

TEST REPORT

Application No.: KSCR2501000028AT
FCC ID: 2BEMH-N175B
Applicant: YEAHER INC.
Address of Applicant: 51 Steel Dr, Unit A, New Castle, DE 19720 United States
Manufacturer: Nimo Direct Inc.
Address of Manufacturer: 51 Steel Dr, Unit A, New Castle, DE 19720 United States
Equipment Under Test (EUT):
EUT Name: Portable Computer
Model No.: N175B,N175L ♣
♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2025-01-03
Date of Test: 2025-01-17 to 2025-03-14
Date of Issue: 2025-06-30

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record			
Version	Description	Date	Remark
00	Original	2025-06-30	/

Authorized for issue by:			
Tested By		<i>Tommie Tang</i>	
		<u>Tommie_Tang/Project Engineer</u>	
Approved By		<i>Terry Hou</i>	
		<u>Terry Hou /Reviewer</u>	

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Radiated Spurious Emissions Below 1GHz		ANSI C63.10 (2013) Section 6.4,6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Above 1GHz		ANSI C63.10 (2013) Section 6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Conducted Average Output Power		ANSI C63.10 (2013) Section 11.9.2	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass

Note1: There are series models mentioned in this report, and they are identical in electrical and electronic characters. Only the model N175B was tested since their differences were the model number and color appearance.

Note 2:

- (i) The Host Laptop(FCC ID: 2BEMH-N175B) integrated a certified module from Hon Lin Technology Co., Ltd. (FCC ID: 2AQ68MT7922A22M).
- (ii) Hon Lin module (FCC ID: 2AQ68MT7922A22M) is a change ID from MediaTek Inc. (FCC ID: RAS-MT7922A22M, grant date 12/26/2024).
- (iii) The change ID application (FCC ID: 2AQ68MT7922A22M) did not upload test reports, thus the referenced module reports are from MTK module (FCC ID: RAS-MT7922A22M).
- (iv) The MTK module (FCC ID: RAS-MT7922A22M) was original granted as DSS+DTS+NII on 07/08/2021, then add equipment class of 6XD on 09/27/2021, and then add 6CD on 08/29/2023.
- (v) The Host Laptop(FCC ID: 2BEMH-N175B) only apply as DSS+DTS+NII+6XD, the 6CD of standard power level will be disabled by software on the Laptop, the reference module reports are as below:

Equipment Class	Reference test report number from Module (FCC ID: RAS-MT7922A22M)	Reference test items	Re-test items
DTS (WLAN)	RFBARR-WTW-P21030485 (Original) RFBARR-WTW-P22120081S-4 (C2PC)	6dB Bandwidth. Power Spectral Density. Conducted Band edge. Conducted Emission.	Conducted Power, AC Conducted Emission, Radiated Spurious Emission.

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 20V,5A by adapter Adapter Model: A879-200500C-US1 Input: 100-240V,50/60Hz,2.5A Output: PD: 5V,3A/9V,3A/12V,3A/15V,3A/20V,5A PPS: 3.3V-21V,5A,100W Max
Operation Frequency:	802.11b/g/n(HT20)/ac(VHT20)/ax(HE20): 2412MHz to 2472MHz; 802.11n(HT40)/ac(VHT40)/ax(HE40): 2422MHz to 2462MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK); 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11ac: OFDM(256QAM), 802.11ax:OFDMA(1024QAM)
Number of Channels:	802.11b/g/n(HT20)/ac(VHT20)/ax(HE20):13; 802.11n(HT40)/ac(VHT40)/ax(HE40):9
Channel Spacing:	5MHz
Antenna Type:	Antenna 1: FPC Antenna, Antenna 2: FPC Antenna,
Antenna Gain:	Antenna 1: 2.04dBi, (Provided by the manufacturer) Antenna 2: -0.84dBi, (Provided by the manufacturer)

4.2 Power level setting using in test:

Channel	802.11b	802.11g	802.11ac(VHT20)	802.11ax(HE20)		
	Ant 1/Ant 2	Ant 1/Ant 2	Ant 1/Ant 2	Ant 1/Ant 2		
	Power setting	Power setting	Power setting	RU Config	RU Position	Power setting
1	15	16	17	RU 242	/	16.5
				RU26	Left	18.5
				RU106	Left	18.5
6	14	15.5	17	RU 242	/	16.5
				RU52	Left	19.5
11	14	15	18.5	RU 242	/	16
				RU26	Right	18.5
				RU106	Right	18.5
12	14	13	14	RU 242	/	13.5
				RU26	Right	14.5
				RU106	Right	14.5
13	14	10.5	9.5	RU 242	/	9.5
				RU26	Right	10.5
				RU106	Right	10.5
Channel	802.11ac(VHT40)	802.11ax(HE40)				
	Ant 1/Ant 2	Ant 1/Ant 2				
	Power setting	RU Config	RU Position	Power setting		
3	14.5	RU 242	/	14.5		
6	16.5	RU 242	/	16		
9	14	RU 242	/	14		
10	12	RU 242	/	11.5		
11	9	RU 242	/	9.5		

4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
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The EUT has been tested as an independent unit.			

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%
Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

4.5 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

4.6 Test Facility

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

- **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

- **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

- **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

5 Equipment List

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
Conducted Emission at Mains Terminals						
1	EMI Test Receive	R&S	ESCI	KS301101	03/19/2024	03/18/2025
2	LISN	R&S	ENV216	KS301197	01/15/2025	01/14/2026
3	LISN	Schwarzbeck	NNLK 8129	KS301091	01/15/2025	01/14/2026
4	Pulse Limiter	R&S	ESH3-Z2	KUS1902E001	12/05/2024	12/04/2025
5	CE test Cable	Thermax	/	CZ301102	01/14/2025	01/13/2026
6	Test Software	ESE	E3_V 6.111221a	/	N.C.R	N.C.R
RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	08/01/2024	07/31/2025
2	Spectrum Analyzer	Keysight	N9020A	KUS2001M001-2	08/01/2024	07/31/2025
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/15/2025	01/14/2026
4	Signal Generator	R&S	SMBV100B	KSEM032	03/19/2024	03/18/2025
5	Signal Generator	R&S	SMW200A	KSEM020-1	08/02/2024	08/01/2025
6	Signal Generator	Agilent	N5182A	KUS2001M001-1	08/01/2024	07/31/2025
7	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/01/2024	07/31/2025
8	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	03/19/2024	03/18/2025
9	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	08/13/2024	08/12/2025
10	Switcher	TST	FY562	KUS2001M001-4	01/15/2025	01/14/2026
11	AC Power Source	EXTECH	6605	KS301178	N.C.R	N.C.R
12	DC Power Supply	Aglient	E3632A	KS301180	N.C.R	N.C.R
13	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	01/14/2025	01/13/2026
14	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	08/26/2024	08/25/2025
15	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	03/19/2024	03/18/2025
16	Software	BST	TST-PASS	/	NCR	NCR
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/06/2024	08/05/2025
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	03/19/2024	03/18/2025
3	Signal Generator	Agilent	E8257C	KS301066	08/06/2024	08/05/2025
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	03/18/2023	03/17/2025
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2023	06/28/2025
6	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E006	03/19/2024	03/18/2025
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	03/23/2024	03/22/2025
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	04/07/2023	04/06/2025
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	01/07/2024	01/06/2026
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/15/2025	01/14/2026
11	Amplifier(18~40GHz)	PANSHAN TECHNOLOGY	LNA180400G40	KSEM038	08/12/2024	08/11/2025
12	RE Test Cable	REBES MICROWAVE	/	CZ301097	08/23/2024	08/22/2025
13	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	03/19/2024	03/18/2025
14	Software	Faratronic	EZ EMC-v 3A1	/	NCR	NCR
15	Software	ESE	E3_V 6.111221a	/	NCR	NCR

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

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.

EUT Antenna:

The antenna 1 and antenna 2 are FPC antennas, and all no consideration of replacement. The best case gain of antenna 1 is 2.04dBi, antenna 2 is -0.84dBi.

Antenna location: Refer to internal photo.

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		
Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz		

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C

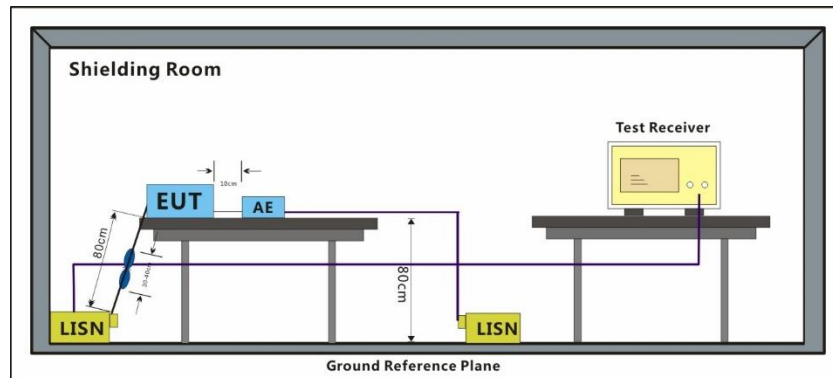
Humidity: 50.6 % RH

Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40, final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



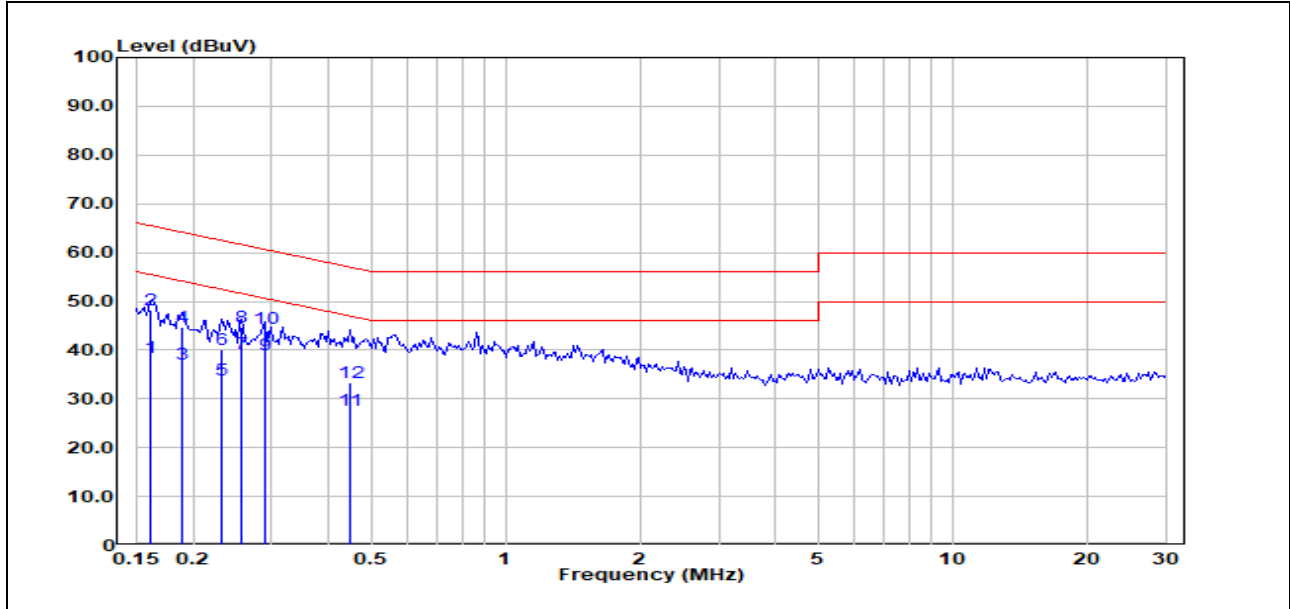
7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu\text{H} + 50\Omega$ linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{LISN Factor}$

Test Mode: 00; Line: Live line

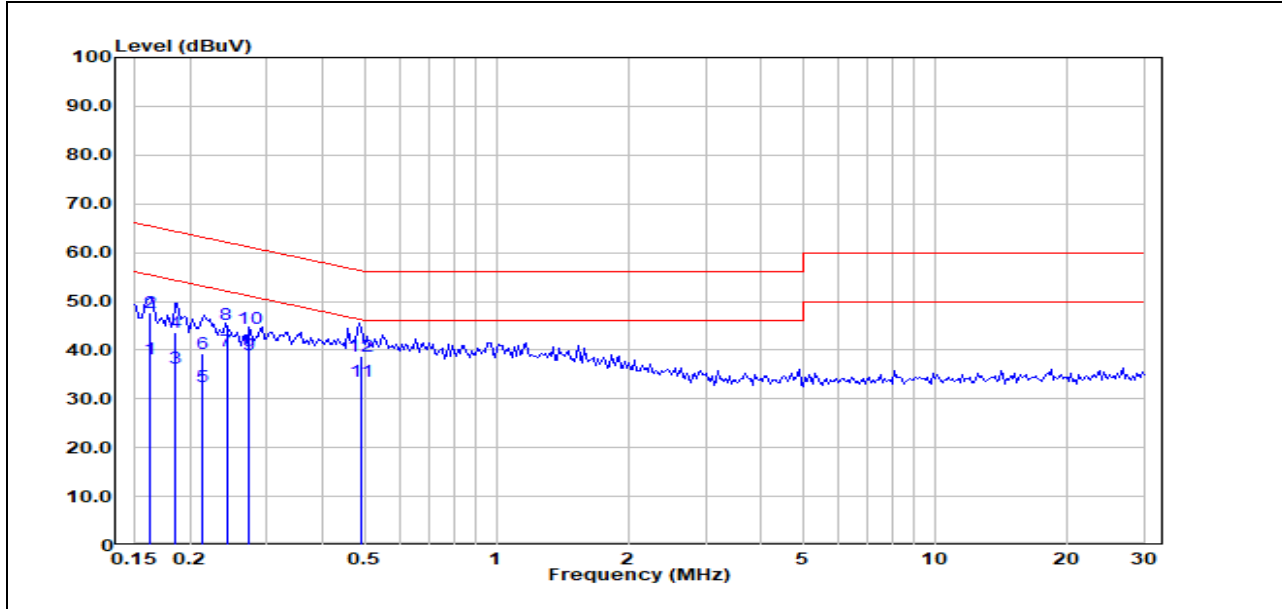
Test Data :



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1602	18.19	20.21	38.40	55.45	-17.05	Average
2	0.1602	28.14	20.21	48.35	65.45	-17.10	QP
3	0.1885	17.14	20.10	37.24	54.10	-16.86	Average
4	0.1885	24.58	20.10	44.68	64.10	-19.42	QP
5	0.2312	13.68	20.06	33.74	52.41	-18.67	Average
6	0.2312	20.05	20.06	40.11	62.41	-22.30	QP
7	0.2569	19.30	20.07	39.37	51.53	-12.16	Average
8	0.2569	24.57	20.07	44.64	61.53	-16.89	QP
9	0.2894	19.01	20.08	39.09	50.54	-11.45	Average
10	0.2894	24.37	20.08	44.45	60.54	-16.09	QP
11	0.4494	7.60	20.05	27.65	46.89	-19.24	Average
12	0.4494	13.36	20.05	33.41	56.89	-23.48	QP

Test Mode: 00; Line: Neutral Line

Test Data :



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1625	18.13	20.16	38.29	55.33	-17.04	Average
2	0.1625	27.44	20.16	47.60	65.33	-17.73	QP
3	0.1850	16.26	20.13	36.39	54.26	-17.87	Average
4	0.1850	23.47	20.13	43.60	64.26	-20.66	QP
5	0.2136	12.50	20.11	32.61	53.07	-20.46	Average
6	0.2136	19.06	20.11	39.17	63.07	-23.90	QP
7	0.2424	19.81	20.10	39.91	52.02	-12.11	Average
8	0.2424	25.05	20.10	45.15	62.02	-16.87	QP
9	0.2738	18.93	20.09	39.02	51.00	-11.98	Average
10	0.2738	24.23	20.09	44.32	61.00	-16.68	QP
11	0.4896	13.58	19.95	33.53	46.17	-12.64	Average
12	0.4896	18.84	19.95	38.79	56.17	-17.38	QP

7.2 Radiated Spurious Emissions Below 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4,6.5

Measurement Distance: 3M

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.4 °C

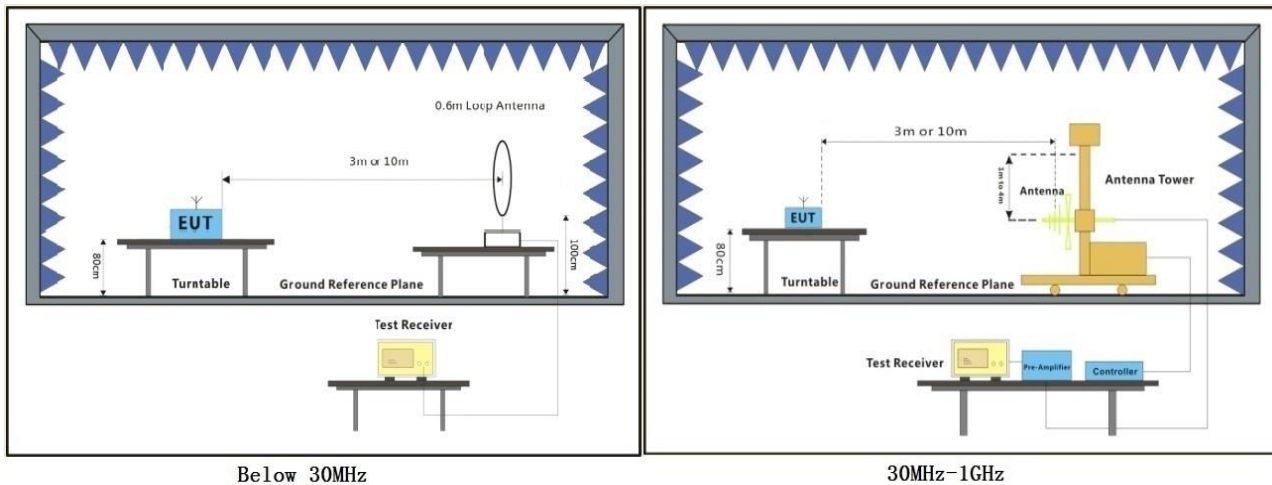
Humidity: 48.3 % RH

Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40, final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

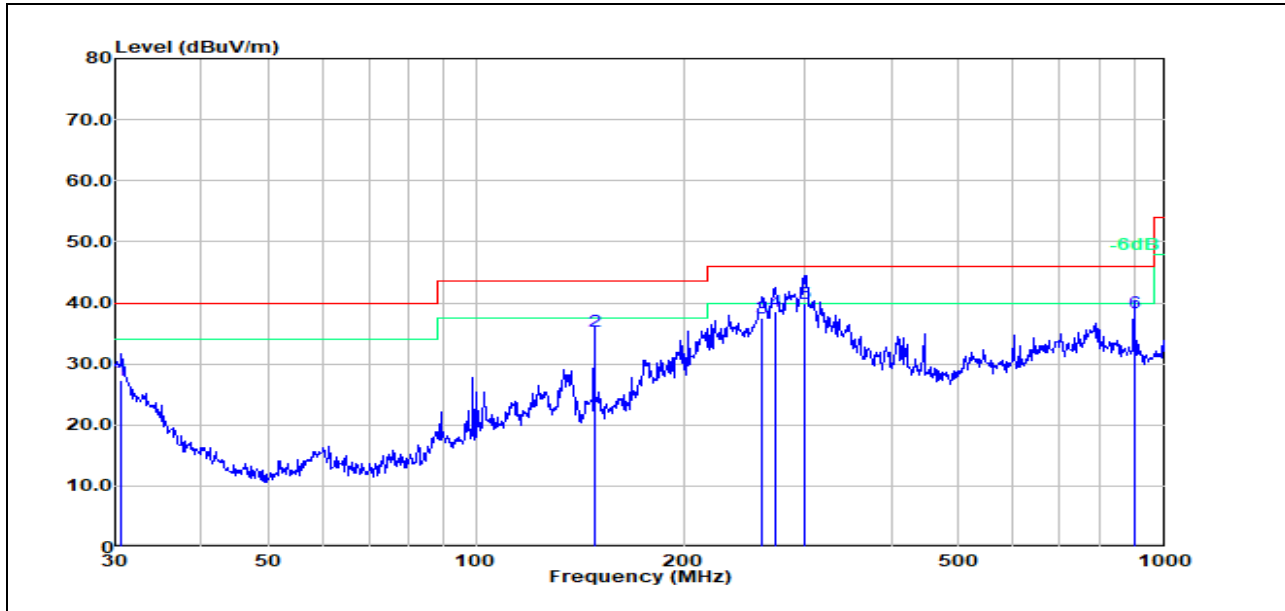
- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- Repeat above procedures until all frequencies measured was complete.

Remark:

- Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

Test Mode: 00; Polarity: Horizontal

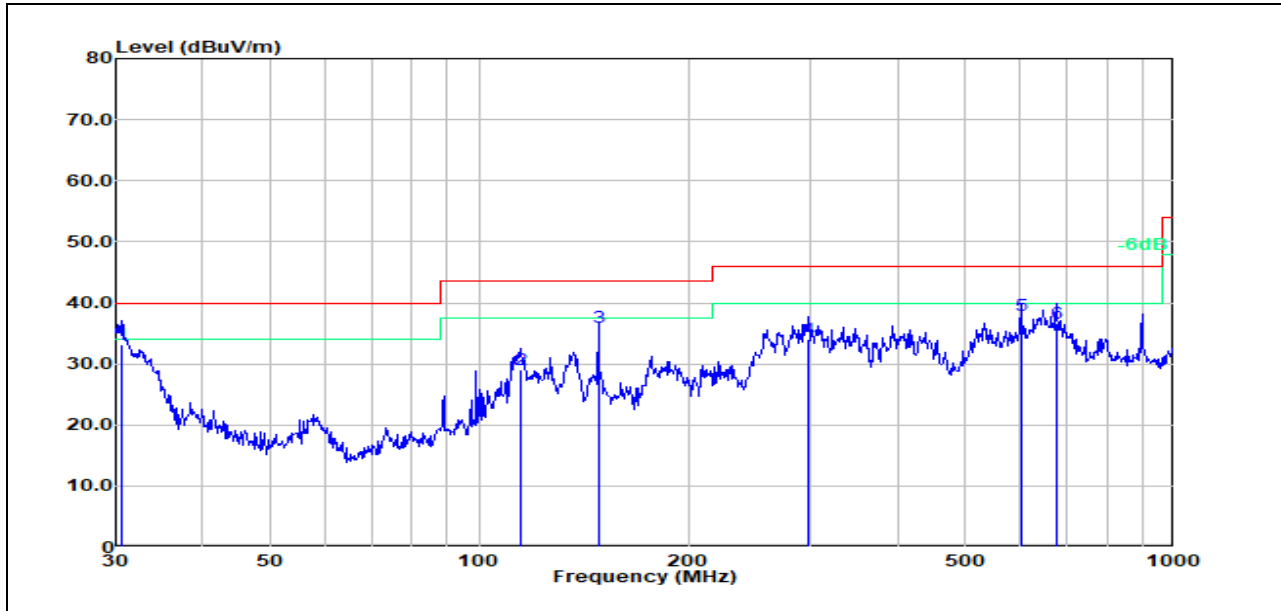
Test Data :



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.6380	8.32	18.91	27.23	40.00	-12.77	100	128	QP
2	148.4410	23.59	11.84	35.43	43.50	-8.07	200	309	QP
3	260.1440	22.54	14.94	37.48	46.00	-8.52	100	289	QP
4	271.3250	23.61	15.07	38.68	46.00	-7.32	200	282	QP
5	299.3160	24.01	15.97	39.98	46.00	-6.02	200	322	QP
6	900.1470	12.55	25.91	38.46	46.00	-7.54	100	262	QP

Test Mode: 00; Polarity: Vertical

Test Data :



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.6379	14.35	18.91	33.26	40.00	-6.74	100	45	QP
2	114.9169	15.16	13.91	29.07	43.50	-14.43	100	289	QP
3	148.4410	24.12	11.84	35.96	43.50	-7.54	100	173	QP
4	297.2241	18.26	15.83	34.09	46.00	-11.91	100	11	QP
5	601.4265	15.21	22.77	37.98	46.00	-8.02	100	261	QP
6	677.5798	12.85	23.83	36.68	46.00	-9.32	100	328	QP

7.3 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.6

Measurement Distance: 3M

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 26.2 °C

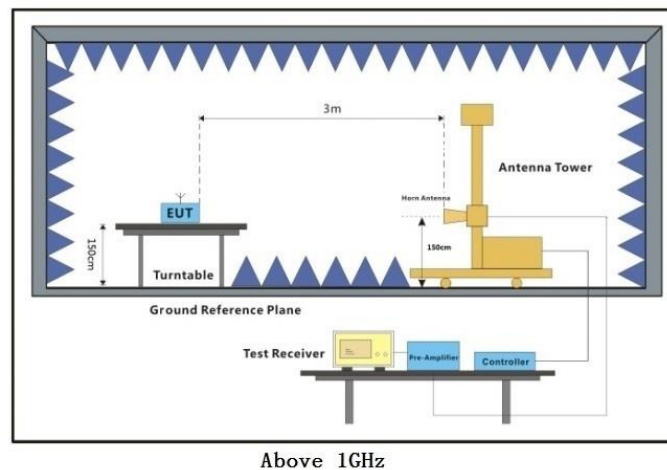
Humidity: 51.0 % RH

Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40, final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



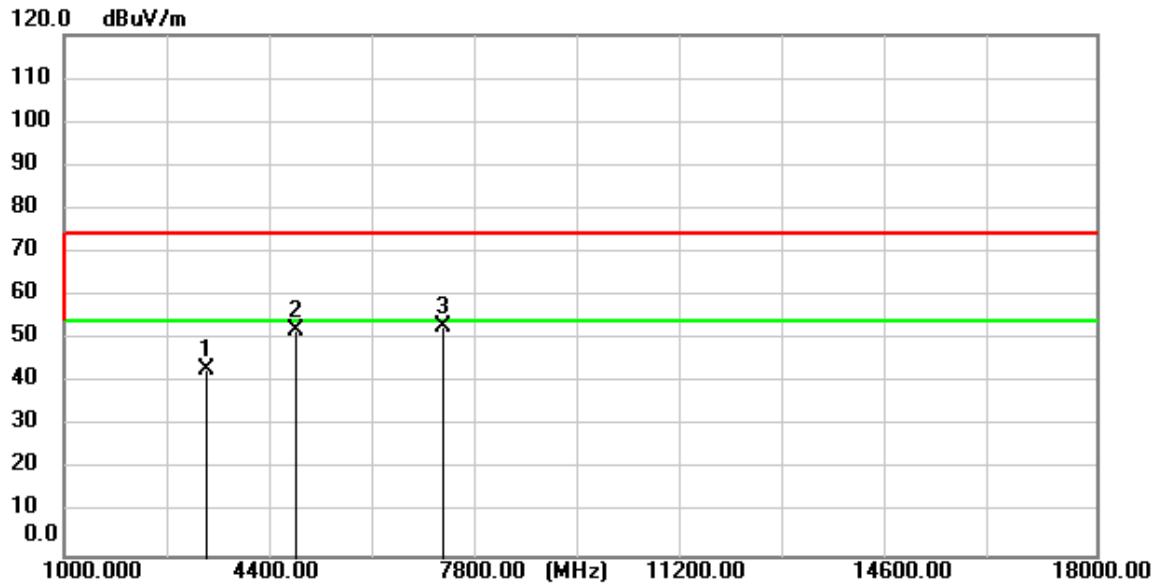
7.3.4 Measurement Procedure and Data

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. 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 from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

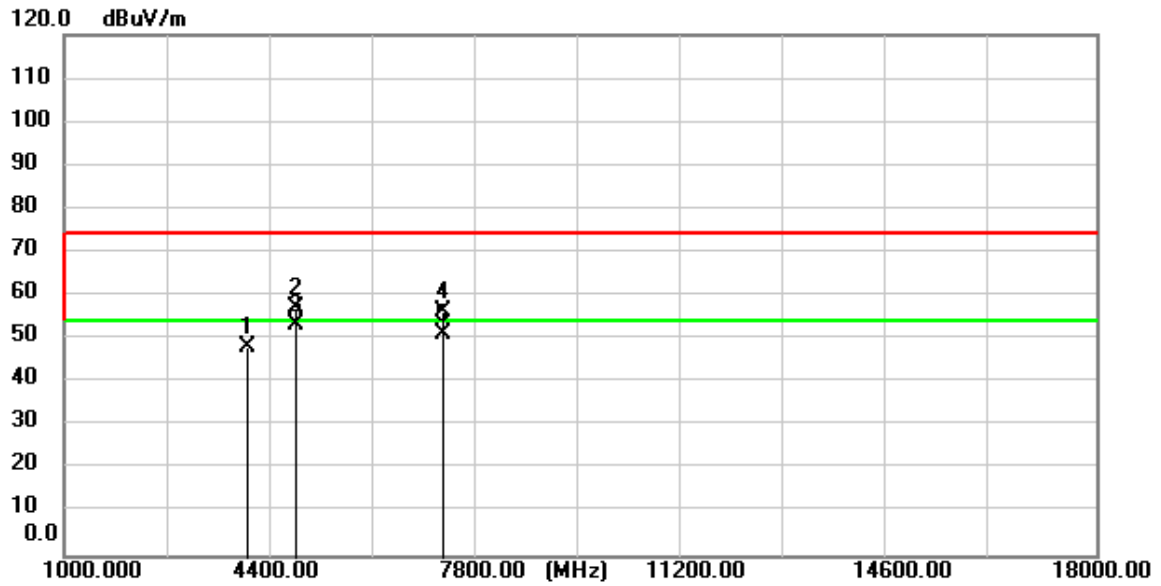
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.
- 5:For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle<98%) or 10Hz (Duty cycle $\geq$ 98%) for Average detection (AV) at frequency above 1GHz.

Test Mode: 00; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



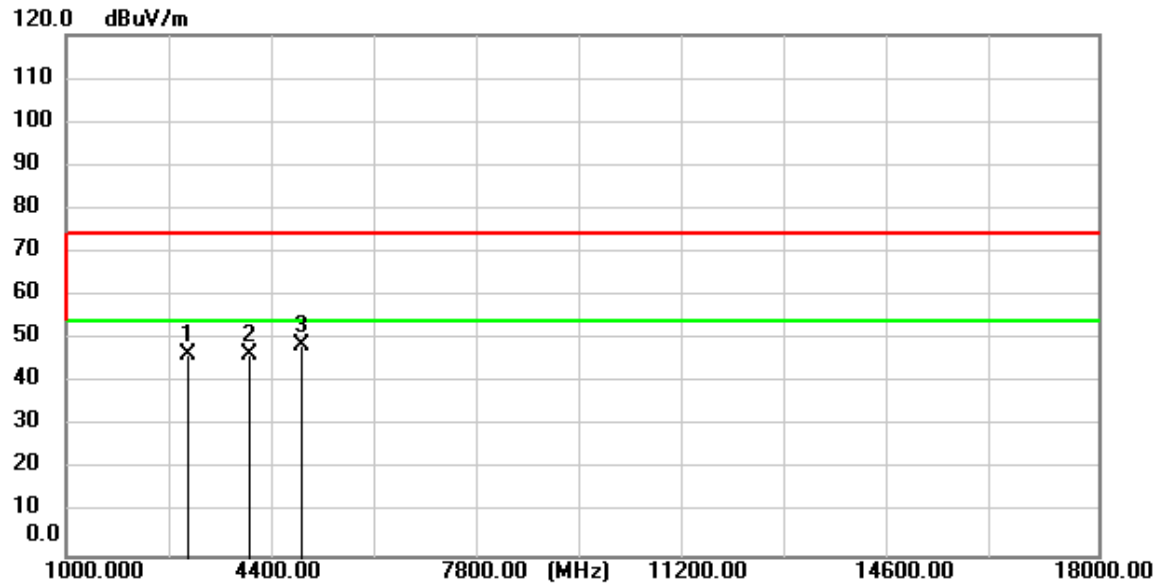
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3334.950	60.80	-17.66	43.14	74.00	-30.86	peak
2	4824.150	65.29	-13.09	52.20	74.00	-21.80	peak
3	7234.750	59.57	-6.60	52.97	74.00	-21.03	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



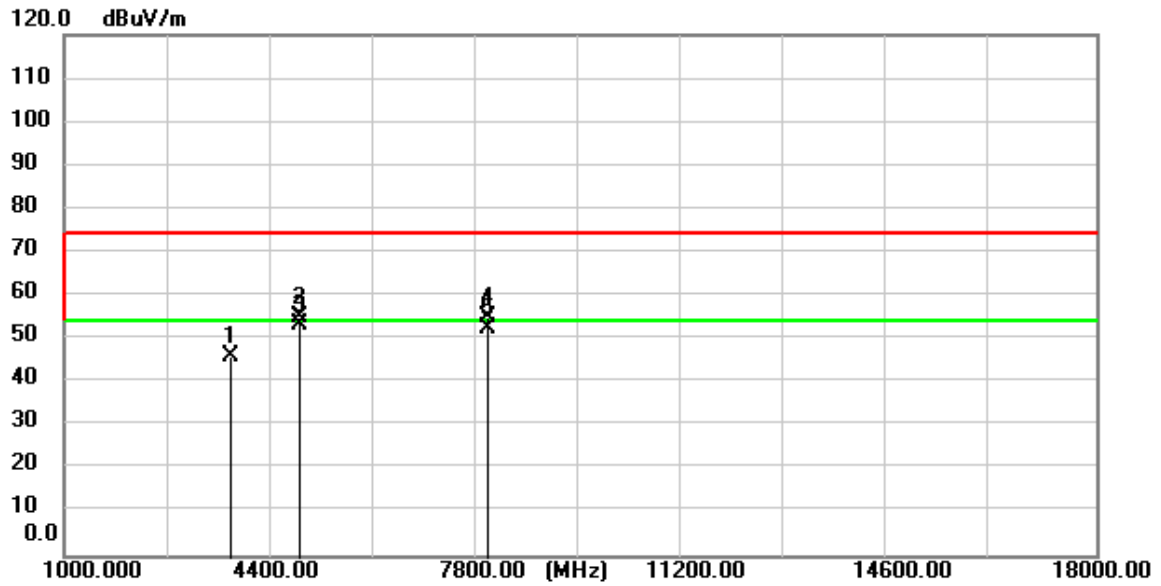
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3997.100	63.80	-15.43	48.37	74.00	-25.63	peak
2	4824.150	70.14	-13.09	57.05	74.00	-16.95	peak
3	4824.150	66.46	-13.09	53.37	54.00	-0.63	AVG
4	7237.300	63.13	-6.59	56.54	74.00	-17.46	peak
5	7237.300	57.61	-6.59	51.02	54.00	-2.98	AVG

Test Mode: 00; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



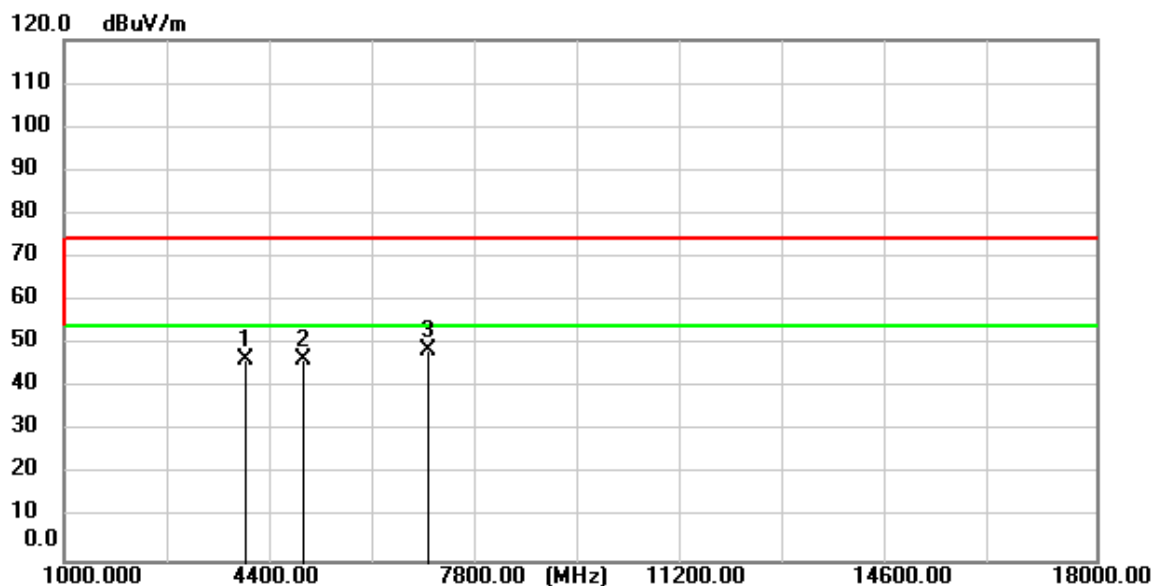
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2994.100	64.69	-18.33	46.36	74.00	-27.64	peak
2	3997.100	62.06	-15.43	46.63	74.00	-27.37	peak
3	4873.450	61.60	-13.03	48.57	74.00	-25.43	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:middle

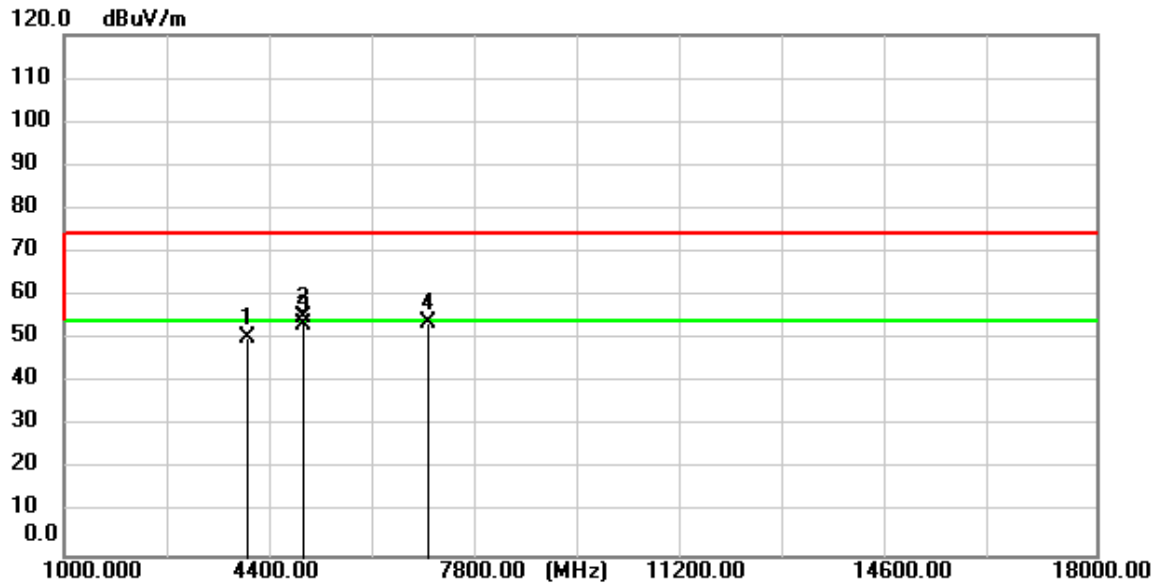


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3748.900	62.29	-16.13	46.16	74.00	-27.84	peak
2	4873.450	68.19	-13.03	55.16	74.00	-18.84	peak
3	4873.450	66.31	-13.03	53.28	54.00	-0.72	AVG
4	7986.150	60.20	-5.23	54.97	74.00	-19.03	peak
5	7986.150	57.87	-5.23	52.64	54.00	-1.36	AVG

Test Mode: 00; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High

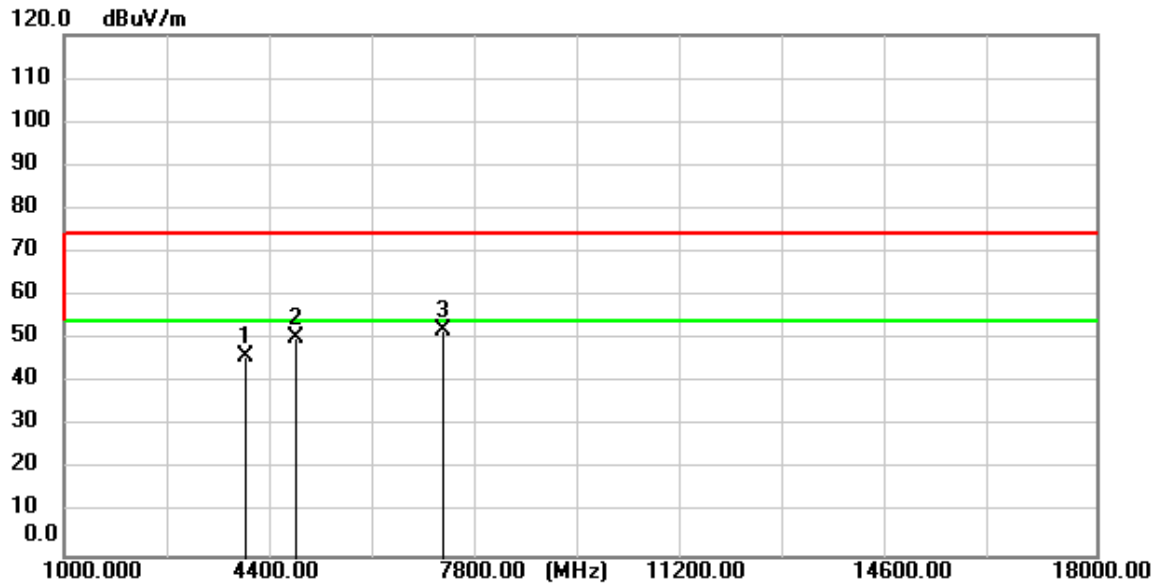


Test Mode: 00; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



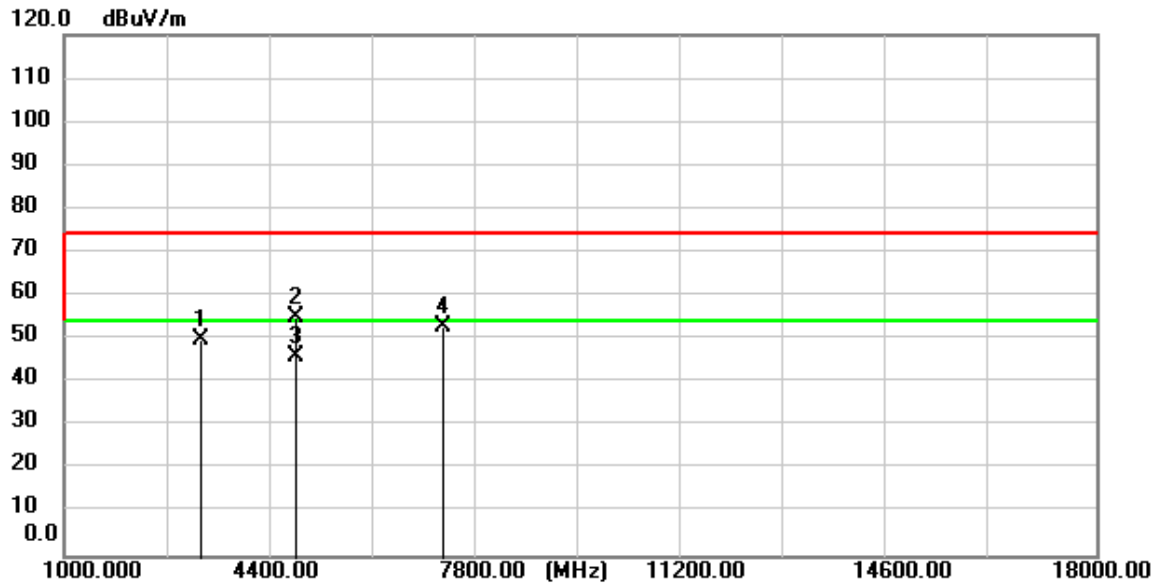
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3993.700	65.69	-15.44	50.25	74.00	-23.75	peak
2	4944.000	67.98	-12.92	55.06	74.00	-18.94	peak
3	4944.000	66.46	-12.92	53.54	54.00	-0.46	AVG
4	6978.050	60.51	-6.89	53.62	74.00	-20.38	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



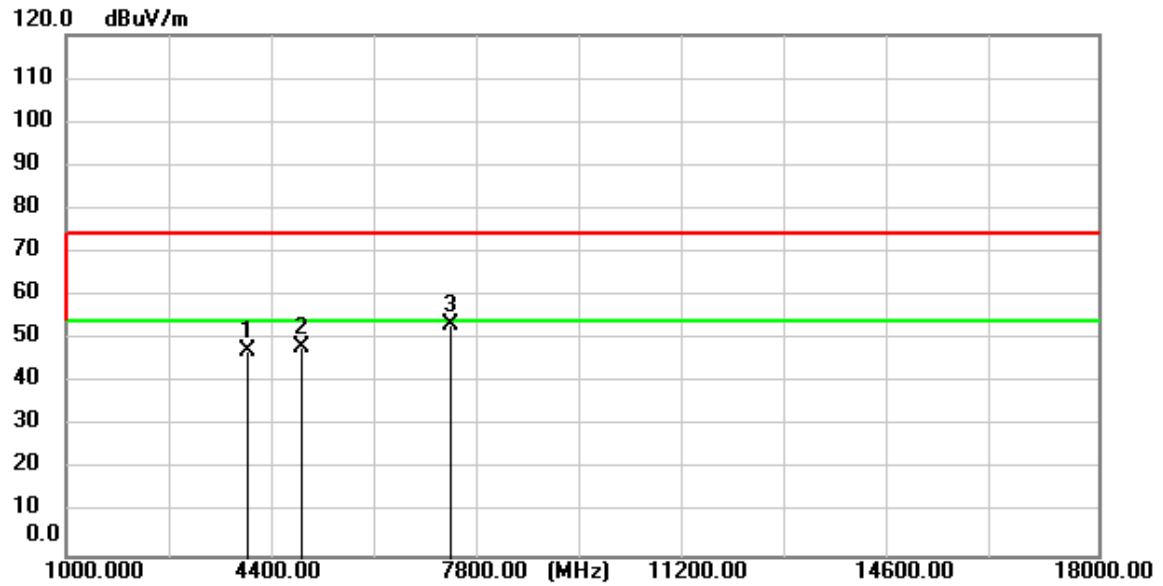
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3987.750	61.36	-15.45	45.91	74.00	-28.09	peak
2	4822.450	63.66	-13.10	50.56	74.00	-23.44	peak
3	7223.700	58.60	-6.61	51.99	74.00	-22.01	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



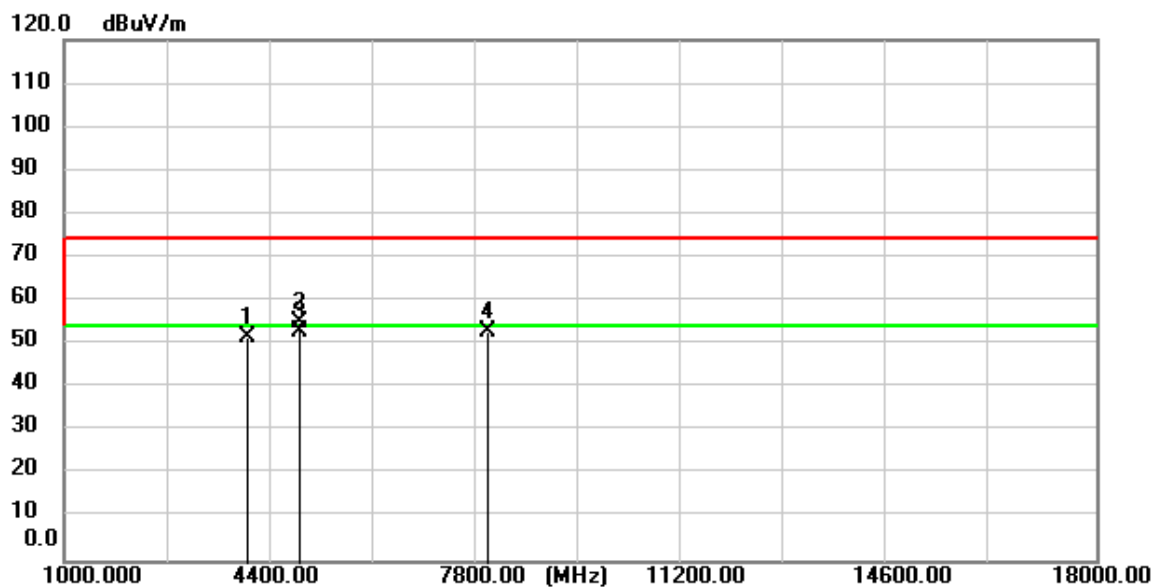
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3249.100	68.02	-17.97	50.05	74.00	-23.95	peak
2	4821.600	68.23	-13.10	55.13	74.00	-18.87	peak
3	4821.600	59.18	-13.10	46.08	54.00	-7.92	AVG
4	7233.050	59.38	-6.60	52.78	74.00	-21.22	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:middle



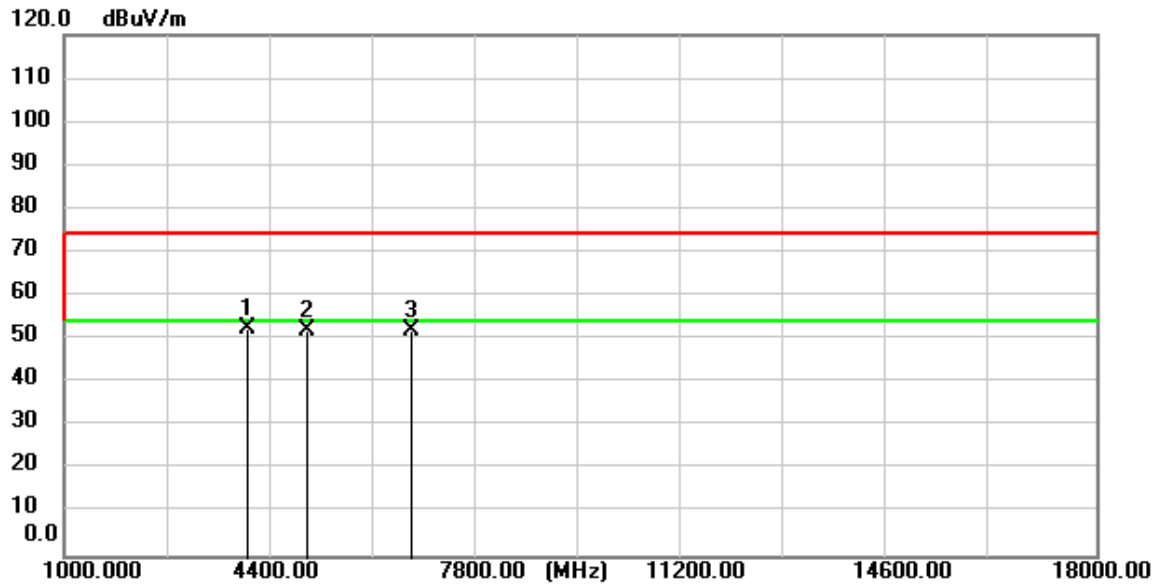
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3986.050	62.66	-15.46	47.20	74.00	-26.80	peak
2	4871.750	61.29	-13.03	48.26	74.00	-25.74	peak
3	7310.400	59.99	-6.51	53.48	74.00	-20.52	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:middle



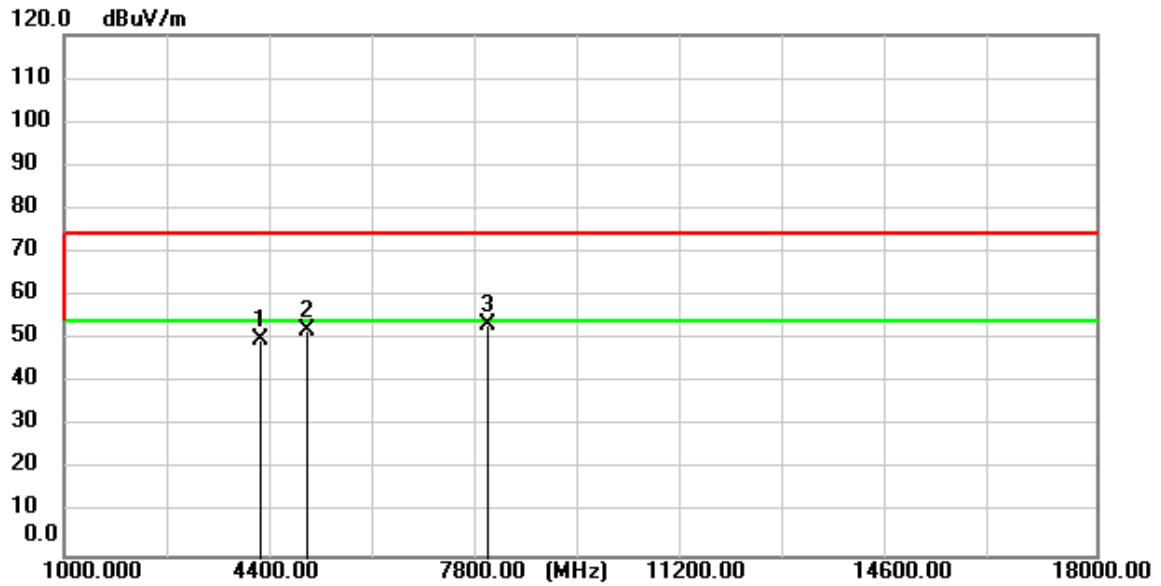
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3993.700	67.12	-15.44	51.68	74.00	-22.32	peak
2	4873.450	67.95	-13.03	54.92	74.00	-19.08	peak
3	4873.450	66.00	-13.03	52.97	54.00	-1.03	AVG
4	7980.200	58.18	-5.24	52.94	74.00	-21.06	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



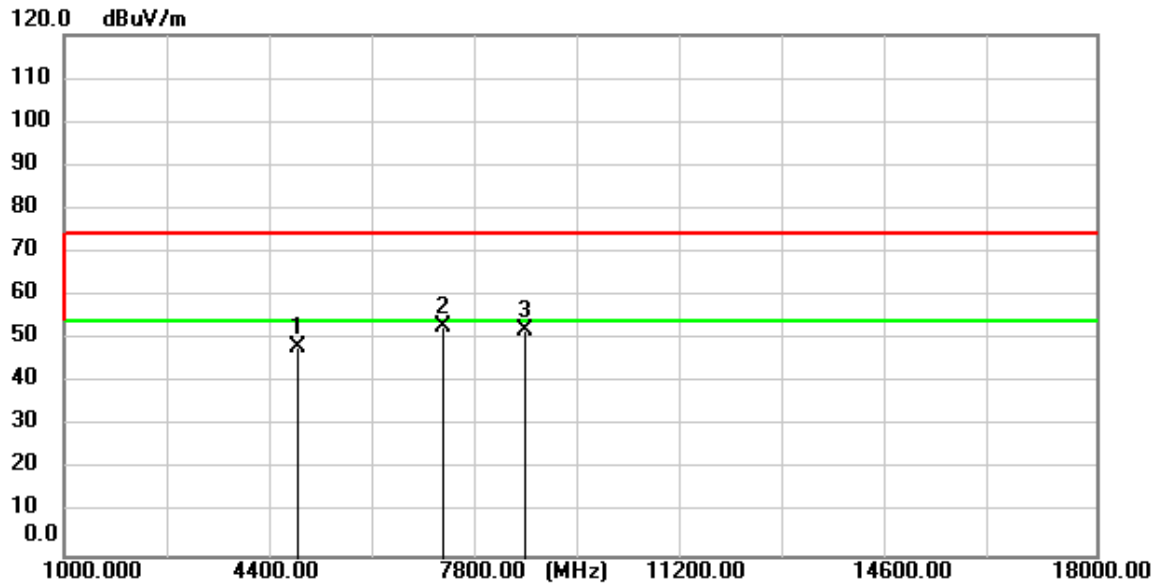
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3996.250	67.98	-15.43	52.55	74.00	-21.45	peak
2	4999.250	64.90	-12.85	52.05	74.00	-21.95	peak
3	6713.700	59.26	-7.23	52.03	74.00	-21.97	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High



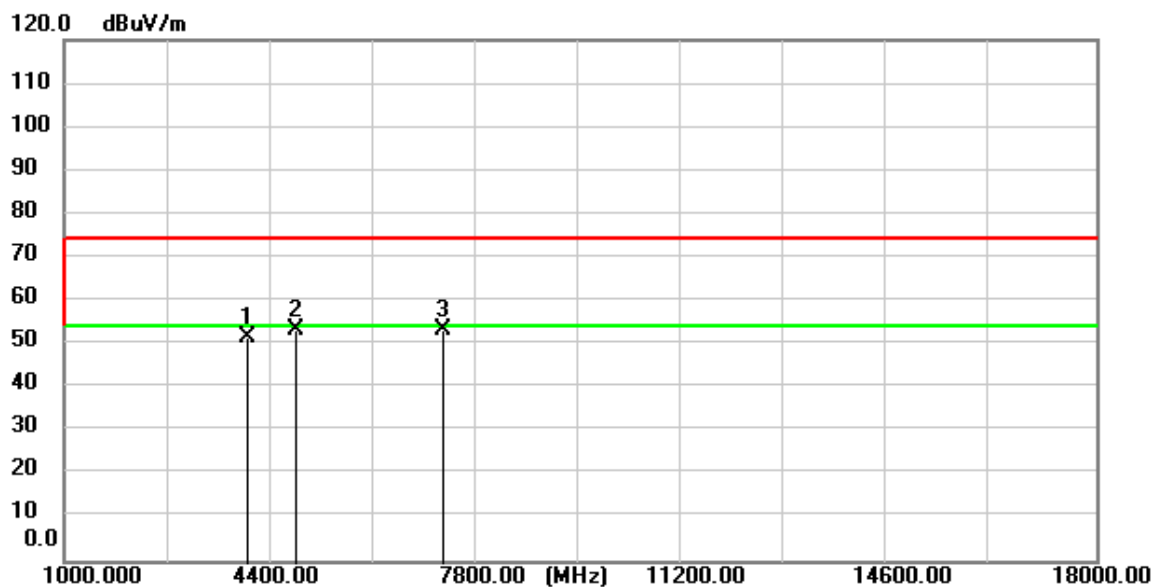
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4239.350	64.84	-14.73	50.11	74.00	-23.89	peak
2	4995.000	65.02	-12.85	52.17	74.00	-21.83	peak
3	7982.750	58.48	-5.24	53.24	74.00	-20.76	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



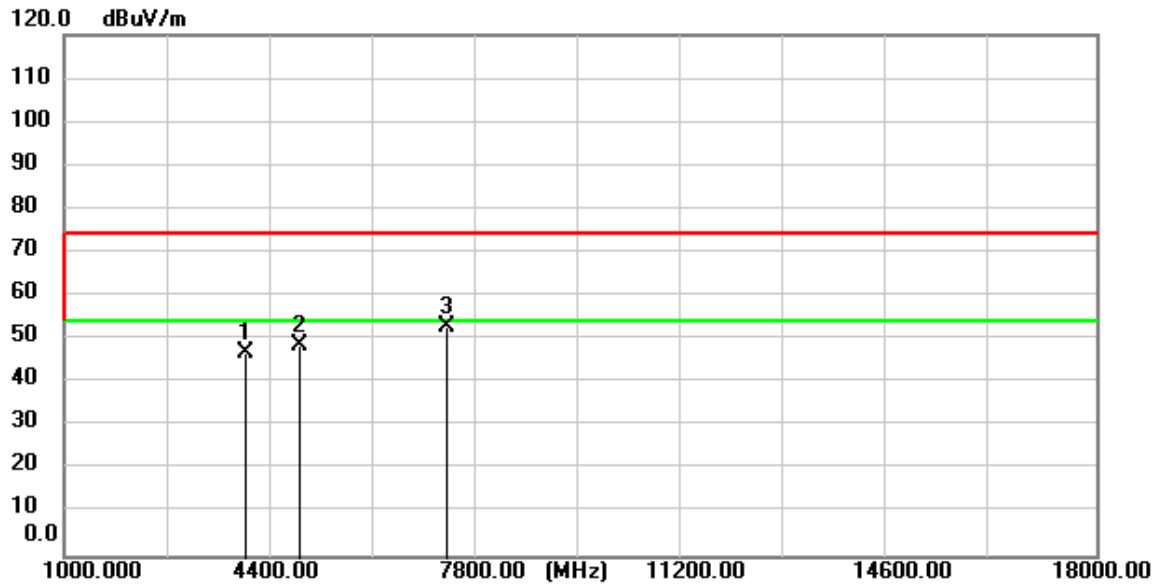
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4828.400	61.43	-13.08	48.35	74.00	-25.65	peak
2	7230.500	59.58	-6.60	52.98	74.00	-21.02	peak
3	8576.050	56.21	-4.23	51.98	74.00	-22.02	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



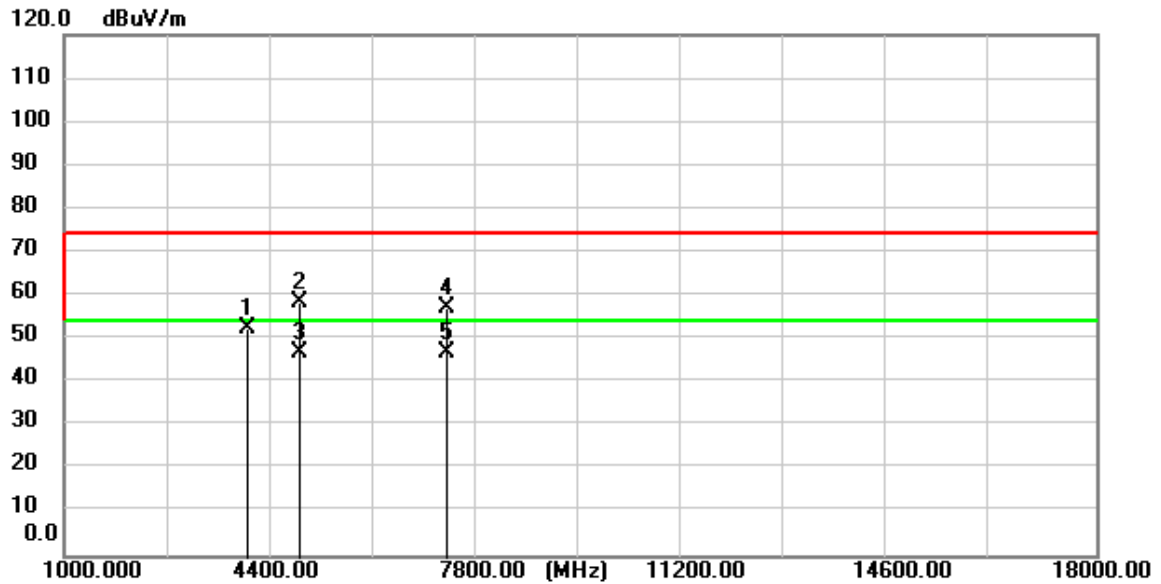
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3998.800	67.13	-15.43	51.70	74.00	-22.30	peak
2	4825.000	66.28	-13.09	53.19	74.00	-20.81	peak
3	7229.650	60.15	-6.61	53.54	74.00	-20.46	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle

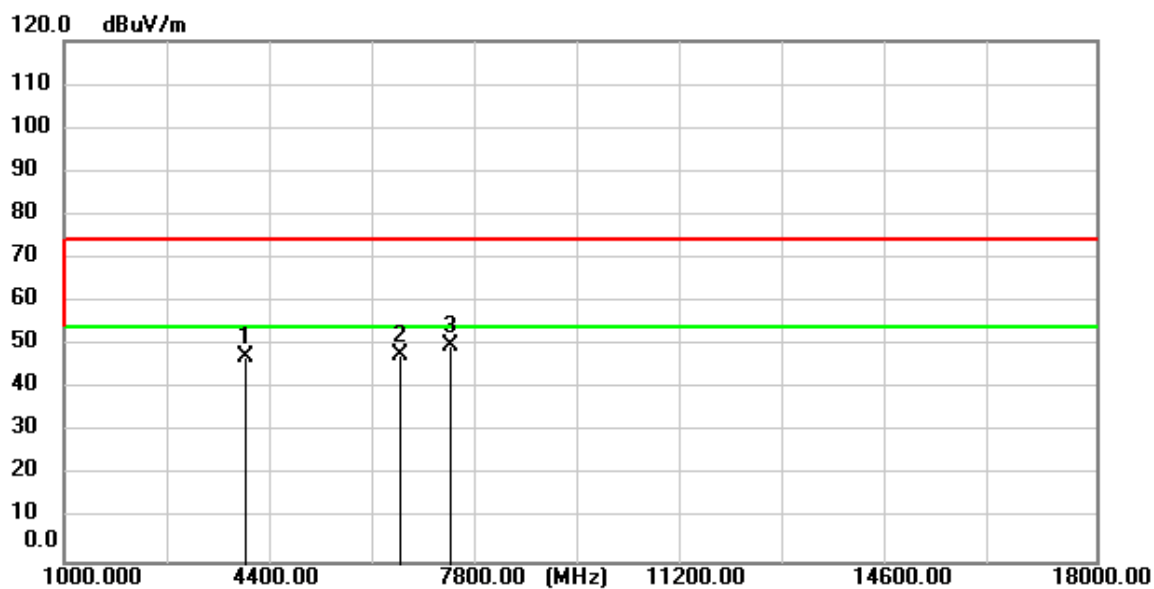


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3985.200	62.34	-15.46	46.88	74.00	-27.12	peak
2	4870.050	61.81	-13.03	48.78	74.00	-25.22	peak
3	7306.150	59.29	-6.52	52.77	74.00	-21.23	peak

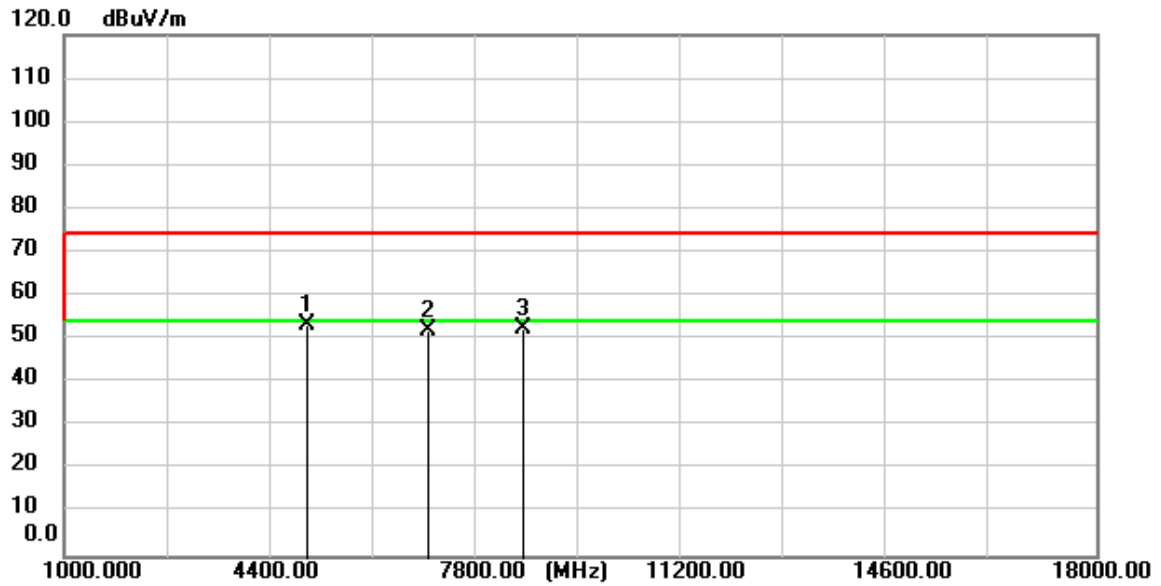
Test Mode: 00; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Test Mode: 00; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High

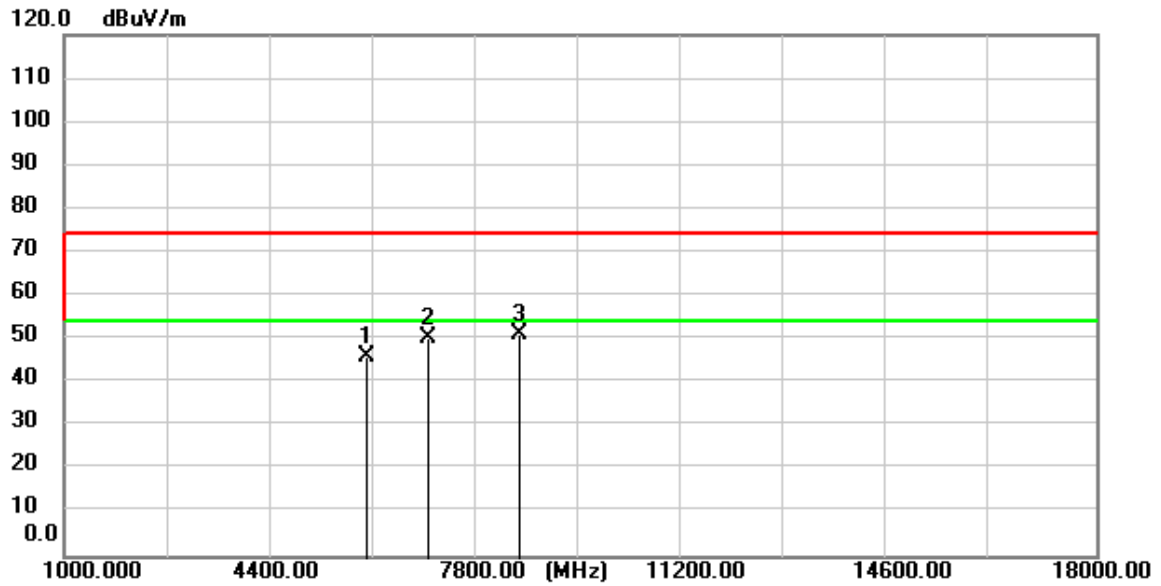


Test Mode: 00; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



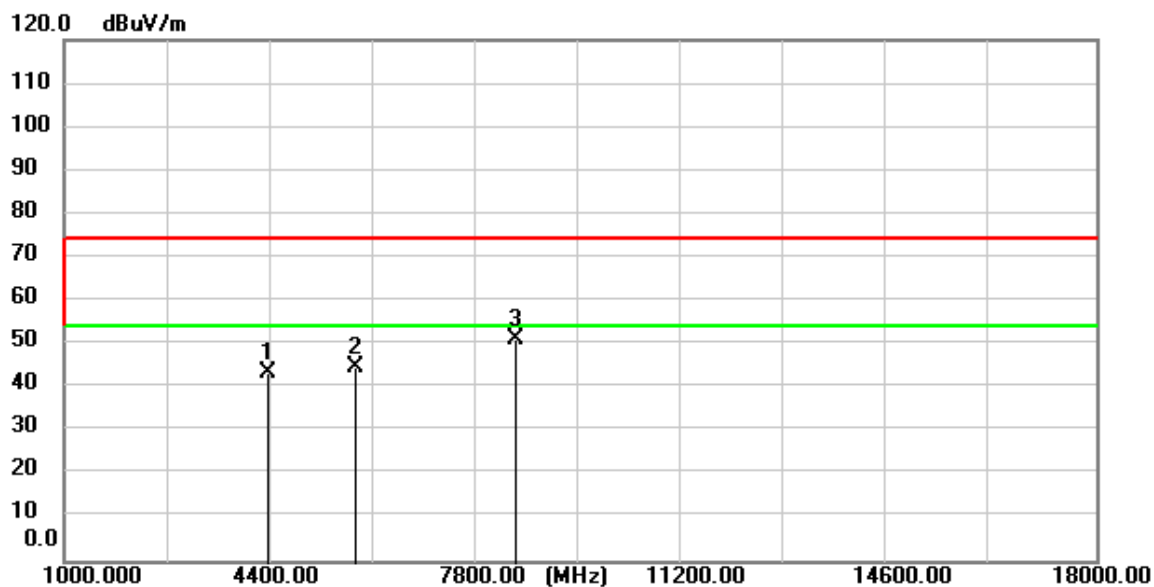
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4989.900	66.21	-12.86	53.35	74.00	-20.65	peak
2	7000.150	58.73	-6.87	51.86	74.00	-22.14	peak
3	8564.150	56.68	-4.25	52.43	74.00	-21.57	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



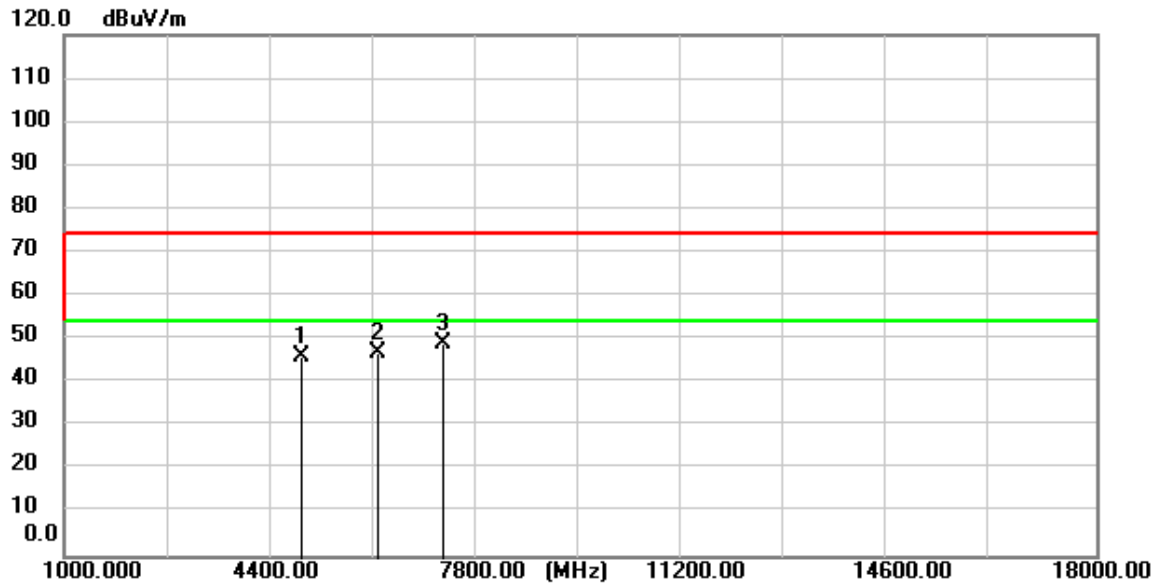
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5997.150	56.36	-10.49	45.87	74.00	-28.13	peak
2	6978.900	57.37	-6.89	50.48	74.00	-23.52	peak
3	8509.750	55.60	-4.34	51.26	74.00	-22.74	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



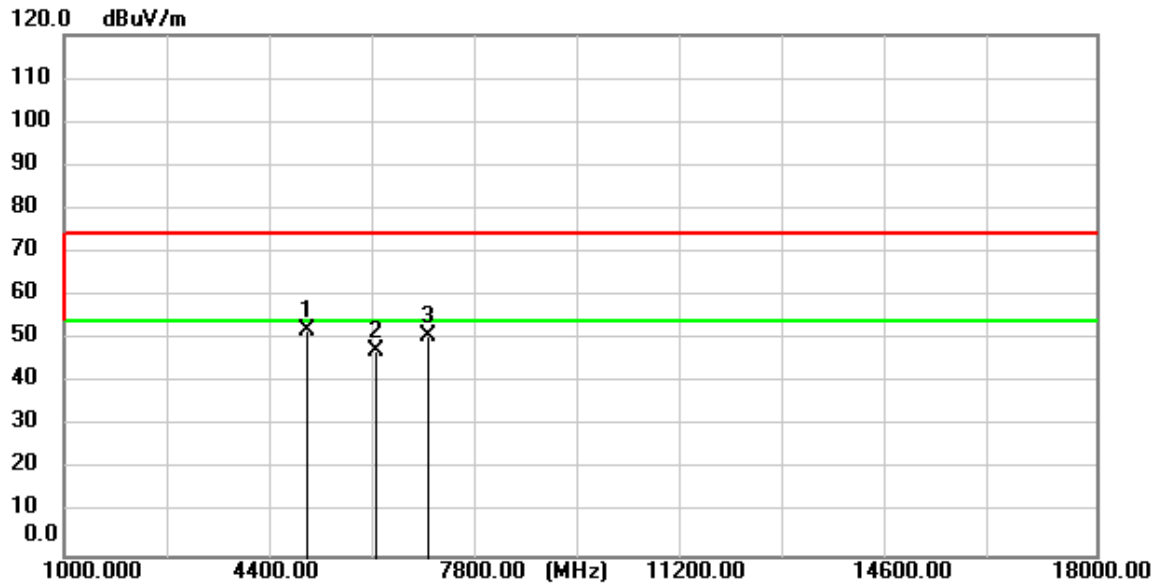
No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4354.100	57.91	-14.31	43.60	74.00	-30.40	peak
2	5777.850	56.01	-11.33	44.68	74.00	-29.32	peak
3	8439.200	55.75	-4.46	51.29	74.00	-22.71	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:middle



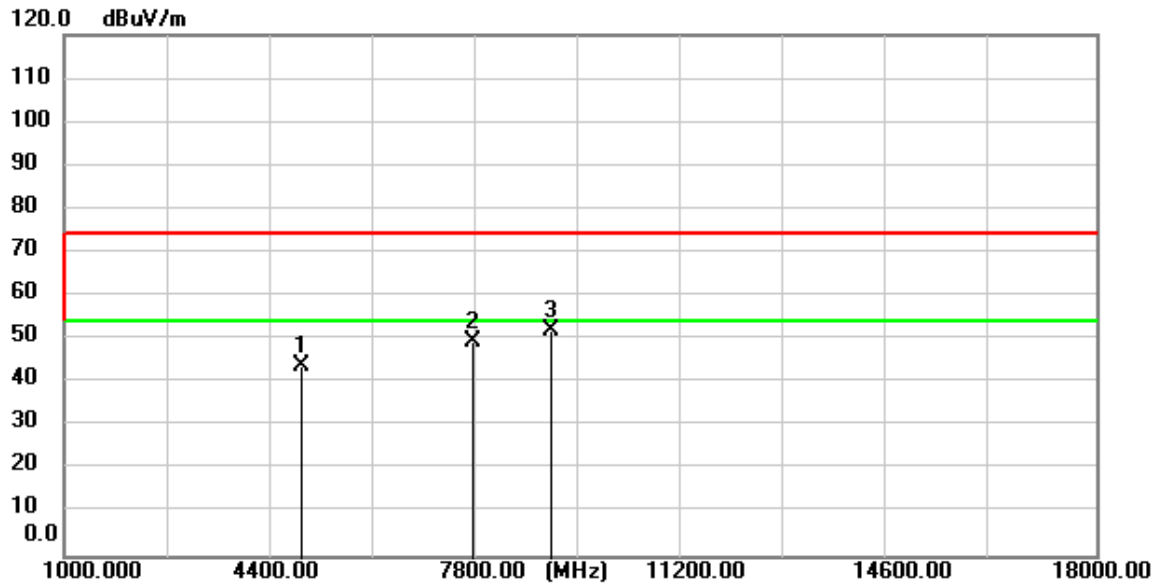
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4895.550	59.15	-12.99	46.16	74.00	-27.84	peak
2	6173.100	56.53	-9.73	46.80	74.00	-27.20	peak
3	7255.150	55.44	-6.57	48.87	74.00	-25.13	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:middle



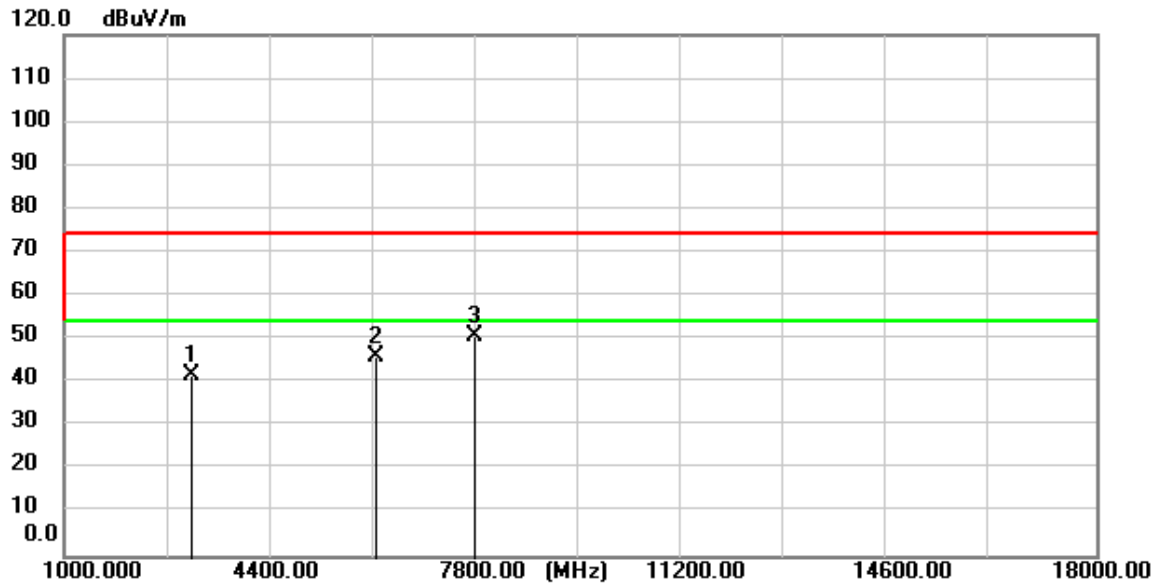
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4987.350	65.03	-12.86	52.17	74.00	-21.83	peak
2	6147.600	57.25	-9.86	47.39	74.00	-26.61	peak
3	7000.150	57.84	-6.87	50.97	74.00	-23.03	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



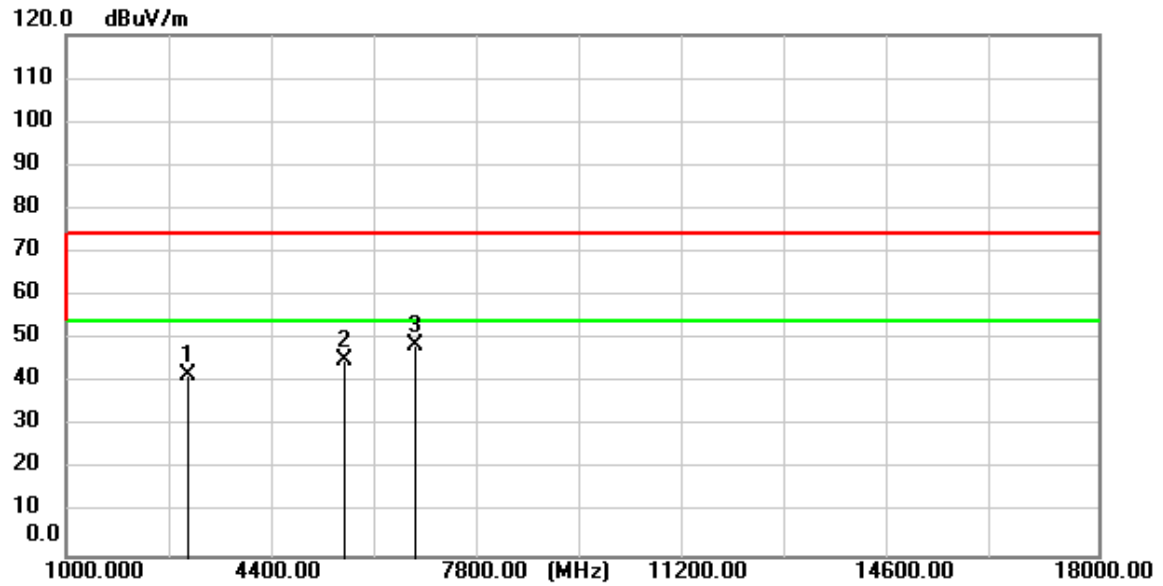
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4923.600	56.68	-12.96	43.72	74.00	-30.28	peak
2	7749.000	55.39	-5.71	49.68	74.00	-24.32	peak
3	9018.050	55.45	-3.45	52.00	74.00	-22.00	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



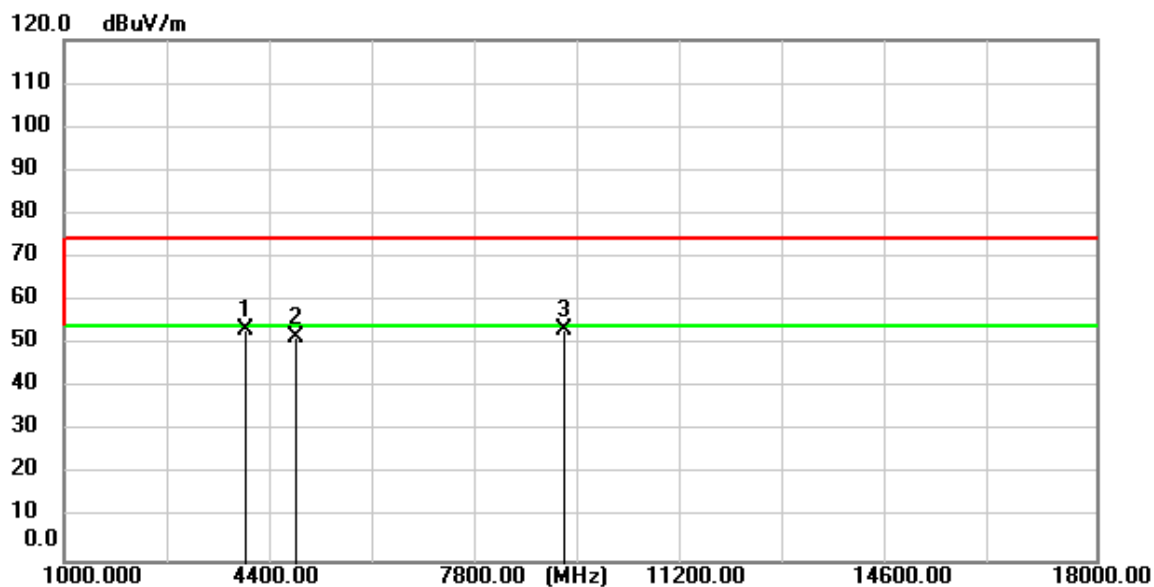
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3105.450	60.00	-18.37	41.63	74.00	-32.37	peak
2	6138.250	56.10	-9.89	46.21	74.00	-27.79	peak
3	7762.600	56.49	-5.68	50.81	74.00	-23.19	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



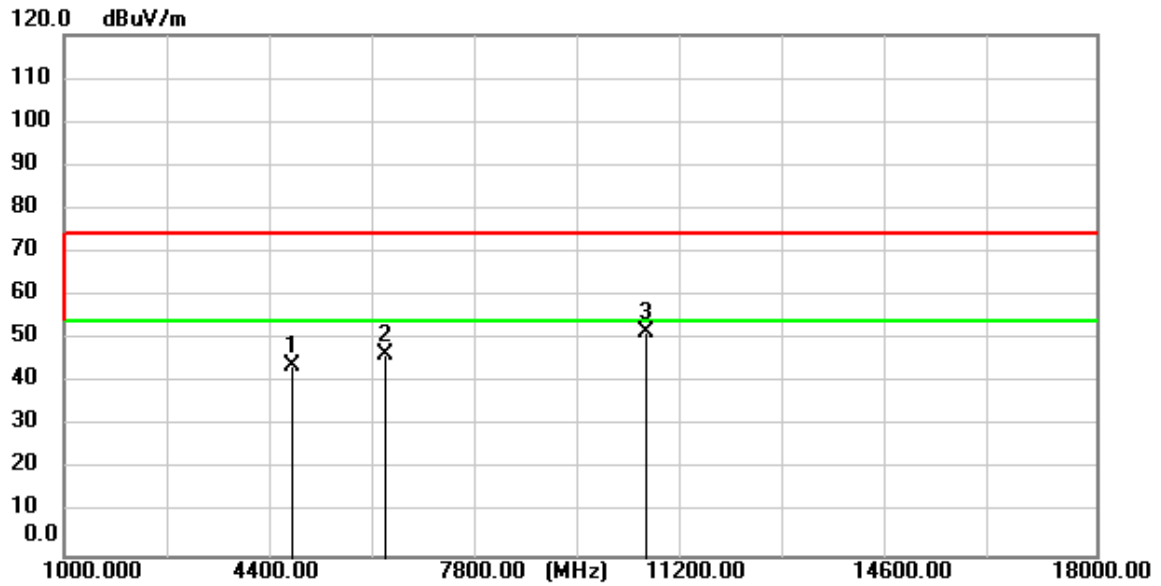
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2989.850	60.27	-18.33	41.94	74.00	-32.06	peak
2	5583.200	57.17	-12.08	45.09	74.00	-28.91	peak
3	6737.500	55.96	-7.16	48.80	74.00	-25.20	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



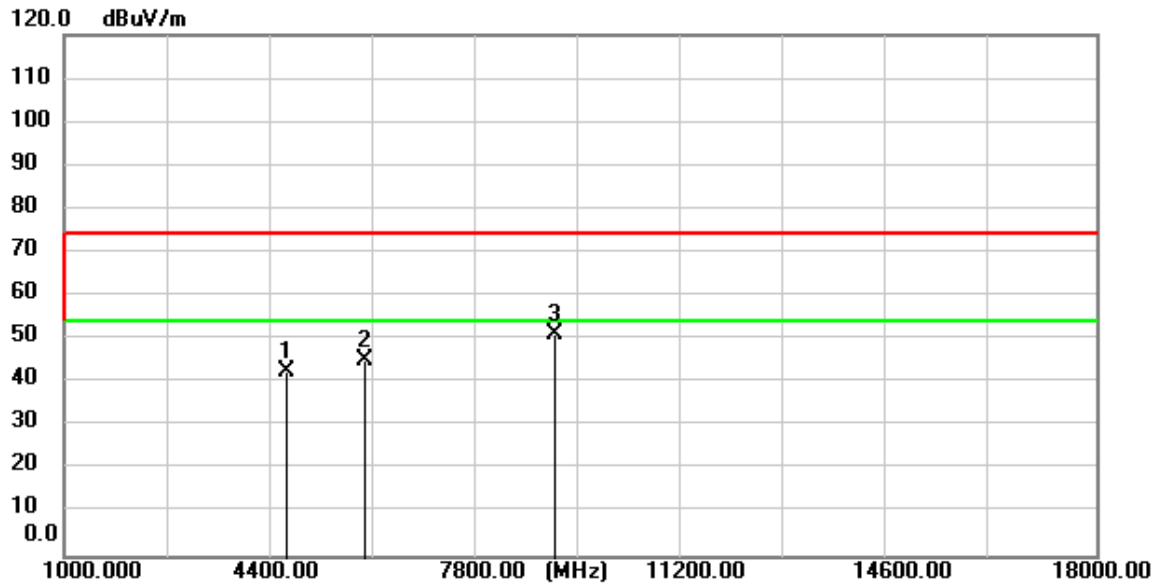
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3986.900	68.64	-15.46	53.18	74.00	-20.82	peak
2	4821.600	64.93	-13.10	51.83	74.00	-22.17	peak
3	9227.150	56.49	-2.98	53.51	74.00	-20.49	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



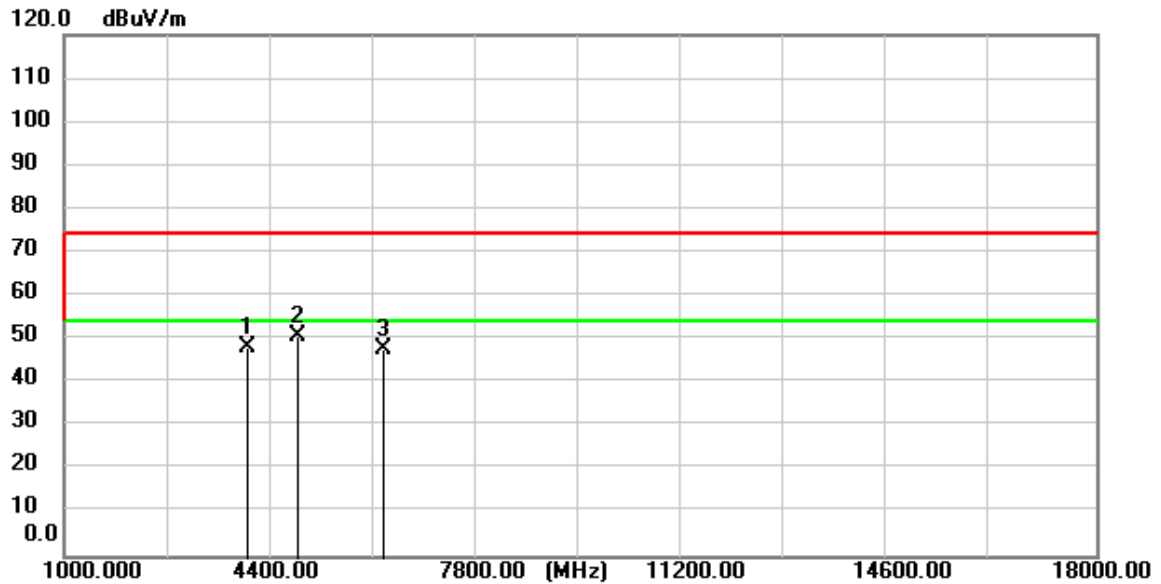
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4755.300	57.05	-13.19	43.86	74.00	-30.14	peak
2	6302.300	55.54	-9.14	46.40	74.00	-27.60	peak
3	10579.500	53.00	-1.57	51.43	74.00	-22.57	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



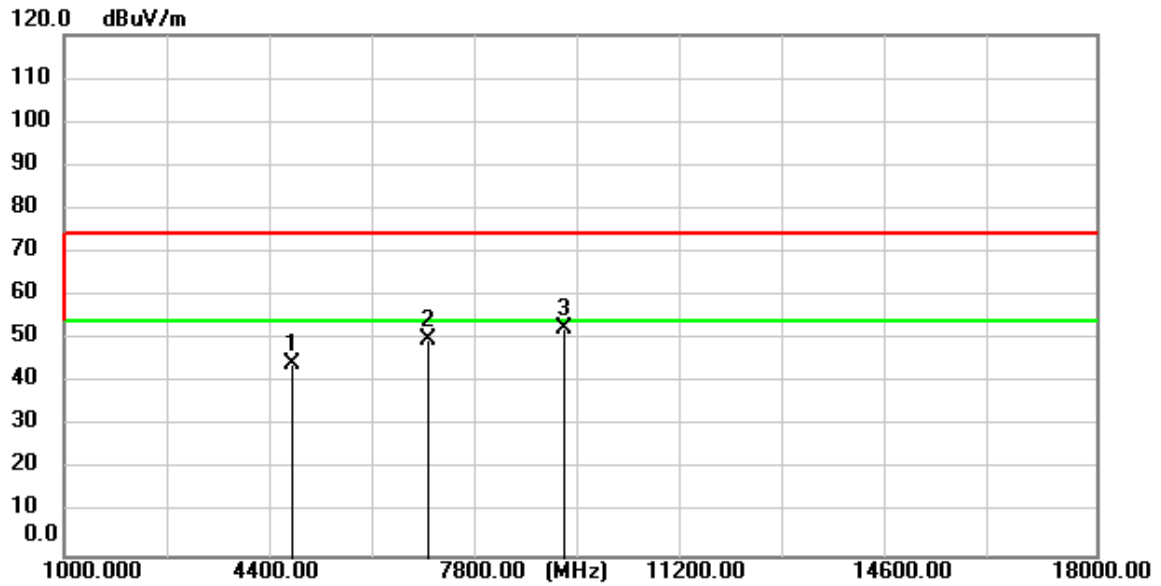
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4667.750	55.90	-13.31	42.59	74.00	-31.41	peak
2	5942.750	55.97	-10.70	45.27	74.00	-28.73	peak
3	9081.800	54.34	-3.32	51.02	74.00	-22.98	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



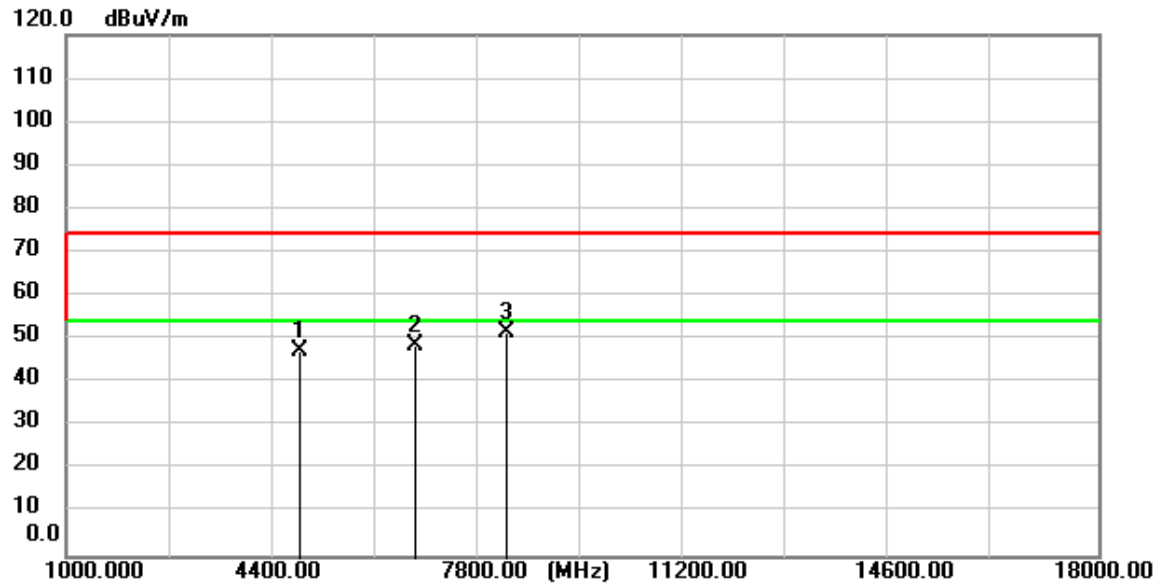
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3994.550	63.69	-15.44	48.25	74.00	-25.75	peak
2	4828.400	63.97	-13.08	50.89	74.00	-23.11	peak
3	6254.700	57.05	-9.35	47.70	74.00	-26.30	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



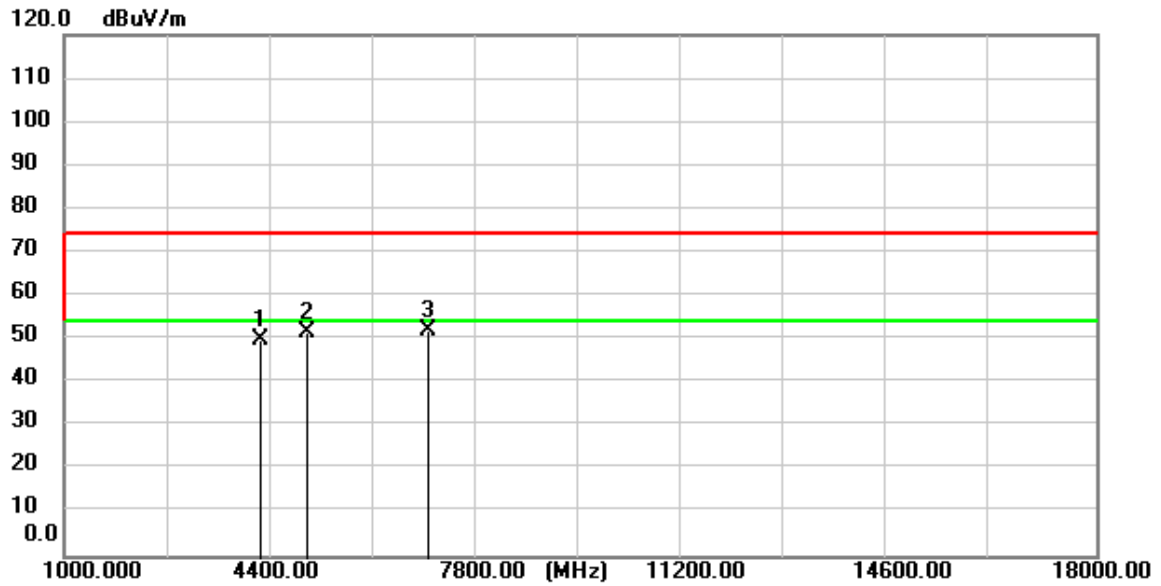
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4757.850	57.53	-13.18	44.35	74.00	-29.65	peak
2	6985.700	56.95	-6.88	50.07	74.00	-23.93	peak
3	9225.450	55.46	-2.98	52.48	74.00	-21.52	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



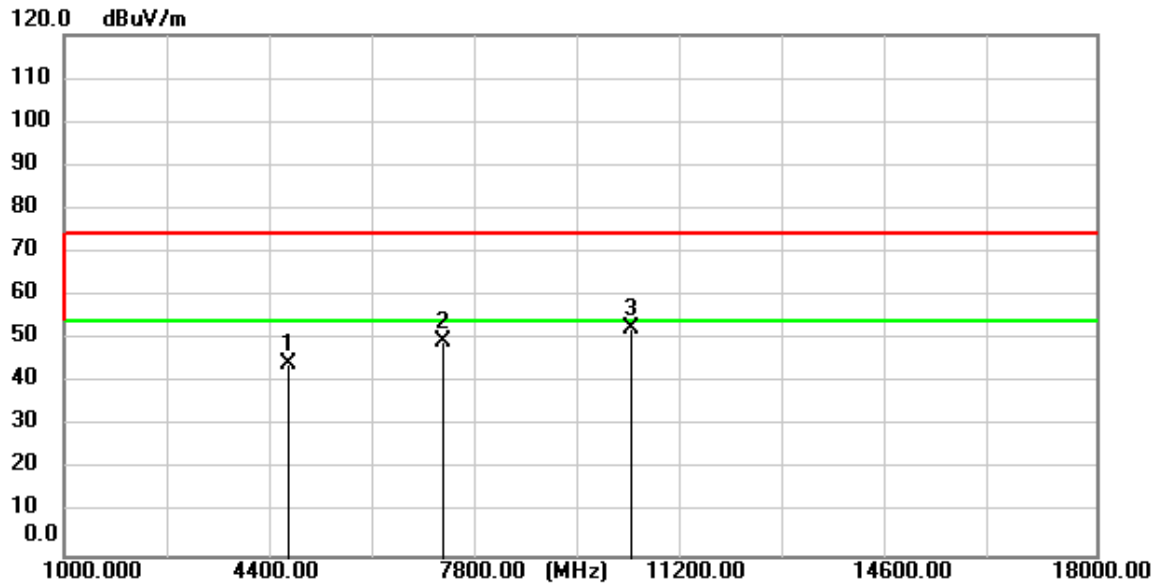
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4836.050	60.35	-13.07	47.28	74.00	-26.72	peak
2	6734.100	55.84	-7.17	48.67	74.00	-25.33	peak
3	8229.250	56.46	-4.80	51.66	74.00	-22.34	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



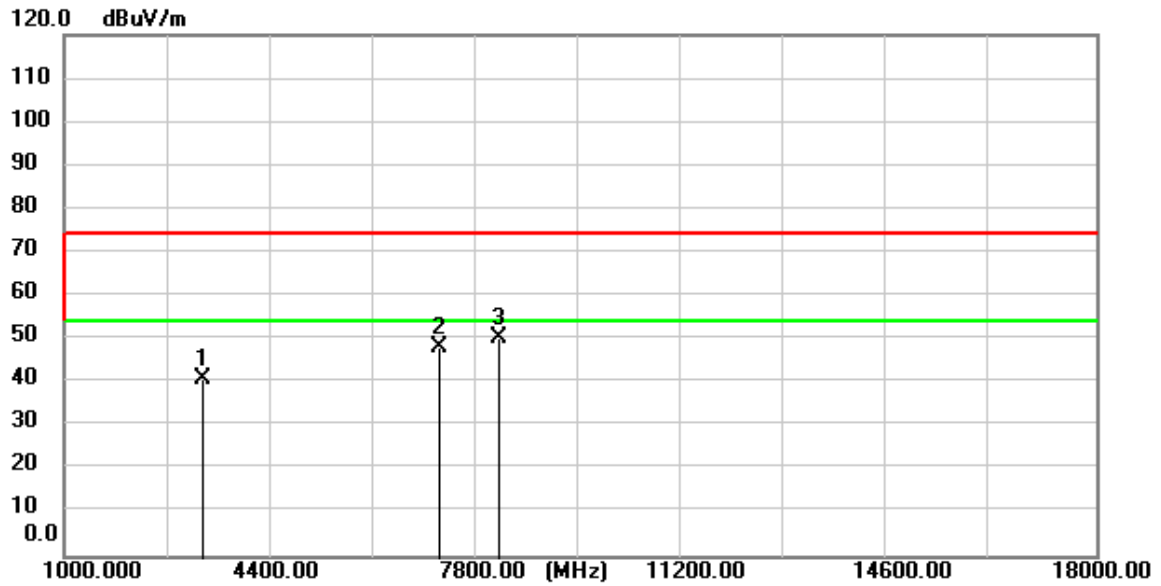
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4236.800	64.69	-14.74	49.95	74.00	-24.05	peak
2	4994.150	64.59	-12.85	51.74	74.00	-22.26	peak
3	6999.300	58.97	-6.87	52.10	74.00	-21.90	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:middle



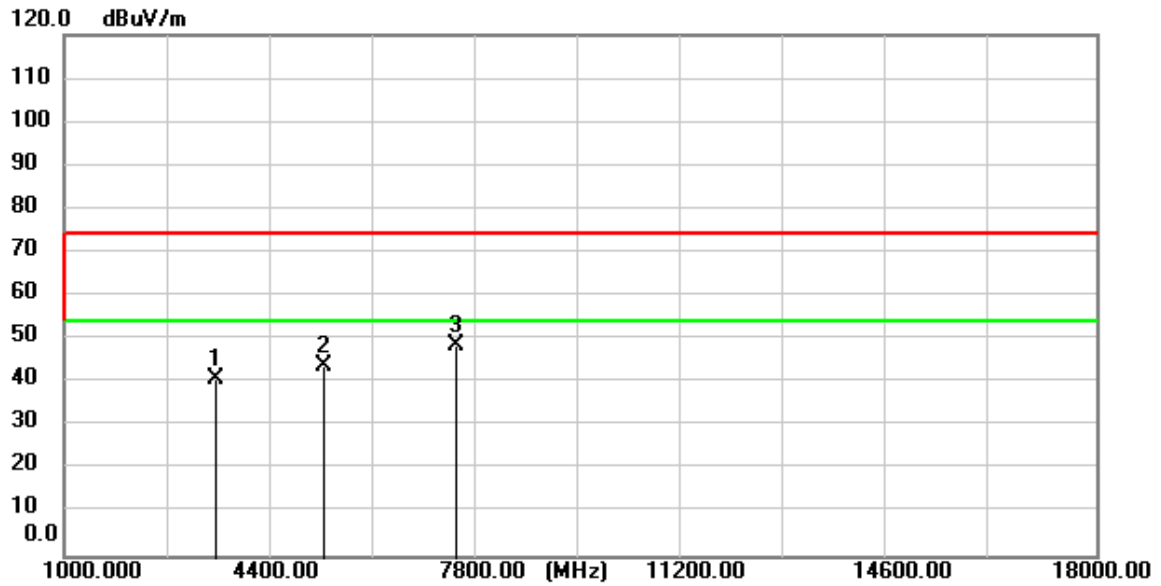
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4700.050	57.52	-13.26	44.26	74.00	-29.74	peak
2	7239.850	56.00	-6.59	49.41	74.00	-24.59	peak
3	10321.950	54.26	-1.55	52.71	74.00	-21.29	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:middle



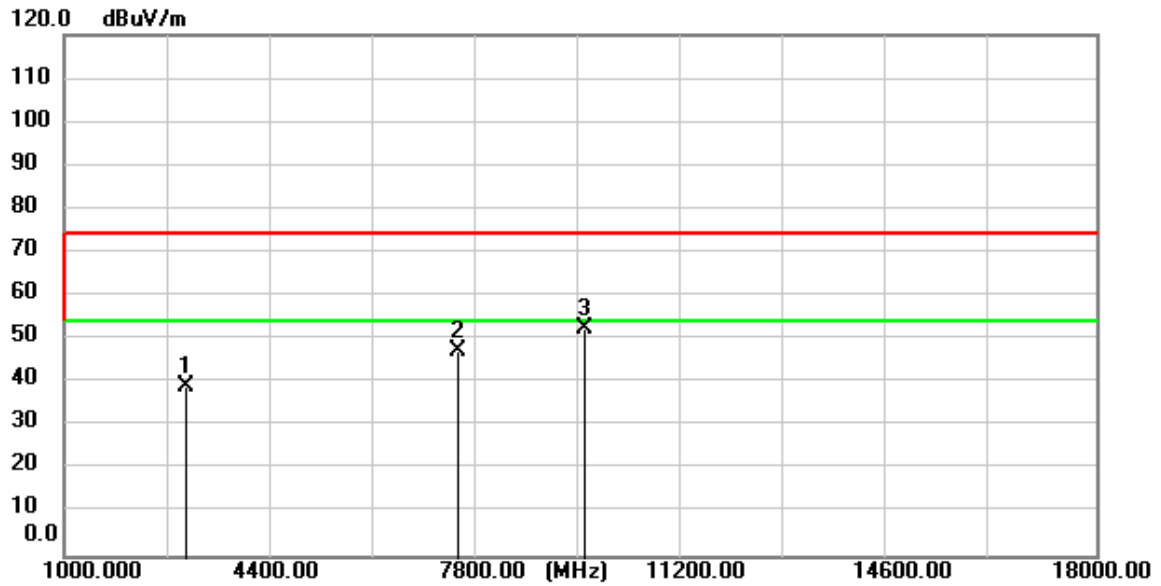
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3271.200	58.79	-17.89	40.90	74.00	-33.10	peak
2	7162.500	54.90	-6.68	48.22	74.00	-25.78	peak
3	8150.200	55.20	-4.93	50.27	74.00	-23.73	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



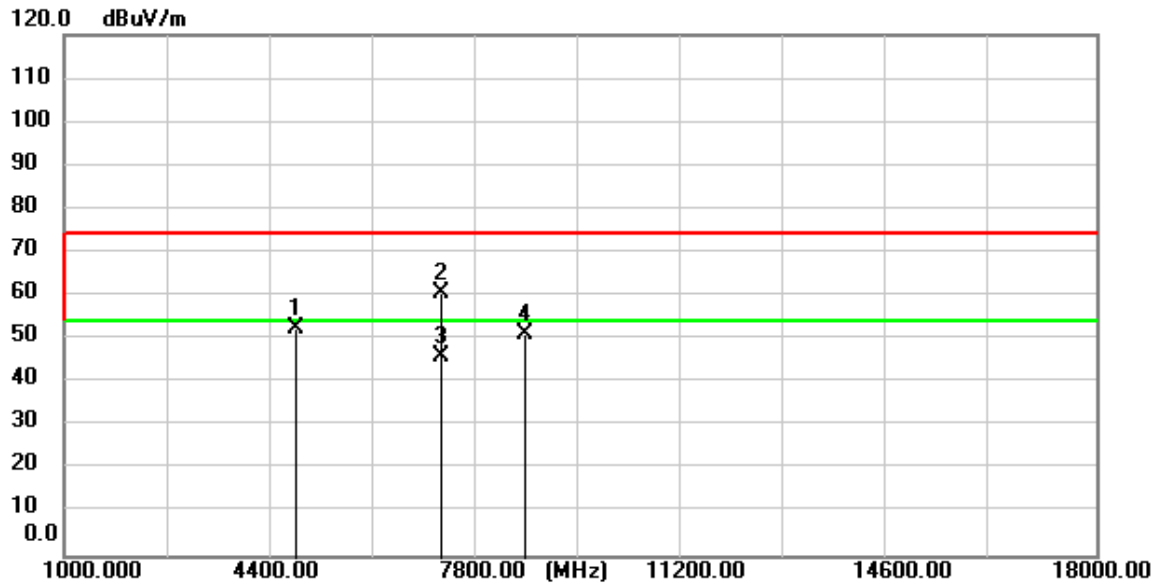
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3504.950	58.14	-17.02	41.12	74.00	-32.88	peak
2	5279.750	56.56	-12.50	44.06	74.00	-29.94	peak
3	7458.300	55.13	-6.29	48.84	74.00	-25.16	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High

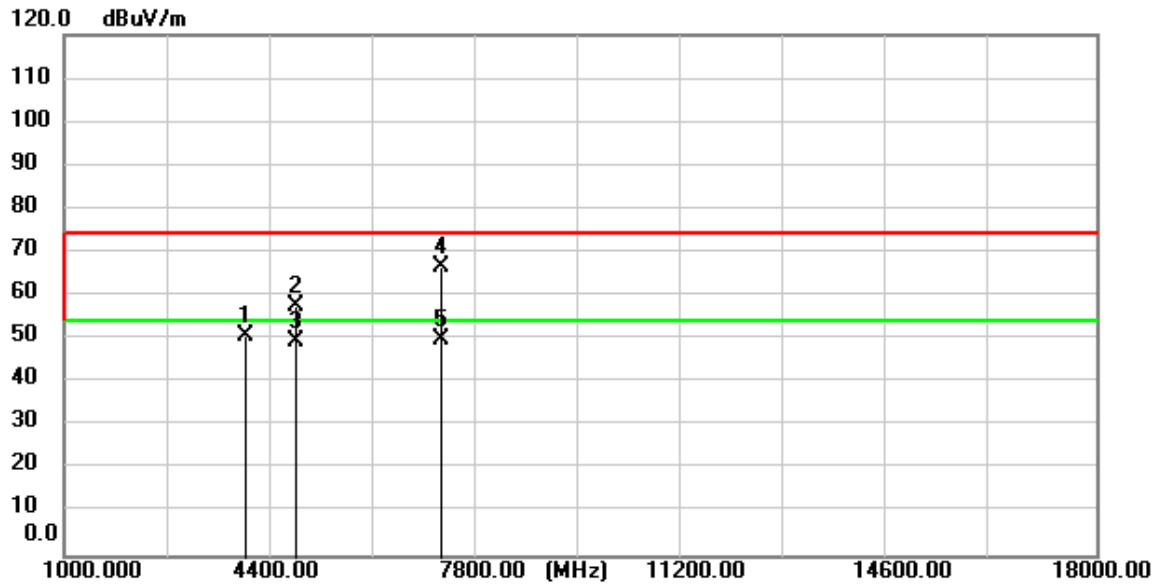


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3004.300	57.70	-18.34	39.36	74.00	-34.64	peak
2	7490.600	53.41	-6.22	47.19	74.00	-26.81	peak
3	9570.550	54.61	-2.19	52.42	74.00	-21.58	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(RU26_Left); Bandwidth:20MHz; Channel:Low

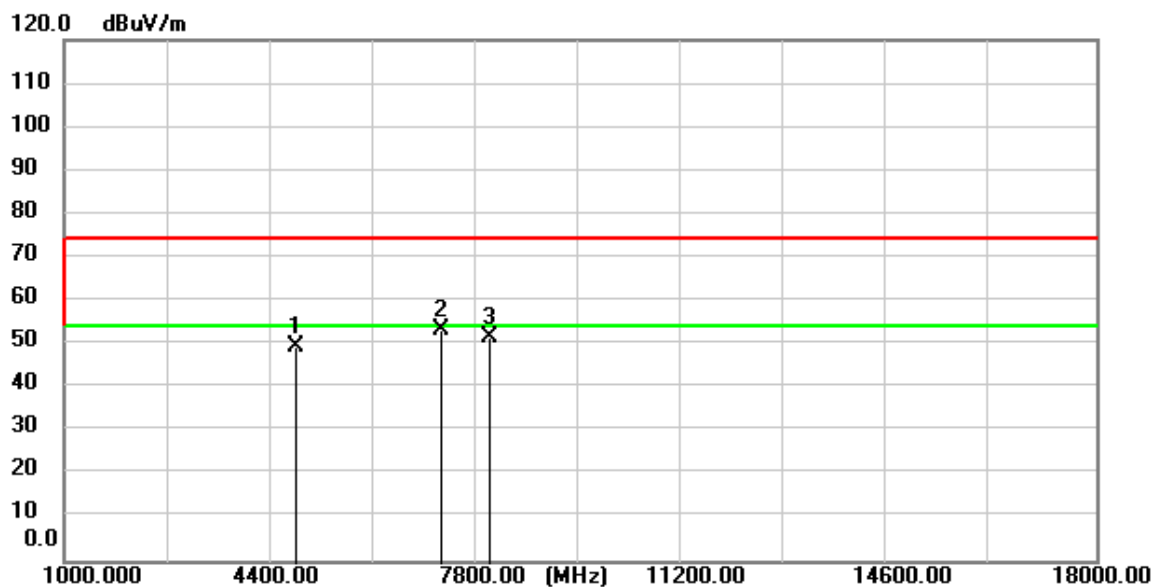


Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(RU26_Left); Bandwidth:20MHz; Channel:Low



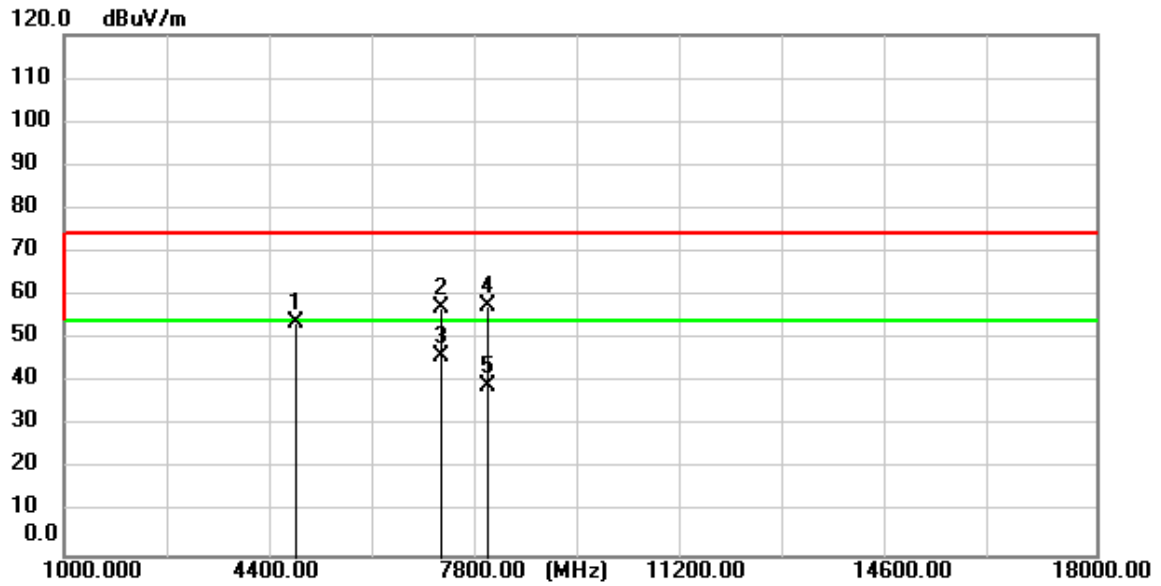
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3986.900	66.11	-15.46	50.65	74.00	-23.35	peak
2	4808.000	70.65	-13.11	57.54	74.00	-16.46	peak
3	4808.000	62.70	-13.11	49.59	54.00	-4.41	AVG
4	7210.950	73.35	-6.62	66.73	74.00	-7.27	peak
5	7210.950	56.56	-6.62	49.94	54.00	-4.06	AVG

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(RU106_Left); Bandwidth:20MHz; Channel:Low



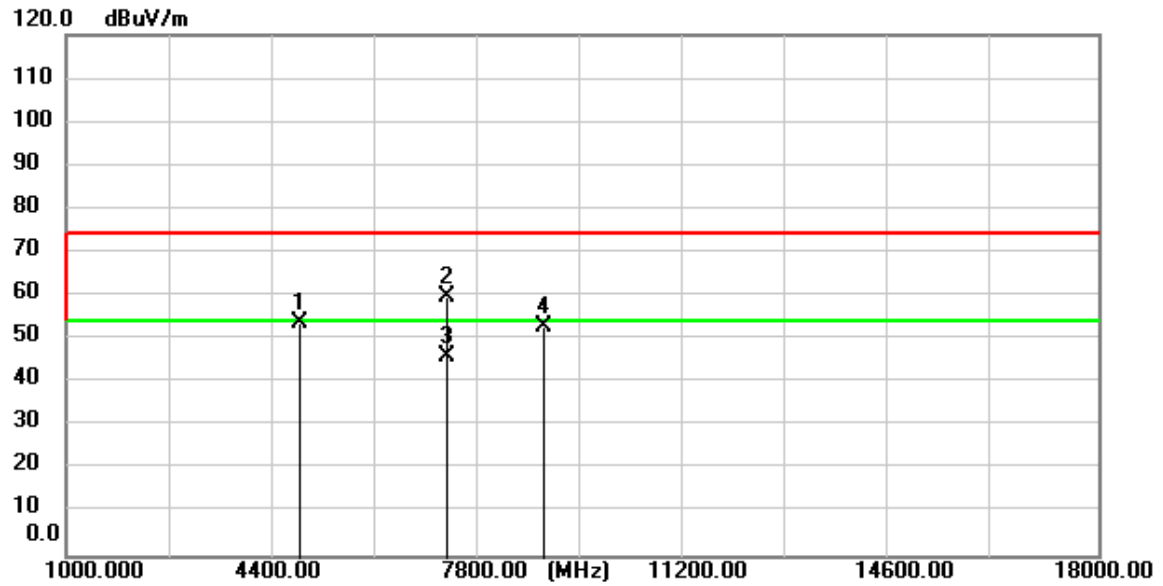
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4813.100	62.45	-13.11	49.34	74.00	-24.66	peak
2	7218.600	59.90	-6.62	53.28	74.00	-20.72	peak
3	7997.200	57.00	-5.21	51.79	74.00	-22.21	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(RU106_Left); Bandwidth:20MHz; Channel:Low



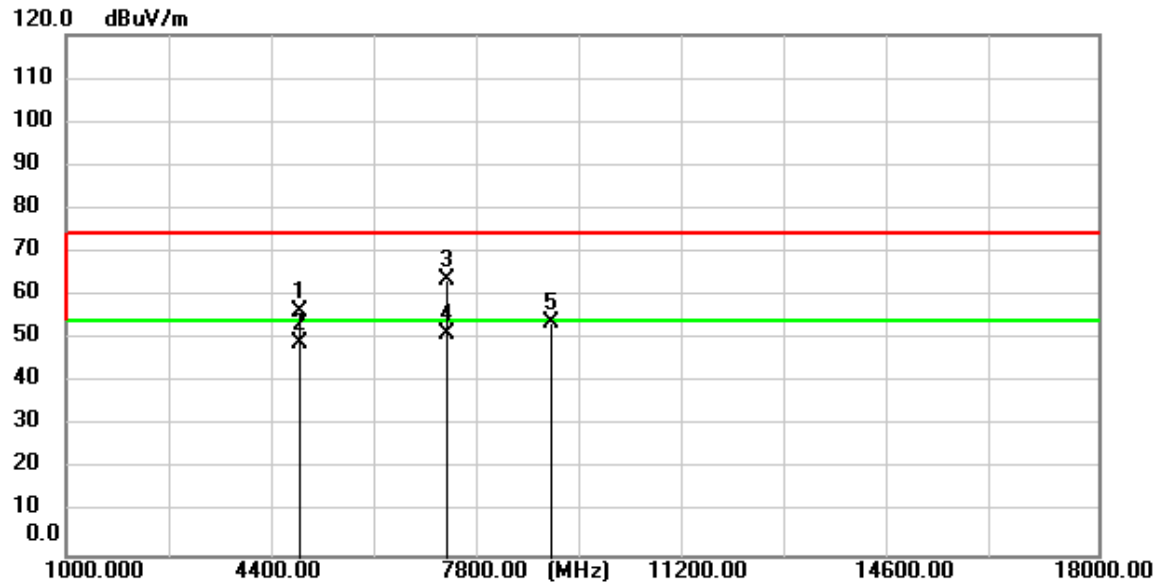
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4813.100	67.00	-13.11	53.89	74.00	-20.11	peak
2	7212.650	63.98	-6.62	57.36	74.00	-16.64	peak
3	7212.650	52.79	-6.62	46.17	54.00	-7.83	AVG
4	7981.900	62.87	-5.24	57.63	74.00	-16.37	peak
5	7981.900	44.33	-5.24	39.09	54.00	-14.91	AVG

Test Mode: 00; Polarity: Horizontal; ; Modulation:802.11ax(RU52_Left); Bandwidth:20MHz; Channel:Middle



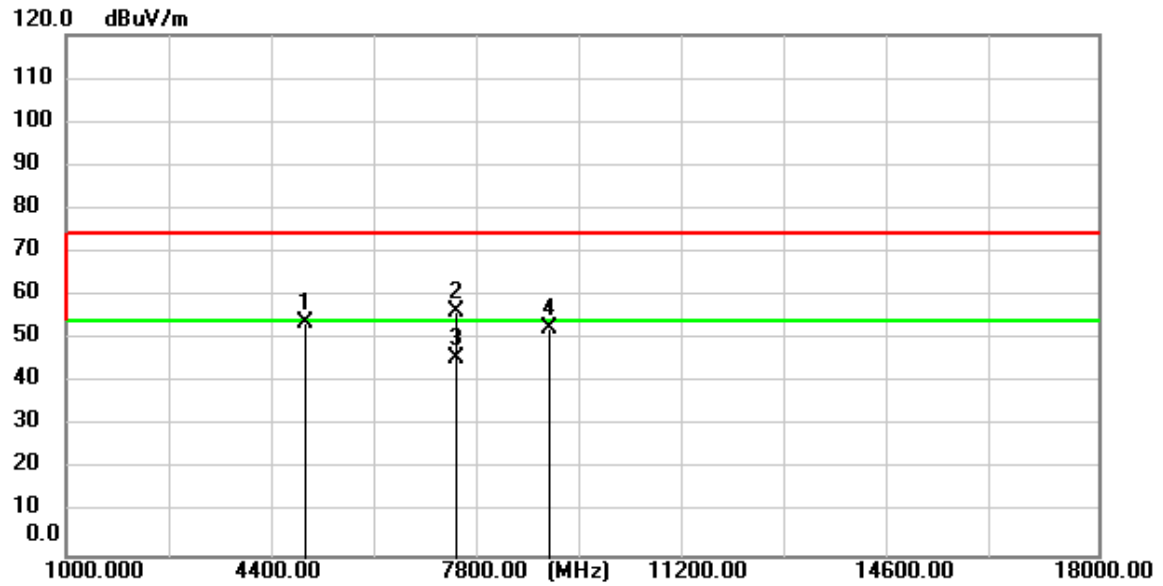
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4858.150	66.75	-13.04	53.71	74.00	-20.29	peak
2	7289.150	66.37	-6.54	59.83	74.00	-14.17	peak
3	7289.150	52.59	-6.54	46.05	54.00	-7.95	AVG
4	8858.250	56.65	-3.76	52.89	74.00	-21.11	peak

Test Mode: 00; Polarity: Vertical; ; Modulation:802.11ax(RU52_Left); Bandwidth:20MHz; Channel:Middle



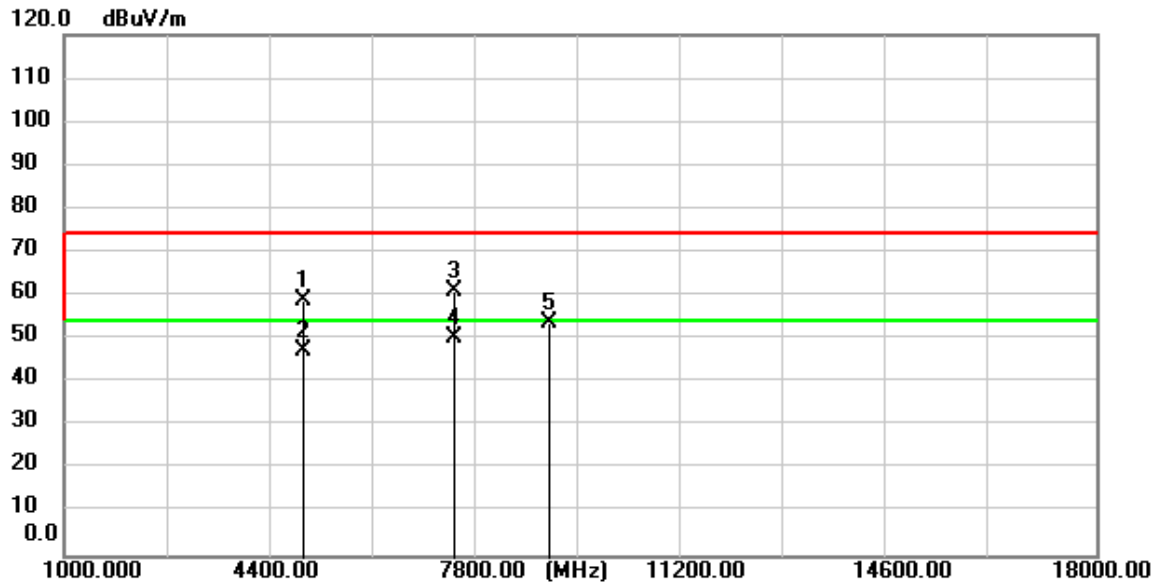
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4858.150	69.31	-13.04	56.27	74.00	-17.73	peak
2	4858.150	61.96	-13.04	48.92	54.00	-5.08	AVG
3	7285.750	70.27	-6.54	63.73	74.00	-10.27	peak
4	7285.750	57.91	-6.54	51.37	54.00	-2.63	AVG
5	8998.500	57.10	-3.50	53.60	74.00	-20.40	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(RU26_Right); Bandwidth:20MHz; Channel:High



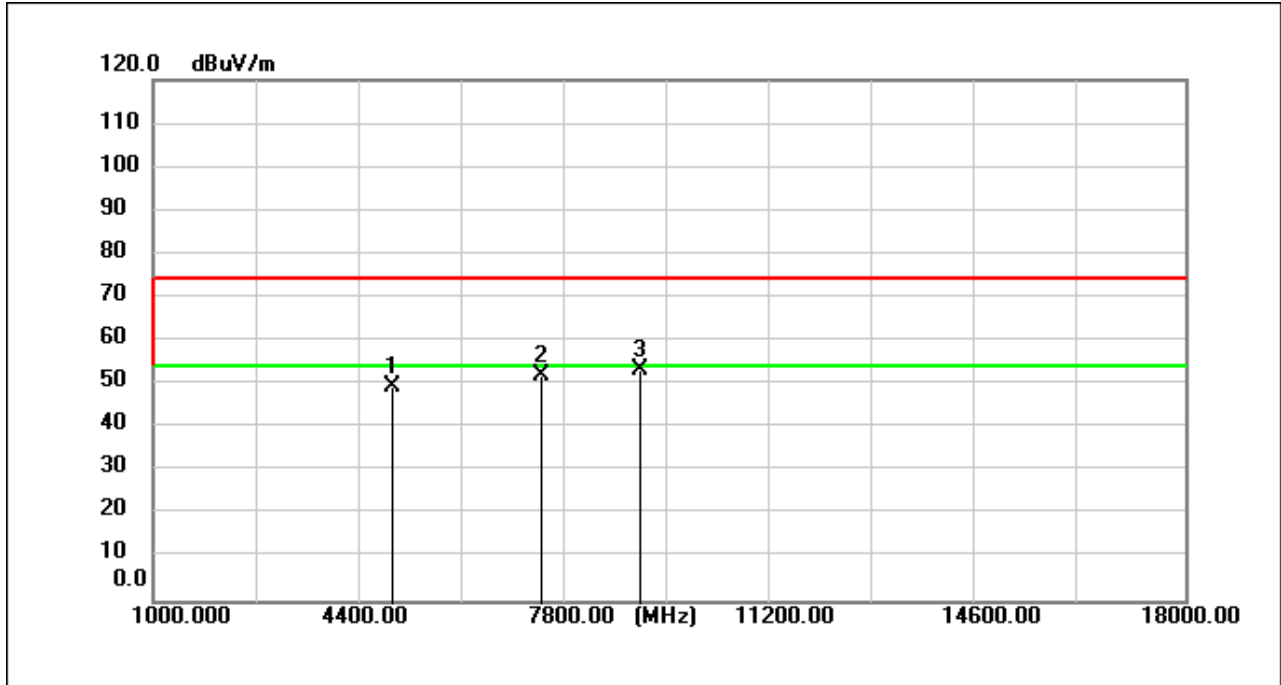
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4940.600	66.83	-12.93	53.90	74.00	-20.10	peak
2	7412.400	62.56	-6.38	56.18	74.00	-17.82	peak
3	7412.400	52.08	-6.38	45.70	54.00	-8.30	AVG
4	8940.700	56.26	-3.63	52.63	74.00	-21.37	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(RU26_Right); Bandwidth:20MHz; Channel:High



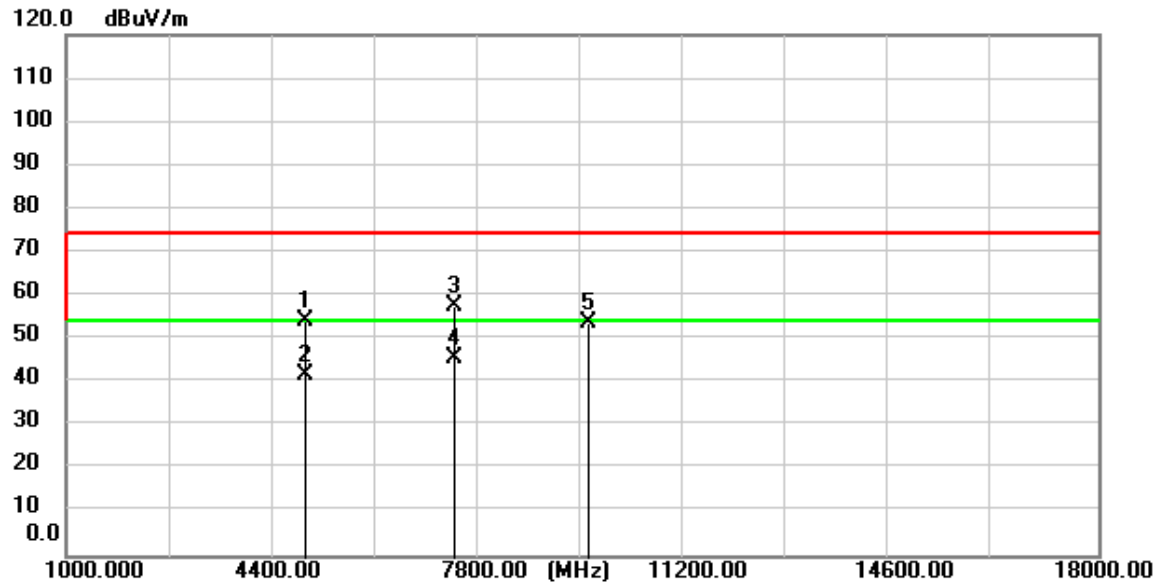
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4941.450	71.83	-12.92	58.91	74.00	-15.09	peak
2	4941.450	60.17	-12.92	47.25	54.00	-6.75	AVG
3	7412.400	67.44	-6.38	61.06	74.00	-12.94	peak
4	7412.400	56.76	-6.38	50.38	54.00	-3.62	AVG
5	8998.500	57.42	-3.50	53.92	74.00	-20.08	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(RU106_Right); Bandwidth:20MHz; Channel:High



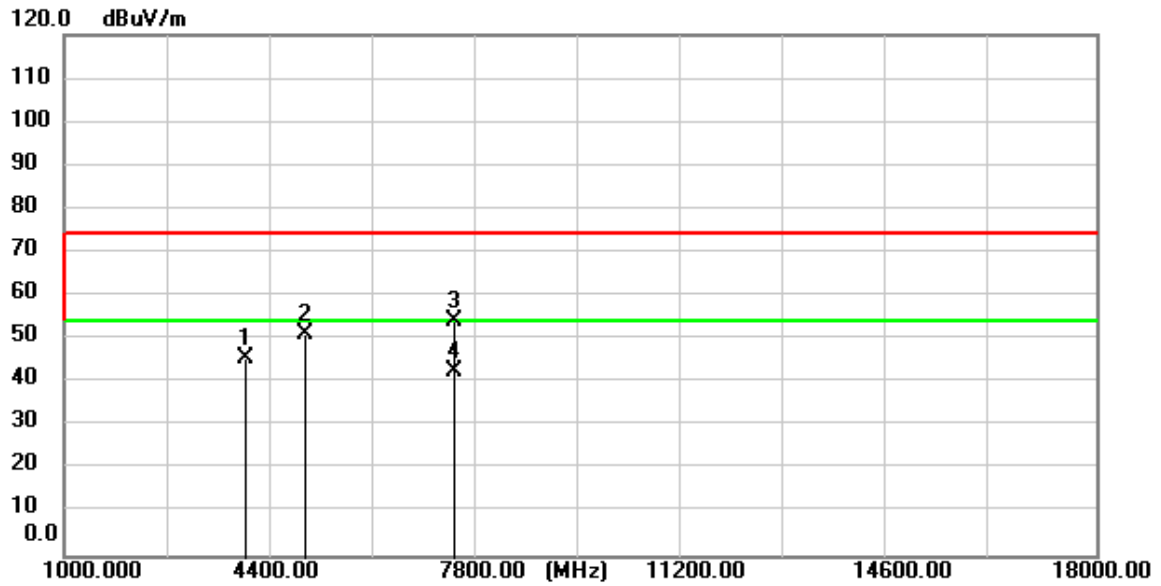
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4935.500	62.34	-12.93	49.41	74.00	-24.59	peak
2	7401.350	58.37	-6.41	51.96	74.00	-22.04	peak
3	9012.950	57.03	-3.47	53.56	74.00	-20.44	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(RU106_Right); Bandwidth:20MHz; Channel:High



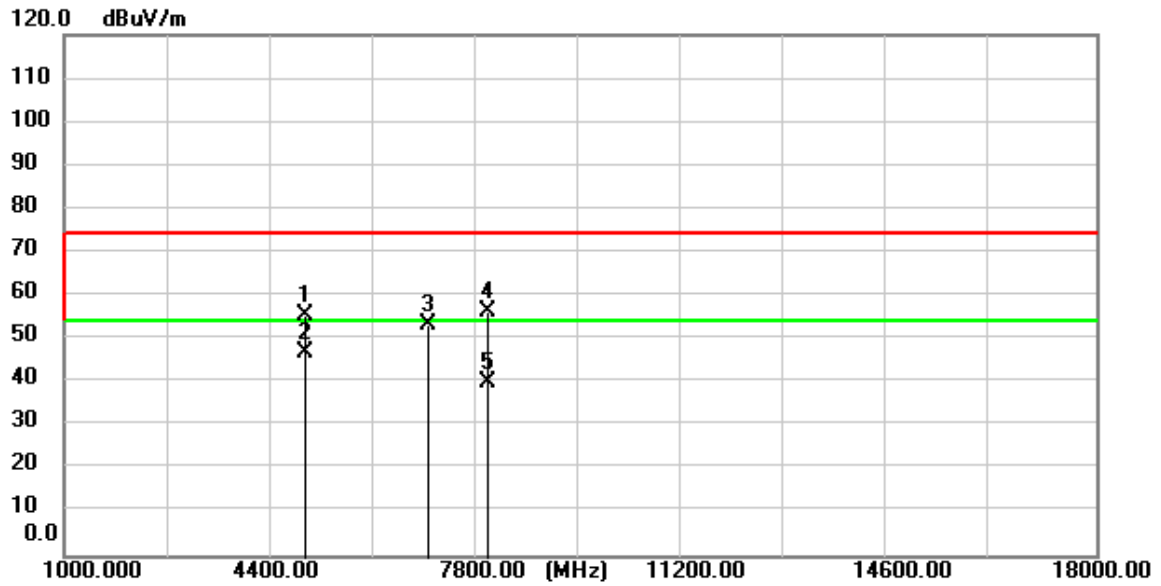
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4931.250	67.02	-12.94	54.08	74.00	-19.92	peak
2	4931.250	54.57	-12.94	41.63	54.00	-12.37	AVG
3	7400.500	63.97	-6.41	57.56	74.00	-16.44	peak
4	7400.500	52.20	-6.41	45.79	74.00	-28.21	peak
5	9596.050	55.97	-2.13	53.84	74.00	-20.16	peak

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(RU26_Right); Bandwidth:20MHz; Channel:High



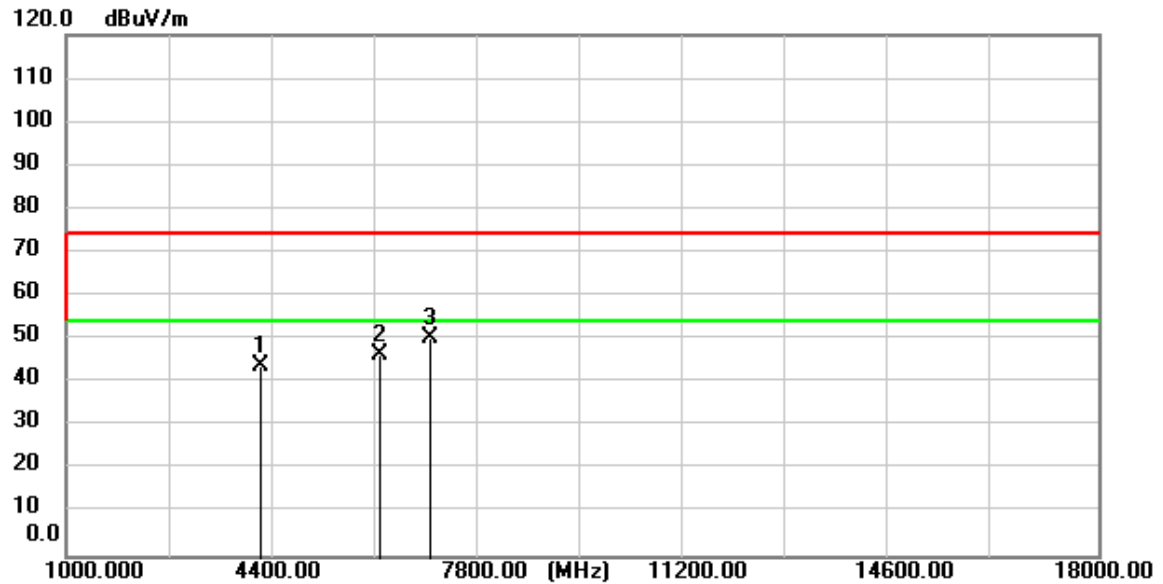
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.300	60.98	-15.45	45.53	74.00	-28.47	peak
2	4950.800	64.03	-12.91	51.12	74.00	-22.88	peak
3	7426.000	60.40	-6.36	54.04	74.00	-19.96	peak
4	7426.000	49.18	-6.36	42.82	54.00	-11.18	AVG

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(RU26_Right); Bandwidth:20MHz; Channel:High



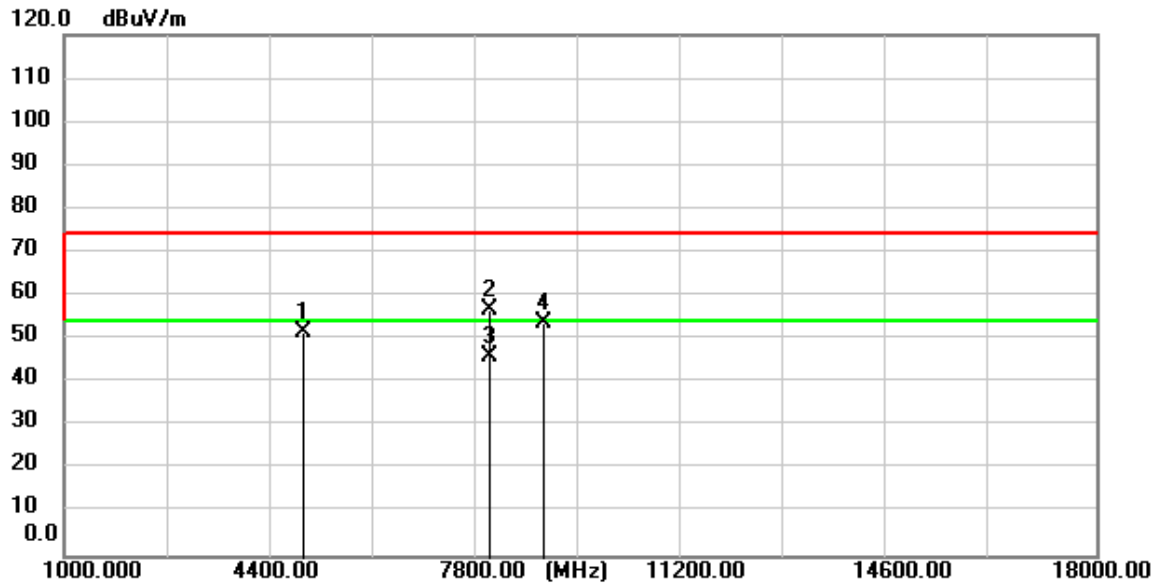
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.800	68.56	-12.91	55.65	74.00	-18.35	peak
2	4950.800	59.69	-12.91	46.78	54.00	-7.22	AVG
3	7001.000	60.11	-6.86	53.25	74.00	-20.75	peak
4	7974.250	61.81	-5.25	56.56	74.00	-17.44	peak
5	7974.250	45.33	-5.25	40.08	54.00	-13.92	AVG

Test Mode: 00; Polarity: Horizontal; Modulation:802.11ax(RU106_Right); Bandwidth:20MHz; Channel:High



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4213.000	58.95	-14.83	44.12	74.00	-29.88	peak
2	6176.500	56.40	-9.72	46.68	74.00	-27.32	peak
3	6989.100	57.04	-6.88	50.16	74.00	-23.84	peak

Test Mode: 00; Polarity: Vertical; Modulation:802.11ax(RU106_Right); Bandwidth:20MHz; Channel:High



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4944.000	64.44	-12.92	51.52	74.00	-22.48	peak
2	7992.950	61.87	-5.21	56.66	74.00	-17.34	peak
3	7992.950	51.14	-5.21	45.93	54.00	-8.07	AVG
4	8903.300	57.55	-3.69	53.86	74.00	-20.14	peak

7.4 Conducted Average Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)

Test Method: ANSI C63.10 (2013) Section 11.9.2

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥ 50 hopping channels
	0.25 for $25 \leq$ hopping channels < 50
	1 for digital modulation
2400-2483.5	1 for ≥ 75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C

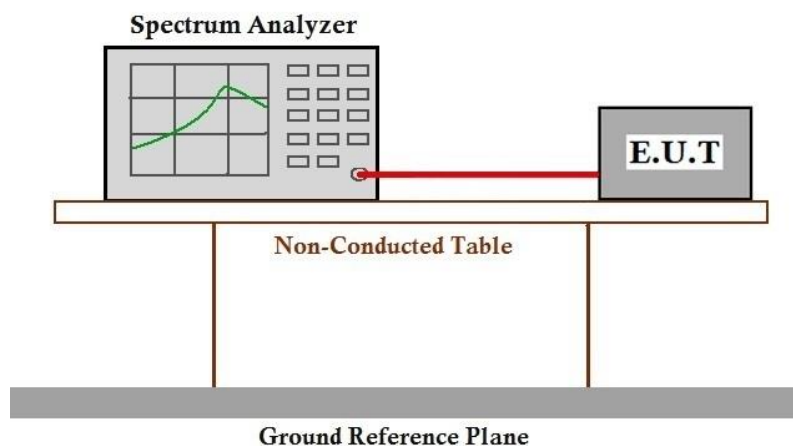
Humidity: 50.6 % RH

Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40, final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram





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7.4.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix for Details



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8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2501000028AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix_Photographs of EUT Constructional Details for KSCR2501000028AT

10 Appendix

1. Maximum Conducted Output Power

1.1 Test Result

1.1.1 Power

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Average Conducted Output Power (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
802.11b	MIMO	2412	/	/	16.89	16.49	19.70	<=30	Pass
		2437	/	/	16.21	16.07	19.15	<=30	Pass
		2462	/	/	16.45	16.70	19.59	<=30	Pass
		2467	/	/	16.62	17.01	19.83	<=30	Pass
		2472	/	/	16.45	16.83	19.65	<=30	Pass
802.11g	MIMO	2412	/	/	16.05	17.15	19.65	<=30	Pass
		2437	/	/	16.53	16.3	19.43	<=30	Pass
		2462	/	/	16.16	17.01	19.62	<=30	Pass
		2467	/	/	13.93	14.56	17.27	<=30	Pass
		2472	/	/	11.37	11.73	14.56	<=30	Pass
802.11ax (HEW20)	MIMO	2412	RU26	Left	16.72	16.90	19.82	<=30	Pass
			RU106	Left	16.69	17.17	19.95	<=30	Pass
			RU242	Left	16.18	17.31	19.79	<=30	Pass
		2437	RU52	Left	19.22	19.82	22.54	<=30	Pass
			RU242	Left	16.36	17.08	19.75	<=30	Pass
		2462	RU26	Right	17.31	17.14	20.24	<=30	Pass
			RU106	Right	17.63	17.76	20.71	<=30	Pass
			RU242	Left	16.54	17.27	19.93	<=30	Pass
		2467	RU26	Right	14.32	15.16	17.77	<=30	Pass
			RU106	Right	13.41	13.85	16.65	<=30	Pass
			RU242	Left	13.89	14.58	17.26	<=30	Pass
		2472	RU26	Right	9.86	11.64	13.85	<=30	Pass
			RU106	Right	10.09	11.04	13.60	<=30	Pass
			RU242	Left	9.90	10.13	13.03	<=30	Pass
802.11ax (HEW40)	MIMO	2422	RU484	Left	14.60	15.38	18.02	<=30	Pass
		2437	RU484	Left	16.20	17.02	19.64	<=30	Pass
		2452	RU484	Left	15.04	15.30	18.18	<=30	Pass
		2457	RU484	Left	12.52	12.69	15.62	<=30	Pass
		2462	RU484	Left	10.33	10.58	13.47	<=30	Pass
802.11ac (VHT20)	MIMO	2412	/	/	16.02	17.44	19.80	<=30	Pass
		2437	/	/	16.04	16.60	19.34	<=30	Pass
		2462	/	/	16.44	16.82	19.64	<=30	Pass
		2467	/	/	13.90	14.54	17.24	<=30	Pass
		2472	/	/	9.11	9.69	12.42	<=30	Pass
802.11ac (VHT40)	MIMO	2422	/	/	14.15	15.05	17.63	<=30	Pass
		2437	/	/	16.11	17.12	19.65	<=30	Pass
		2452	/	/	14.56	14.62	17.60	<=30	Pass



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		2457	/	/	12.47	12.64	15.57	<=30	Pass
		2462	/	/	9.63	10.00	12.83	<=30	Pass

- End of the Report -