

Product Name: Wireless LAN Access Point	Report No: FCC022022-5923RF2
Product Model: AP3220L	Security Classification: Open
Version: V1.0	Total Page: 310

TIRT Testing Report



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FCC Radio Test Report

FCC ID: 2A9M7AP3220L

This report concerns: Original Grant

Project No. : 022022-5923
Equipment : Wireless LAN Access Point
Brand Name : 
Test Model : AP3220L
Series Model : N/A
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Date of Receipt : Aug. 24, 2022
Date of Test : Aug. 25, 2022 ~ Nov. 01, 2022
Issued Date : Nov. 15, 2022
Report Version : V1.0
Test Sample : Engineering Sample No.: 20220808019601
Standard(s) : FCC CFR Title 47, Part 15, Subpart E
FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

- The test result referred exclusively to the presented test model /sample.
- Without written approval of TIRT Inc. the test report shall not reproduced except in full.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
FCC022022-5923RF2	V1.0	Original Report.	Nov. 15, 2022	Valid

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart E				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207 15.407(b)	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.407(b) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.407(a) 15.407(e)	Bandwidth	APPENDIX E	PASS	-----
15.407(a)	Maximum Output Power	APPENDIX F	PASS	-----
15.407(a)	Power Spectral Density	APPENDIX G	PASS	-----
15.407(g)	Frequency Stability	APPENDIX H	PASS	-----
15.203	Antenna Requirements	-----	PASS	NOTE (2)
15.407(c)	Automatically Discontinue Transmission	-----	PASS	NOTE (3)

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.
- (3) During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.
- (4) For UNII-1 this device was functioned as a
 - ☐ Outdoor access point device
 - ☒ Indoor access point device
 - ☐ Fixed point-to-point access points device
 - ☐ Client device

1.1 TEST FACILITY

Company:	Beijing TIRT Technology Service Co.,Ltd Shenzhen
Address:	101, 3 # Factory Building, Gongjin Electronics Shatin Community, Kengzi Street, Pingshan District, Shenzhen, China
CNAS Registration Number:	CNAS L14158
A2LA Registration Number:	6049.01
FCC Accredited Lab. Designation Number:	CN1309
FCC Test Firm Registration Number:	825524
Telephone:	+86-0755-27087573

1.2 MEASUREMENT UNCERTAINTY

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

Uncertainty	
Parameter	Uncertainty
Occupied Channel Bandwidth	±142.12kHz
RF power conducted	±0.74dB
RF power radiated	±3.25dB
Spurious emissions, conducted (9kHz~40GHz)	±1.78dB
Spurious emissions, radiated (9kHz~30MHz)	±2.8dB
Spurious emissions, radiated (30MHz~1GHz)	±4.6dB
Spurious emissions, radiated (1GHz ~ 18GHz)	±4.9dB
Spurious emissions, radiated (18GHz ~ 40GHz)	±5.54dB
Conduction Emissions(150kHz~30MHz)	±3.1dB
Humidity	±4.6%
Temperature	±0.7°C
Time	±1.25%

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	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	24°C	54%	AC 120V/60Hz	Stone Tang
Radiated Emissions-9kHz to 30MHz	25°C	55%	PoE 48V	Stone Tang
Radiated Emissions-30MHz to 1000MHz	23°C	53%	PoE 48V	Stone Tang
Radiated Emissions-Above 1000 MHz	23°C	53%	PoE 48V	Stone Tang
Bandwidth	23-24°C	50-60%	PoE 48V	Stone Tang
Maximum Output Power	23.4-23.5°C	54.2-63.5%	PoE 48V	Stone Tang
Power Spectral Density	23-24°C	50-60%	PoE 48V	Stone Tang
Frequency Stability	Normal & Extreme	50-60%	Normal & Extreme	Stone Tang

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless LAN Access Point
Brand Name	
Test Model	AP3220L
Series Model	N/A
Model Difference(s)	N/A
Power Source	DC voltage supplied from AC/PoE adapter. (Supports Unit)
Power Rating	DC  12V, 2A or PoE  -48V, 0.6A
Operation Frequency Band(s)	UNII-1: 5150 MHz ~ 5250 MHz UNII-2A: 5250 MHz ~ 5350 MHz UNII-2C: 5470 MHz ~ 5725 MHz UNII-3: 5725 MHz ~ 5850 MHz
Modulation Type	IEEE 802.11a/n/ac: OFDM IEEE 802.11ax: OFDMA
Bit Rate of Transmitter	IEEE 802.11a: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps IEEE 802.11ac: up to 1733.4 Mbps IEEE 802.11ax: up to 2402 Mbps
Maximum Output Power _UNII-1	IEEE 802.11ac(VHT40): 23.54 dBm (0.2259 W)
Maximum Output Power _UNII-2A	IEEE 802.11ax(HE80): 22.49 dBm (0.1774 W)
Maximum Output Power _UNII-2C	IEEE 802.11ac(VHT160): 23.58 dBm (0.2280 W)
Maximum Output Power _UNII-3	IEEE 802.11ac(VHT40): 23.74 dBm (0.2366 W)

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) IEEE 802.11ax(HE20)		IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) IEEE 802.11ax(HE40)		IEEE 802.11ac(VHT80) IEEE 802.11ax(HE80)	
UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) IEEE 802.11ax(HE20)		IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) IEEE 802.11ax(HE40)		IEEE 802.11ac(VHT80) IEEE 802.11ax(HE80)	
UNII-2A		UNII-2A		UNII-2A	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	54	5270	58	5290
56	5280	62	5310		
60	5300				
64	5320				

IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) IEEE 802.11ax(HE20)		IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) IEEE 802.11ax(HE40)		IEEE 802.11ac(VHT80) IEEE 802.11ax(HE80)	
UNII-2C		UNII-2C		UNII-2C	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	102	5510	106	5530
104	5520	110	5550	122	5610
108	5540	118	5590	138	5690
112	5560	126	5630		
116	5580	134	5670		
120	5600	142	5710		
124	5620				
128	5640				
132	5660				
136	5680				
140	5700				
144	5720				

IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) IEEE 802.11ax(HE20)		IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) IEEE 802.11ax(HE40)		IEEE 802.11ac(VHT80) IEEE 802.11ax(HE80)	
UNII-3		UNII-3		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

IEEE 802.11ac(VHT160) IEEE 802.11ax(HE160)	
Channel	Frequency (MHz)
50	5250
114	5570

3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1		126-002-382	PCB	Domestic 137 terminal	5.24
2		126-002-383	PCB	Domestic 137 terminal	5.12

Note:

- This EUT supports CDD, and all antenna gains are not equal, Directional gain = $G_{ANT} + \text{Array Gain}$. For power measurements, Array Gain=0dB ($N_{ANT} \leq 4$), so the Directional gain=5.24. For power spectral density measurements, $N_{ANT}=2$, $N_{SS}=1$. So the Directional gain= $G_{ANT} + \text{Array Gain} = G_{ANT} + 10\log(N_{ANT}/N_{SS})\text{dBi} = 5.24 + 10\log(2/1)\text{dBi} = 8.25$. Then, the UNII-1 power spectral density limit is $17 - (8.25 - 6) = 14.75$, the UNII-2A, UNII-2C power spectral density limit is $11 - (8.25 - 6) = 8.75$, the UNII-3 power spectral density limit is $30 - (8.25 - 6) = 27.75$.
- The antenna gain is provided by the manufacturer.

4. Table for Antenna Configuration:

Operating Mode	TX Mode	2TX
IEEE 802.11a		V (Ant. 1 + Ant. 2)
IEEE 802.11n(HT20)		V (Ant. 1 + Ant. 2)
IEEE 802.11n(HT40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac(VHT20)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac(VHT40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac(VHT80)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac(VHT160)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax(HE20)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax(HE40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax(HE80)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax(HE160)		V (Ant. 1 + Ant. 2)

2.2 TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 2	TX N(HT20) Mode Channel 36/40/48 (UNII-1)
Mode 3	TX N(HT40) Mode Channel 38/46 (UNII-1)
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 7	TX AX(HE20) Mode Channel 36/40/48 (UNII-1)
Mode 8	TX AX(HE40) Mode Channel 38/46 (UNII-1)
Mode 9	TX AX(HE80) Mode Channel 42 (UNII-1)
Mode 10	TX A Mode Channel 52/60/64 (UNII-2A)
Mode 11	TX N(HT20) Mode Channel 52/60/64 (UNII-2A)
Mode 12	TX N(HT40) Mode Channel 54/62 (UNII-2A)
Mode 13	TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A)
Mode 14	TX AC(VHT40) Mode Channel 54/62 (UNII-2A)
Mode 15	TX AC(VHT80) Mode Channel 58 (UNII-2A)
Mode 16	TX AX(HE20) Mode Channel 52/60/64 (UNII-2A)
Mode 17	TX AX(HE40) Mode Channel 54/62 (UNII-2A)
Mode 18	TX AX(HE80) Mode Channel 58 (UNII-2A)
Mode 19	TX AC(VHT160) Mode Channel 50 (UNII-1+UNII-2A)
Mode 20	TX AX(HE160) Mode Channel 50 (UNII-1+UNII-2A)
Mode 21	TX A Mode Channel 100/116/140/144 (UNII-2C)
Mode 22	TX N(HT20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 23	TX N(HT40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 24	TX AC(VHT20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 25	TX AC(VHT40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 26	TX AC(VHT80) Mode Channel 106/122/138 (UNII-2C)
Mode 27	TX AC(VHT160) Mode Channel 114 (UNII-2C)
Mode 28	TX AX(HE20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 29	TX AX(HE40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 30	TX AX(HE80) Mode Channel 106/122/138 (UNII-2C)
Mode 31	TX AX(HE160) Mode Channel 114 (UNII-2C)

Pretest Mode	Description
Mode 32	TX A Mode Channel 149/157/165 (UNII-3)
Mode 33	TX N(HT20) Mode Channel 149/157/165 (UNII-3)
Mode 34	TX N(HT40) Mode Channel 151/159 (UNII-3)
Mode 35	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 36	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 37	TX AC(VHT80) Mode Channel 155 (UNII-3)
Mode 38	TX AX(HE20) Mode Channel 149/157/165 (UNII-3)
Mode 39	TX AX(HE40) Mode Channel 151/159 (UNII-3)
Mode 40	TX AX(HE80) Mode Channel 155 (UNII-3)
Mode 41	TX AC(VHT40) Mode Channel 159 (UNII-3)

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test	
Final Test Mode	Description
Mode 41	TX AC(VHT40) Mode Channel 159 (UNII-3)

Radiated Emissions Test - Below 1GHz	
Final Test Mode	Description
Mode 41	TX AC(VHT40) Mode Channel 159 (UNII-3)

Radiated Emissions Test - Above 1GHz	
Final Test Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 7	TX AX(HE20) Mode Channel 36/40/48 (UNII-1)
Mode 8	TX AX(HE40) Mode Channel 38/46 (UNII-1)
Mode 9	TX AX(HE80) Mode Channel 42 (UNII-1)
Mode 10	TX A Mode Channel 52/60/64 (UNII-2A)
Mode 13	TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A)
Mode 14	TX AC(VHT40) Mode Channel 54/62 (UNII-2A)
Mode 15	TX AC(VHT80) Mode Channel 58 (UNII-2A)
Mode 16	TX AX(HE20) Mode Channel 52/60/64 (UNII-2A)
Mode 17	TX AX(HE40) Mode Channel 54/62 (UNII-2A)
Mode 18	TX AX(HE80) Mode Channel 58 (UNII-2A)
Mode 19	TX AC(VHT160) Mode Channel 50 (UNII-1+UNII-2A)
Mode 20	TX AX(HE160) Mode Channel 50 (UNII-1+UNII-2A)

Radiated Emissions Test - Above 1GHz	
Final Test Mode	Description
Mode 21	TX A Mode Channel 100/116/140/144 (UNII-2C)
Mode 24	TX AC(VHT20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 25	TX AC(VHT40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 26	TX AC(VHT80) Mode Channel 106/122/138 (UNII-2C)
Mode 27	TX AC(VHT160) Mode Channel 114 (UNII-2C)
Mode 28	TX AX(HE20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 29	TX AX(HE40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 30	TX AX(HE80) Mode Channel 106/122/138 (UNII-2C)
Mode 31	TX AX(HE160) Mode Channel 114 (UNII-2C)
Mode 32	TX A Mode Channel 149/157/165 (UNII-3)
Mode 35	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 36	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 37	TX AC(VHT80) Mode Channel 155 (UNII-3)
Mode 38	TX AX(HE20) Mode Channel 149/157/165 (UNII-3)
Mode 39	TX AX(HE40) Mode Channel 151/159 (UNII-3)
Mode 40	TX AX(HE80) Mode Channel 155 (UNII-3)

Maximum Output Power Test	
Final Test Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 2	TX N(HT20) Mode Channel 36/40/48 (UNII-1)
Mode 3	TX N(HT40) Mode Channel 38/46 (UNII-1)
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 7	TX AX(HE20) Mode Channel 36/40/48 (UNII-1)
Mode 8	TX AX(HE40) Mode Channel 38/46 (UNII-1)
Mode 9	TX AX(HE80) Mode Channel 42 (UNII-1)
Mode 10	TX A Mode Channel 52/60/64 (UNII-2A)
Mode 11	TX N(HT20) Mode Channel 52/60/64 (UNII-2A)
Mode 12	TX N(HT40) Mode Channel 54/62 (UNII-2A)
Mode 13	TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A)
Mode 14	TX AC(VHT40) Mode Channel 54/62 (UNII-2A)
Mode 15	TX AC(VHT80) Mode Channel 58 (UNII-2A)
Mode 16	TX AX(HE20) Mode Channel 52/60/64 (UNII-2A)
Mode 17	TX AX(HE40) Mode Channel 54/62 (UNII-2A)
Mode 18	TX AX(HE80) Mode Channel 58 (UNII-2A)

Maximum Output Power Test	
Final Test Mode	Description
Mode 19	TX AC(VHT160) Mode Channel 50 (UNII-1+UNII-2A)
Mode 20	TX AX(HE160) Mode Channel 50 (UNII-1+UNII-2A)
Mode 21	TX A Mode Channel 100/116/140/144 (UNII-2C)
Mode 22	TX N(HT20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 23	TX N(HT40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 24	TX AC(VHT20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 25	TX AC(VHT40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 26	TX AC(VHT80) Mode Channel 106/122/138 (UNII-2C)
Mode 27	TX AC(VHT160) Mode Channel 114 (UNII-2C)
Mode 28	TX AX(HE20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 29	TX AX(HE40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 30	TX AX(HE80) Mode Channel 106/122/138 (UNII-2C)
Mode 31	TX AX(HE160) Mode Channel 114 (UNII-2C)
Mode 32	TX A Mode Channel 149/157/165 (UNII-3)
Mode 33	TX N(HT20) Mode Channel 149/157/165 (UNII-3)
Mode 34	TX N(HT40) Mode Channel 151/159 (UNII-3)
Mode 35	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 36	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 37	TX AC(VHT80) Mode Channel 155 (UNII-3)
Mode 38	TX AX(HE20) Mode Channel 149/157/165 (UNII-3)
Mode 39	TX AX(HE40) Mode Channel 151/159 (UNII-3)
Mode 40	TX AX(HE80) Mode Channel 155 (UNII-3)

Other Conducted Test	
Final Test Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 7	TX AX(HE20) Mode Channel 36/40/48 (UNII-1)
Mode 8	TX AX(HE40) Mode Channel 38/46 (UNII-1)
Mode 9	TX AX(HE80) Mode Channel 42 (UNII-1)
Mode 10	TX A Mode Channel 52/60/64 (UNII-2A)
Mode 13	TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A)
Mode 14	TX AC(VHT40) Mode Channel 54/62 (UNII-2A)
Mode 15	TX AC(VHT80) Mode Channel 58 (UNII-2A)
Mode 16	TX AX(HE20) Mode Channel 52/60/64 (UNII-2A)

Other Conducted Test	
Final Test Mode	Description
Mode 17	TX AX(HE40) Mode Channel 54/62 (UNII-2A)
Mode 18	TX AX(HE80) Mode Channel 58 (UNII-2A)
Mode 19	TX AC(VHT160) Mode Channel 50 (UNII-1+UNII-2A)
Mode 20	TX AX(HE160) Mode Channel 50 (UNII-1+UNII-2A)
Mode 21	TX A Mode Channel 100/116/140/144 (UNII-2C)
Mode 24	TX AC(VHT20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 25	TX AC(VHT40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 26	TX AC(VHT80) Mode Channel 106/122/138 (UNII-2C)
Mode 27	TX AC(VHT160) Mode Channel 114 (UNII-2C)
Mode 28	TX AX(HE20) Mode Channel 100/116/140/144 (UNII-2C)
Mode 29	TX AX(HE40) Mode Channel 102/110/134/142 (UNII-2C)
Mode 30	TX AX(HE80) Mode Channel 106/122/138 (UNII-2C)
Mode 31	TX AX(HE160) Mode Channel 114 (UNII-2C)
Mode 32	TX A Mode Channel 149/157/165 (UNII-3)
Mode 35	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 36	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 37	TX AC(VHT80) Mode Channel 155 (UNII-3)
Mode 38	TX AX(HE20) Mode Channel 149/157/165 (UNII-3)
Mode 39	TX AX(HE40) Mode Channel 151/159 (UNII-3)
Mode 40	TX AX(HE80) Mode Channel 155 (UNII-3)

Note:

- (1) For AC power line conducted emissions and radiated emission below 1 GHz test, the TX AC(VHT40) Mode Channel 159 (UNII-3) is found to be the worst case and recorded.
- (2) For radiated emission above 1 GHz test, the spurious points of 1GHz~26.5GHz and 26.5GHz~40GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
- (3) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (4) The measurements for Output Power are tested, the worst case are IEEE 802.11a mode, IEEE 802.11ac(VHT20) mode, IEEE 802.11ac(VHT40) mode, IEEE 802.11ac(VHT80) mode, IEEE 802.11ac(VHT160) mode, IEEE 802.11ax(HE20) mode, IEEE 802.11ax(HE40) mode, IEEE 802.11ax(HE80) mode and IEEE 802.11ax(HE160) mode, only the worst cases are documented for other test items.
- (5) For radiated emission above 1 GHz test, the polarization of Vertical and Horizontal are evaluated, the worst case is Horizontal for Band edge, the worst case is Vertical for harmonic. In this report only recorded the worst case.

2.3 PARAMETERS OF TEST SOFTWARE

UNII-1			
Test Software Version	QPST		
Frequency (MHz)	5180	5200	5240
IEEE 802.11a	19	19	19
IEEE 802.11n(HT20)	19.5	19.5	19.5
IEEE 802.11ac(VHT20)	19.5	19.5	19.5
IEEE 802.11ax(HE20)	19.5	19.5	19.5
Frequency (MHz)	5190	5230	
IEEE 802.11n(HT40)	19	19	
IEEE 802.11ac(VHT40)	19	19.5	
IEEE 802.11ax(HE40)	18	19.5	
Frequency (MHz)	5210		
IEEE 802.11ac(VHT80)	17.5		
IEEE 802.11ax(HE80)	18		

UNII-2A			
Test Software Version	QPST		
Frequency (MHz)	5260	5300	5320
IEEE 802.11a	14	14	14
IEEE 802.11n(HT20)	15	15	15
IEEE 802.11ac(VHT20)	15	15	15
IEEE 802.11ax(HE20)	16	16.5	16.5
Frequency (MHz)	5270	5310	
IEEE 802.11n(HT40)	16.5	17	
IEEE 802.11ac(VHT40)	16.5	17	
IEEE 802.11ax(HE40)	17	17	
Frequency (MHz)	5290		
IEEE 802.11ac(VHT80)	18		
IEEE 802.11ax(HE80)	18.5		

UNII-1+UNII-2A	
Test Software Version	QPST
Frequency (MHz)	5250
IEEE 802.11ac(VHT160)	18.5
IEEE 802.11ax(HE160)	18.5

UNII-2C				
Test Software Version	QPST			
Frequency (MHz)	5500	5580	5700	5720
IEEE 802.11a	14	14	14	14.5
IEEE 802.11n(HT20)	15	15	15	15
IEEE 802.11ac(VHT20)	15	15	15	15.5
IEEE 802.11ax(HE20)	15.5	15.5	15.5	15
Frequency (MHz)	5510	5550	5670	5710
IEEE 802.11n(HT40)	17	17	17	17.5
IEEE 802.11ac(VHT40)	17	17	17	17.5
IEEE 802.11ax(HE40)	17.5	17	17	17.5
Frequency (MHz)	5530	5610	5690	
IEEE 802.11ac(VHT80)	19.5	20	20	
IEEE 802.11ax(HE80)	19.5	20	20	
Frequency (MHz)	5570			
IEEE 802.11ac(VHT160)	20			
IEEE 802.11ax(HE160)	20			

UNII-3			
Test Software Version	QPST		
Frequency (MHz)	5745	5785	5825
IEEE 802.11a	20	20	20
IEEE 802.11n(HT20)	20	20	20
IEEE 802.11ac(VHT20)	20	20	20
IEEE 802.11ax(HE20)	20	20	20
Frequency (MHz)	5755	5795	
IEEE 802.11n(HT40)	19.5	19.5	
IEEE 802.11ac(VHT40)	20	20	
IEEE 802.11ax(HE40)	20	20	
Frequency (MHz)	5775		
IEEE 802.11ac(VHT80)	20		
IEEE 802.11ax(HE80)	20		

2.4 DUTY CYCLE

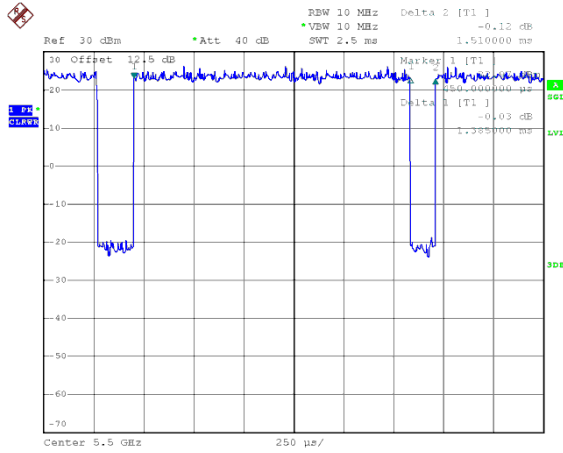
If duty cycle is $\geq 98\%$, duty factor is not required.

If duty cycle is $< 98\%$, duty factor shall be considered.

The output power = measured power + duty factor.

The power spectral density = measured power spectral density + duty factor.

IEEE 802.11a

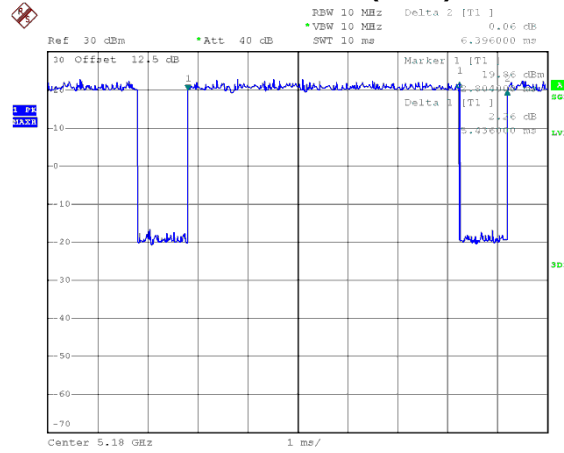


Date: 7.SEP.2022 10:04:28

Duty cycle = 1.385 ms / 1.510 ms = 91.72%

Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.38$

IEEE 802.11n(HT20)

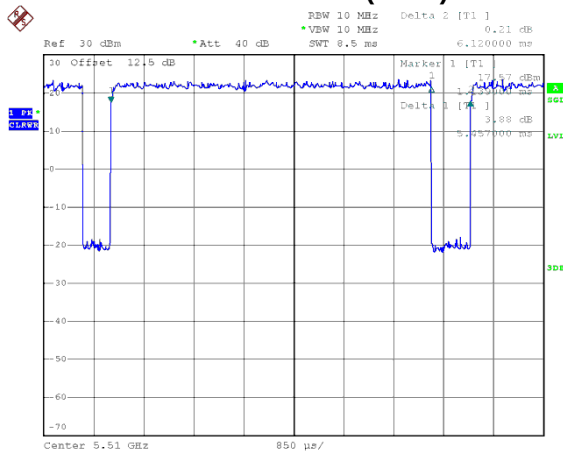


Date: 23.SEP.2022 09:22:12

Duty cycle = 5.436 ms / 6.396 ms = 84.99%

Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.71$

IEEE 802.11n(HT40)

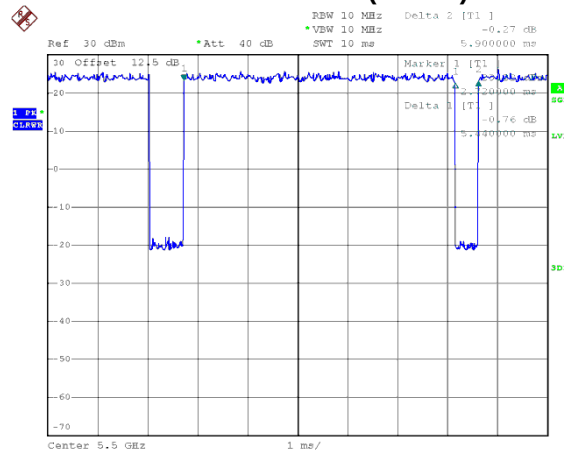


Date: 7.SEP.2022 10:10:23

Duty cycle = 5.457 ms / 6.120 ms = 89.17%

Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.50$

IEEE 802.11ac(VHT20)

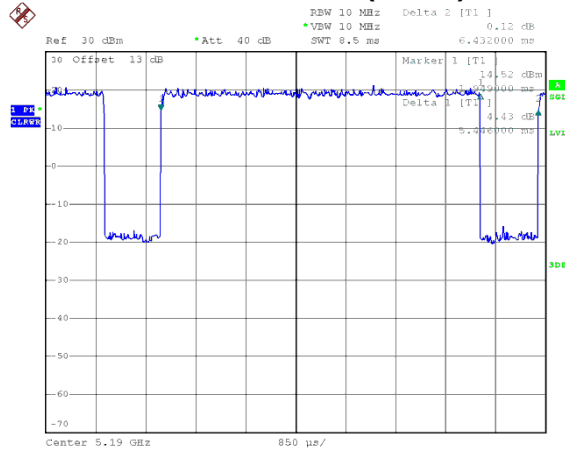


Date: 7.SEP.2022 10:09:09

Duty cycle = 5.440 ms / 5.900 ms = 92.20%

Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.35$

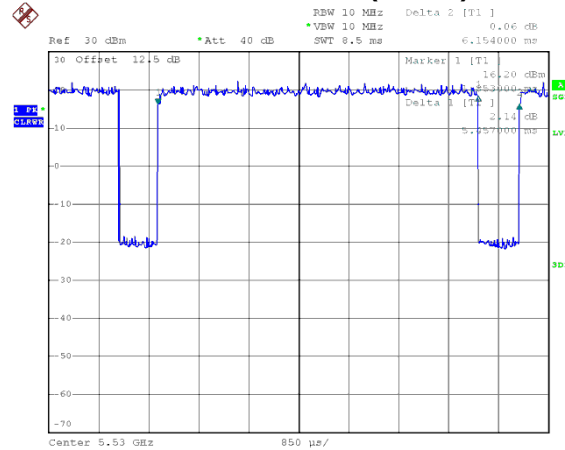
IEEE 802.11ac(VHT40)



Date: 8.SEP.2022 10:23:33

Duty cycle = 5.446 ms / 6.432 ms = 84.67%
Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.72$

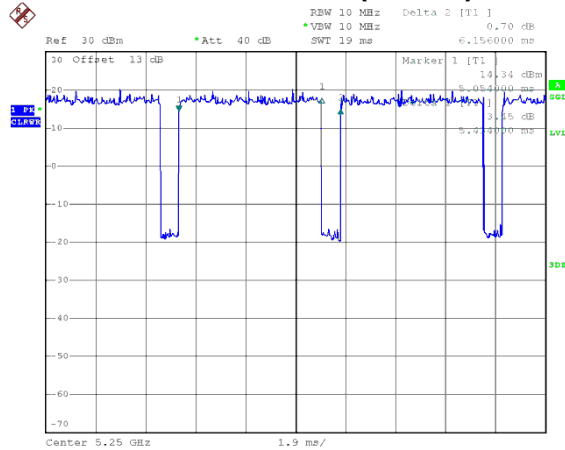
IEEE 802.11ac(VHT80)



Date: 7.SEP.2022 10:12:04

Duty cycle = 5.457 ms / 6.154 ms = 88.67%
Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.52$

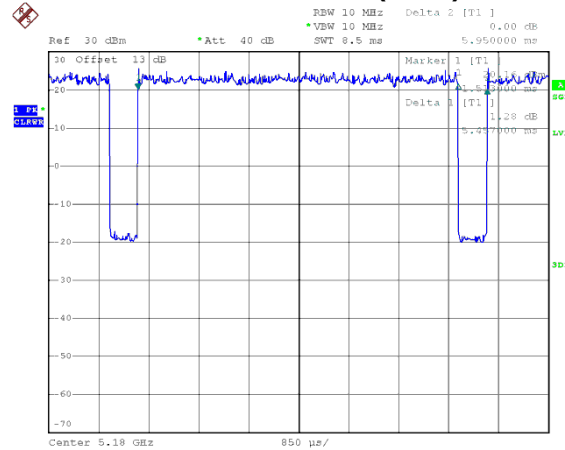
IEEE 802.11ac(VHT160)



Date: 8.SEP.2022 10:35:23

Duty cycle = 5.434 ms / 6.156 ms = 88.27%
Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.54$

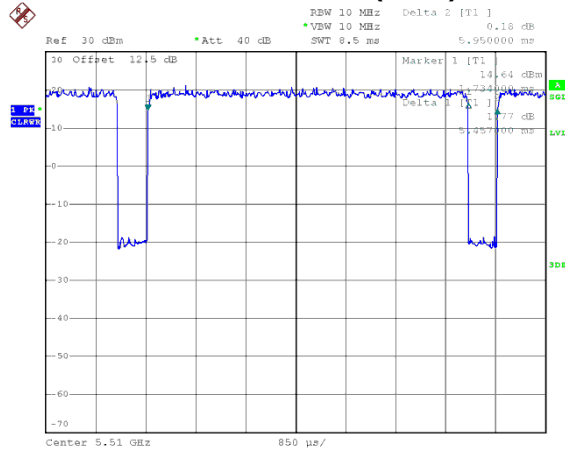
IEEE 802.11ax(HE20)



Date: 8.SEP.2022 10:31:59

Duty cycle = 5.457 ms / 5.950 ms = 91.71%
Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.38$

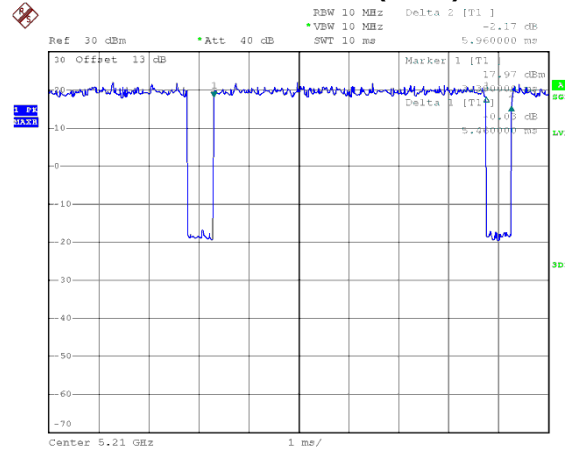
IEEE 802.11ax(HE40)



Date: 7.SEP.2022 10:17:39

Duty cycle = 5.457 ms / 5.950 ms = 91.71%
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.38$

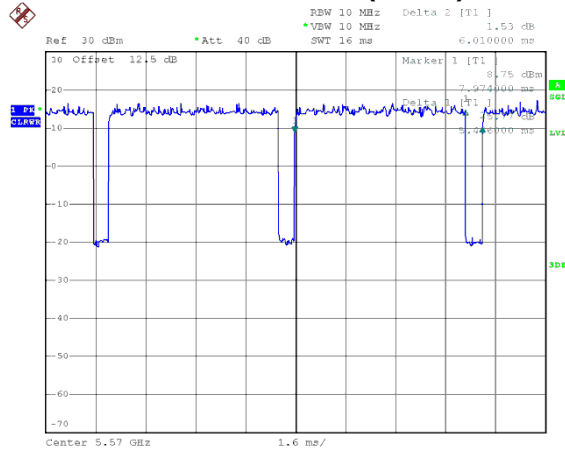
IEEE 802.11ax(HE80)



Date: 8.SEP.2022 10:33:09

Duty cycle = 5.460 ms / 5.960 ms = 91.61%
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.38$

IEEE 802.11ax(HE160)



Date: 7.SEP.2022 10:20:13

Duty cycle = 5.456 ms / 6.010 ms = 90.78%
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.42$

NOTE:

For IEEE 802.11a:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 722 Hz (Duty cycle < 98%).

For IEEE 802.11n(HT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 184 Hz (Duty cycle < 98%).

For IEEE 802.11n(HT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 183 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 184 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 184 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT80):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 183 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT160):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 184 Hz (Duty cycle < 98%).

For IEEE 802.11ax(HE20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 183 Hz (Duty cycle < 98%).

For IEEE 802.11ax(HE40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 183 Hz (Duty cycle < 98%).

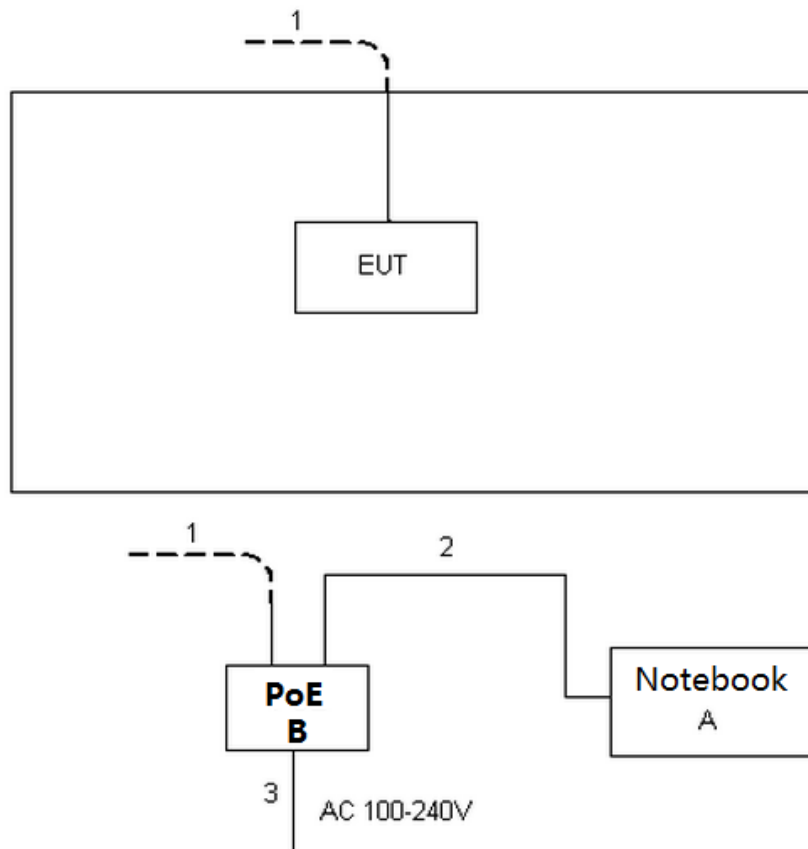
For IEEE 802.11ax(HE80):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 183 Hz (Duty cycle < 98%).

For IEEE 802.11ax(HE160):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 183 Hz (Duty cycle < 98%).

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	Dell	Inspiron 15-7559	N/A
B	PoE	N/A	N/A	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	RJ45 Cable	NO	NO	10m
2	Network Cable	NO	NO	1m
3	AC Cable	NO	NO	1.5m

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 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.

3.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling 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 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

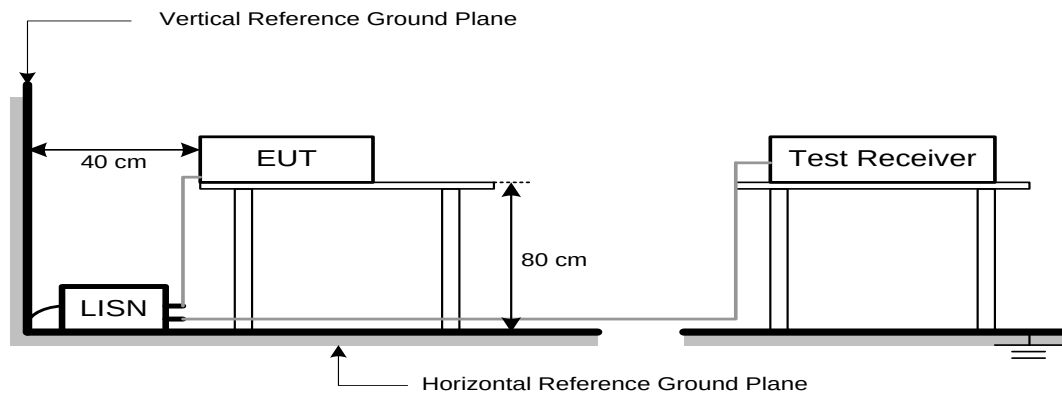
The following table is the setting of the receiver:

Receiver Parameter	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.3 DEVIATION FROM TEST STANDARD

No deviation

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

The EUT was programmed to be in continuously transmitting/TX mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) 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
Above 960	500	3

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS (Above 1000 MHz)

Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.2
5250-5350	-27	68.2
5470-5725	-27	68.2
5725-5850 NOTE (2)	-27	68.2
	10	105.2
	15.6	110.8
	27	122.2

NOTE:

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

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

(2) According to 15.407(b)(4)(i), 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.

4.2 TEST PROCEDURE

- 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)
- 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)
- The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; 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.
- 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).
- The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- 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.
- 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 1 GHz)
- 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 1 GHz)
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

The following table is the setting of the receiver:

Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic or 40 GHz, whichever is lower
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for PK value 1 MHz / 1/T Hz for AVG value

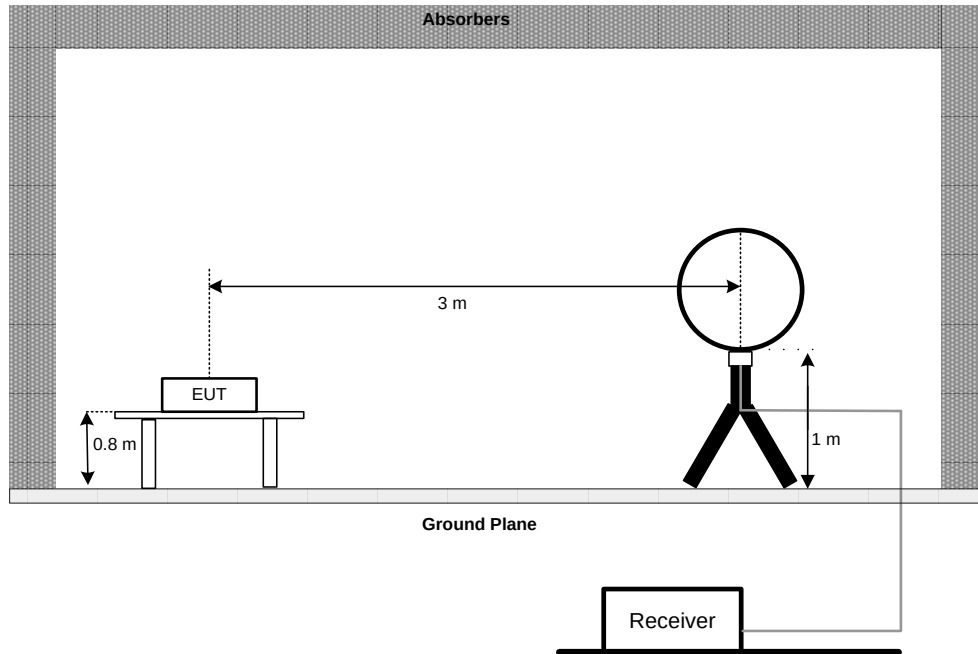
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~40 GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

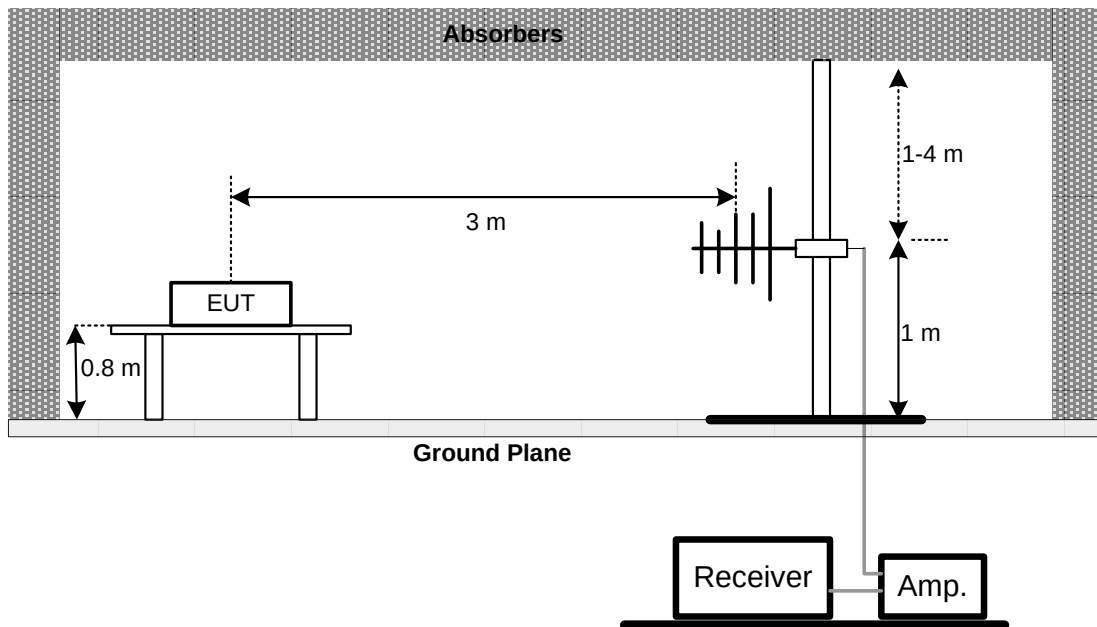
No deviation.

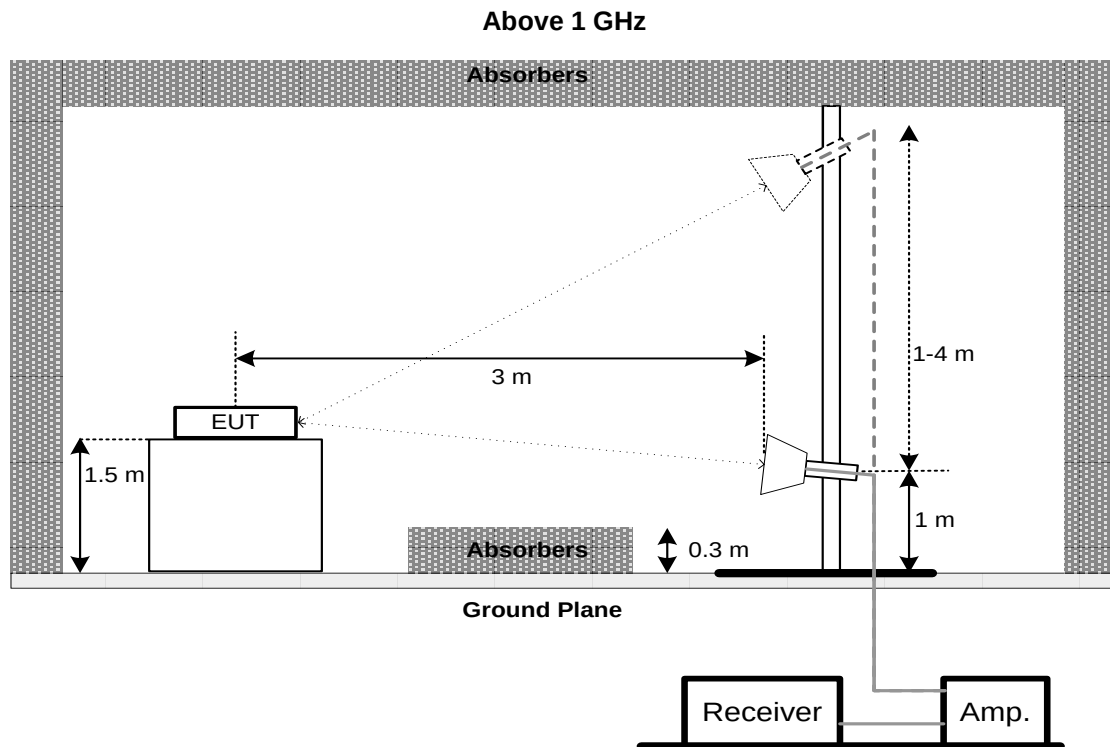
4.4 TEST SETUP

9 kHz to 30 MHz



30 MHz to 1 GHz





4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 3.5 unless otherwise a special operating condition is specified in the follows during the testing.

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B.

Remark:

- (1) Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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

5. BANDWIDTH

5.1 LIMIT

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

5.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below
- Spectrum Setting:
For UNII-1, UNII-2A, UNII-2C:

Spectrum Parameter	Setting
Span Frequency	> 26 dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
VBW	> RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

For UNII-3:

Spectrum Parameter	Setting
Span Frequency	> 6 dB Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

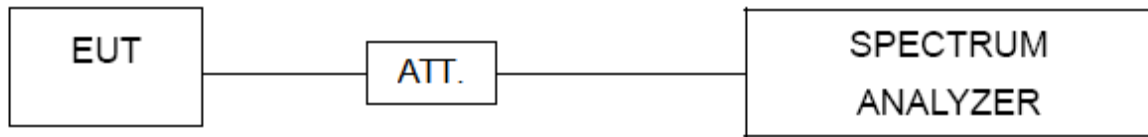
For 99% Occupied Bandwidth:

Spectrum Parameter	Setting
Span Frequency	1.5 times to 5 times the OBW
RBW	1% to 5% of the OBW
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

- Measured the spectrum width with power higher than 26 dB / 6 dB below carrier.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP**5.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM OUTPUT POWER

6.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.407(a)	Maximum Output Power	AP device: 1 Watt (30 dBm) Client device: 250 mW (23.98 dBm)	5150-5250
		250 mW (23.98 dBm)	5250-5350
		250 mW (23.98 dBm)	5470-5725
		1 Watt (30dBm)	5725-5850

Note:

- For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26dB Bandwidth in megahertz.

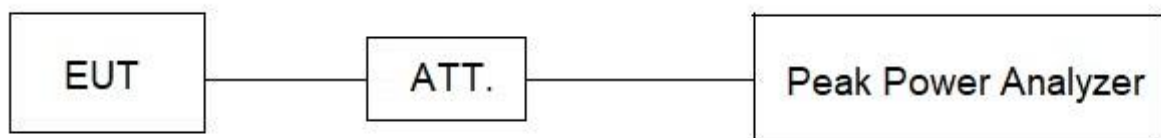
6.2 TEST PROCEDURE

- The EUT was directly connected to the peak power analyzer and antenna output port as show in the block diagram below.
- The test was performed in accordance with method of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7. POWER SPECTRAL DENSITY

7.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.407(a)	Power Spectral Density	AP device: 17 dBm/MHz Client device: 11 dBm/MHz	5150-5250
		11 dBm/MHz	5250-5350
		11 dBm/MHz	5470-5725
		30 dBm/500 kHz	5725-5850

7.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting:
For UNII-1, UNII-2A, UNII-2C:

Spectrum Parameter	Setting
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	1 MHz.
VBW	3 MHz.
Detector	RMS
Trace average	100 trace
Sweep Time	Auto

For UNII-3:

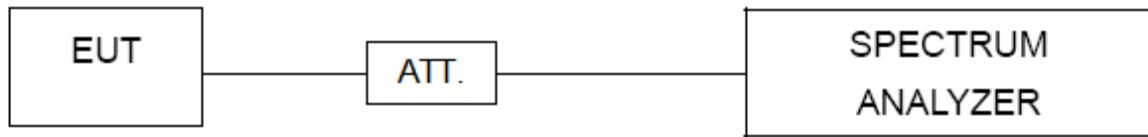
Spectrum Parameter	Setting
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	100 kHz.
VBW	300 kHz.
Detector	RMS
Trace average	100 trace
Sweep Time	Auto

Note:

- For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 100kHz and VBW at 300kHz if the spectrum analyzer does not have 500 kHz RBW. Then, add $10 \log (500 \text{ kHz}/100 \text{ kHz})$ to the measured result, i.e. 7 dB.
- During the test of U-NII 3 PSD, the measurement result with RBW=100kHz has been added 7 dB by compensating offset. For example, the cable loss is 13 dB, and the final offset is $13 + 7 = 20 \text{ dB}$ when RBW=100kHz is used.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP**7.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.

8. FREQUENCY STABILITY

8.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.407(g)	Frequency Stability	An emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.	5150-5250
			5250-5350
			5470-5725
			5725-5850

8.2 TEST PROCEDURE

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

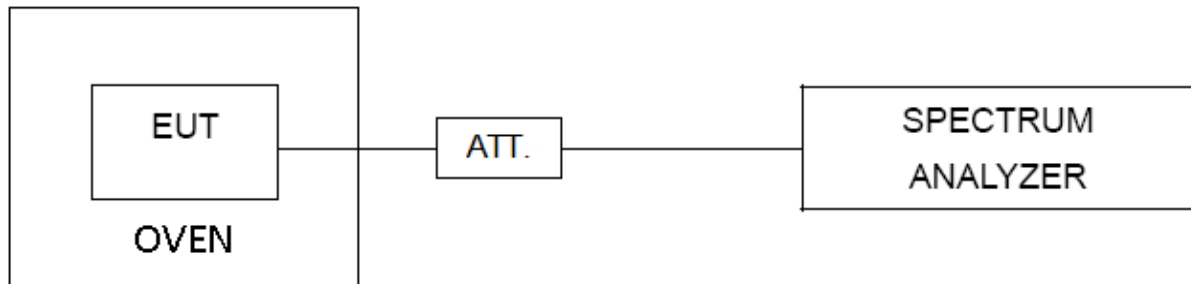
Spectrum Parameter	Setting
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

- The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- User manual temperature is -10°C~65°C.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

No.	Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Receiver	Rohde&Schwarz	ESCI	1166.5950.03	2022/11/09
2	AMN	Rohde&Schwarz	ENV216	3560.6550.05	2022/11/09
3	AMN	Schwarzbeck	NSLK8127	#829	2022/11/09
4	ECSI RF IN RF Cable	Rohde&Schwarz	RP-X1	N/A	2022/11/09
5	ECSI RF IN RF Cable	Rohde&Schwarz	Sapre sm	N/A	2022/11/09
6	EMI Receiver	Rohde&Schwarz	ESR7	102013	2022/11/09
7	Spectrum analyzer	Rohde&Schwarz	FSV30	103741	2022/11/09
8	Spectrum analyzer	KEYSIGHT	N9010A-44	MY51440158	2022/11/09
9	Log periodic antenna	Schwarzbeck	VULB 9163	VULB 9163-361	2022/11/20
10	Loop Antenna	Schwarzbeck	FMZB1519 B	00029	2023/07/03
11	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1201	2022/11/20
12	Horn Antenna	Schwarzbeck	BBHA 9170	9170#685	2022/11/20
13	Preamplifier	Schwarzbeck	BBV9745	#78	2022/11/09
14	Preamplifier	Schwarzbeck	BBV9721	9721-019	2022/11/09
15	Preamplifier	/	LNA 0920N	2014	2023/05/03
16	Preamplifier	Schwarzbeck	BBV 9718	284	2023/05/03
17	Preamplifier	RF System/UK	TRLA-0101 80G50B	22062101	2023/07/20
18	ECSI RF IN RF Cable	Rohde&Schwarz	AP-X1	N/A	2022/11/09
19	ECSI RF IN RF Cable	HAOXUN	Z-108	N/A	2022/11/09
20	RF Cable	ZDECL	ZT40-2.92J -2.92J-6M	18124358	2023/07/20
21	Spectrum Analyzer	Agilent	N9010A	MY51440158	2022/11/09
22	Spectrum Analyzer	Agilent	N9010A	MY52221119	2022/11/09
23	EMI Receiver	Rohde&Schwarz	ESU	100184	2023/07/20
24	Temp&Humidity Recorder	Anymetre	JR900	N/A	2022/11/03
25	Power Collection Unit	Tonscend	JS0806-2	188060134	2023/08/21
26	Temp&Humidity Chamber	ETOMA	NTH1100-30A	16080628	2022/11/03
27	Filter	STI	STI15-984 5	N/A	N/A
28	Filter	STI	5.1G	N/A	N/A
29	Filter	STI	STI15-984 5	N/A	N/A
30	Testing Software	EZ-EMC	TW-03A2	N/A	N/A

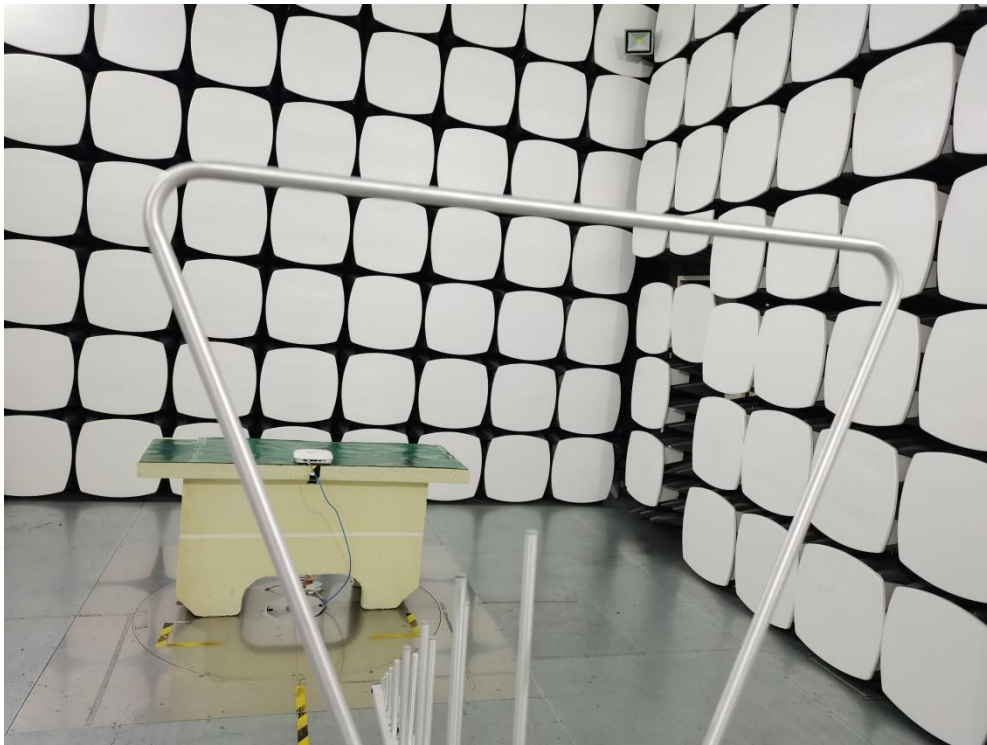
Remark: "N/A" denotes no model name, serial no. or calibration specified.

"*" calibration period of equipment list is three year.

Except * item, all calibration period of equipment list is one year.

10. EUT TEST PHOTOS**AC Power Line Conducted Emissions Test Photos**

**Radiated Emissions Test Photos
30 MHz to 1000 MHz**

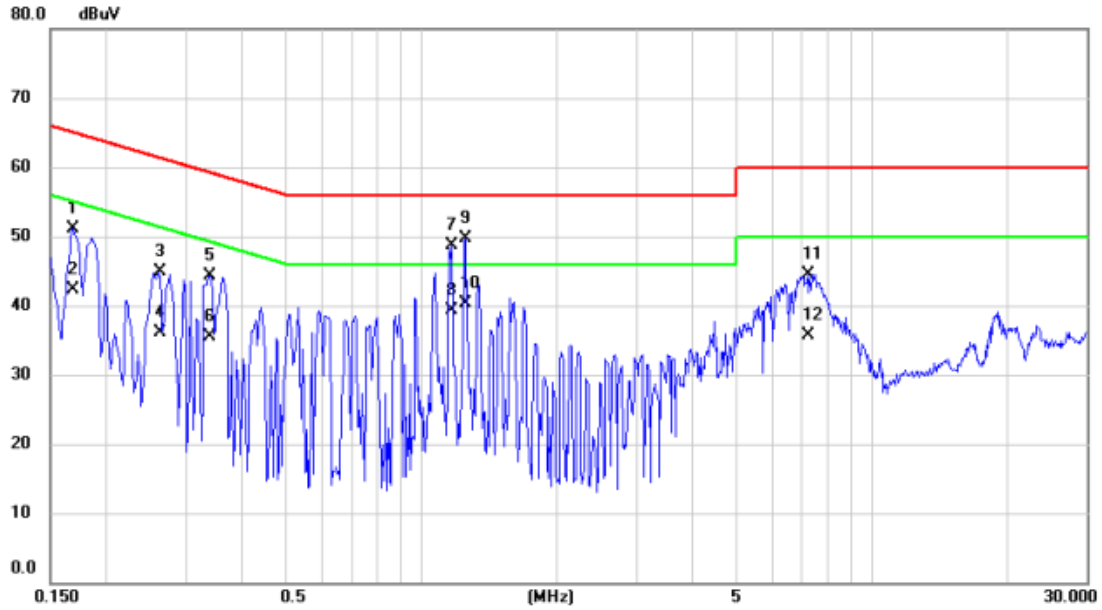


**Radiated Emissions Test Photos
Above 1GHz**



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode	TX AC(VHT40) Mode Channel 159 (UNII-3)	Phase	Line
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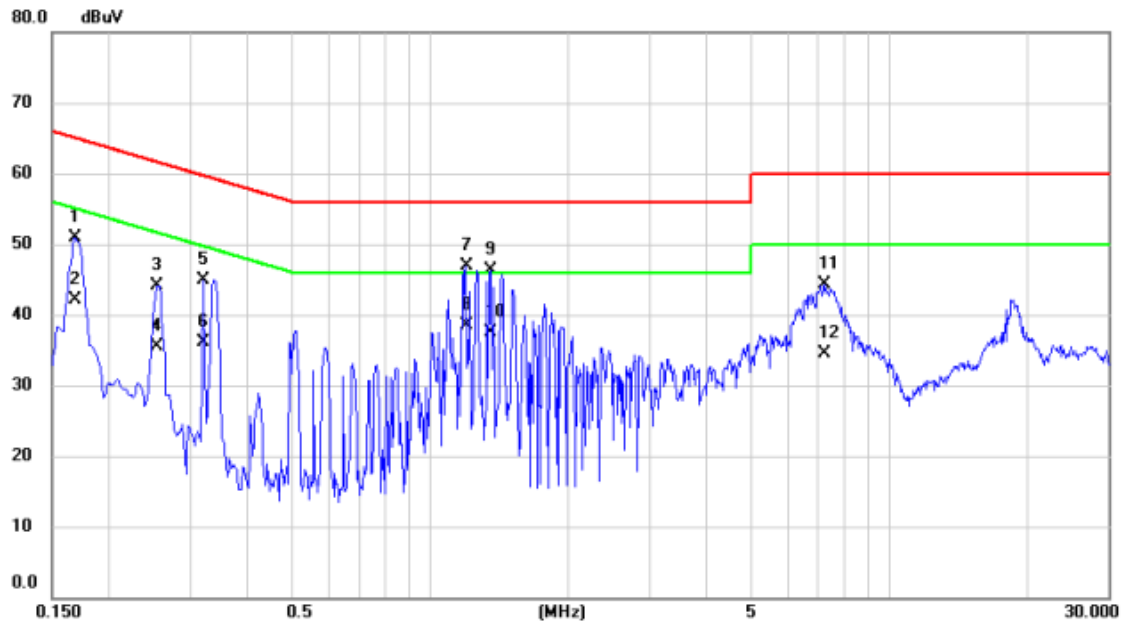


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1680	31.87	19.31	51.18	65.06	-13.88	QP	
2		0.1680	22.95	19.31	42.26	55.06	-12.80	AVG	
3		0.2625	25.49	19.32	44.81	61.35	-16.54	QP	
4		0.2625	16.78	19.32	36.10	51.35	-15.25	AVG	
5		0.3390	25.00	19.32	44.32	59.23	-14.91	QP	
6		0.3390	16.21	19.32	35.53	49.23	-13.70	AVG	
7		1.1670	29.07	19.68	48.75	56.00	-7.25	QP	
8		1.1670	19.65	19.68	39.33	46.00	-6.67	AVG	
9		1.2570	29.91	19.74	49.65	56.00	-6.35	QP	
10	*	1.2570	20.50	19.74	40.24	46.00	-5.76	AVG	
11		7.2465	23.63	20.85	44.48	60.00	-15.52	QP	
12		7.2465	14.86	20.85	35.71	50.00	-14.29	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.
- (3) The test result has included the cable loss.

Test Mode	TX AC(VHT40) Mode Channel 159 (UNII-3)	Phase	Neutral
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1680	31.41	19.48	50.89	65.06	-14.17	QP	
2		0.1680	22.72	19.48	42.20	55.06	-12.86	AVG	
3		0.2535	24.61	19.48	44.09	61.64	-17.55	QP	
4		0.2535	16.06	19.48	35.54	51.64	-16.10	AVG	
5		0.3210	25.44	19.50	44.94	59.68	-14.74	QP	
6		0.3210	16.65	19.50	36.15	49.68	-13.53	AVG	
7		1.2030	27.01	19.94	46.95	56.00	-9.05	QP	
8	*	1.2030	18.52	19.94	38.46	46.00	-7.54	AVG	
9		1.3560	26.32	20.06	46.38	56.00	-9.62	QP	
10		1.3560	17.41	20.06	37.47	46.00	-8.53	AVG	
11		7.2150	23.48	20.84	44.32	60.00	-15.68	QP	
12		7.2150	13.60	20.84	34.44	50.00	-15.56	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.
- (3) The test result has included the cable loss.

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

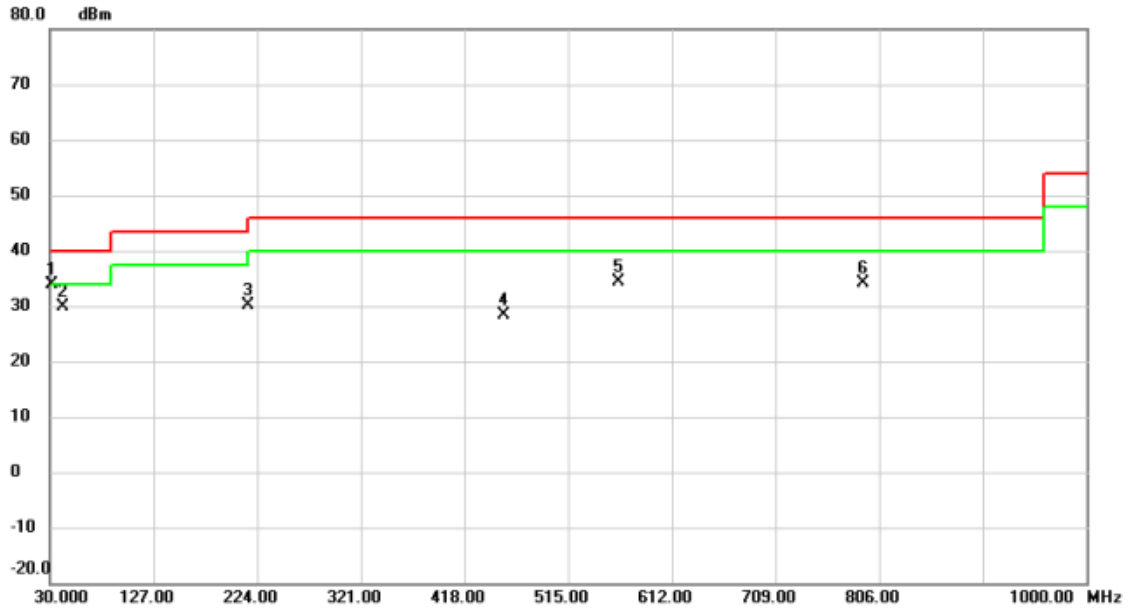
Radiated emission: 9KHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode	TX AC(VHT40) Mode Channel 159 (UNII-3)	Polarization	Vertical
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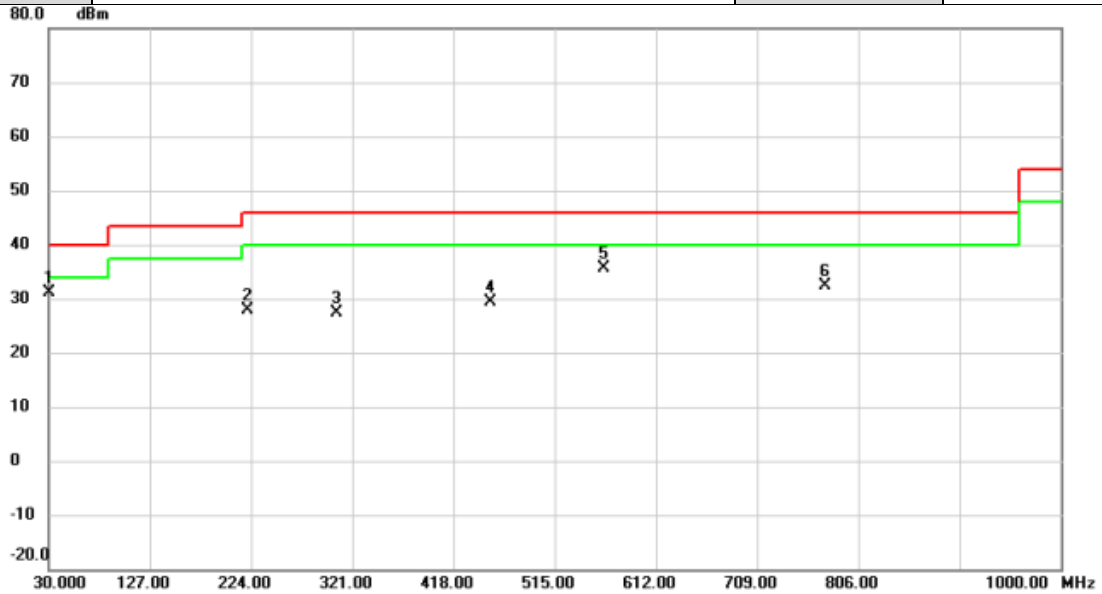


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	31.940	19.12	14.85	33.97	40.00	-6.03	peak	
2		42.610	14.59	15.24	29.83	40.00	-10.17	peak	
3		215.270	12.82	17.29	30.11	43.50	-13.39	peak	
4		454.860	6.01	22.45	28.46	46.00	-17.54	peak	
5		562.530	10.21	24.29	34.50	46.00	-11.50	peak	
6		791.450	5.12	29.10	34.22	46.00	-11.78	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX AC(VHT40) Mode Channel 159 (UNII-3)	Polarization	Horizontal
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No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	30.000	19.37	11.77	31.14	40.00	-8.86	peak	
2		221.090	10.52	17.39	27.91	46.00	-18.09	peak	
3		306.450	7.62	19.71	27.33	46.00	-18.67	peak	
4		453.890	6.89	22.40	29.29	46.00	-16.71	peak	
5		562.530	11.28	24.29	35.57	46.00	-10.43	peak	
6		773.990	4.11	28.22	32.33	46.00	-13.67	peak	

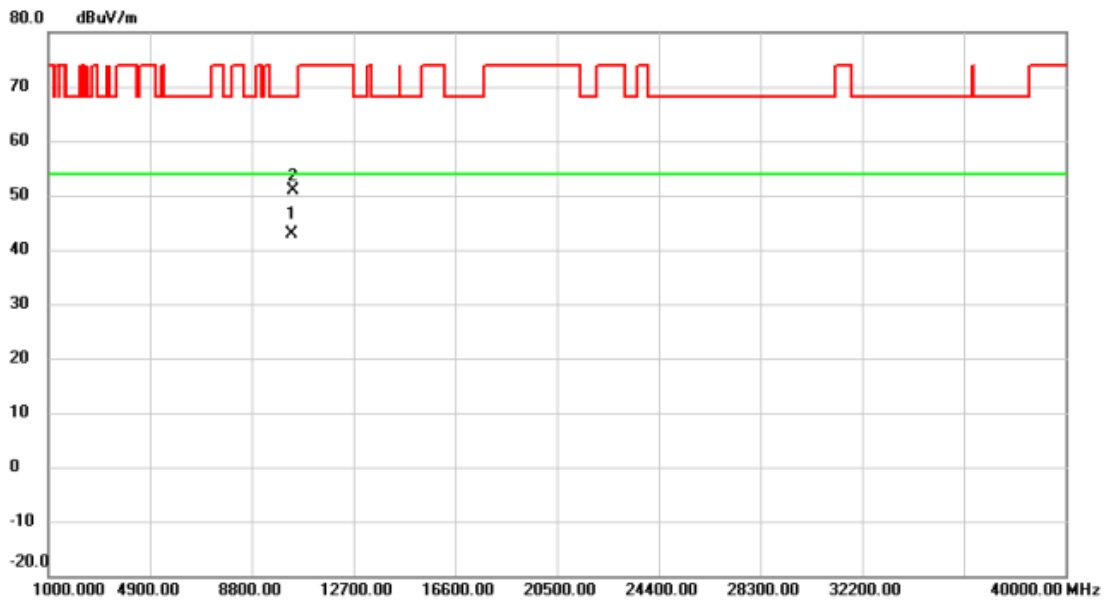
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Vertical
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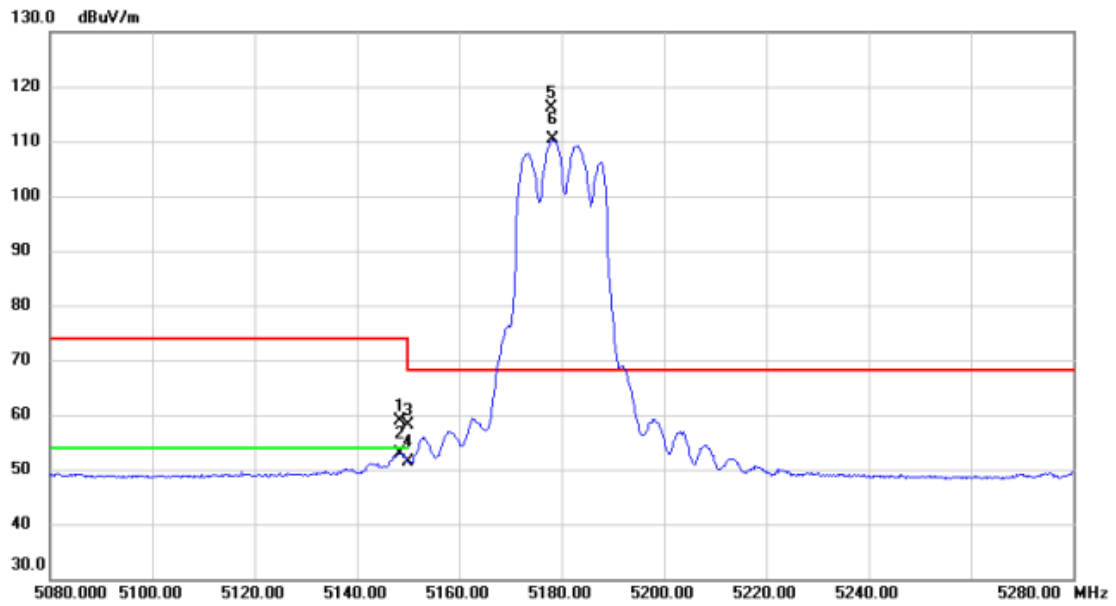


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10359.850	44.96	-2.12	42.84	54.00	-11.16	AVG	
2		10362.040	52.96	-2.12	50.84	68.20	-17.36	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Horizontal
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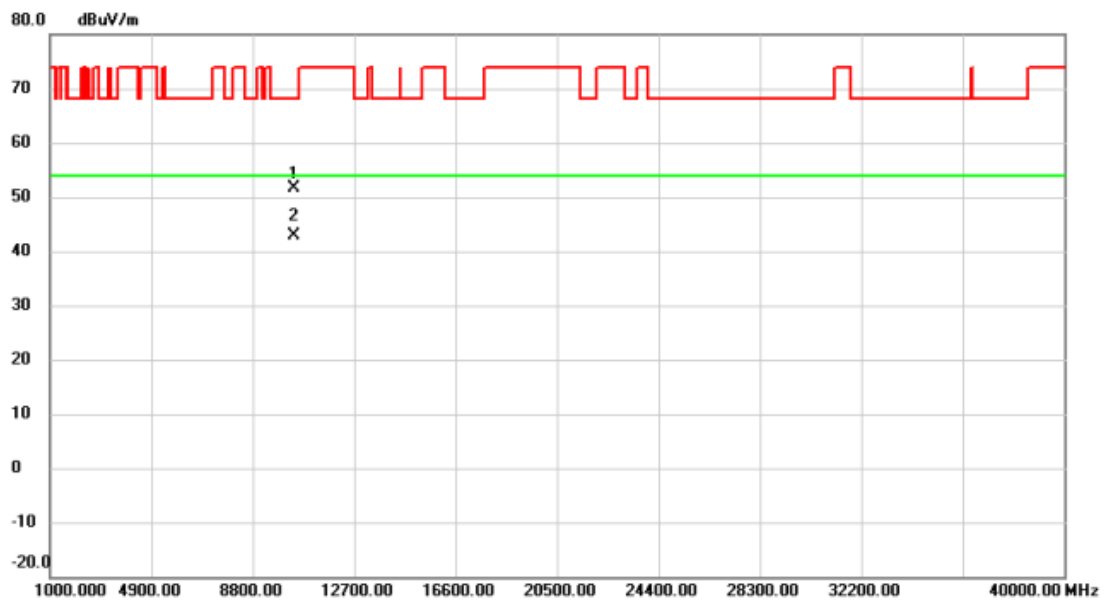
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5148.400	18.67	40.22	58.89	74.00	-15.11	peak	
2		5148.400	12.75	40.22	52.97	54.00	-1.03	AVG	
3		5150.000	17.84	40.22	58.06	74.00	-15.94	peak	
4		5150.000	11.05	40.22	51.27	54.00	-2.73	AVG	
5	*	5178.000	75.77	40.28	116.05	68.20	47.85	peak	No Limit
6	X	5178.400	70.00	40.28	110.28	68.20	42.08	AVG	No Limit

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Vertical
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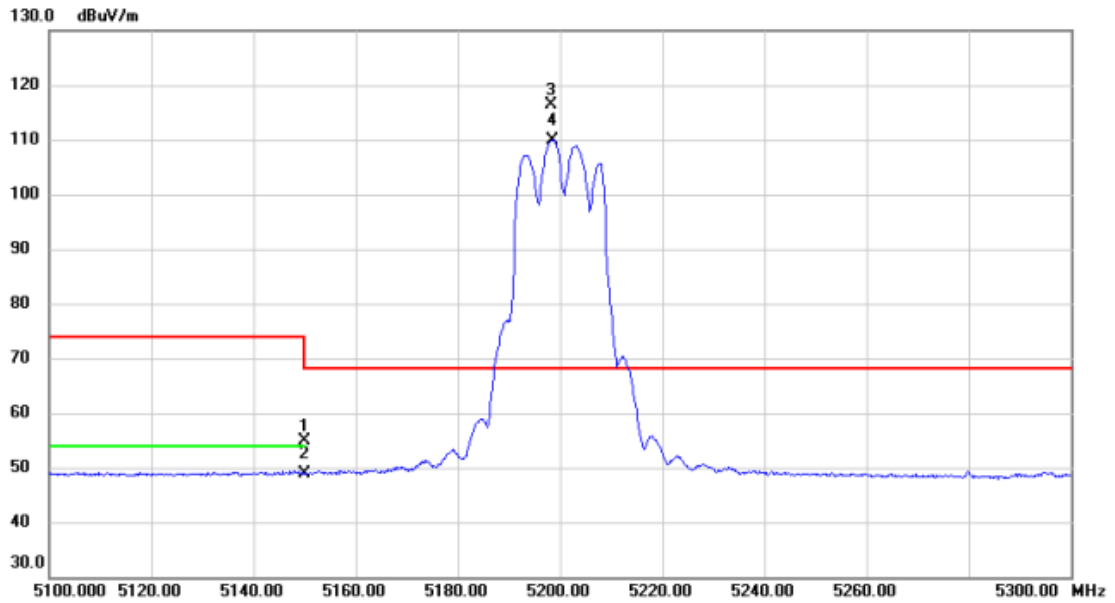


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10400.350	53.69	-2.05	51.64	68.20	-16.56	peak	
2	*	10404.510	45.02	-2.05	42.97	54.00	-11.03	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Horizontal
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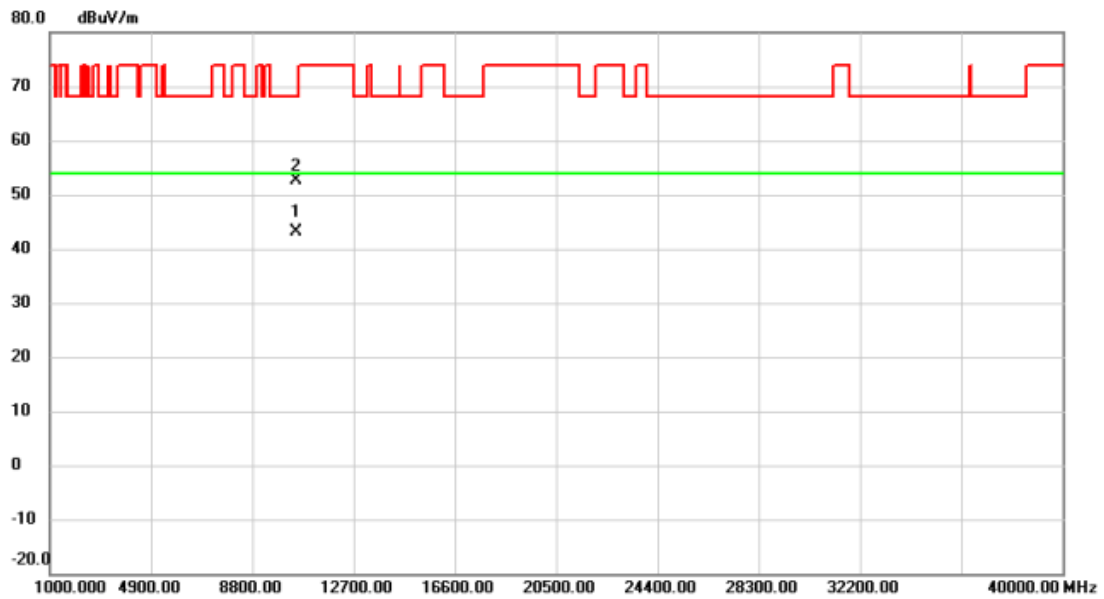


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.000	14.72	40.22	54.94	74.00	-19.06	peak	
2	5150.000	8.73	40.22	48.95	54.00	-5.05	AVG	
3 *	5198.200	76.05	40.31	116.36	68.20	48.16	peak	No Limit
4 X	5198.600	69.67	40.31	109.98	68.20	41.78	AVG	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Vertical
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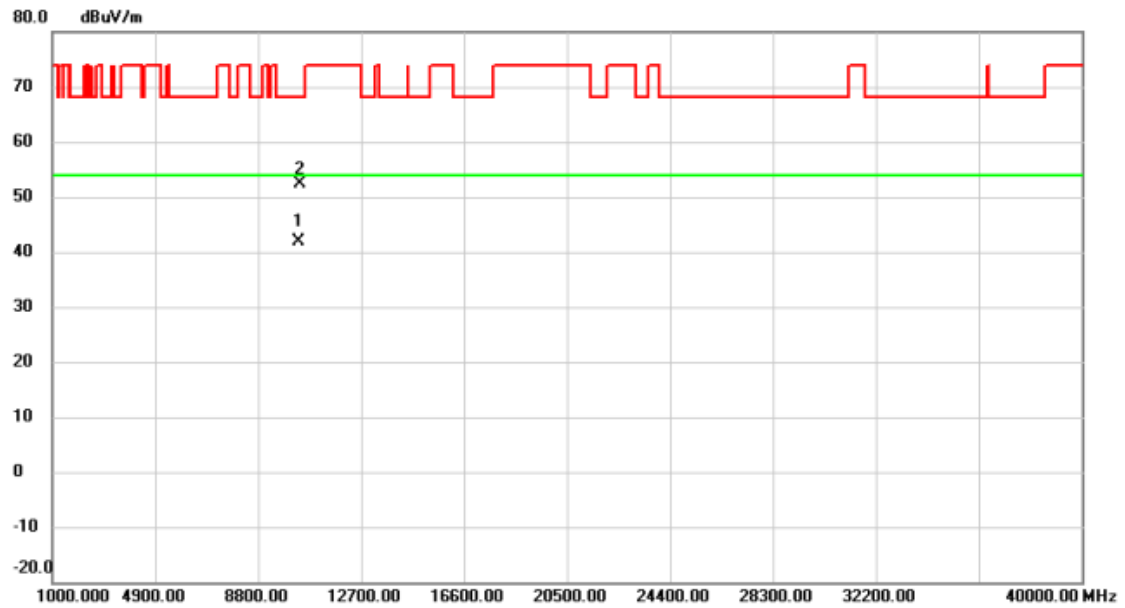


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10478.500	45.12	-1.94	43.18	54.00	-10.82	AVG	
2		10480.870	54.51	-1.94	52.57	68.20	-15.63	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Vertical
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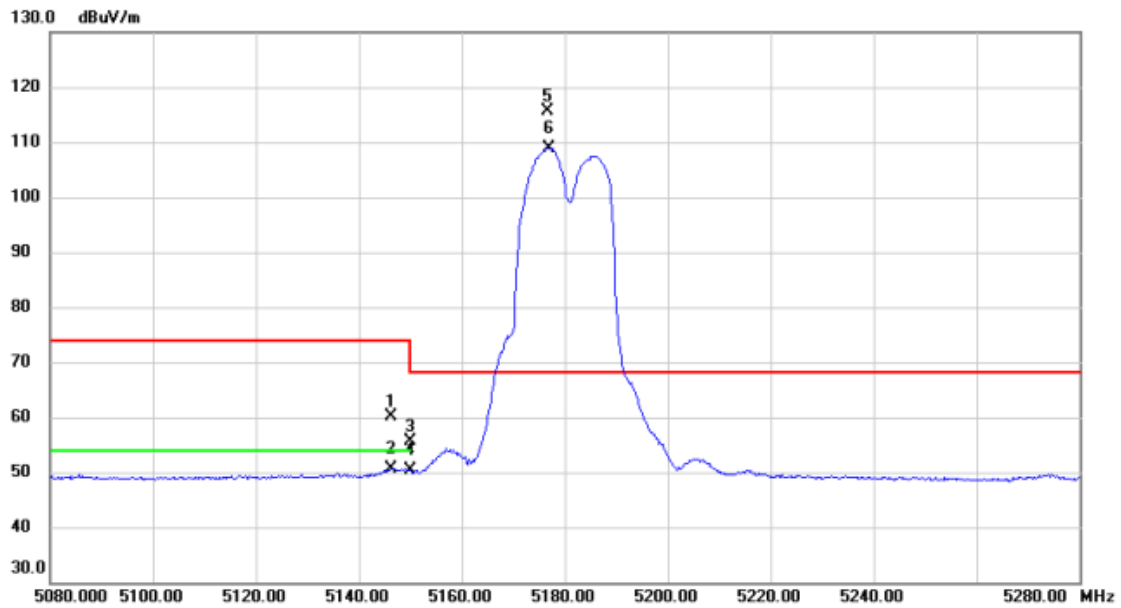


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10358.290	43.98	-2.12	41.86	54.00	-12.14	AVG	
2	10360.135	54.53	-2.12	52.41	68.20	-15.79	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Horizontal
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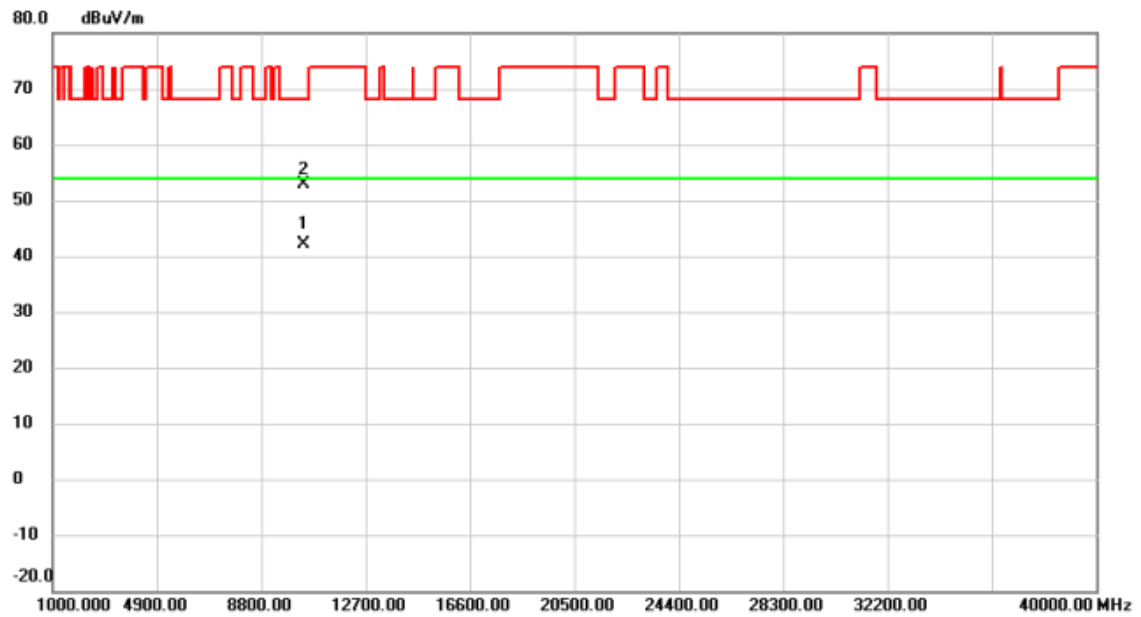


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5146.400	19.90	40.22	60.12	74.00	-13.88	peak	
2	5146.400	10.50	40.22	50.72	54.00	-3.28	AVG	
3	5150.000	15.34	40.22	55.56	74.00	-18.44	peak	
4	5150.000	10.17	40.22	50.39	54.00	-3.61	AVG	
5 *	5176.600	75.29	40.27	115.56	68.20	47.36	peak	No Limit
6 X	5177.000	68.70	40.27	108.97	68.20	40.77	AVG	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Vertical
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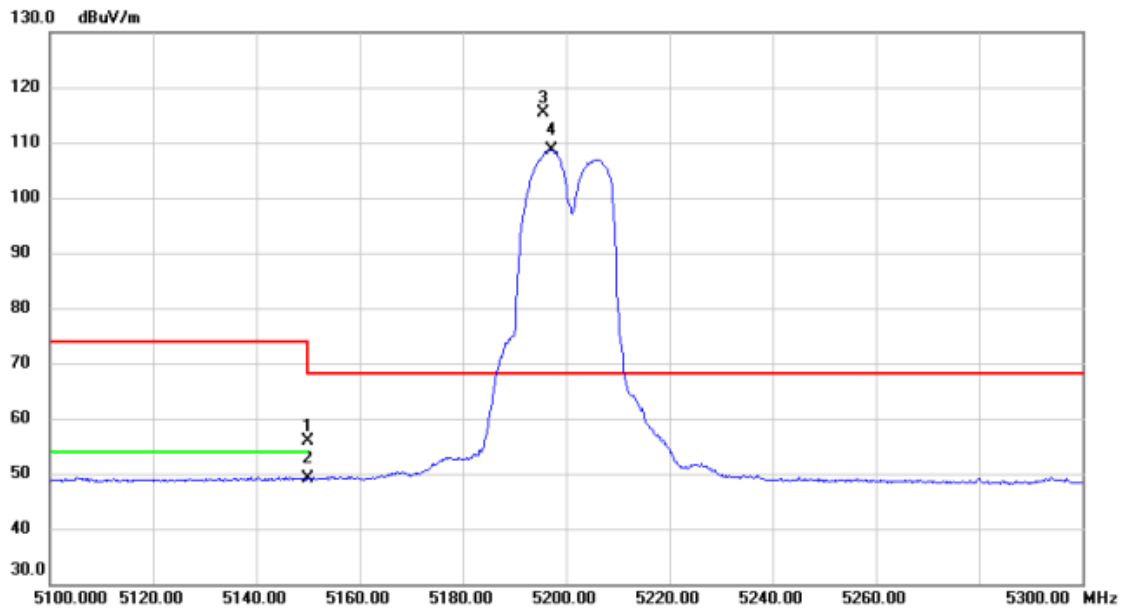


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10398.495	44.10	-2.05	42.05	54.00	-11.95	AVG	
2		10402.440	54.82	-2.05	52.77	68.20	-15.43	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Horizontal
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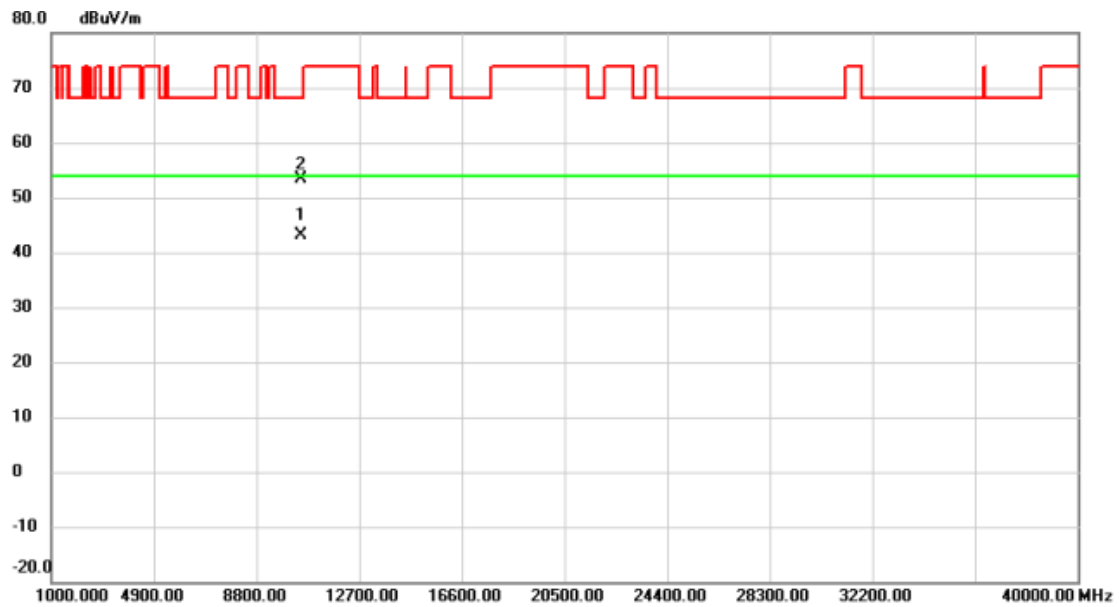
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.000	15.61	40.22	55.83	74.00	-18.17	peak	
2	5150.000	8.80	40.22	49.02	54.00	-4.98	AVG	
3 *	5195.600	74.98	40.31	115.29	68.20	47.09	peak	No Limit
4 X	5197.200	68.42	40.31	108.73	68.20	40.53	AVG	No Limit

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Vertical
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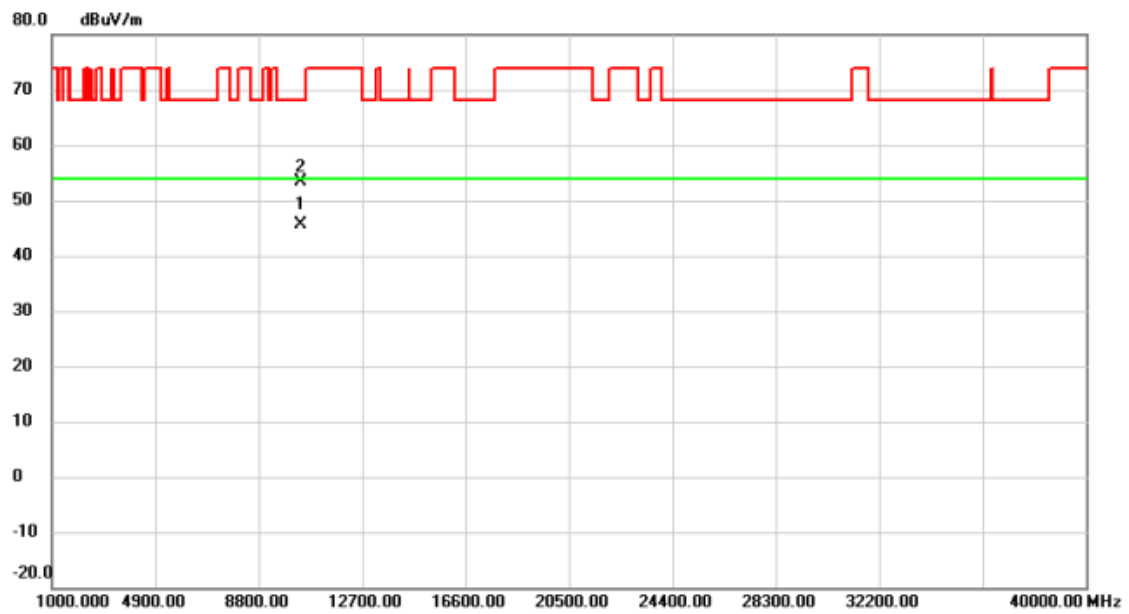


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10477.555	45.07	-1.94	43.13	54.00	-10.87	AVG	
2	10479.790	55.34	-1.94	53.40	68.20	-14.80	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Vertical
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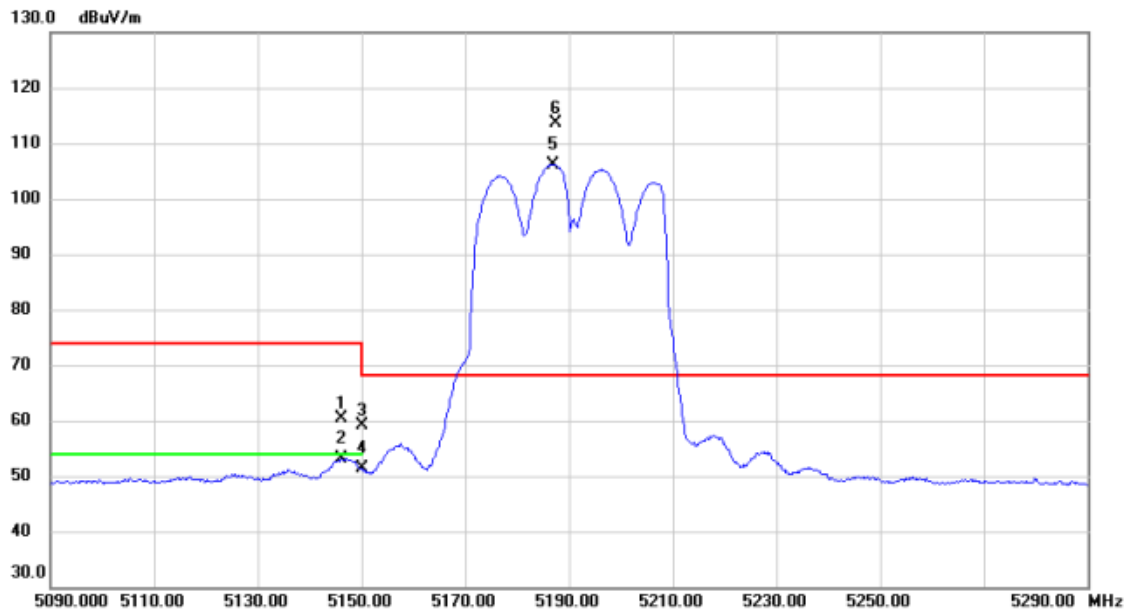


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10379.900	47.60	-2.09	45.51	54.00	-8.49	AVG	
2	10379.700	55.56	-2.09	53.47	68.20	-14.73	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Horizontal
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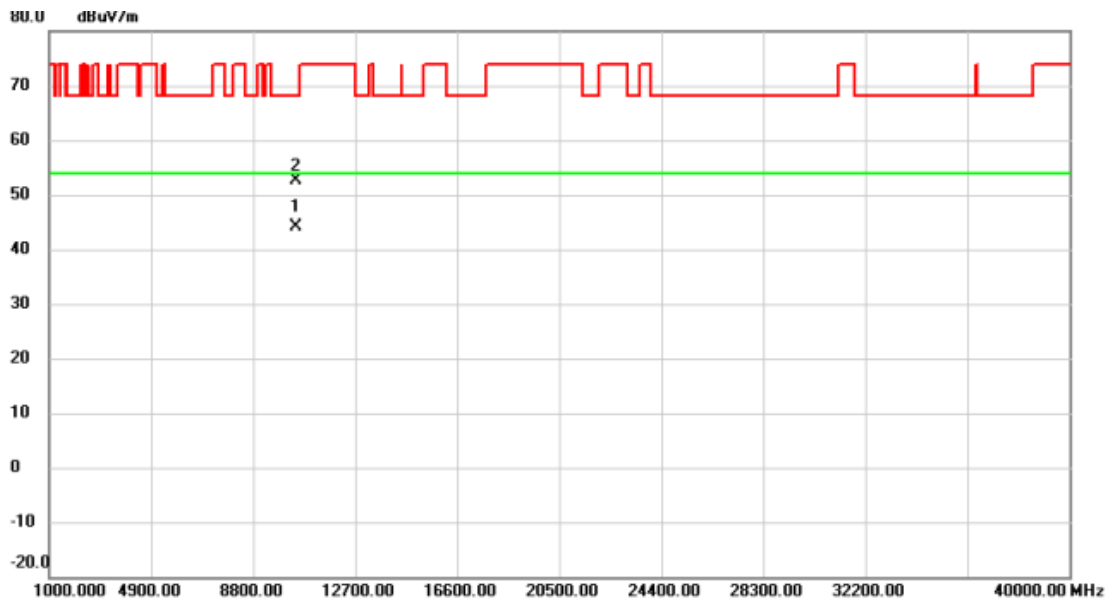
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5146.000	20.05	40.22	60.27	74.00	-13.73	peak	
2	5146.000	12.99	40.22	53.21	54.00	-0.79	AVG	
3	5150.000	18.80	40.22	59.02	74.00	-14.98	peak	
4	5150.000	11.15	40.22	51.37	54.00	-2.63	AVG	
5 X	5187.000	65.95	40.29	106.24	68.20	38.04	AVG	No Limit
6 *	5187.400	73.35	40.29	113.64	68.20	45.44	peak	No Limit

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Vertical
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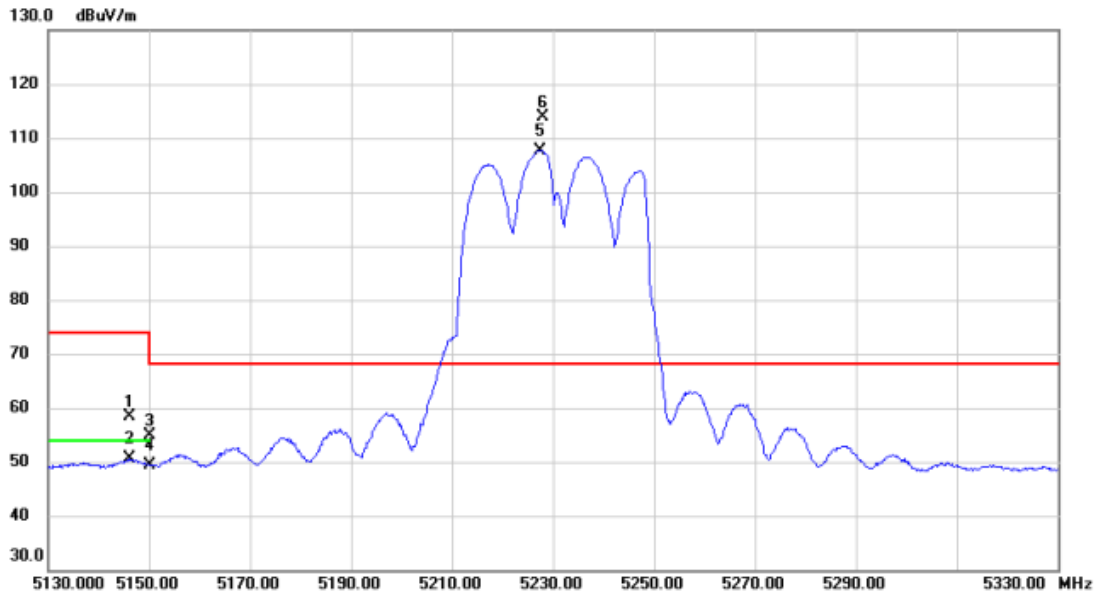


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10459.895	46.17	-1.96	44.21	54.00	-9.79	AVG	
2		10459.770	54.69	-1.96	52.73	68.20	-15.47	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Horizontal
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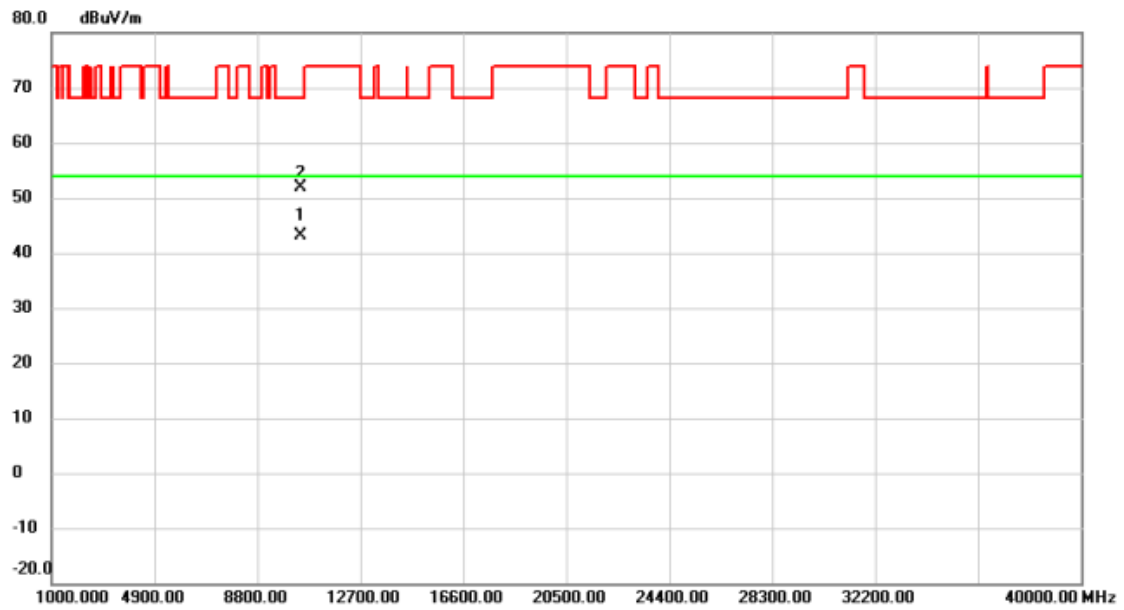
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5146.000	18.18	40.22	58.40	74.00	-15.60	peak	
2		5146.000	10.36	40.22	50.58	54.00	-3.42	AVG	
3		5150.000	14.64	40.22	54.86	74.00	-19.14	peak	
4		5150.000	9.19	40.22	49.41	54.00	-4.59	AVG	
5	X	5227.400	67.28	40.37	107.65	68.20	39.45	AVG	No Limit
6	*	5228.000	73.63	40.37	114.00	68.20	45.80	peak	No Limit

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Vertical
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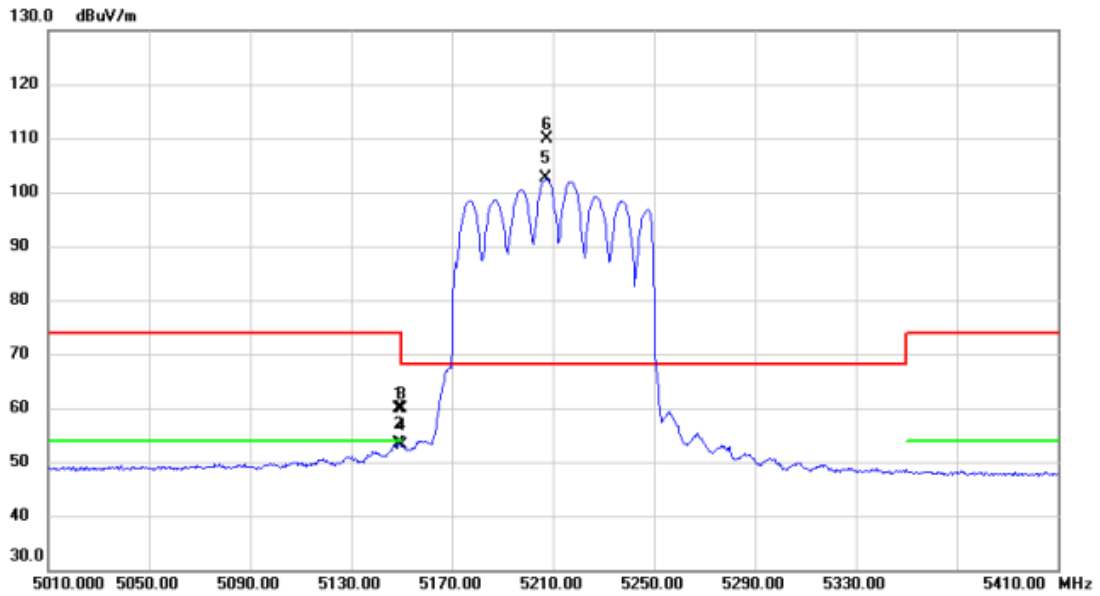


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10419.875	45.14	-2.02	43.12	54.00	-10.88	AVG	
2	10419.855	53.98	-2.02	51.96	68.20	-16.24	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Horizontal
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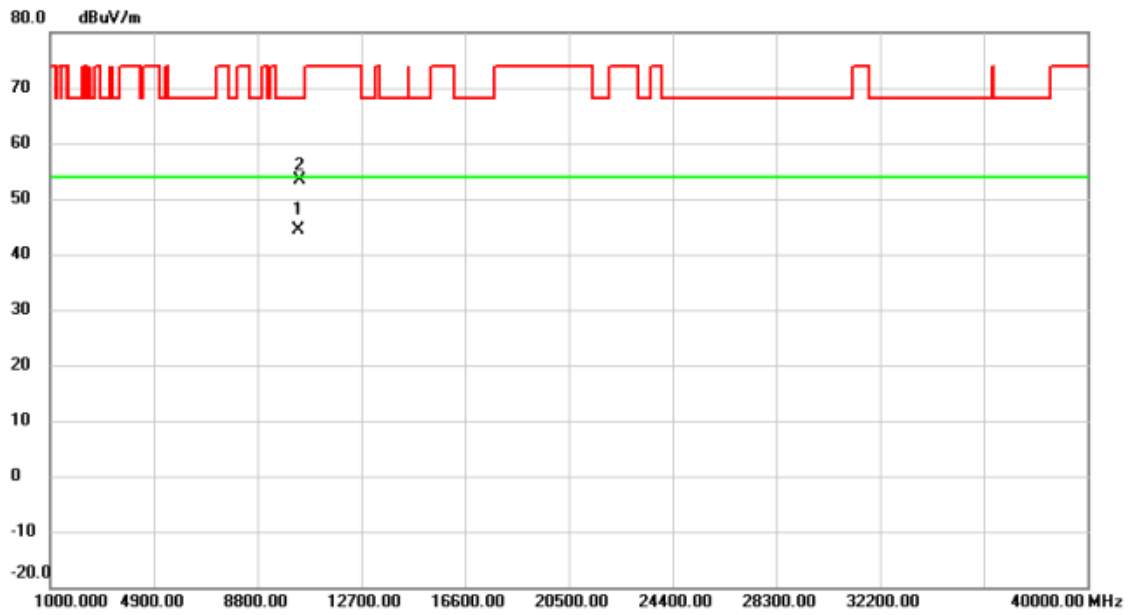


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5149.200	19.72	40.22	59.94	74.00	-14.06	peak	
2	5149.200	13.17	40.22	53.39	54.00	-0.61	AVG	
3	5150.000	19.55	40.22	59.77	74.00	-14.23	peak	
4	5150.000	12.98	40.22	53.20	54.00	-0.80	AVG	
5 X	5207.200	62.24	40.32	102.56	68.20	34.36	AVG	No Limit
6 *	5207.600	69.58	40.32	109.90	68.20	41.70	peak	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE20) Mode 5180 MHz	Polarization	Vertical
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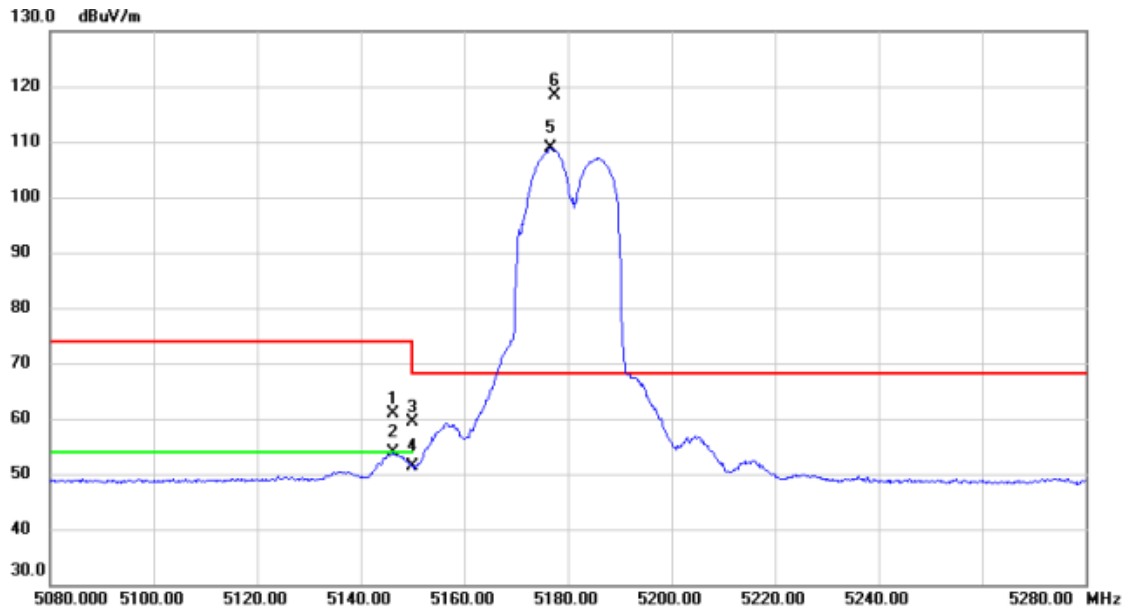


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10359.870	46.60	-2.12	44.48	54.00	-9.52	AVG	
2		10360.350	55.39	-2.12	53.27	68.20	-14.93	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE20) Mode 5180 MHz	Polarization	Horizontal
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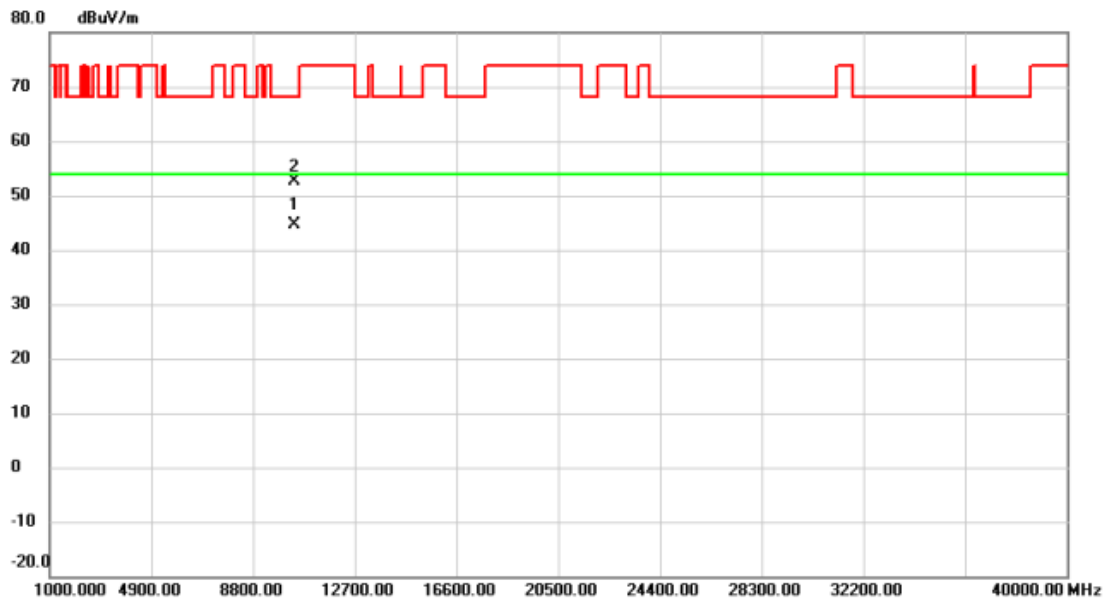


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5146.200	20.56	40.22	60.78	74.00	-13.22	peak	
2	5146.200	13.66	40.22	53.88	54.00	-0.12	AVG	
3	5150.000	19.24	40.22	59.46	74.00	-14.54	peak	
4	5150.000	11.26	40.22	51.48	54.00	-2.52	AVG	
5 X	5176.600	68.60	40.27	108.87	68.20	40.67	AVG	No Limit
6 *	5177.400	78.16	40.28	118.44	68.20	50.24	peak	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE20) Mode 5200 MHz	Polarization	Vertical
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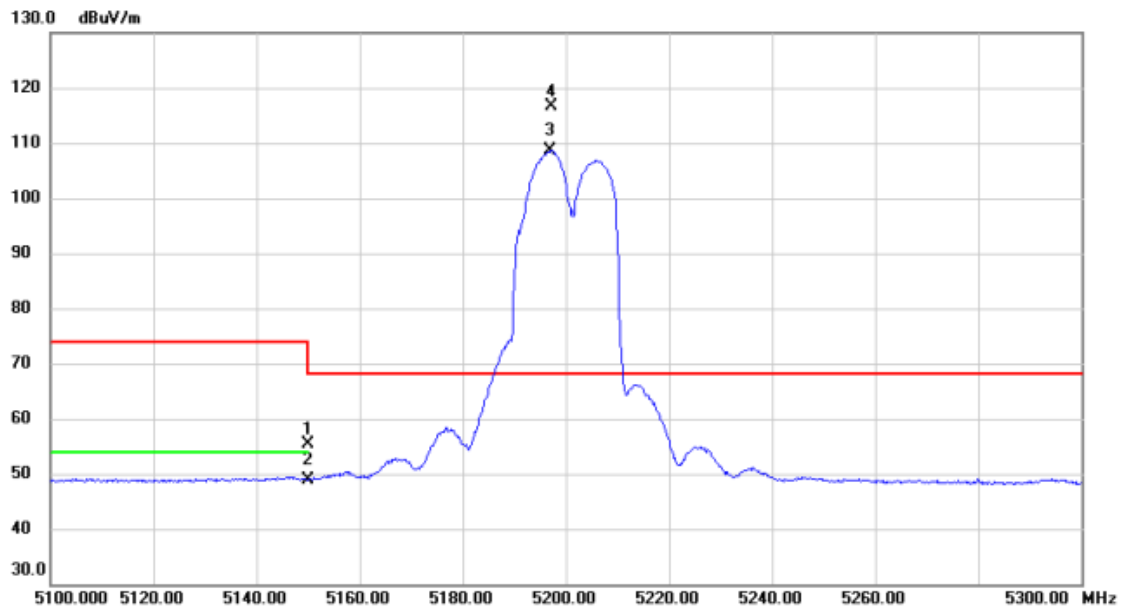


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10399.980	46.71	-2.05	44.66	54.00	-9.34	AVG	
2		10400.250	54.64	-2.05	52.59	68.20	-15.61	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE20) Mode 5200 MHz	Polarization	Horizontal
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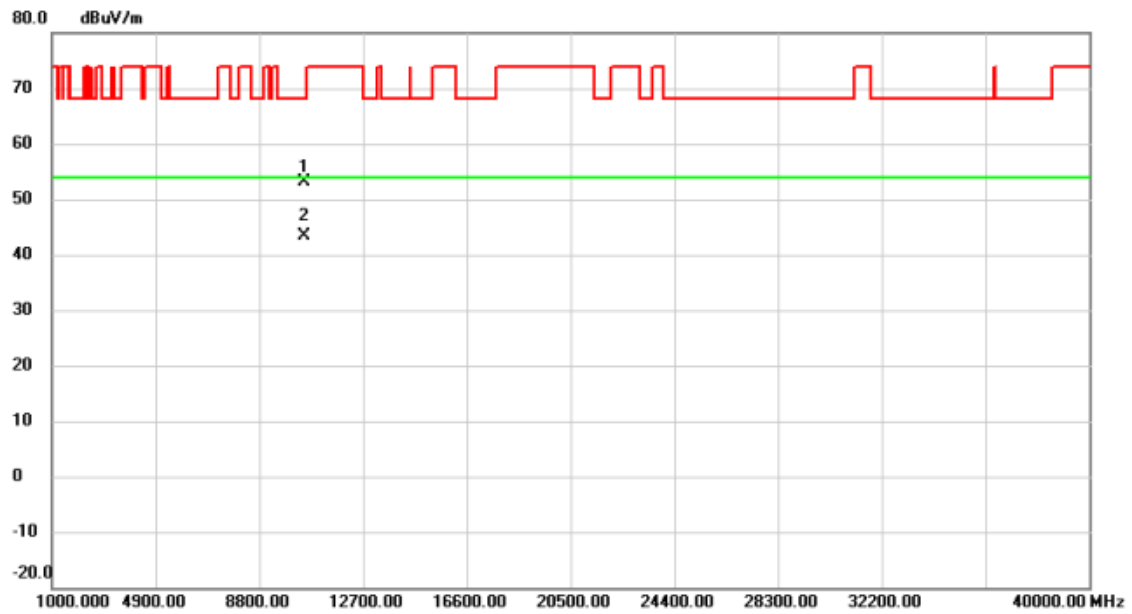


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	15.13	40.22	55.35	74.00	-18.65	peak	
2		5150.000	8.71	40.22	48.93	54.00	-5.07	AVG	
3	X	5196.800	68.26	40.31	108.57	68.20	40.37	AVG	No Limit
4	*	5197.200	76.20	40.31	116.51	68.20	48.31	peak	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE20) Mode 5240 MHz	Polarization	Vertical
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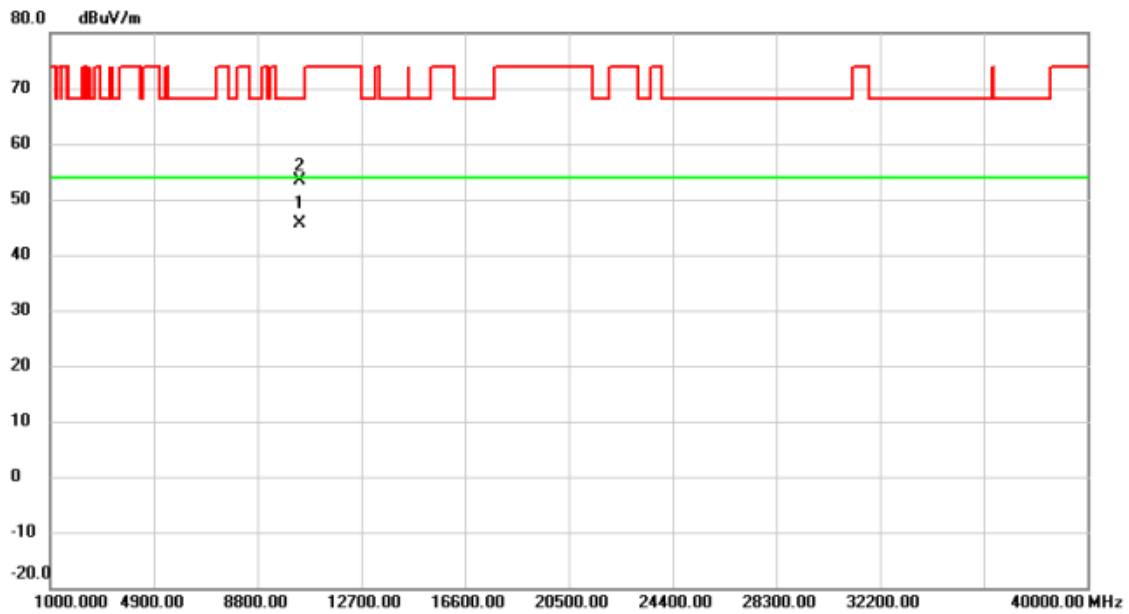


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10479.830	55.11	-1.94	53.17	68.20	-15.03	peak	
2 *	10479.905	45.21	-1.94	43.27	54.00	-10.73	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE40) Mode 5190 MHz	Polarization	Vertical
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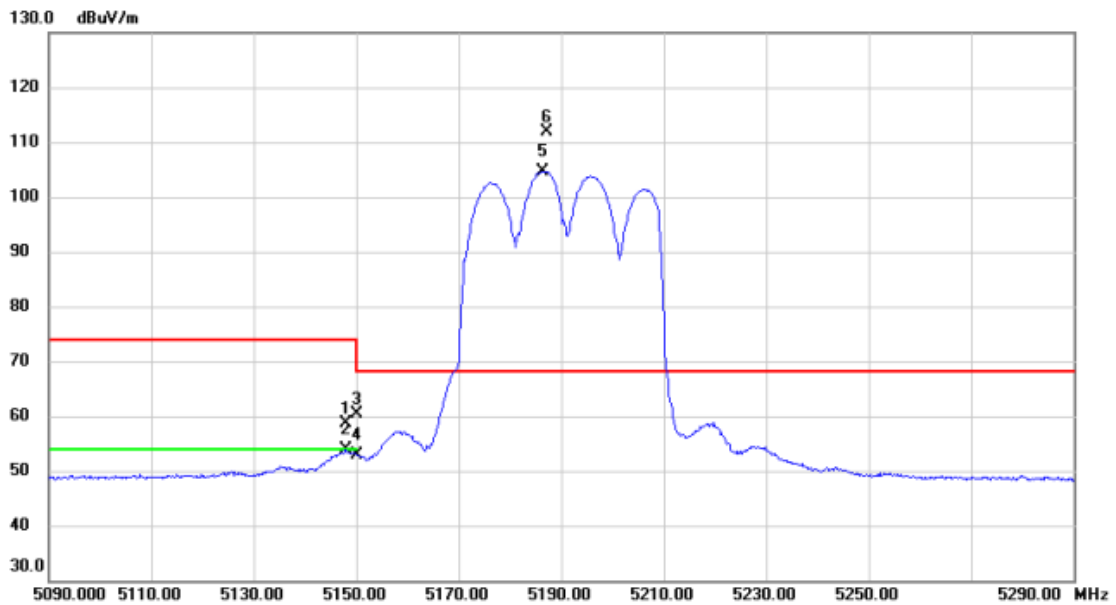


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10379.900	47.60	-2.09	45.51	54.00	-8.49	AVG	
2		10379.700	55.56	-2.09	53.47	68.20	-14.73	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE40) Mode 5190 MHz	Polarization	Horizontal
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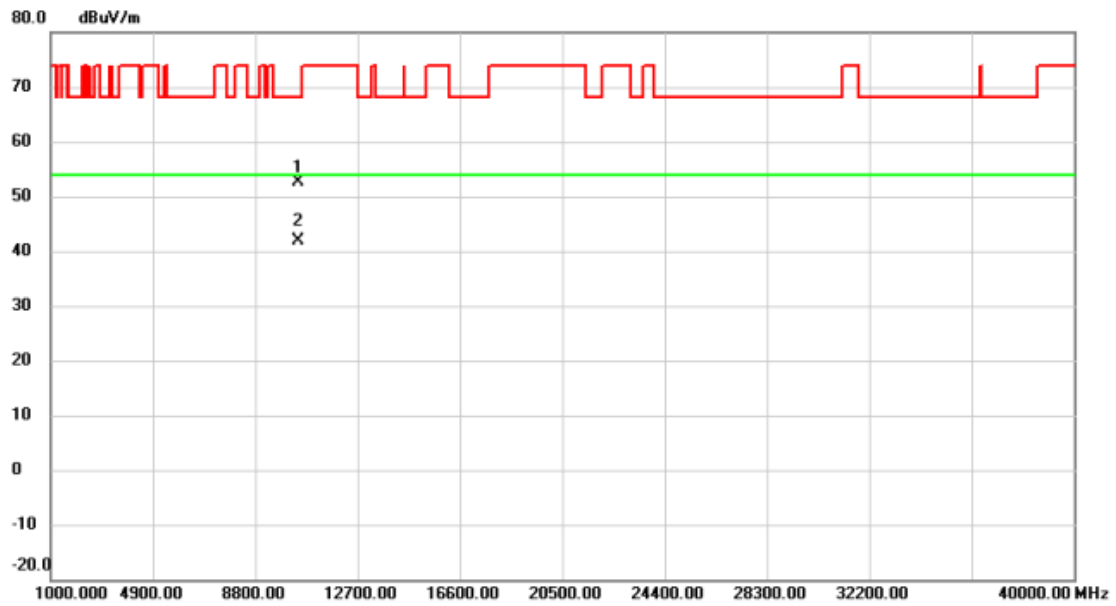


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5148.000	18.50	40.22	58.72	74.00	-15.28	peak	
2		5148.000	13.64	40.22	53.86	54.00	-0.14	AVG	
3		5150.000	20.16	40.22	60.38	74.00	-13.62	peak	
4		5150.000	12.63	40.22	52.85	54.00	-1.15	AVG	
5	X	5186.400	64.45	40.29	104.74	68.20	36.54	AVG	No Limit
6	*	5187.200	71.71	40.29	112.00	68.20	43.80	peak	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE40) Mode 5230 MHz	Polarization	Vertical
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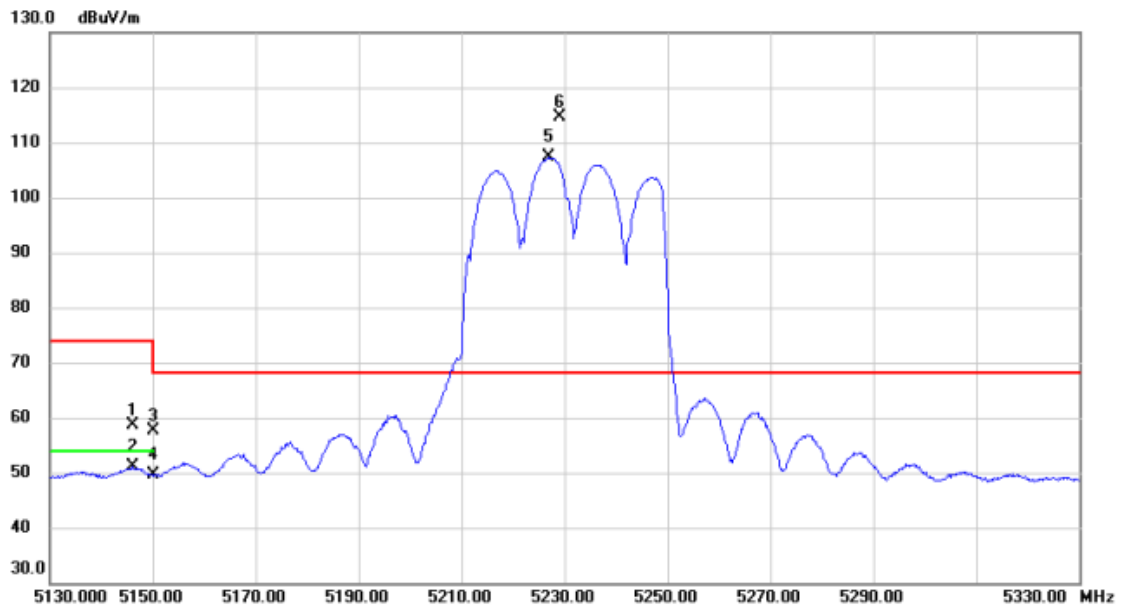


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10459.990	54.60	-1.96	52.64	68.20	-15.56	peak	
2	*	10460.005	43.88	-1.96	41.92	54.00	-12.08	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE40) Mode 5230 MHz	Polarization	Horizontal
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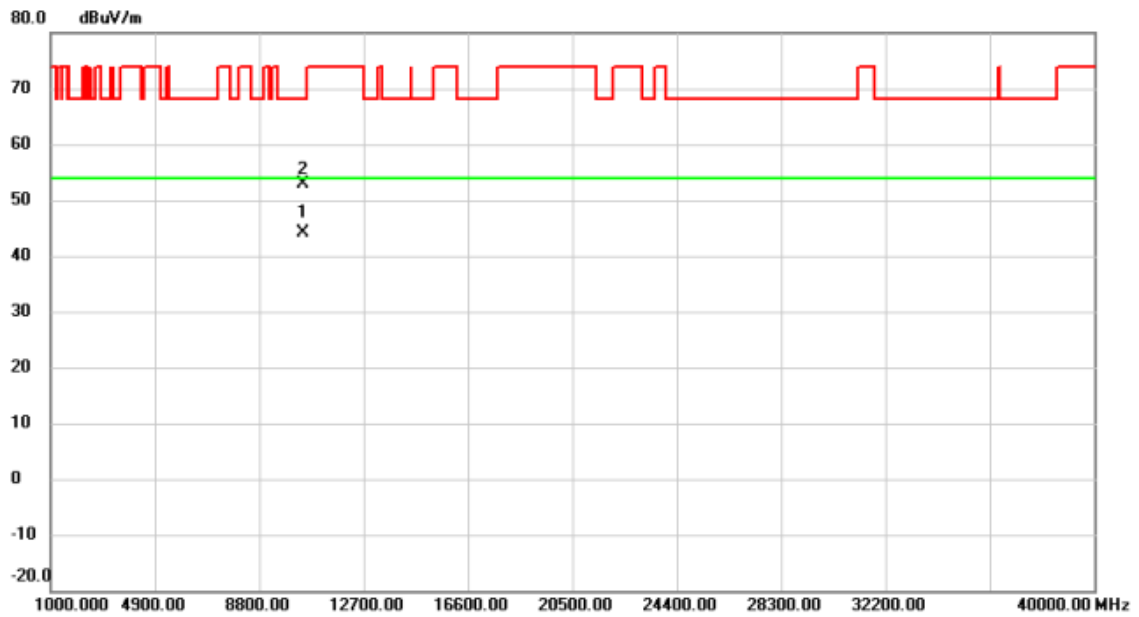
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5146.000	18.30	40.22	58.52	74.00	-15.48	peak	
2	5146.000	10.85	40.22	51.07	54.00	-2.93	AVG	
3	5150.000	17.42	40.22	57.64	74.00	-16.36	peak	
4	5150.000	9.34	40.22	49.56	54.00	-4.44	AVG	
5 X	5227.000	66.90	40.37	107.27	68.20	39.07	AVG	No Limit
6 *	5229.000	74.30	40.37	114.67	68.20	46.47	peak	No Limit

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE80) Mode 5210 MHz	Polarization	Vertical
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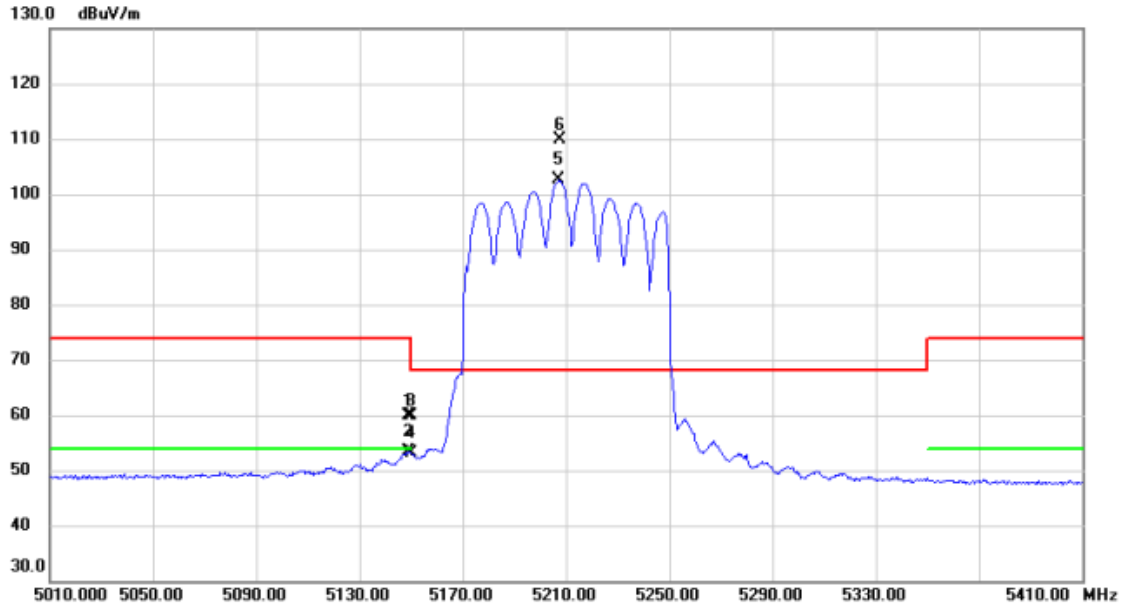


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10419.980	46.16	-2.02	44.14	54.00	-9.86	AVG	
2		10419.815	54.88	-2.02	52.86	68.20	-15.34	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1_TX AX(HE80) Mode 5210 MHz	Polarization	Horizontal
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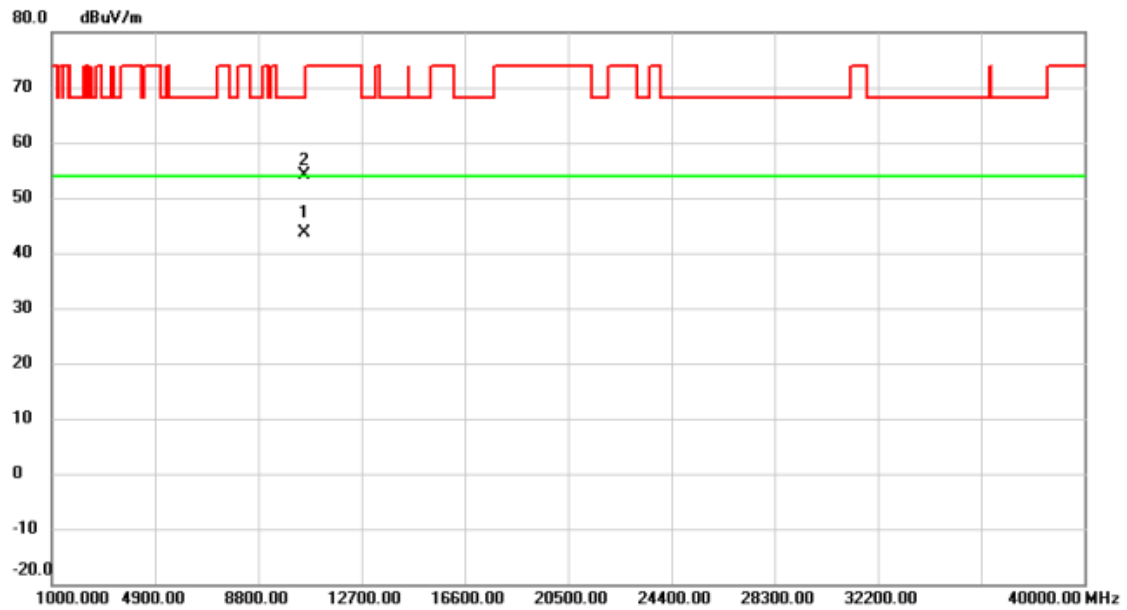


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5149.200	19.72	40.22	59.94	74.00	-14.06	peak	
2	5149.200	13.17	40.22	53.39	54.00	-0.61	AVG	
3	5150.000	19.55	40.22	59.77	74.00	-14.23	peak	
4	5150.000	12.98	40.22	53.20	54.00	-0.80	AVG	
5 X	5207.200	62.24	40.32	102.56	68.20	34.36	AVG	No Limit
6 *	5207.600	69.58	40.32	109.90	68.20	41.70	peak	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX A Mode 5260 MHz	Polarization	Vertical
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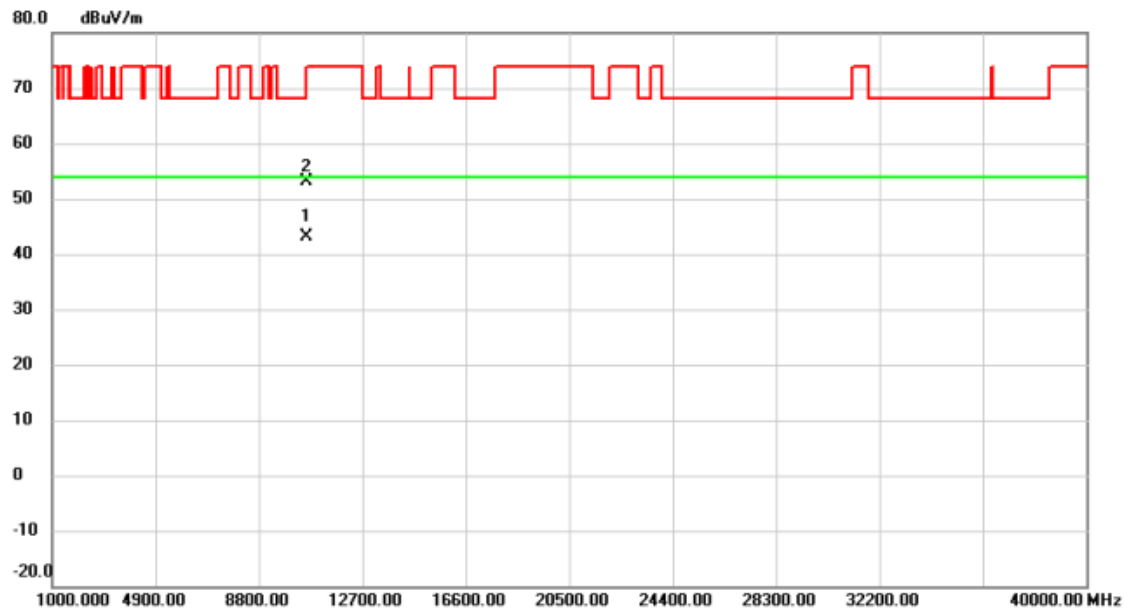


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10518.390	45.42	-1.85	43.57	54.00	-10.43	AVG	
2	10520.400	56.06	-1.85	54.21	68.20	-13.99	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX A Mode 5300 MHz	Polarization	Vertical
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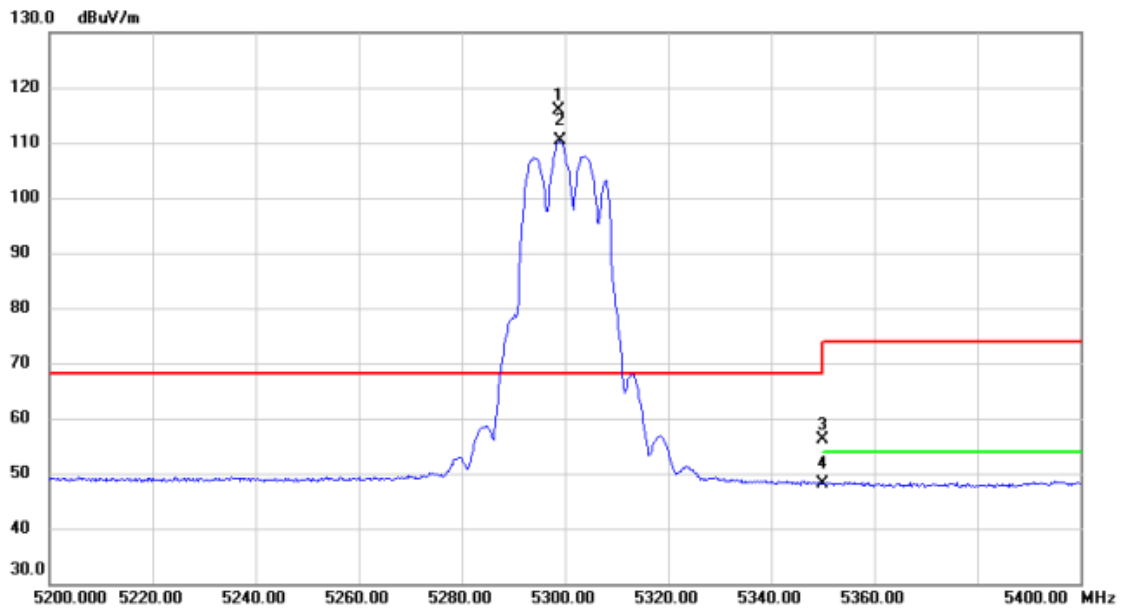
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10598.725	44.86	-1.69	43.17	54.00	-10.83	AVG	
2		10599.650	54.84	-1.69	53.15	68.20	-15.05	peak	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX A Mode 5300 MHz	Polarization	Horizontal
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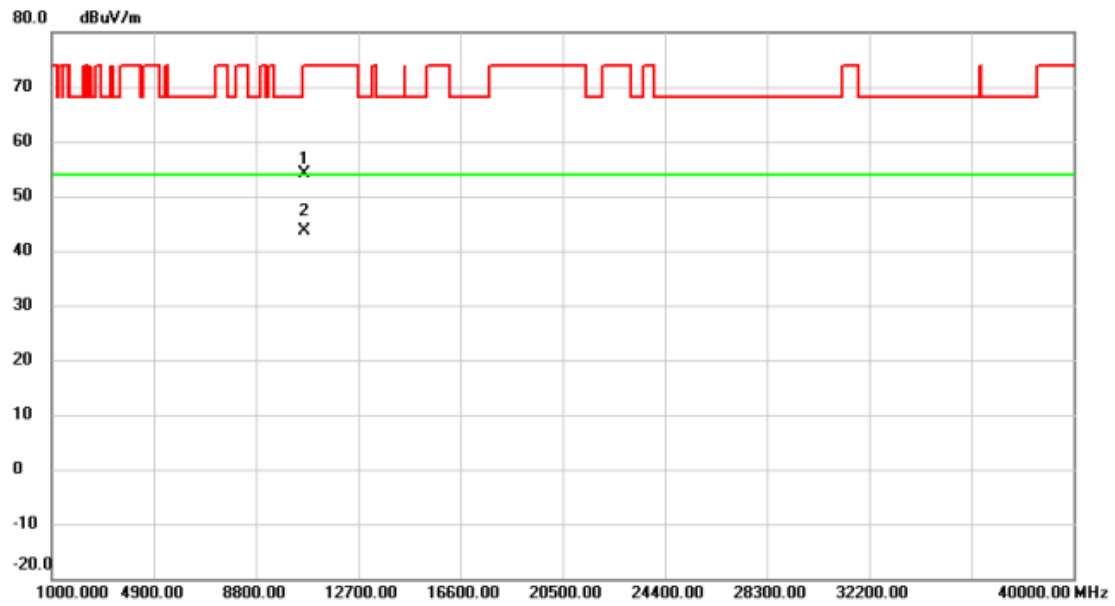


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5298.800	75.39	40.50	115.89	68.20	47.69	peak	No Limit
2 X	5299.000	69.78	40.50	110.28	68.20	42.08	AVG	No Limit
3	5350.000	15.43	40.59	56.02	74.00	-17.98	peak	
4	5350.000	7.65	40.59	48.24	54.00	-5.76	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX A Mode 5320 MHz	Polarization	Vertical
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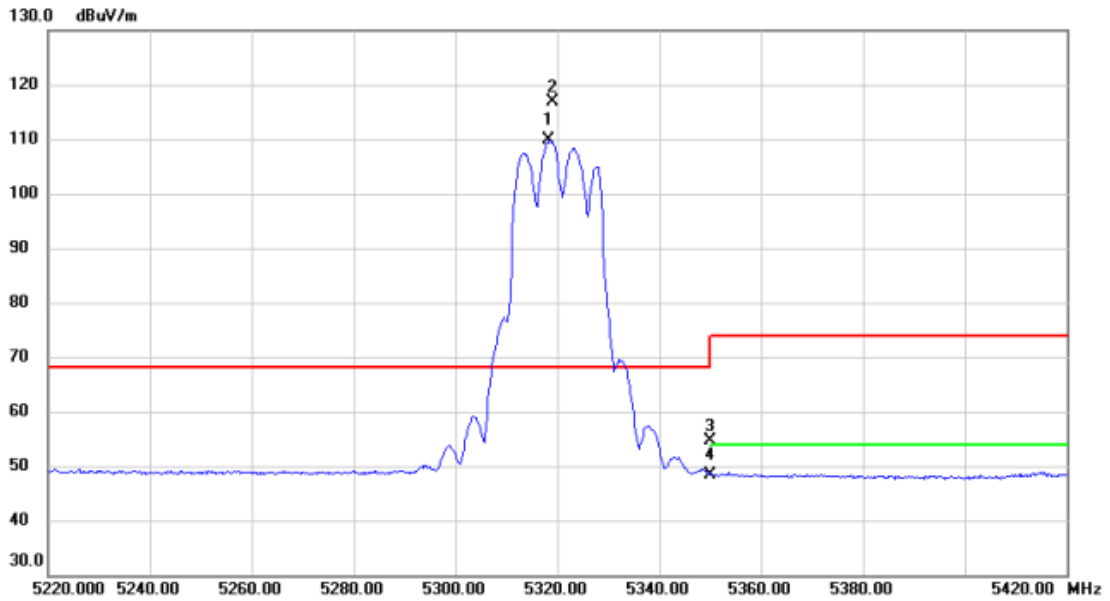


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10637.565	55.75	-1.60	54.15	74.00	-19.85	peak	
2 *	10638.490	45.19	-1.60	43.59	54.00	-10.41	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX A Mode 5320 MHz	Polarization	Horizontal
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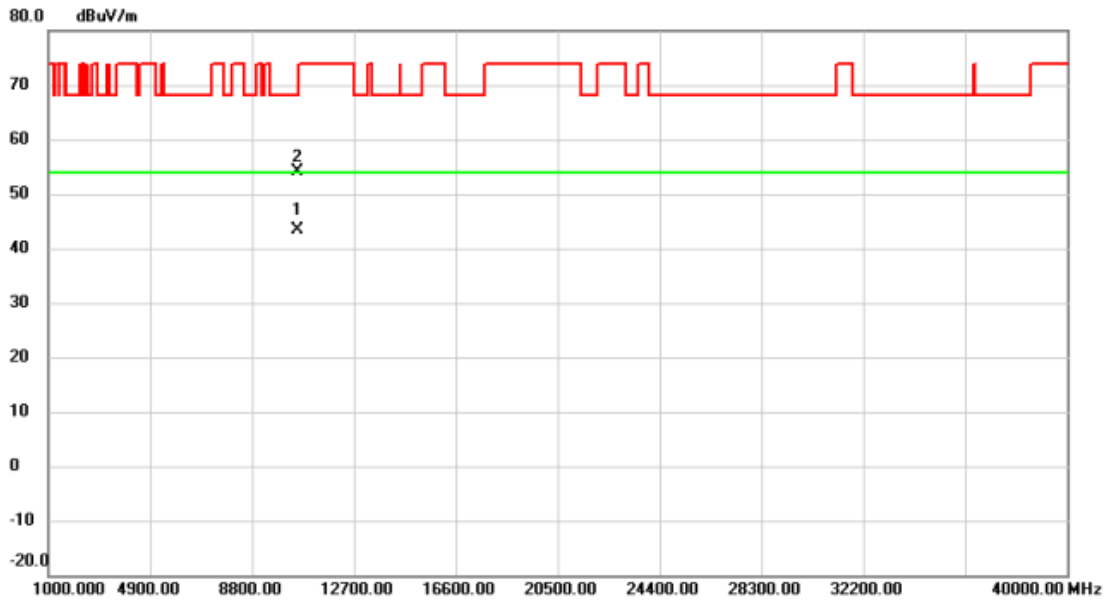


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 X	5318.400	69.29	40.53	109.82	68.20	41.62	AVG	No Limit
2 *	5319.000	76.44	40.54	116.98	68.20	48.78	peak	No Limit
3	5350.000	14.08	40.59	54.67	74.00	-19.33	peak	
4	5350.000	7.89	40.59	48.48	54.00	-5.52	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT20) Mode 5260 MHz	Polarization	Vertical
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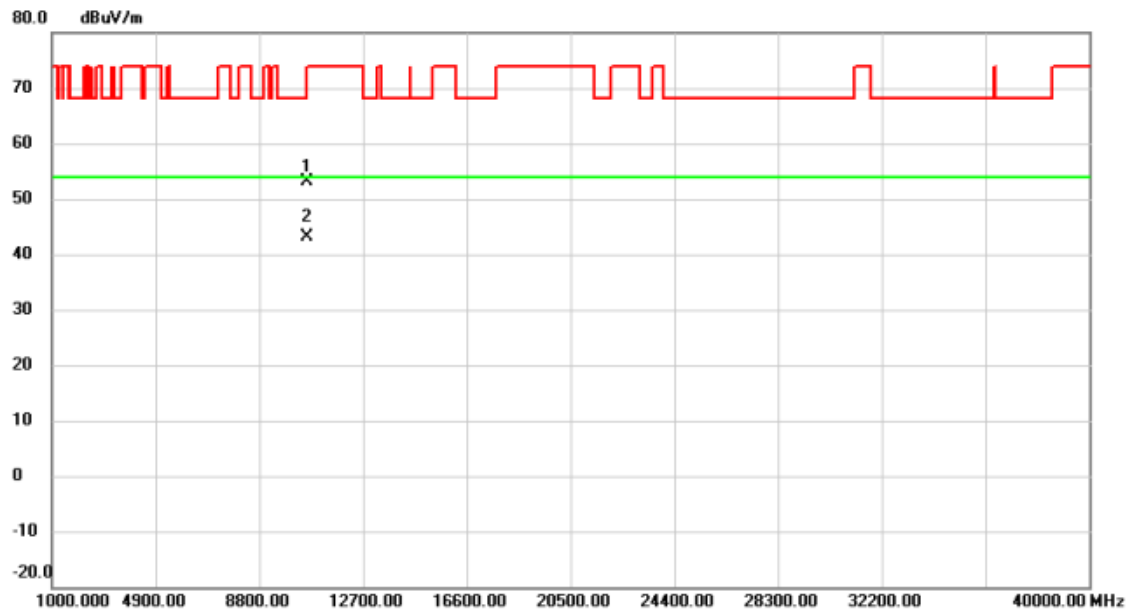


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10518.010	45.12	-1.85	43.27	54.00	-10.73	AVG	
2		10520.115	55.87	-1.85	54.02	68.20	-14.18	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT20) Mode 5300 MHz	Polarization	Vertical
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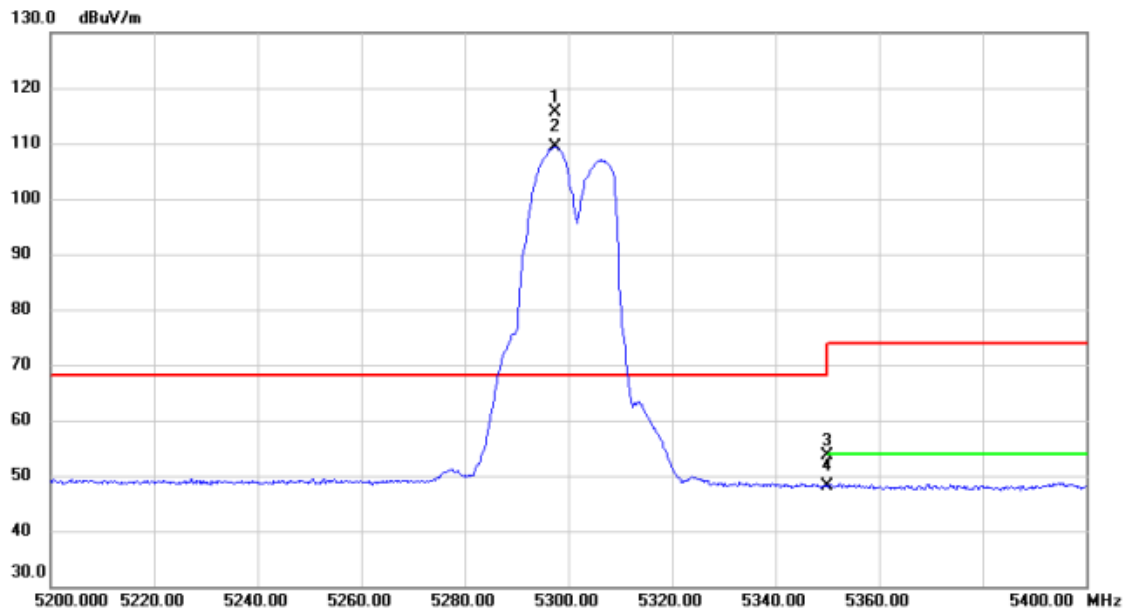


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10600.920	54.89	-1.69	53.20	74.00	-20.80	peak	
2 *	10601.180	44.83	-1.69	43.14	54.00	-10.86	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT20) Mode 5300 MHz	Polarization	Horizontal
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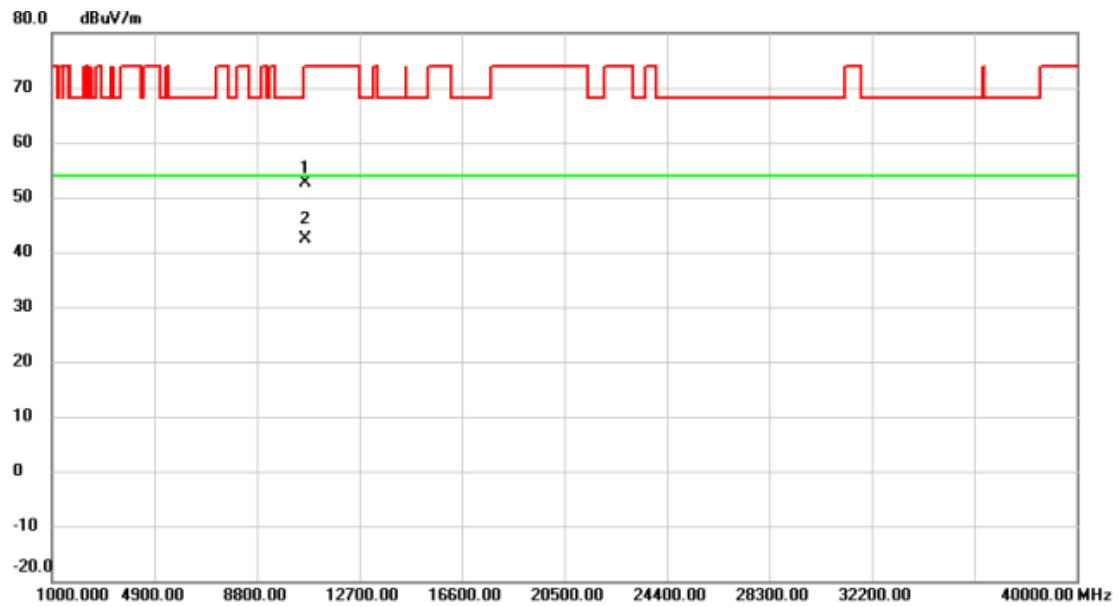
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	5297.400	75.18	40.50	115.68	68.20	47.48	peak	No Limit
2	X	5297.400	68.93	40.50	109.43	68.20	41.23	AVG	No Limit
3		5350.000	13.01	40.59	53.60	74.00	-20.40	peak	
4		5350.000	7.56	40.59	48.15	54.00	-5.85	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT20) Mode 5320 MHz	Polarization	Vertical
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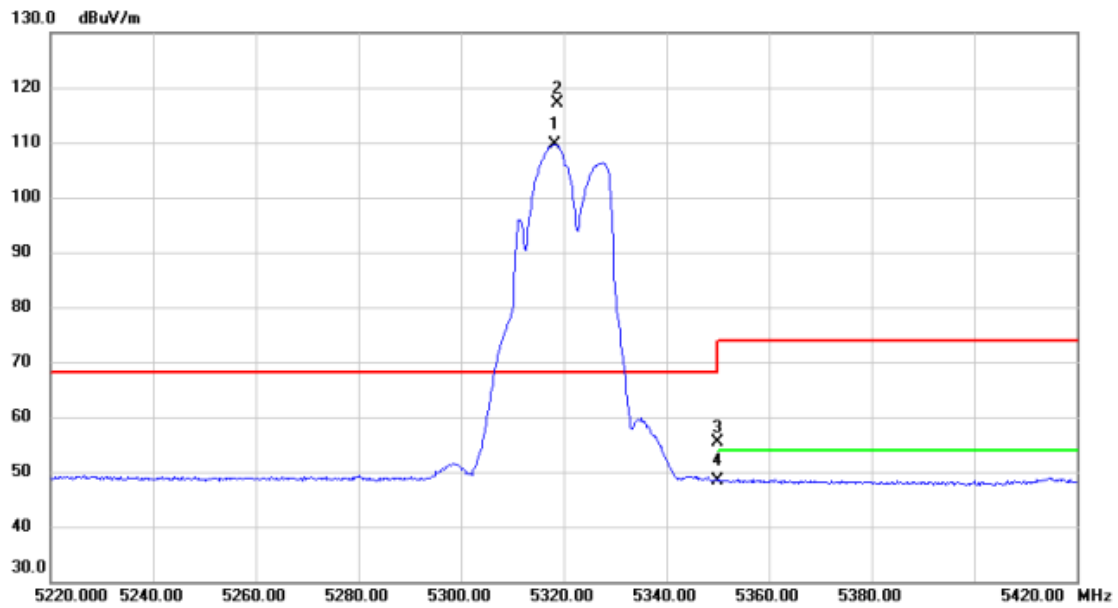


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10638.605	54.33	-1.60	52.73	74.00	-21.27	peak	
2 *	10639.805	43.91	-1.59	42.32	54.00	-11.68	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT20) Mode 5320 MHz	Polarization	Horizontal
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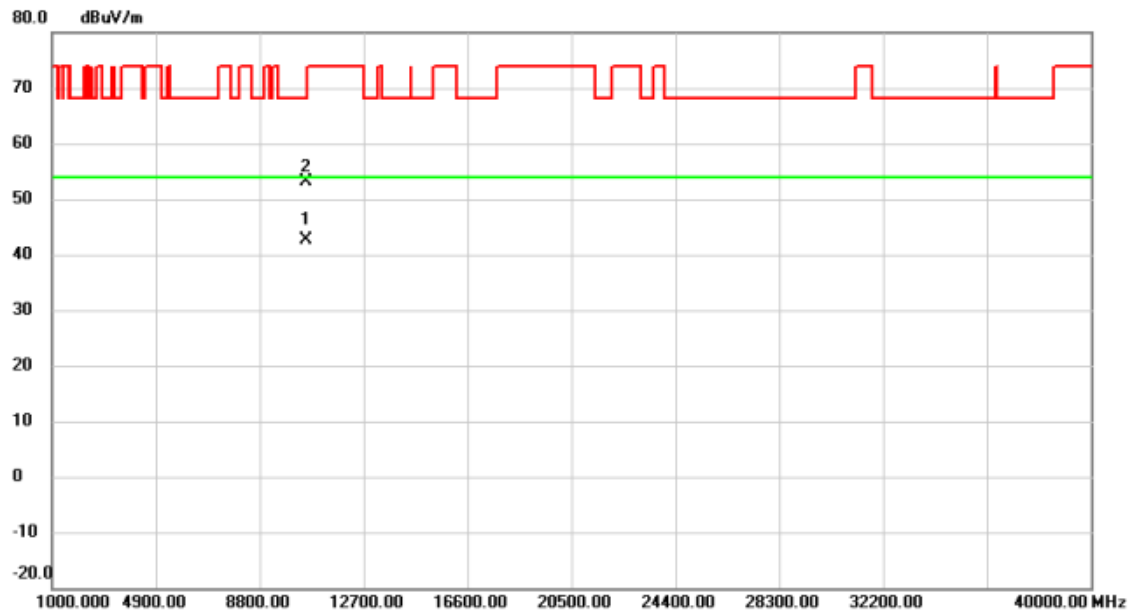


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5318.200	69.19	40.53	109.72	68.20	41.52	AVG	No Limit
2	*	5318.800	76.58	40.53	117.11	68.20	48.91	peak	No Limit
3		5350.000	14.82	40.59	55.41	74.00	-18.59	peak	
4		5350.000	7.89	40.59	48.48	54.00	-5.52	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT40) Mode 5270 MHz	Polarization	Vertical
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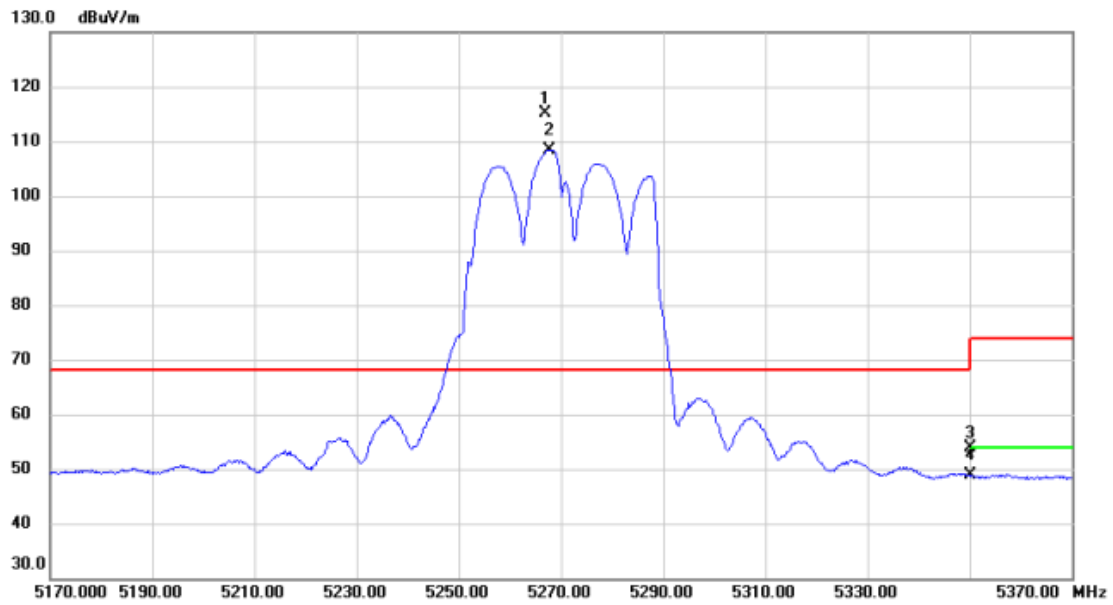


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10539.845	44.51	-1.81	42.70	54.00	-11.30	AVG	
2		10540.160	54.98	-1.81	53.17	68.20	-15.03	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT40) Mode 5270 MHz	Polarization	Horizontal
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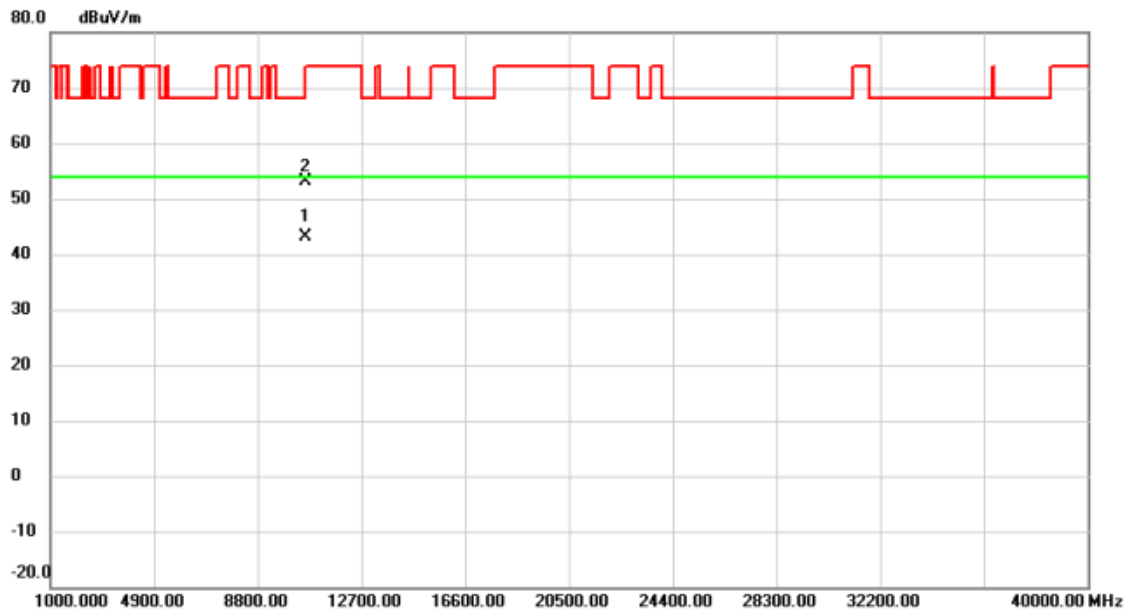


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	5267.000	74.57	40.44	115.01	68.20	46.81	peak	No Limit
2	X	5267.600	68.01	40.44	108.45	68.20	40.25	AVG	No Limit
3		5350.000	13.34	40.59	53.93	74.00	-20.07	peak	
4		5350.000	8.18	40.59	48.77	54.00	-5.23	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT40) Mode 5310 MHz	Polarization	Vertical
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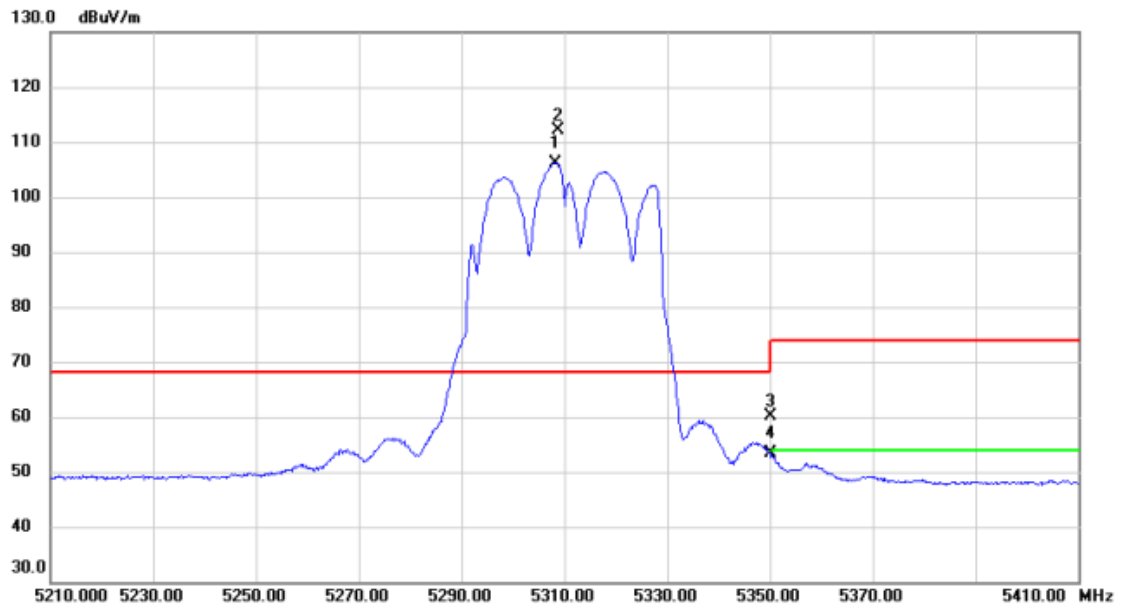


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10619.970	44.80	-1.64	43.16	54.00	-10.84	AVG	
2	10619.100	54.72	-1.64	53.08	74.00	-20.92	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT40) Mode 5310 MHz	Polarization	Horizontal
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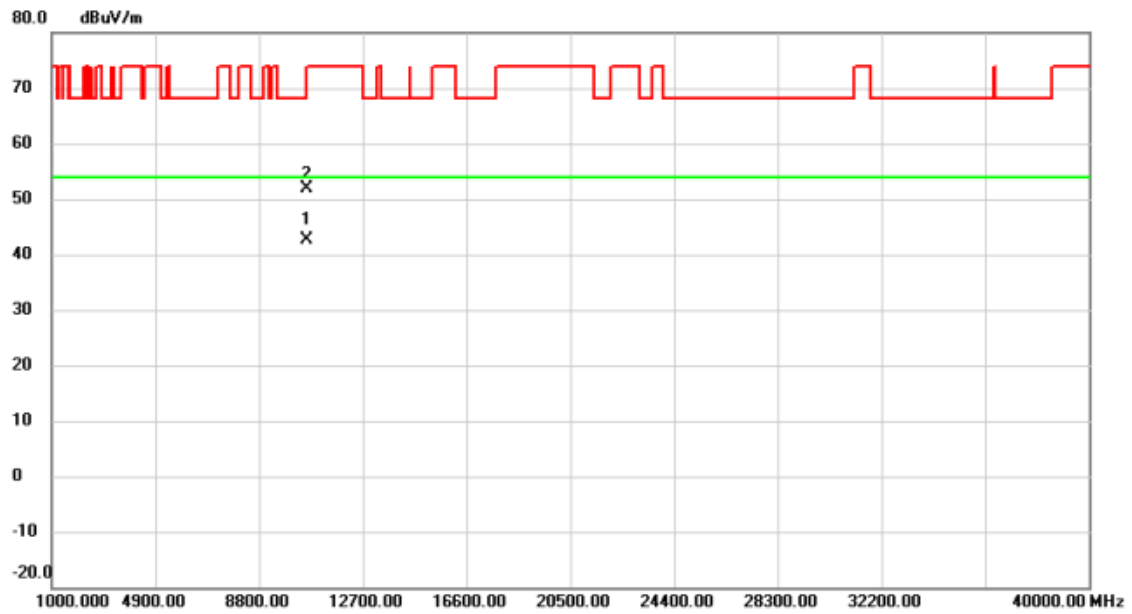


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5308.200	65.72	40.51	106.23	68.20	38.03	AVG	No Limit
2	*	5308.800	71.61	40.52	112.13	68.20	43.93	peak	No Limit
3		5350.000	19.48	40.59	60.07	74.00	-13.93	peak	
4		5350.000	12.84	40.59	53.43	54.00	-0.57	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT80) Mode 5290 MHz	Polarization	Vertical
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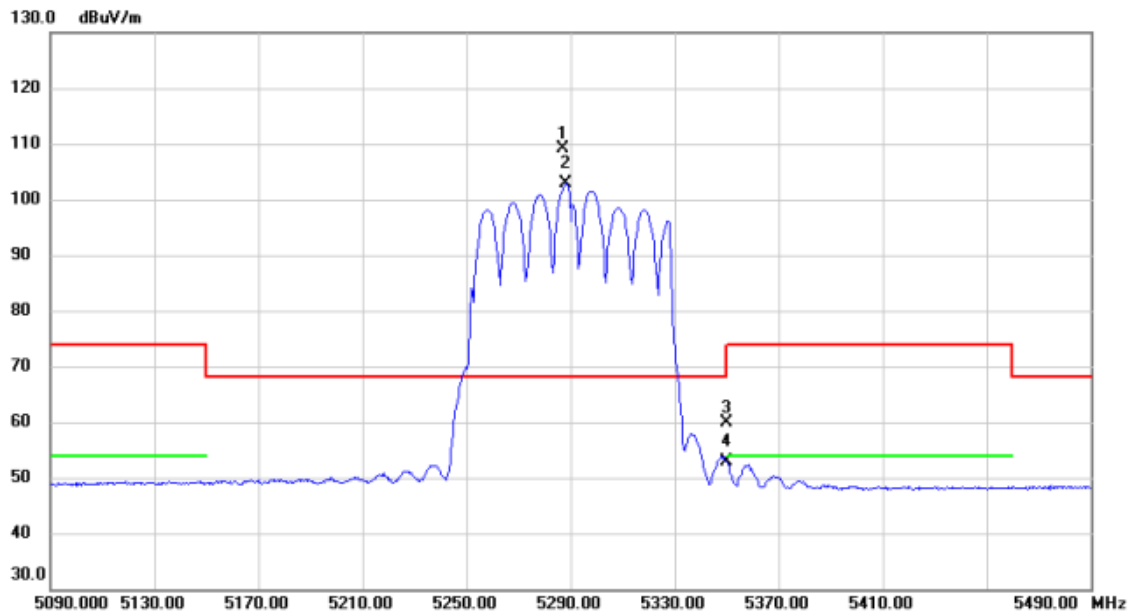


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10579.830	44.47	-1.73	42.74	54.00	-11.26	AVG	
2		10580.130	53.70	-1.73	51.97	68.20	-16.23	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AC(VHT80) Mode 5290 MHz	Polarization	Horizontal
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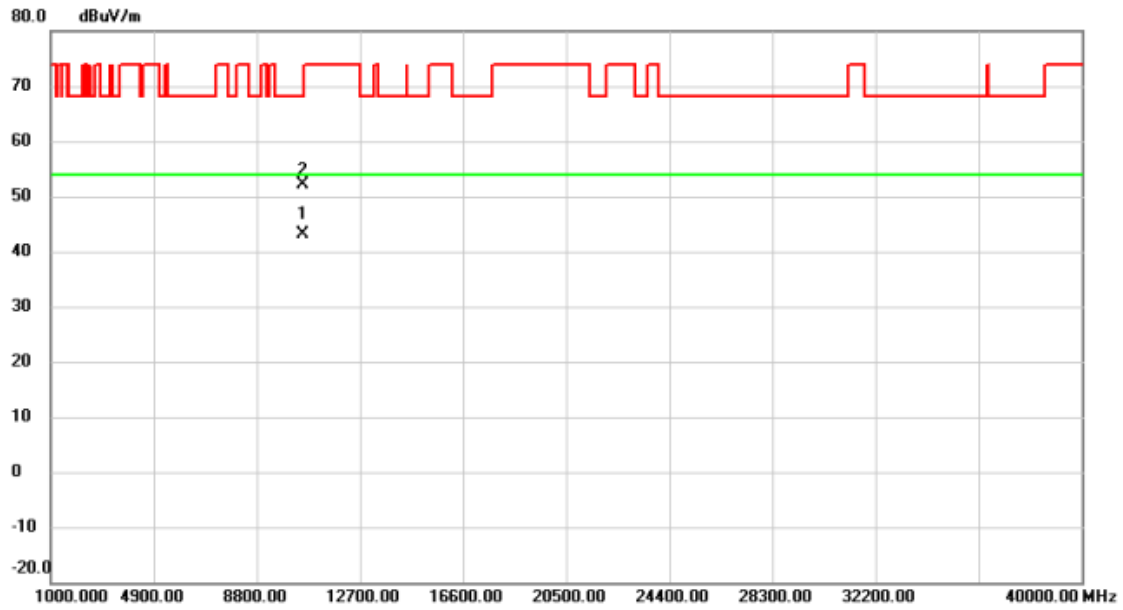
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	5287.200	68.66	40.47	109.13	68.20	40.93	peak	No Limit
2	X	5288.400	62.34	40.48	102.82	68.20	34.62	AVG	No Limit
3		5350.000	19.32	40.59	59.91	74.00	-14.09	peak	
4		5350.000	12.18	40.59	52.77	54.00	-1.23	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE20) Mode 5260 MHz	Polarization	Vertical
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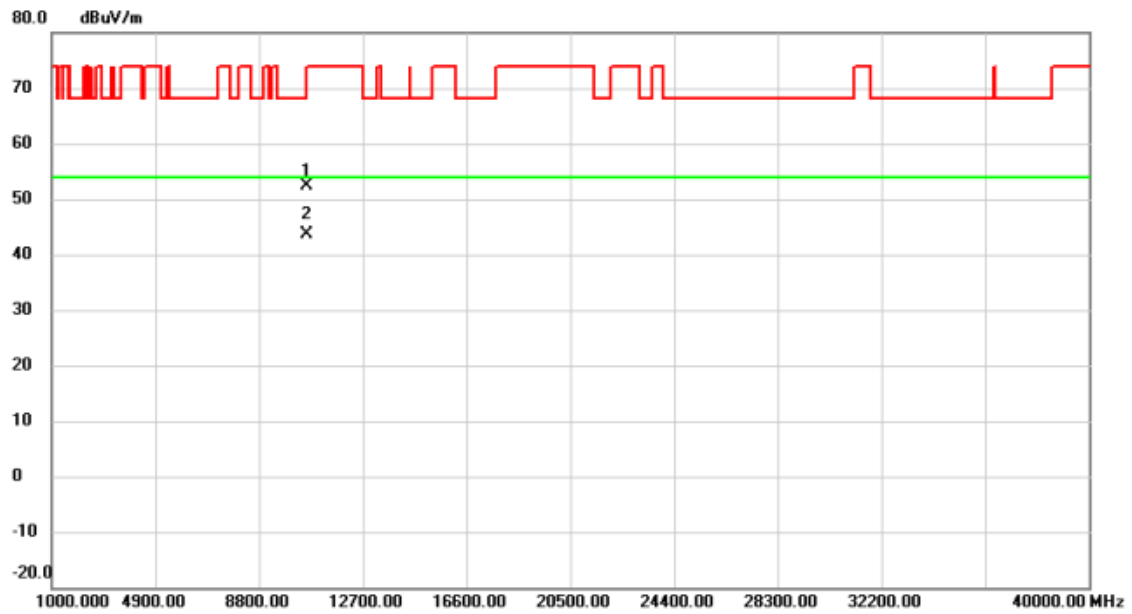
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10519.950	45.07	-1.85	43.22	54.00	-10.78	AVG	
2	10520.030	53.99	-1.85	52.14	68.20	-16.06	peak	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE20) Mode 5300 MHz	Polarization	Vertical
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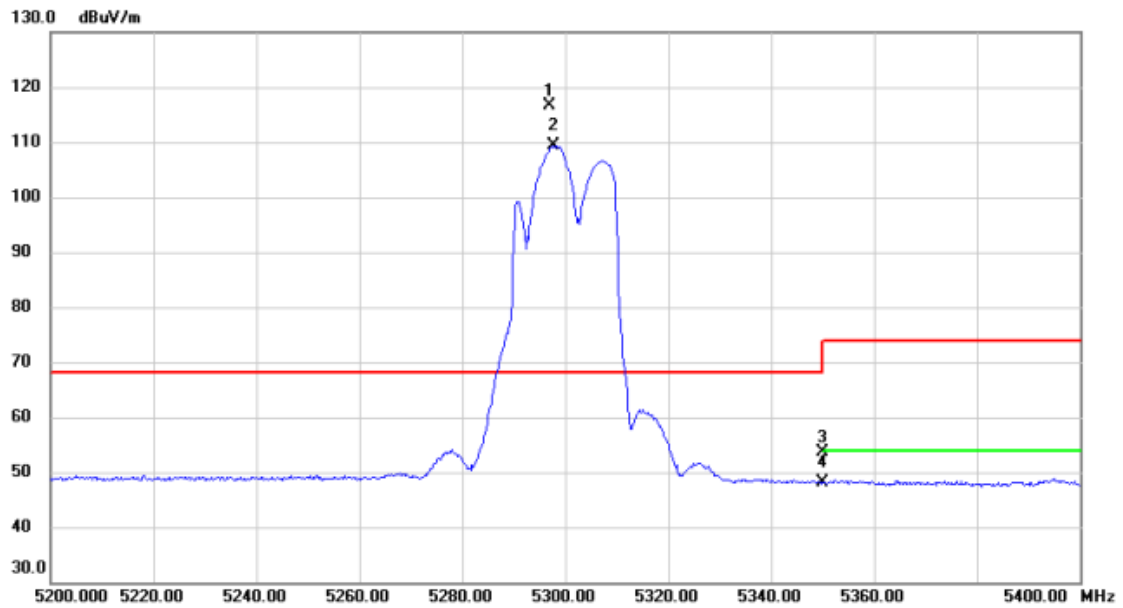


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		10599.840	54.19	-1.69	52.50	68.20	-15.70	peak	
2	*	10599.840	45.39	-1.69	43.70	54.00	-10.30	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE20) Mode 5300 MHz	Polarization	Horizontal
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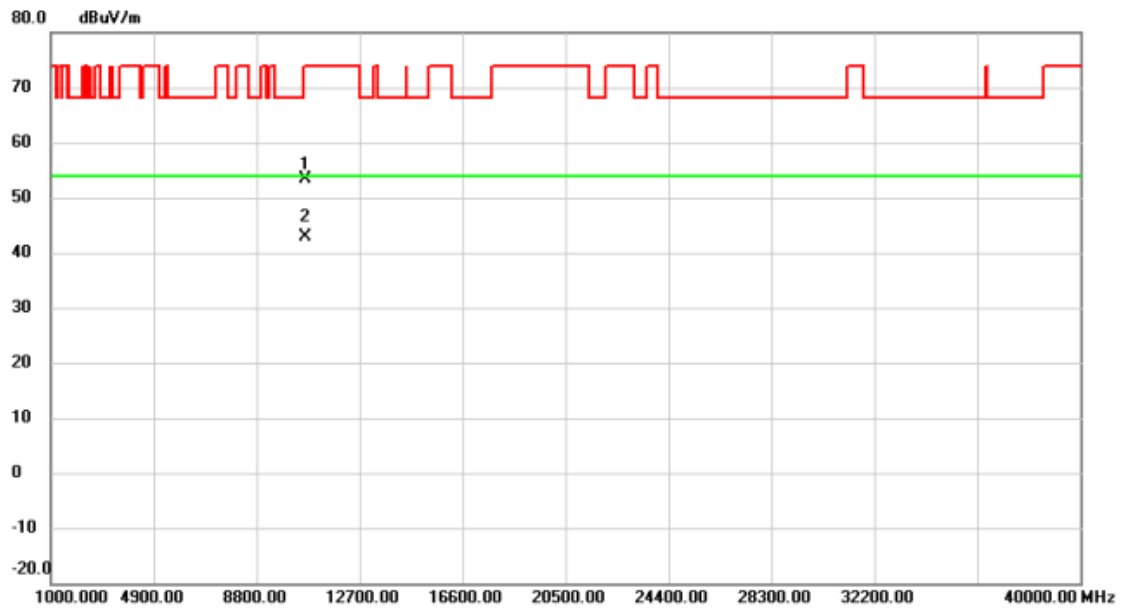


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5297.000	76.03	40.50	116.53	68.20	48.33	peak	No Limit
2 X	5297.600	68.82	40.50	109.32	68.20	41.12	AVG	No Limit
3	5350.000	13.12	40.59	53.71	74.00	-20.29	peak	
4	5350.000	7.66	40.59	48.25	54.00	-5.75	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE20) Mode 5320 MHz	Polarization	Vertical
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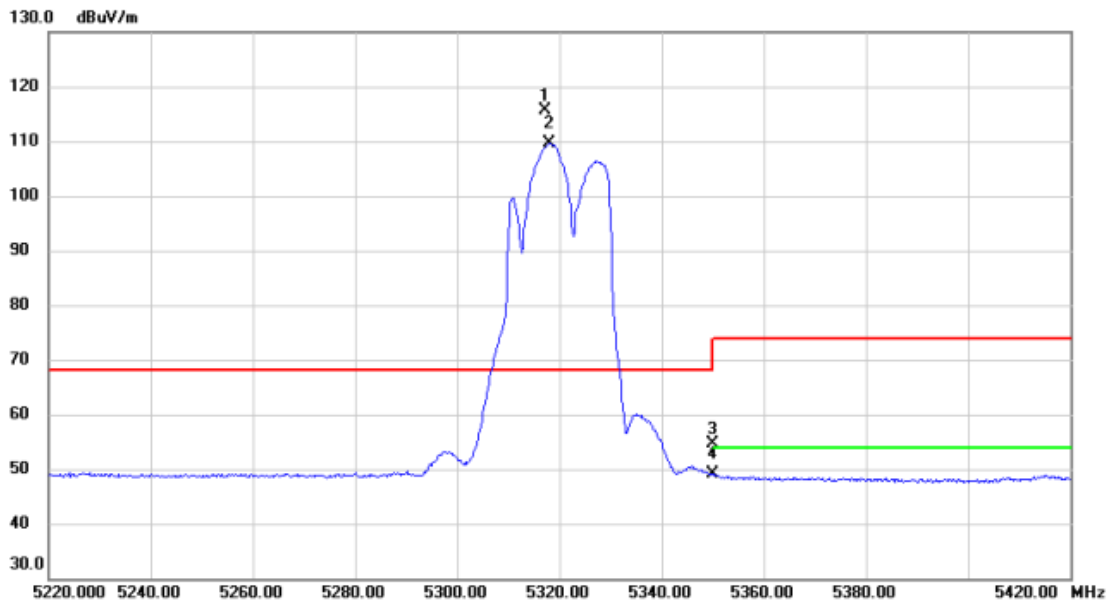


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10639.435	54.89	-1.59	53.30	74.00	-20.70	peak	
2	*	10639.955	44.40	-1.59	42.81	54.00	-11.19	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE20) Mode 5320 MHz	Polarization	Horizontal
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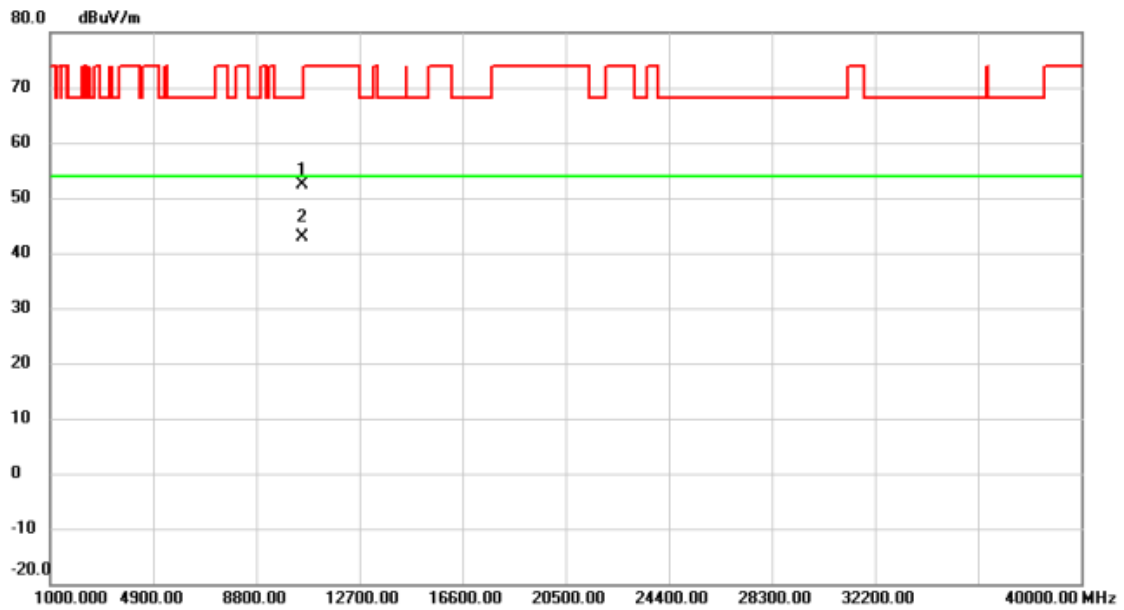


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	5317.200	74.98	40.53	115.51	68.20	47.31	peak	No Limit
2	X	5318.000	69.03	40.53	109.56	68.20	41.36	AVG	No Limit
3		5350.000	14.05	40.59	54.64	74.00	-19.36	peak	
4		5350.000	8.57	40.59	49.16	54.00	-4.84	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE40) Mode 5270 MHz	Polarization	Vertical
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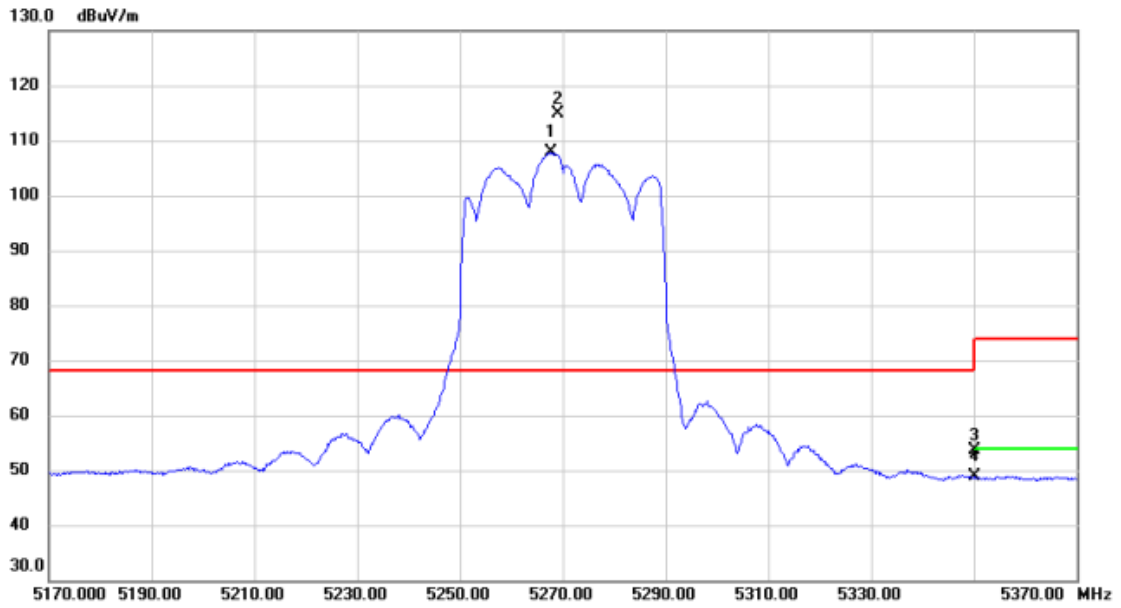


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		10537.785	54.14	-1.82	52.32	68.20	-15.88	peak	
2	*	10539.870	44.76	-1.81	42.95	54.00	-11.05	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE40) Mode 5270 MHz	Polarization	Horizontal
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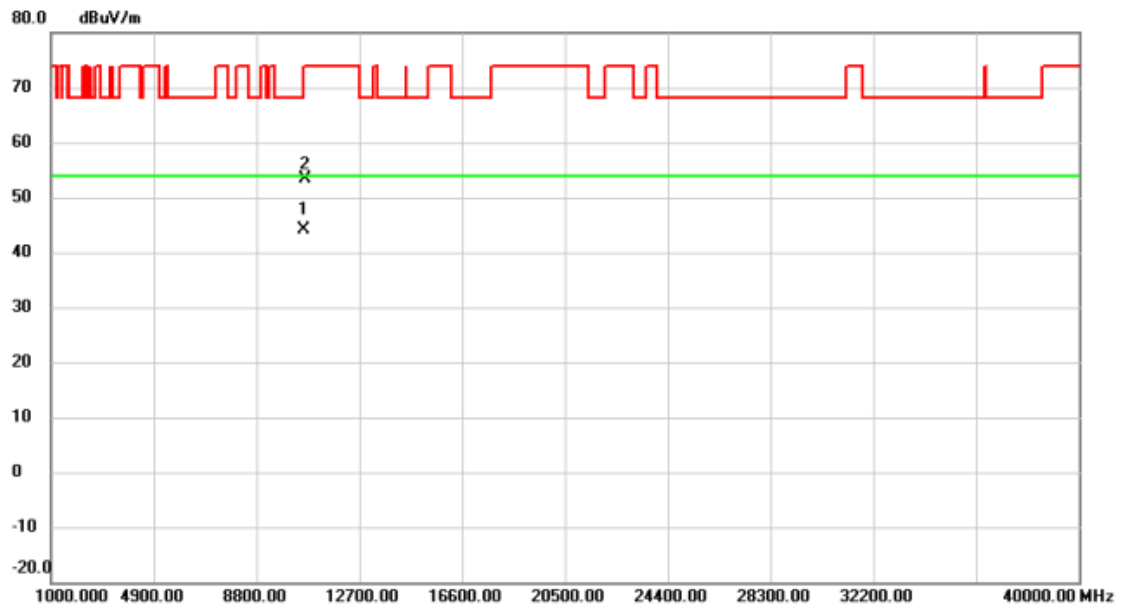


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5267.800	67.38	40.44	107.82	68.20	39.62	AVG	No Limit
2	*	5269.200	74.35	40.44	114.79	68.20	46.59	peak	No Limit
3		5350.000	13.03	40.59	53.62	74.00	-20.38	peak	
4		5350.000	8.29	40.59	48.88	54.00	-5.12	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE40) Mode 5310 MHz	Polarization	Vertical
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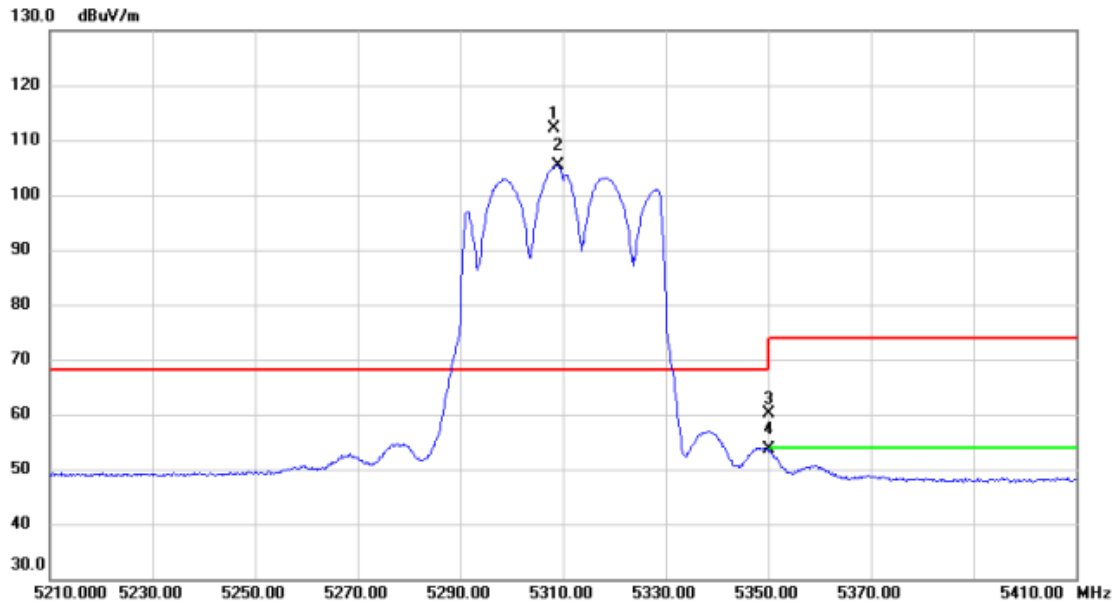


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10619.900	45.83	-1.64	44.19	54.00	-9.81	AVG	
2	10620.080	55.00	-1.64	53.36	74.00	-20.64	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE40) Mode 5310 MHz	Polarization	Horizontal
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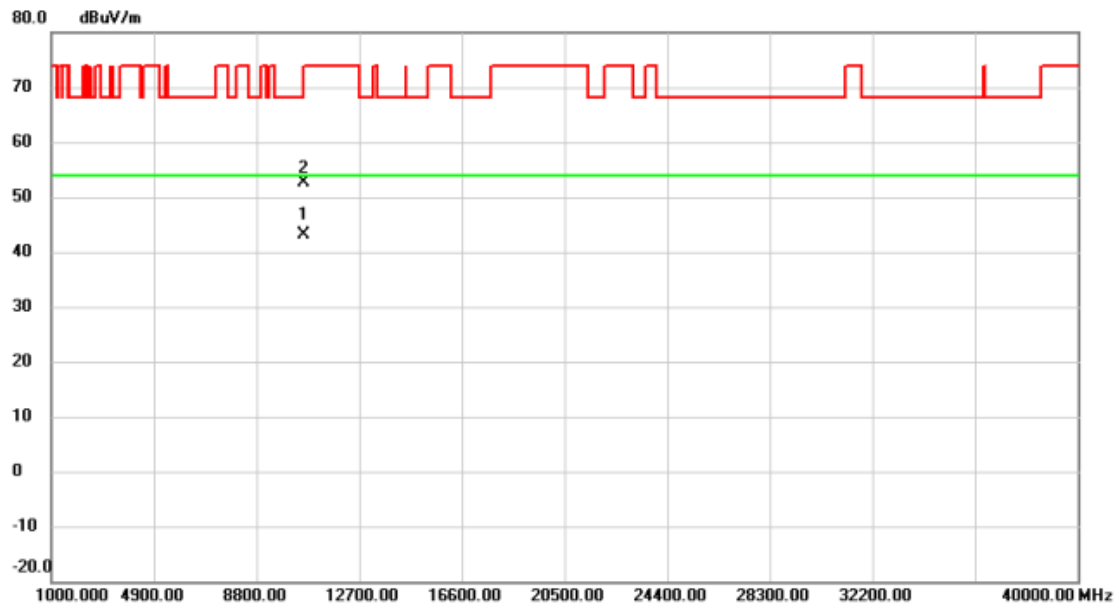
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	5308.400	71.54	40.52	112.06	68.20	43.86	peak	No Limit
2	X	5309.200	64.81	40.52	105.33	68.20	37.13	AVG	No Limit
3		5350.000	19.55	40.59	60.14	74.00	-13.86	peak	
4		5350.000	13.09	40.59	53.68	54.00	-0.32	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE80) Mode 5290 MHz	Polarization	Vertical
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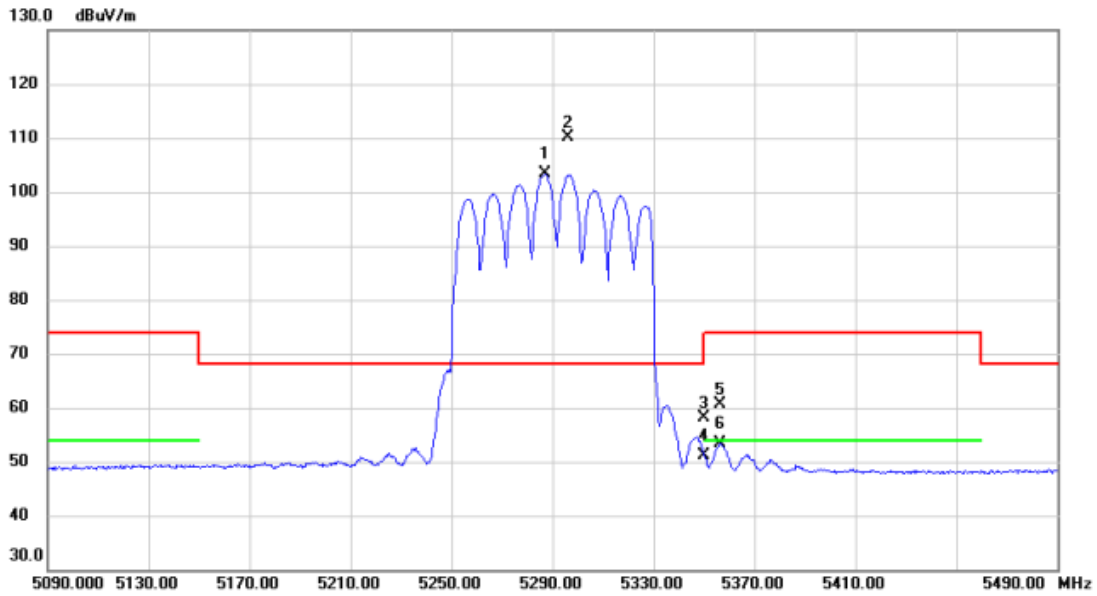
No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10580.070	44.95	-1.73	43.22	54.00	-10.78	AVG	
2	10580.140	54.37	-1.73	52.64	68.20	-15.56	peak	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2A_TX AX(HE80) Mode 5290 MHz	Polarization	Horizontal
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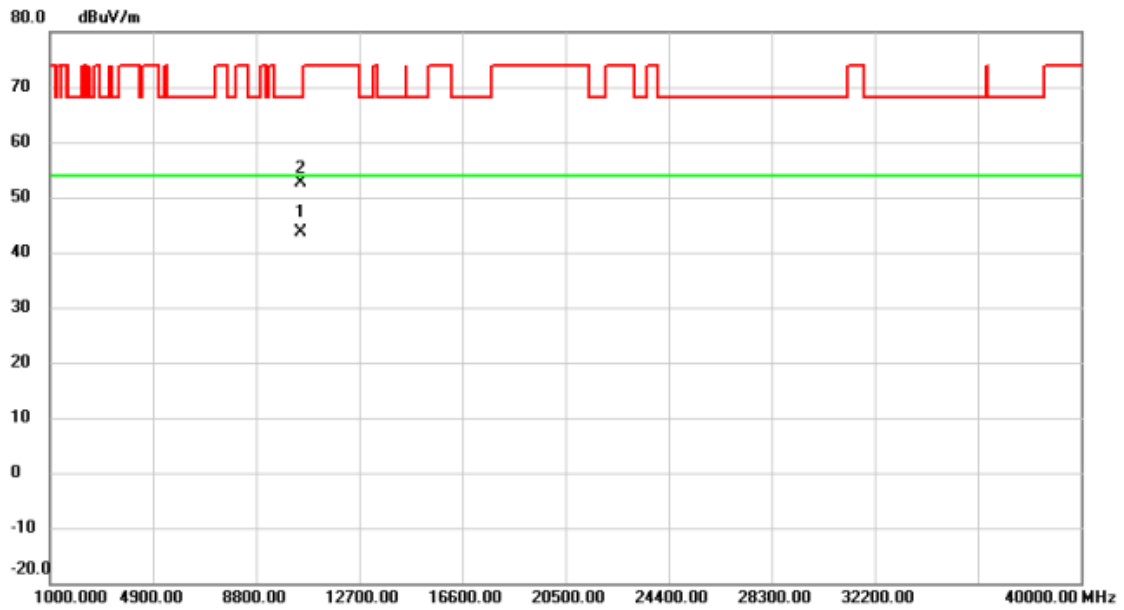


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV/m	dBuV/m	dB		
1	X	5287.200	62.85	40.47	103.32	68.20	35.12	AVG	No Limit
2	*	5296.400	69.53	40.50	110.03	68.20	41.83	peak	No Limit
3		5350.000	17.50	40.59	58.09	74.00	-15.91	peak	
4		5350.000	10.65	40.59	51.24	54.00	-2.76	AVG	
5		5356.400	20.06	40.60	60.66	74.00	-13.34	peak	
6		5356.400	12.67	40.60	53.27	54.00	-0.73	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1+UNII-2A_TX AC(VHT160) Mode 5250 MHz	Polarization	Vertical
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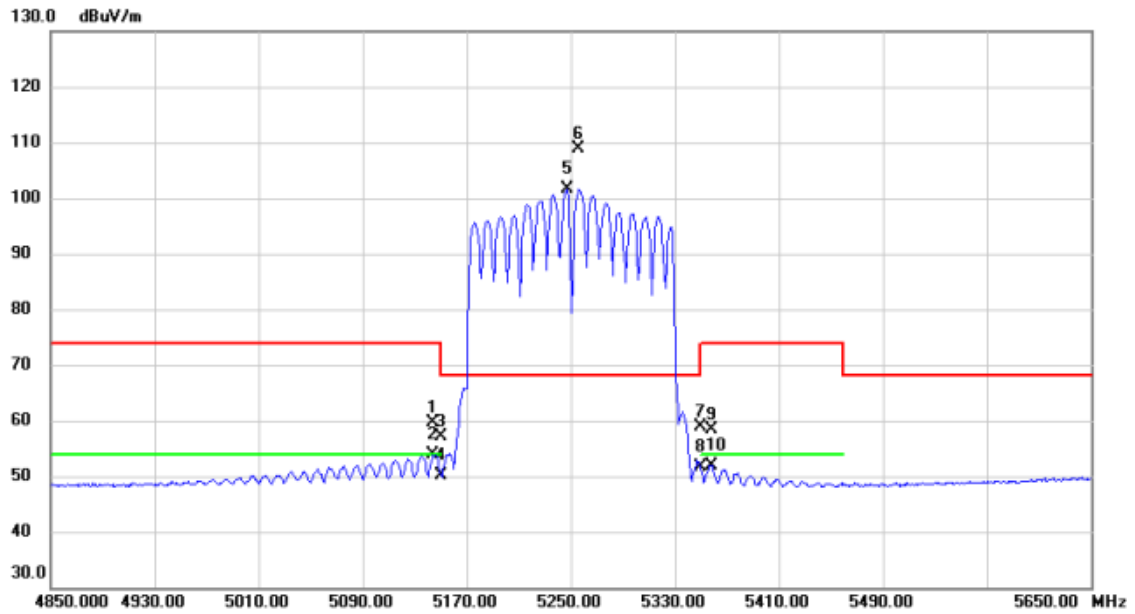


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10499.890	45.42	-1.91	43.51	54.00	-10.49	AVG	
2		10500.305	54.43	-1.89	52.54	68.20	-15.66	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1+UNII-2A_TX AC(VHT160) Mode 5250 MHz	Polarization	Horizontal
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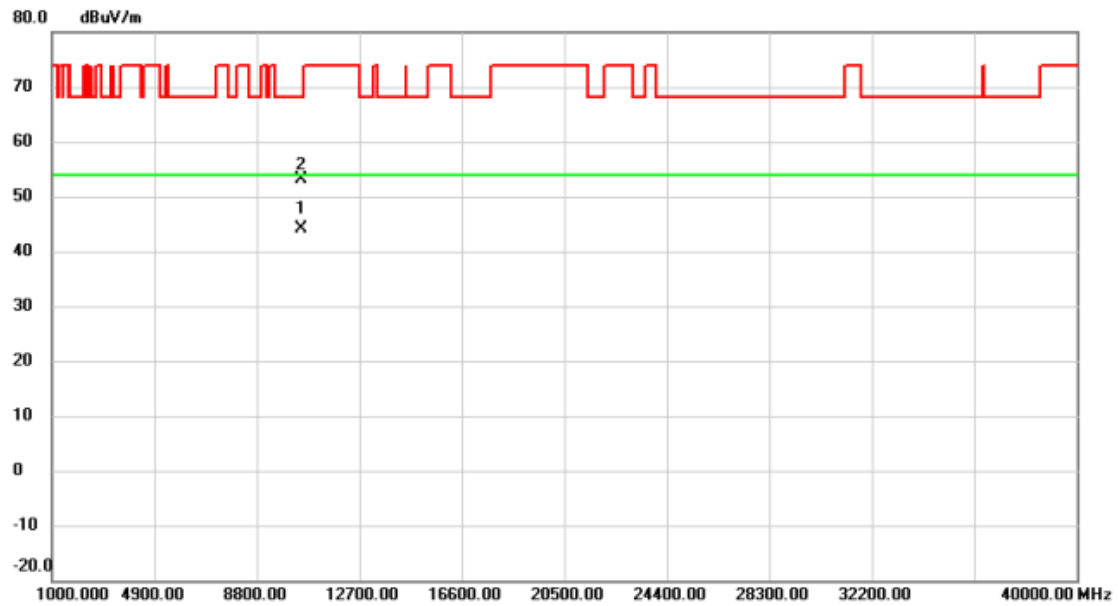
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5144.400	19.47	40.21	59.68	74.00	-14.32	peak	
2		5144.400	13.61	40.21	53.82	54.00	-0.18	AVG	
3		5150.000	16.90	40.22	57.12	74.00	-16.88	peak	
4		5150.000	9.91	40.22	50.13	54.00	-3.87	AVG	
5	X	5247.600	61.13	40.40	101.53	68.20	33.33	AVG	No Limit
6	*	5256.400	68.38	40.42	108.80	68.20	40.60	peak	No Limit
7		5350.000	18.23	40.59	58.82	74.00	-15.18	peak	
8		5350.000	11.07	40.59	51.66	54.00	-2.34	AVG	
9		5358.000	17.89	40.60	58.49	74.00	-15.51	peak	
10		5358.000	11.30	40.60	51.90	54.00	-2.10	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1+UNII-2A_TX AX(HE160) Mode 5250 MHz	Polarization	Vertical
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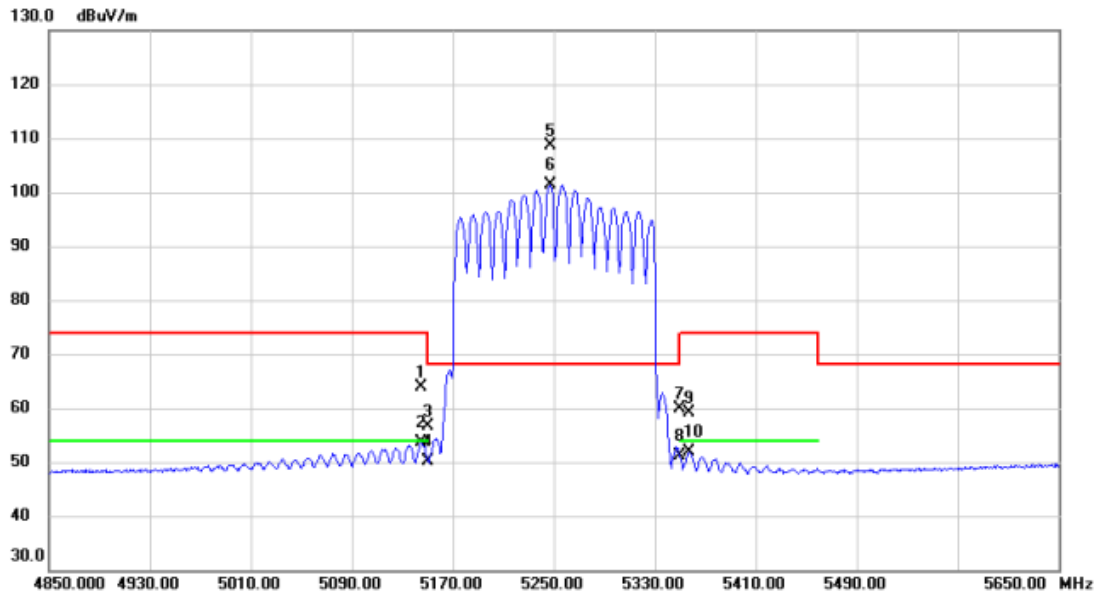


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10499.925	45.96	-1.91	44.05	54.00	-9.95	AVG	
2	10500.330	54.95	-1.89	53.06	68.20	-15.14	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-1+UNII-2A_TX AX(HE160) Mode 5250 MHz	Polarization	Horizontal
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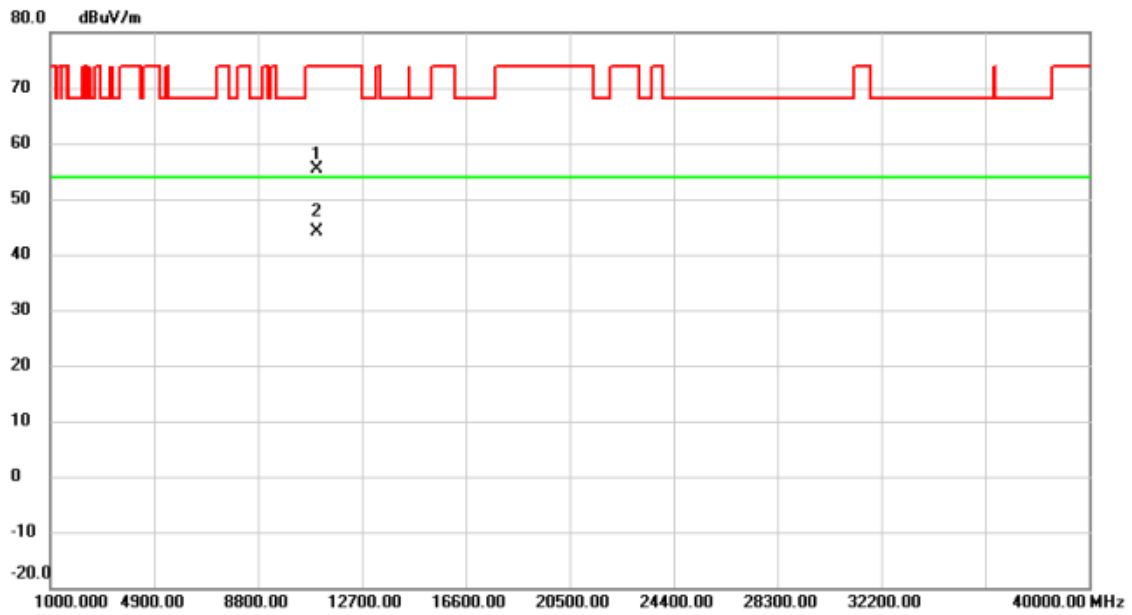
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5145.200	23.57	40.21	63.78	74.00	-10.22	peak	
2		5145.200	13.49	40.21	53.70	54.00	-0.30	AVG	
3		5150.000	16.52	40.22	56.74	74.00	-17.26	peak	
4		5150.000	9.98	40.22	50.20	54.00	-3.80	AVG	
5	*	5246.800	68.22	40.40	108.62	68.20	40.42	peak	No Limit
6	X	5246.800	60.98	40.40	101.38	68.20	33.18	AVG	No Limit
7		5350.000	19.27	40.59	59.86	74.00	-14.14	peak	
8		5350.000	10.65	40.59	51.24	54.00	-2.76	AVG	
9		5357.200	18.59	40.60	59.19	74.00	-14.81	peak	
10		5357.200	11.35	40.60	51.95	54.00	-2.05	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX A Mode 5500 MHz	Polarization	Vertical
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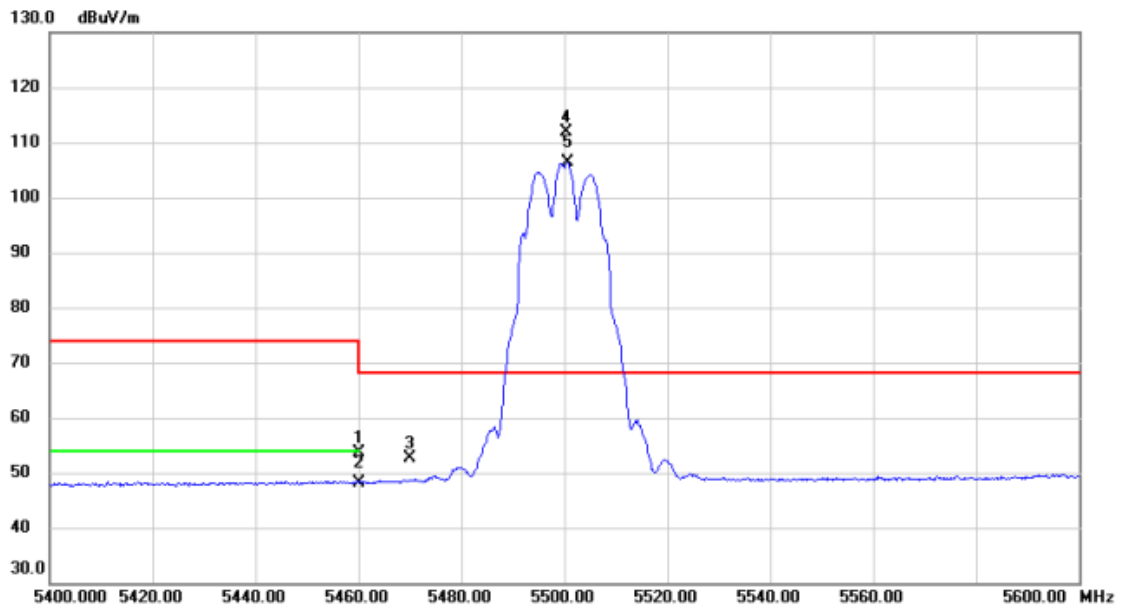


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10998.685	56.15	-0.83	55.32	74.00	-18.68	peak	
2	*	10998.920	45.00	-0.83	44.17	54.00	-9.83	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX A Mode 5500 MHz	Polarization	Horizontal
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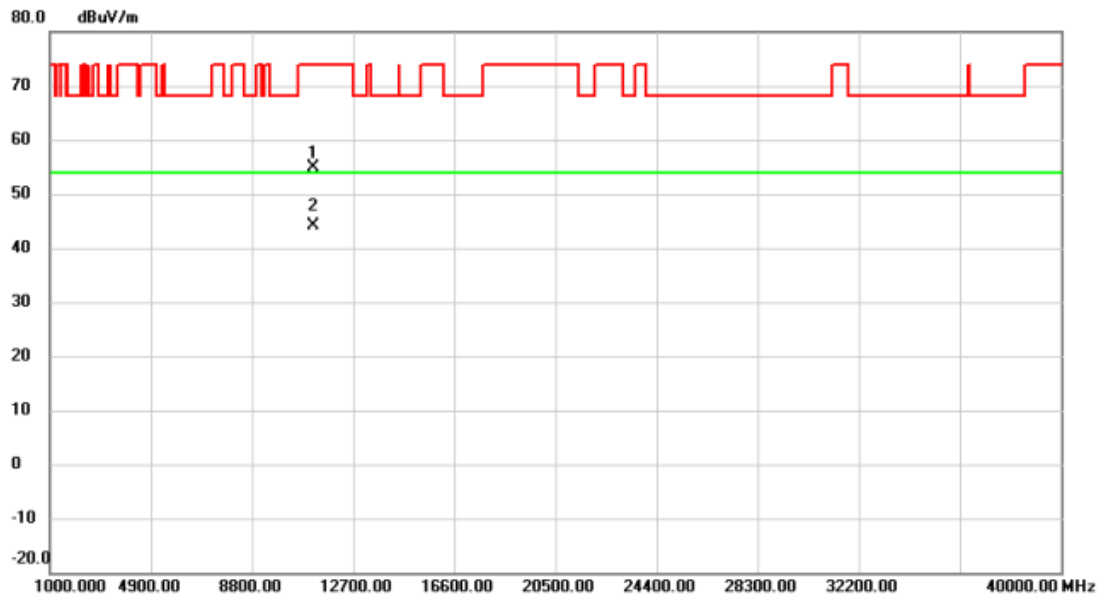


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5460.000	12.95	40.80	53.75	74.00	-20.25	peak	
2		5460.000	7.31	40.80	48.11	54.00	-5.89	AVG	
3		5470.000	11.85	40.82	52.67	68.20	-15.53	peak	
4	*	5500.400	71.07	40.88	111.95	68.20	43.75	peak	No Limit
5	X	5500.600	65.39	40.88	106.27	68.20	38.07	AVG	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX A Mode 5580 MHz	Polarization	Vertical
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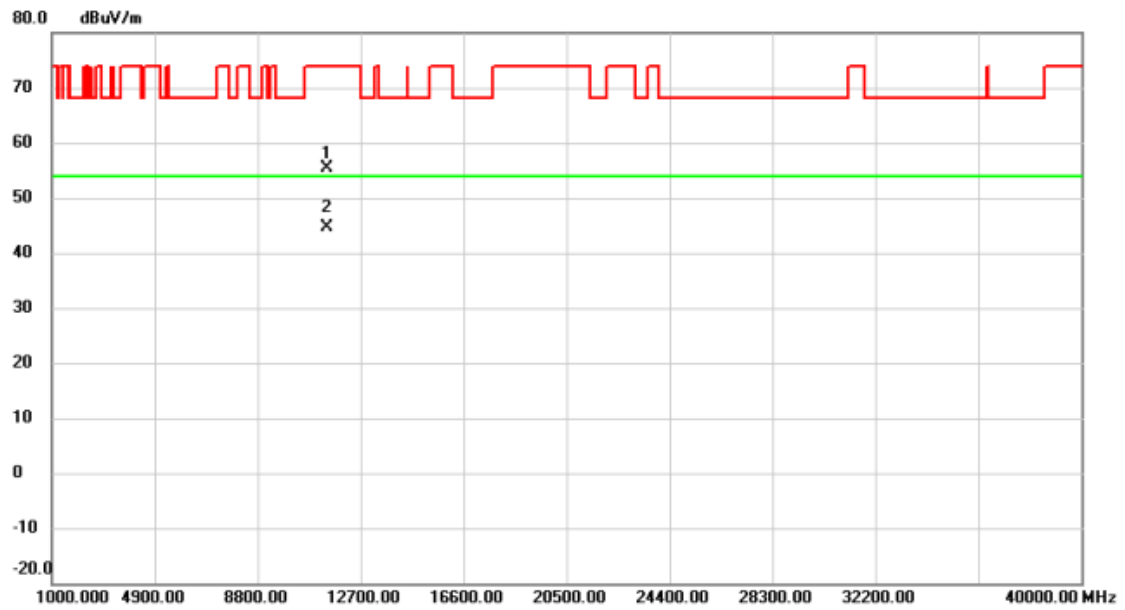


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11157.685	55.64	-0.81	54.83	74.00	-19.17	peak	
2	*	11157.875	45.04	-0.81	44.23	54.00	-9.77	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX A Mode 5700 MHz	Polarization	Vertical
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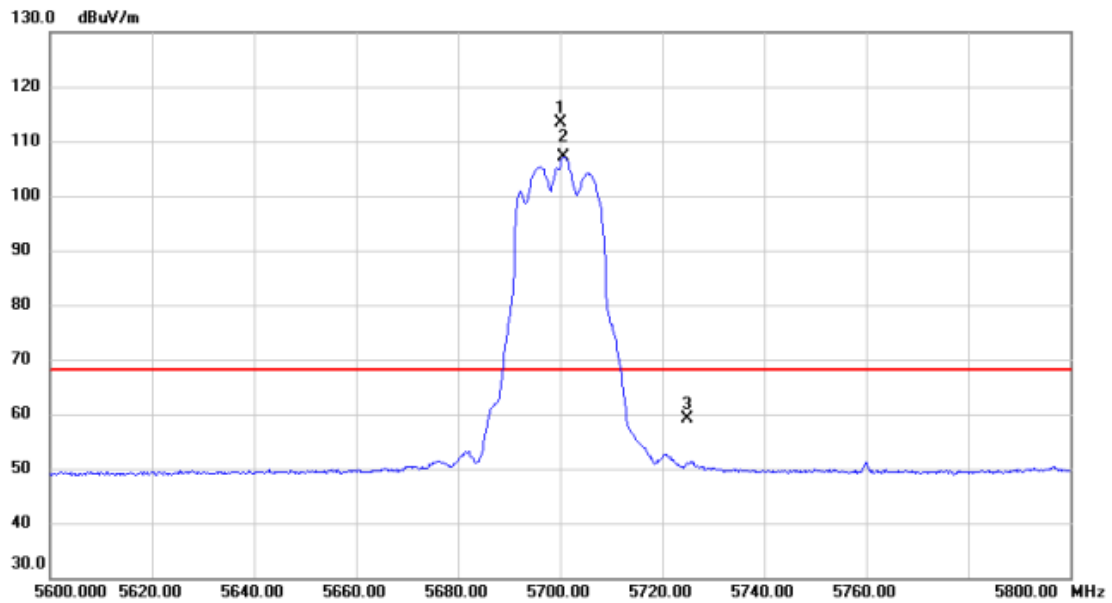


No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11400.020	56.05	-0.78	55.27	74.00	-18.73	peak	
2 *	11402.025	45.39	-0.78	44.61	54.00	-9.39	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX A Mode 5700 MHz	Polarization	Horizontal
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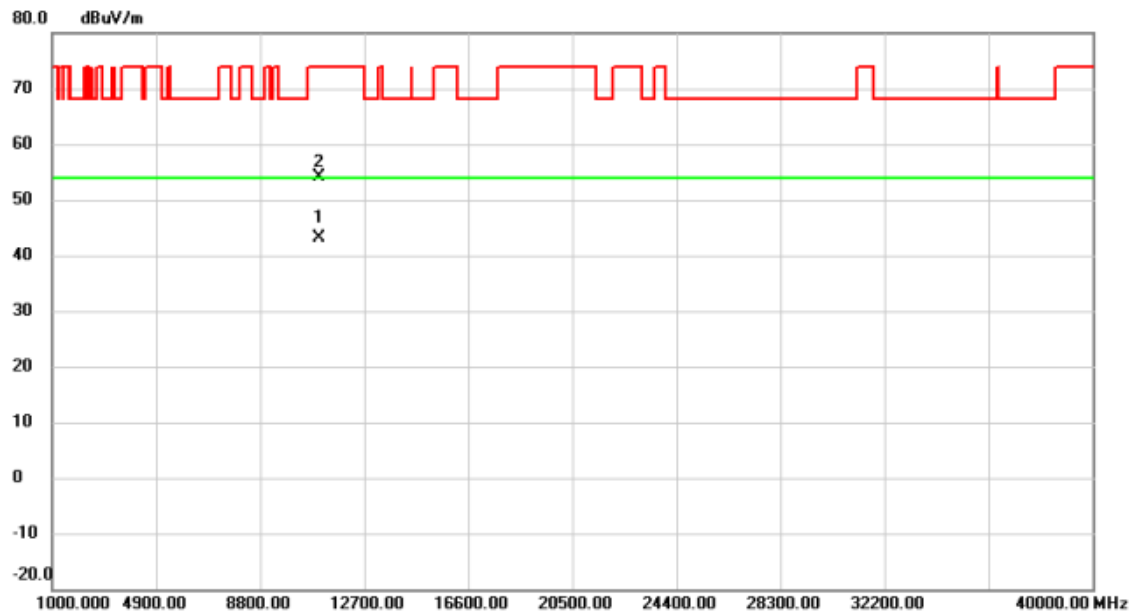


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	5700.200	71.98	41.37	113.35	68.20	45.15	peak	No Limit
2	X	5700.600	65.81	41.37	107.18	68.20	38.98	AVG	No Limit
3		5725.000	17.66	41.43	59.09	68.20	-9.11	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX AC(VHT20) Mode 5500 MHz	Polarization	Vertical
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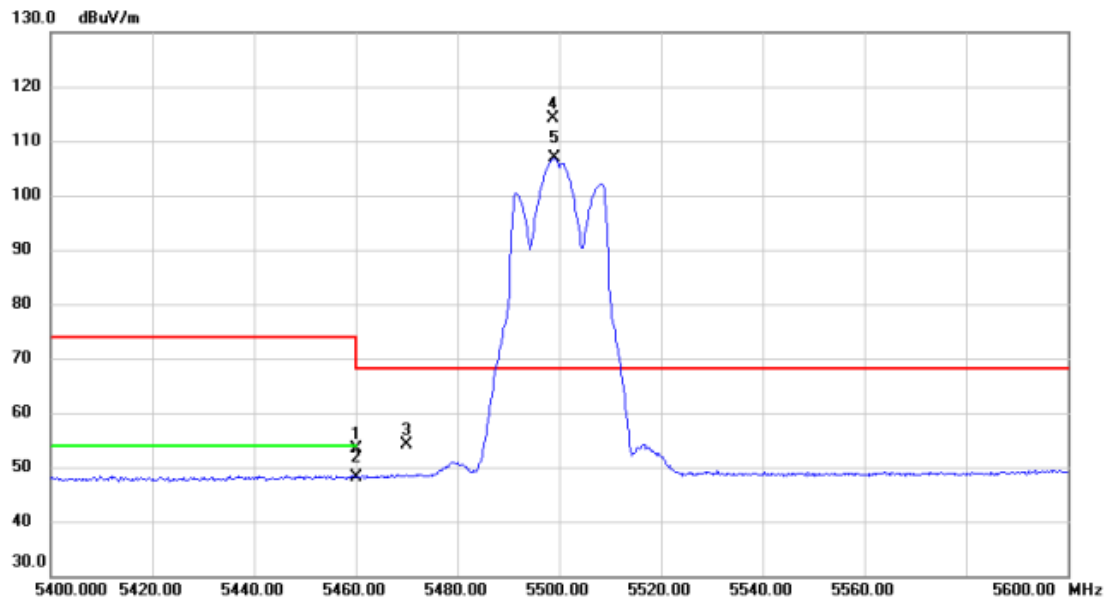


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10999.315	43.97	-0.83	43.14	54.00	-10.86	AVG	
2		11002.395	54.96	-0.83	54.13	74.00	-19.87	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX AC(VHT20) Mode 5500 MHz	Polarization	Horizontal
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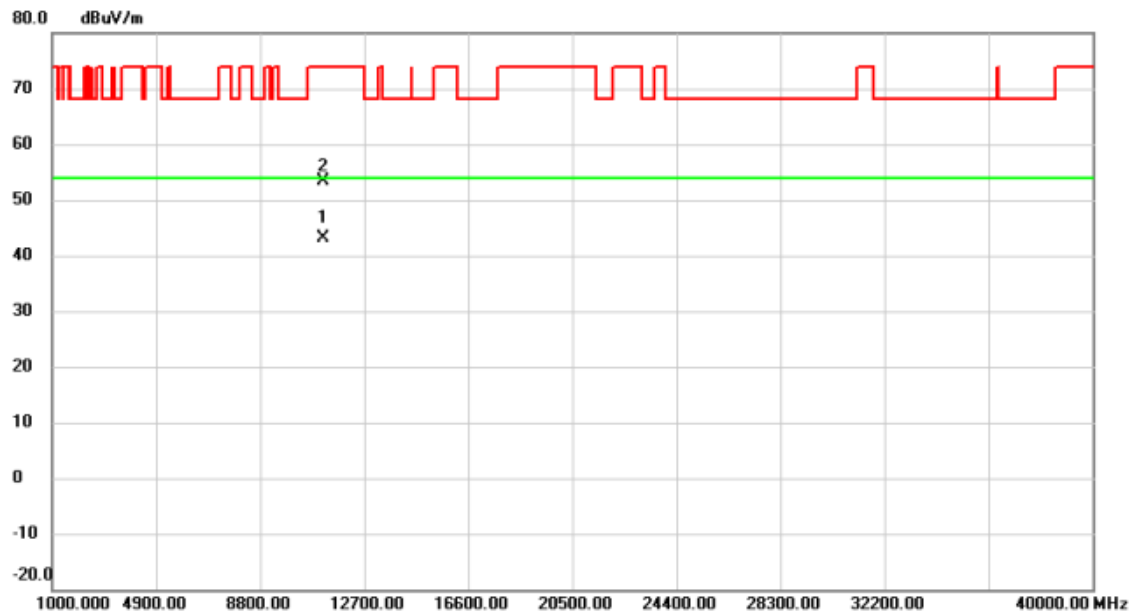


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5460.000	12.59	40.80	53.39	74.00	-20.61	peak	
2	5460.000	7.35	40.80	48.15	54.00	-5.85	AVG	
3	5470.000	13.36	40.82	54.18	68.20	-14.02	peak	
4 *	5498.800	73.29	40.87	114.16	68.20	45.96	peak	No Limit
5 X	5499.200	66.08	40.87	106.95	68.20	38.75	AVG	No Limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX AC(VHT20) Mode 5580 MHz	Polarization	Vertical
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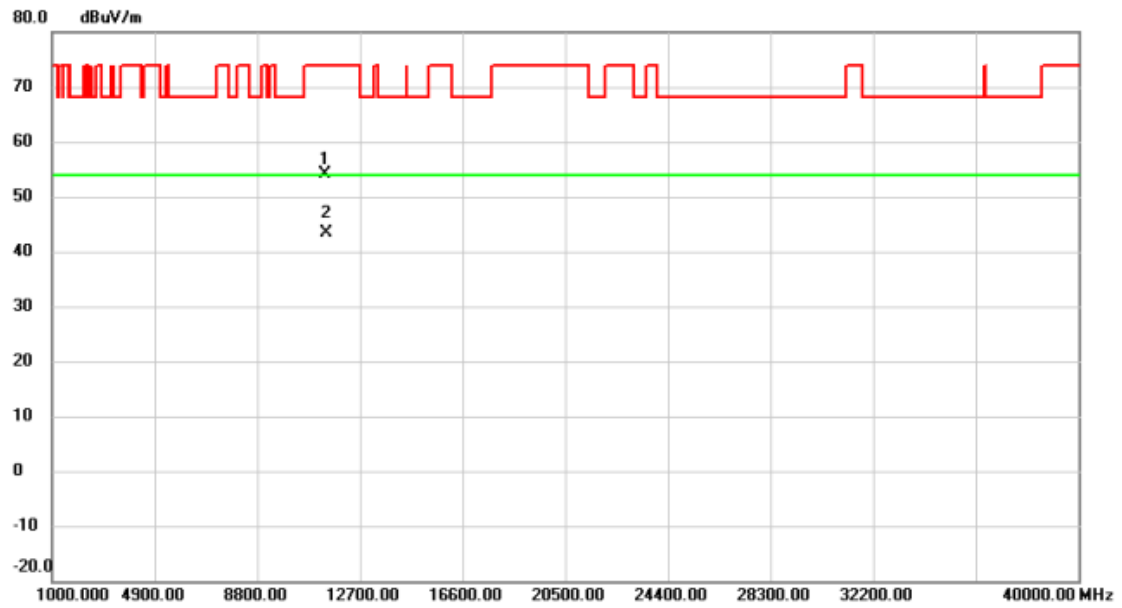


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	11157.860	43.89	-0.81	43.08	54.00	-10.92	AVG	
2		11159.255	54.25	-0.82	53.43	74.00	-20.57	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	UNII-2C_TX AC(VHT20) Mode 5700 MHz	Polarization	Vertical
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		11399.520	55.00	-0.78	54.22	74.00	-19.78	peak	
2	*	11400.195	44.19	-0.78	43.41	54.00	-10.59	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.