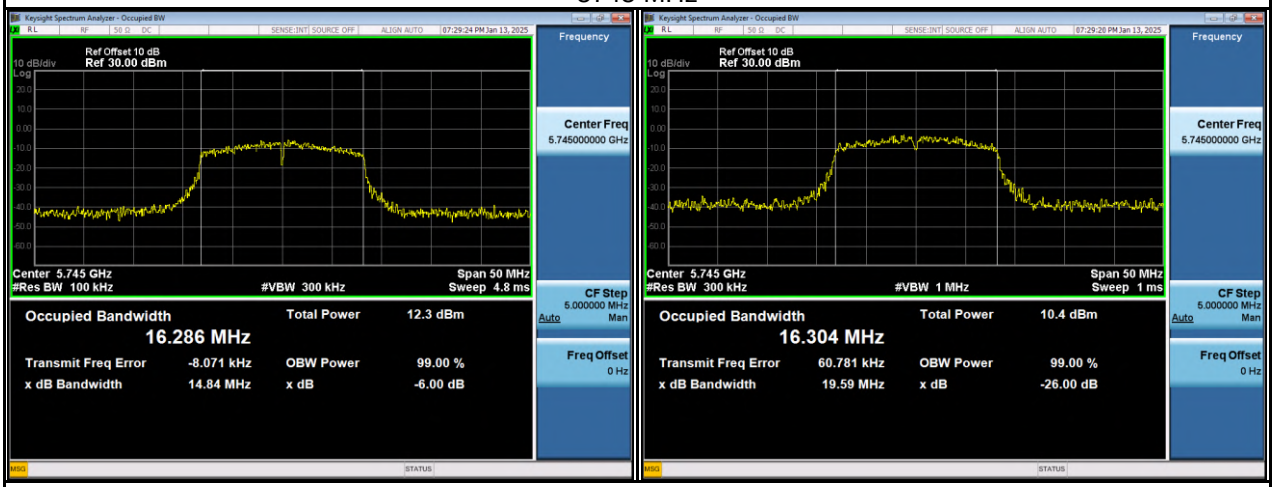
5240 MHz



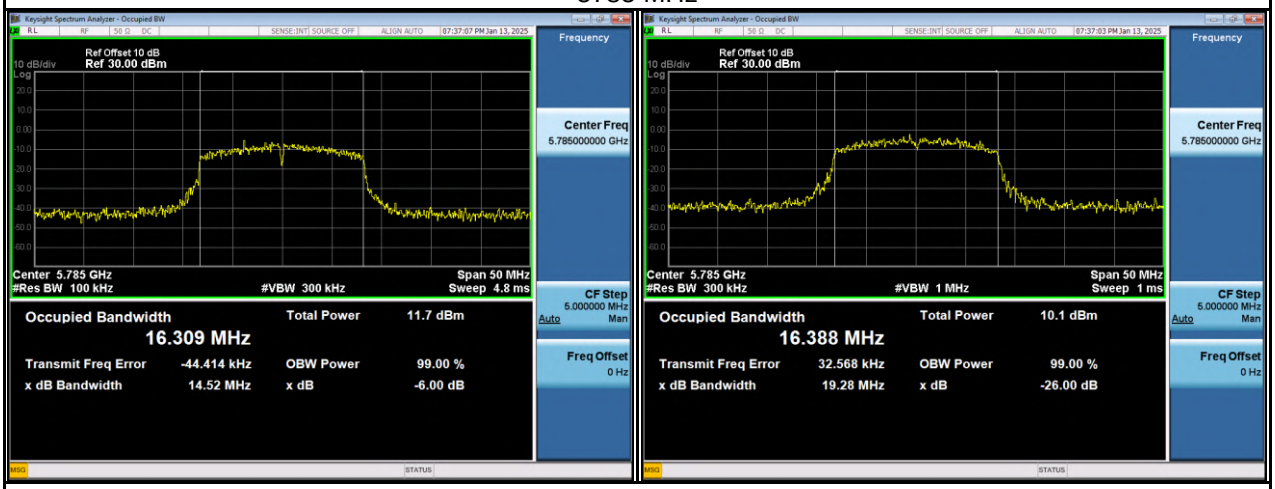


Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
5745	14.84	16.30	500	Pass
5785	14.52	16.39	500	Pass
5825	15.15	16.37	500	Pass

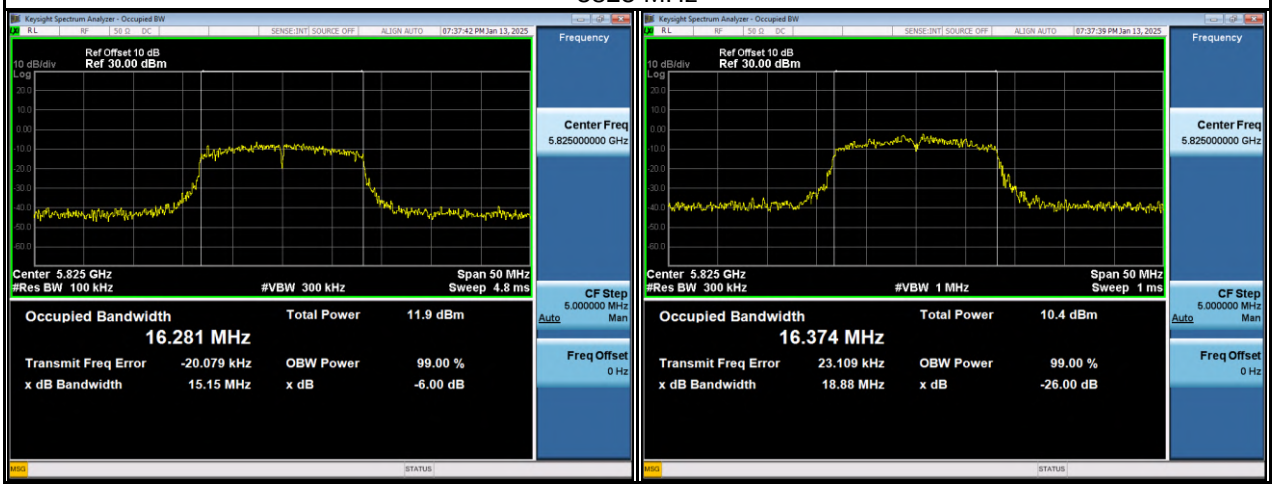
5745 MHz



5785 MHz



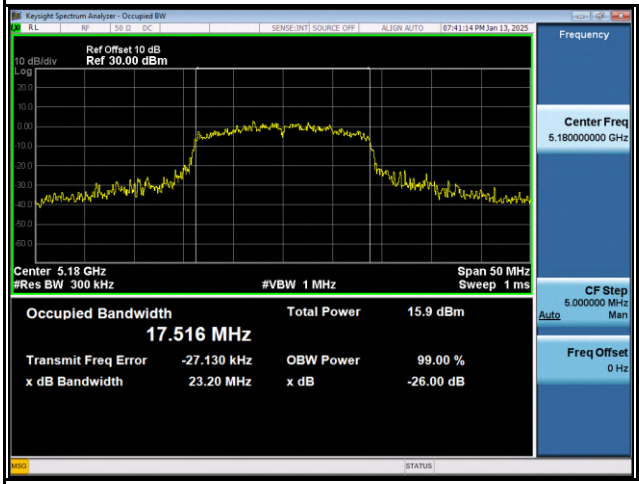
5825 MHz

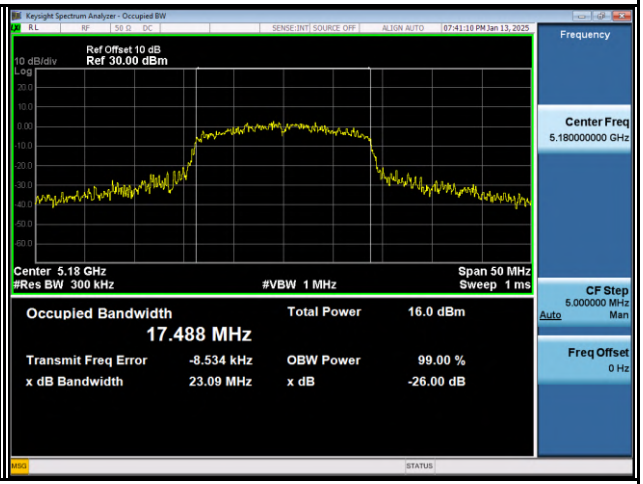


Test Mode	IEEE 802.11n (HT20) ANT1

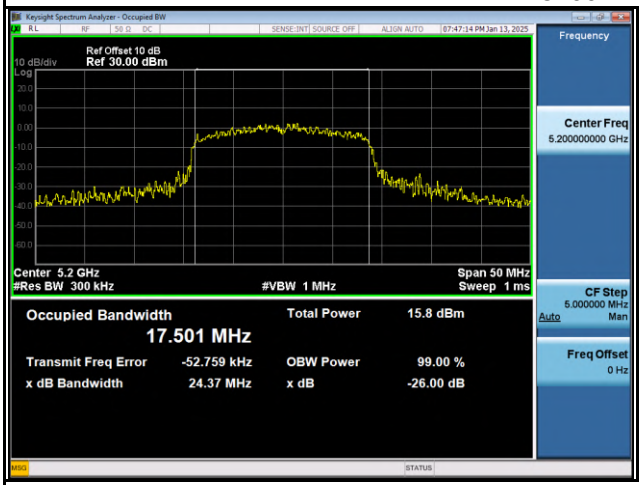
Test Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
5180	23.20	17.49
5200	24.37	17.52
5240	20.16	17.51

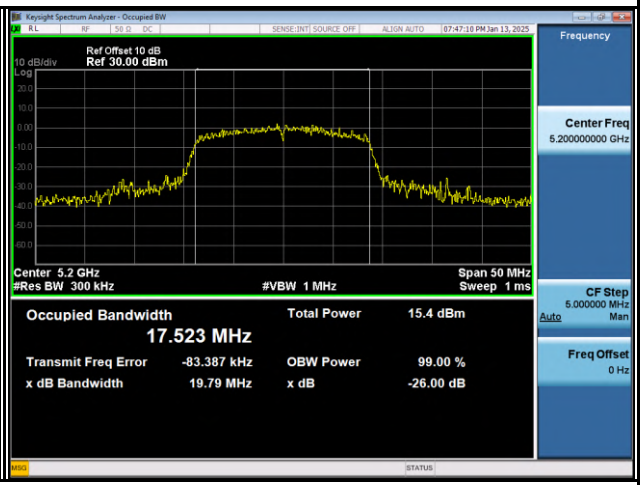
5180 MHz ANT1



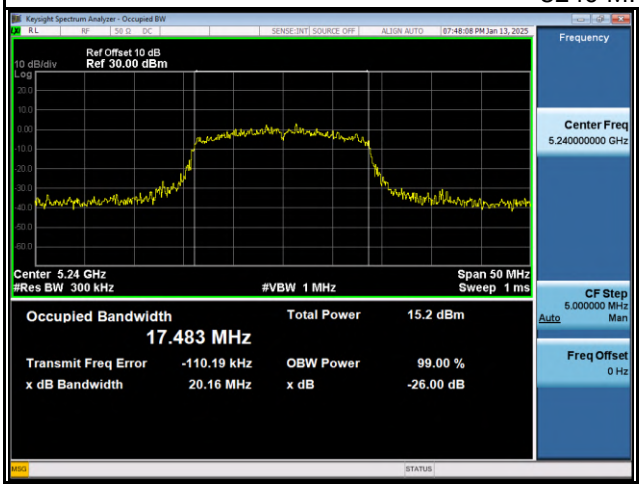


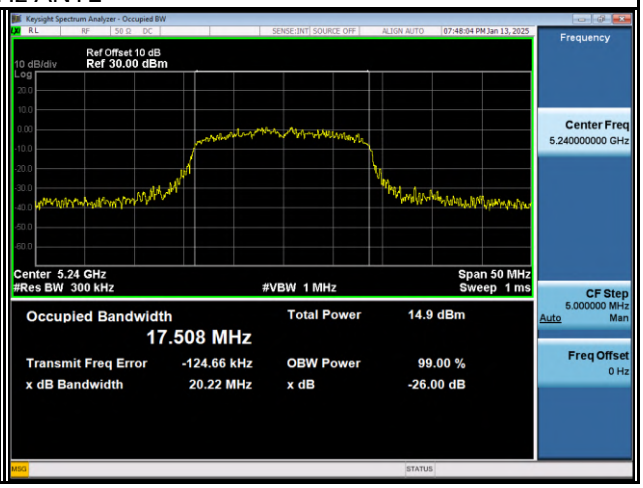
5200 MHz ANT1





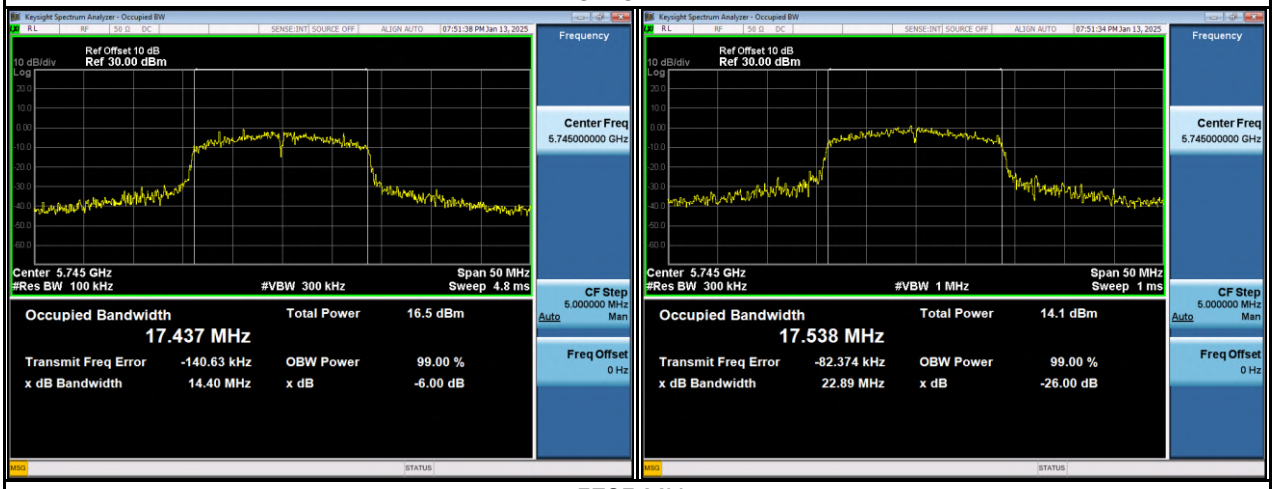
5240 MHz ANT1



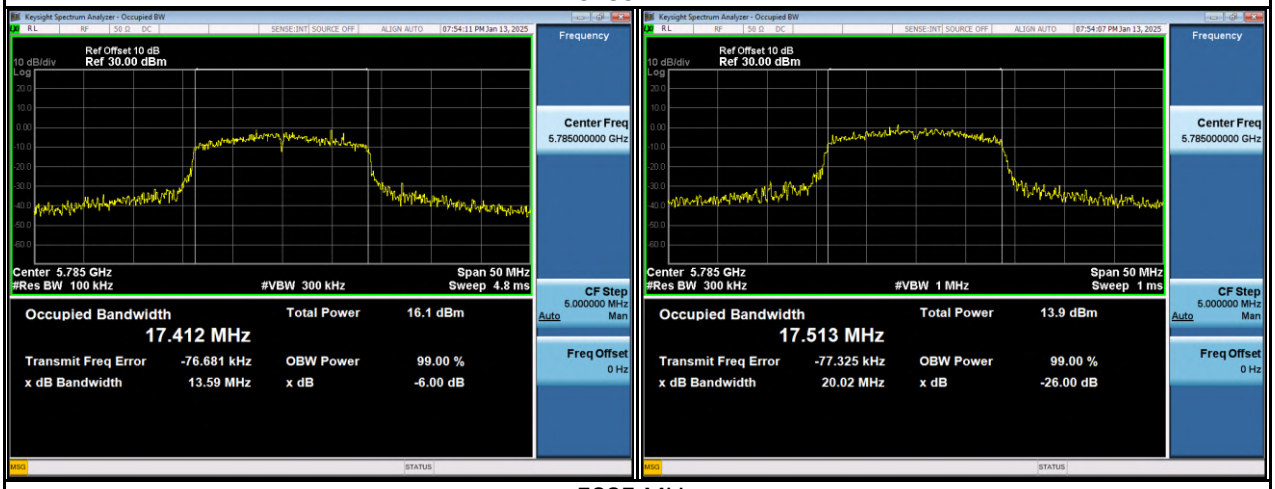


Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
5745	14.40	17.54	500	Pass
5785	13.59	17.51	500	Pass
5825	9.05	17.47	500	Pass

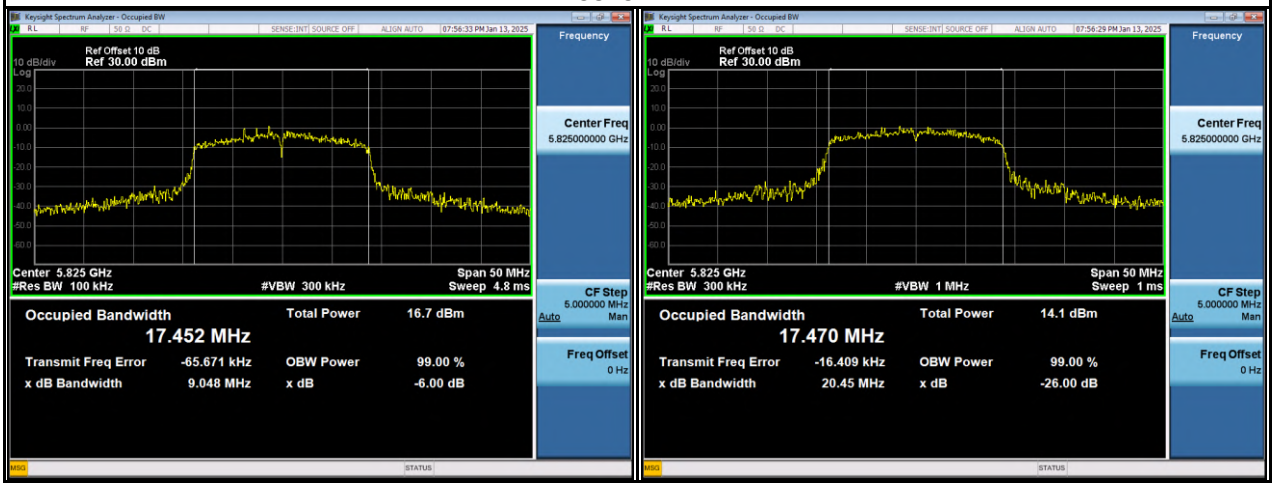
5745 MHz



5785 MHz



5825 MHz



APPENDIX E CONDUCTED OUTPUT POWER

Test Mode	IEEE 802.11a	Tested Date	2025/1/13

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5180	13.55	0.0226	24.00	0.2512	Pass
5200	13.19	0.0208	24.00	0.2512	Pass
5240	12.88	0.0194	24.00	0.2512	Pass
5745	12.09	0.0162	30.00	1.0000	Pass
5785	12.06	0.0161	30.00	1.0000	Pass
5825	12.35	0.0172	30.00	1.0000	Pass

Test Mode	IEEE 802.11n (HT20)	Tested Date	2025/1/13

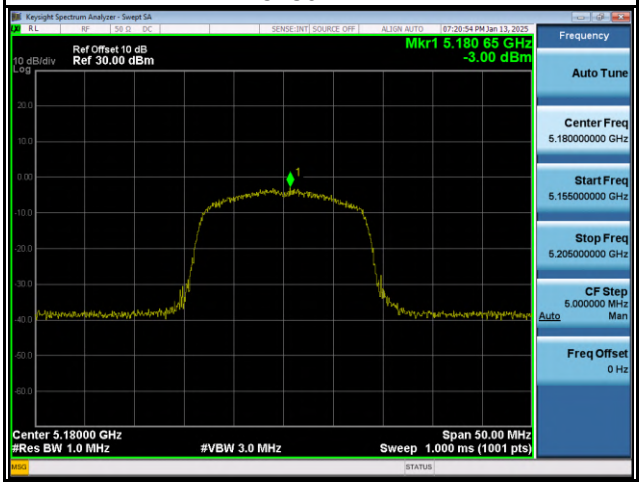
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5180	15.16	0.0328	24.00	0.2512	Pass
5200	15.19	0.0330	24.00	0.2512	Pass
5240	15.75	0.0376	24.00	0.2512	Pass
5745	15.93	0.0392	30.00	1.0000	Pass
5785	15.87	0.0386	30.00	1.0000	Pass
5825	15.74	0.0375	30.00	1.0000	Pass

APPENDIX F POWER SPECTRAL DENSITY

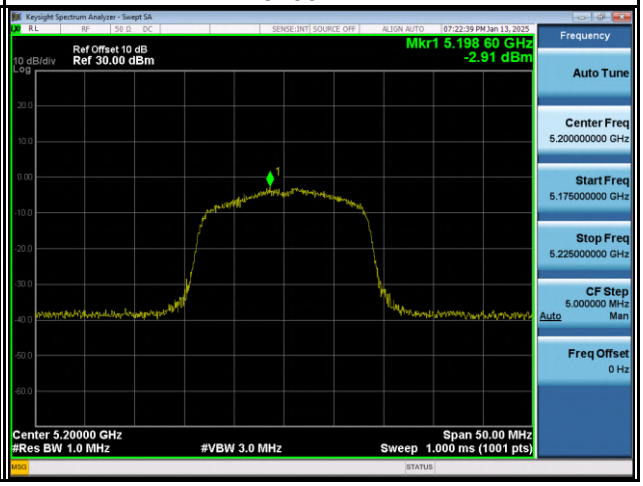
Test Mode	IEEE 802.11a

Test Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dB)	Calculated Power Density (dBm/MHz)	Maximum Limit (dBm/MHz)	Result
5180	-3.00	0.51	-2.49	17	Pass
5200	-2.91	0.51	-2.40	17	Pass
5240	-1.92	0.51	-1.41	17	Pass

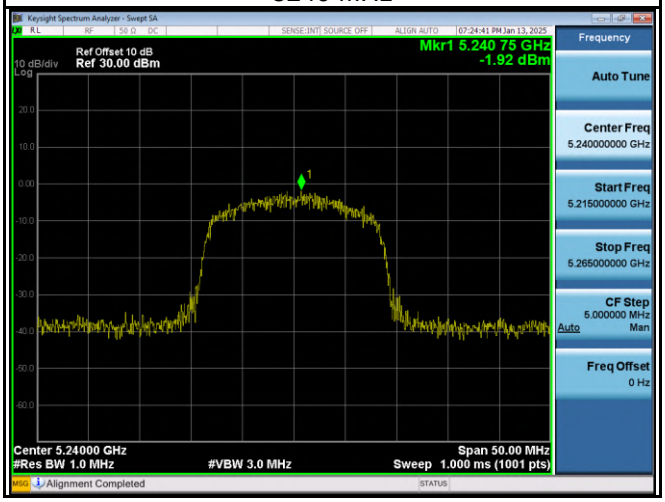
5180 MHz



5200 MHz

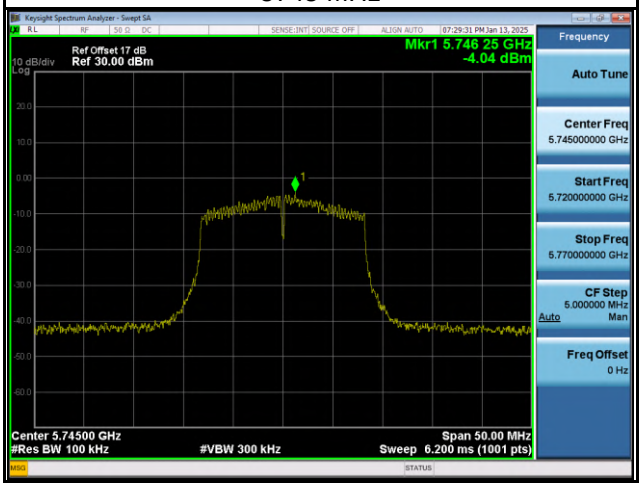


5240 MHz

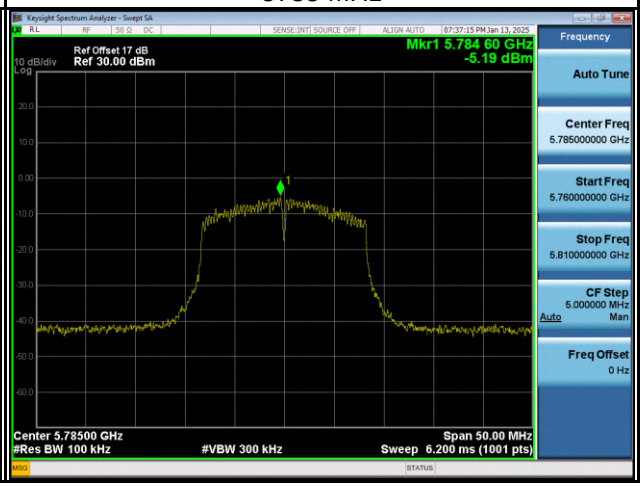


Test Frequency (MHz)	Power Density (dBm/100 kHz)	Power Density (dBm/500 kHz)	Duty Factor (dB)	Calculated Power Density (dBm/500 kHz)	Maximum Limit (dBm/500 kHz)	Result
5745	-4.04	2.95	0.51	3.46	30.00	Pass
5785	-5.19	1.80	0.51	2.31	30.00	Pass
5825	-5.03	1.96	0.51	2.47	30.00	Pass
NOTE: $PSD_{dBm/500\ kHz} = PSD_{dBm/100KHz} + 10 \times \log10(500\ KHz / 100\ kHz)$						

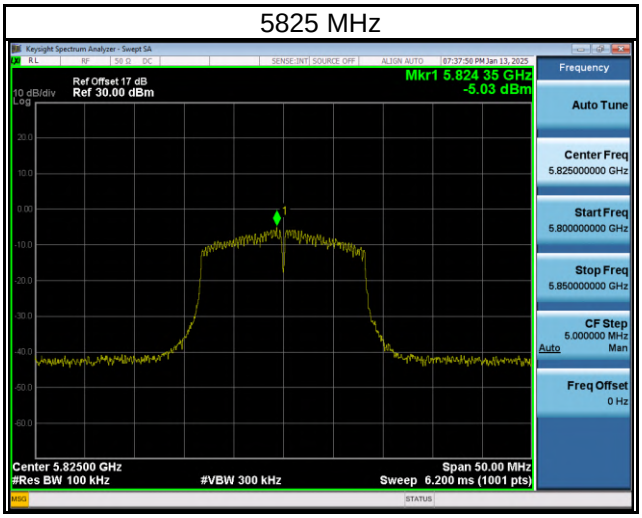
5745 MHz



5785 MHz



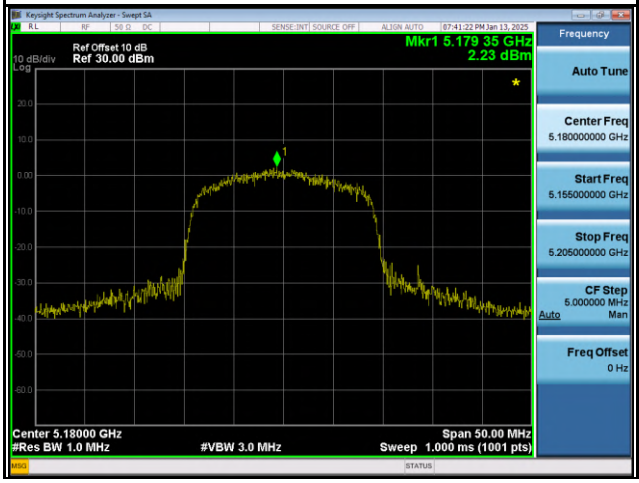
5825 MHz



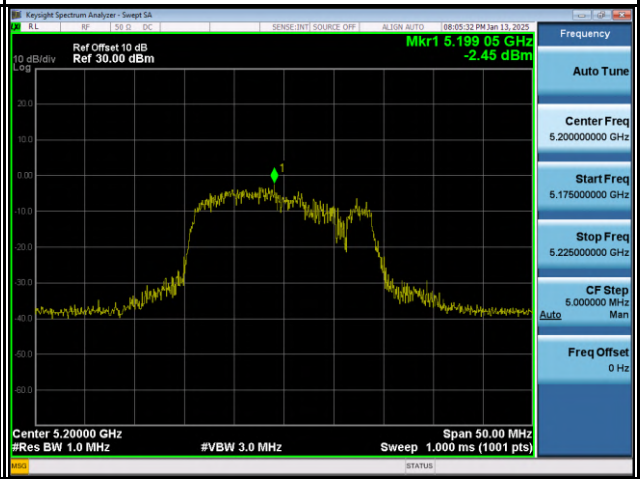
Test Mode	IEEE 802.11n (HT20)

Test Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dB)	Calculated Power Density (dBm/MHz)	Maximum Limit (dBm/MHz)	Result
5180	2.23	0.38	2.61	17	Pass
5200	-2.45	0.38	-2.07	17	Pass
5240	-2.99	0.38	-2.61	17	Pass

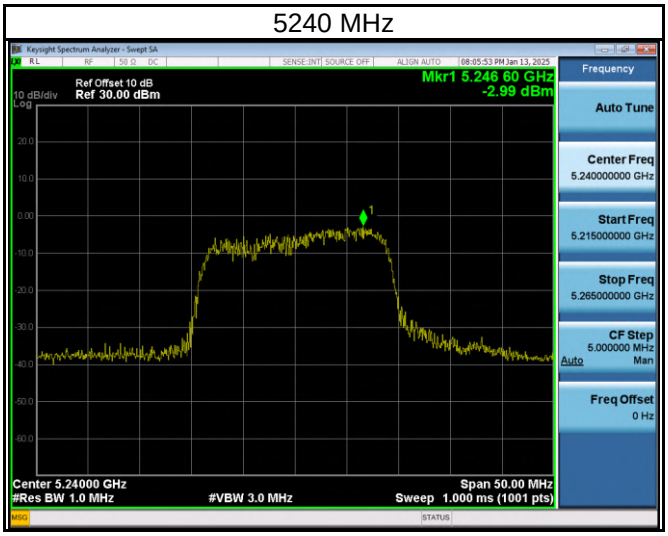
5180 MHz



5200 MHz

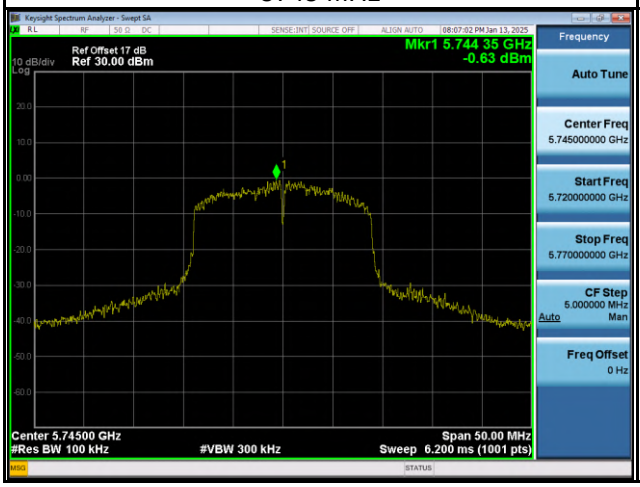


5240 MHz

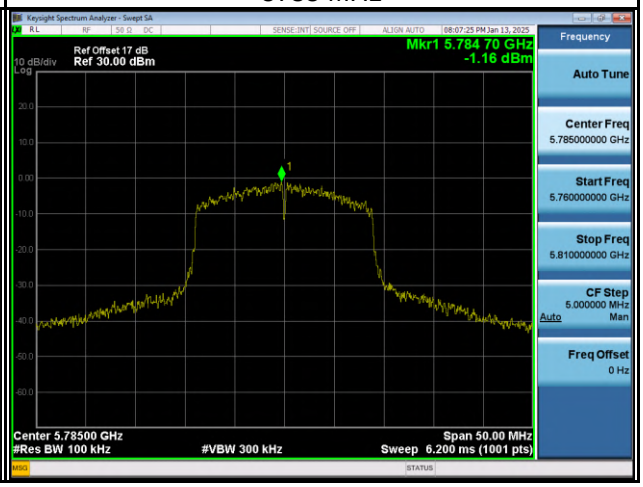


Test Frequency (MHz)	Power Density (dBm/100 kHz)	Power Density (dBm/500 kHz)	Duty Factor (dB)	Calculated Power Density (dBm/500 kHz)	Maximum Limit (dBm/500 kHz)	Result
5745	-0.63	6.36	0.38	6.74	30.00	Pass
5785	-1.16	5.83	0.38	6.21	30.00	Pass
5825	-0.59	6.40	0.38	6.78	30.00	Pass
NOTE: $PSD_{dBm/500\ kHz} = PSD_{dBm/100KHz} + 10 \times \log10(500\ KHz / 100\ kHz)$						

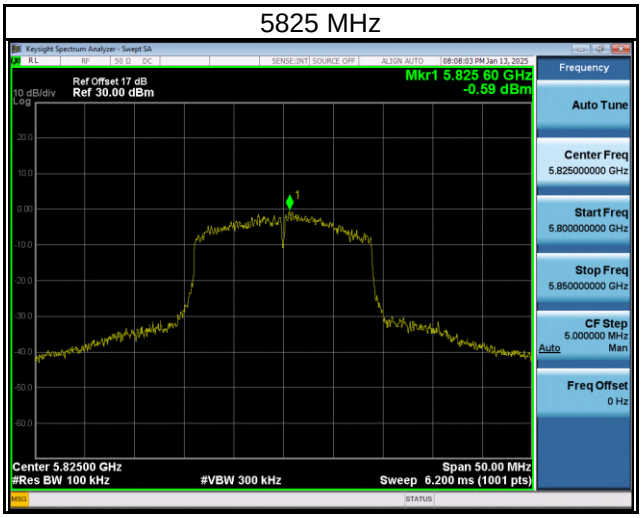
5745 MHz



5785 MHz



5825 MHz



End of Test Report