

FCC Test Report

Report No. : 1812C60437412505

Applicant : SHENZHEN HOLATEK CO.,LTD.

Address : #12,Building 1,Chongwen Park, Nanshan
Zhiyuan, 3370 Liuxian Ave, Nanshan District,
Shenzhen, China

Product Name : Smart Projector

Report Date : 2026-09-30

Shenzhen Anbotek Compliance Laboratory Limited



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TEST REPORT

Applicant : SHENZHEN HOLATEK CO.,LTD.
Manufacturer : SHENZHEN HOLATEK CO.,LTD.
Product Name : Smart Projector
Model No. : J9B-9K2, J9F-9K2, J9B-9K0, J9B-9K1, J9B-9K3, J9F-9K0, J9F-9K1, J9F-9K3
Trade Mark : JMGO
Rating(s) : J9B series Input: 24V=12.5A
J9F series Input: 24V=10A

Test Standard(s) : 47 CFR Part 15E
ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024*

Test Method(s) : KDB 789033 D02 General UNII Test Procedures New Rules v02r01*
KDB 662911 D01 Multiple Transmitter Output v02r01*
KDB 987594 D01 U-NII 6GHz General Requirements v03r01*
KDB 987594 D02 U-NII 6 GHz EMC Measurement v03*

Note: * denotes that this test standard is not included in CNAS accredited scope.

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the 47 CFR Part 15E requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt 2026-07-30

Date of Test 2026-07-30 to 2026-09-29

Prepared By



(Lene Chen)

Approved & Authorized Signer



(Jules Guo)

Revision History

Report Version	Description	Issued Date
R00	Original Issue.	2026-09-30

1. General Information

1.1. Client Information

Applicant	:	SHENZHEN HOLATEK CO.,LTD.
Address	:	#12,Building 1,Chongwen Park, Nanshan Zhiyuan, 3370 Liuxian Ave, Nanshan District, Shenzhen, China
Manufacturer	:	SHENZHEN HOLATEK CO.,LTD.
Address	:	#12,Building 1,Chongwen Park, Nanshan Zhiyuan, 3370 Liuxian Ave, Nanshan District, Shenzhen, China
Factory	:	Anhui MuKe High-tech Co., Ltd
Address	:	A15 Plant at the intersection of Hongxing Road and Lixin Road, Zhoupeng Street, Yingquan District, Fuyang, Anhui Province, China

1.2. Description of Device (EUT)

Product Name	:	Smart Projector
Model No.	:	J9B-9K2, J9F-9K2, J9B-9K0, J9B-9K1, J9B-9K3, J9F-9K0, J9F-9K1, J9F-9K3 (Note: All samples are the same except the model name, input ratings, adapter supplied with the product, laser source and J9F series reduce circuitry associated with the LED beads. So we prepare all test items for model "J9B-9K2", conducted emission and radiation spurious emission (below 1G) test for model "J9F-9K2".)
Trade Mark	:	JMGO
Test Power Supply	:	AC 120V/60Hz for Adapter
Test Sample No.	:	J9B-9K2: 1-3-1(Normal Sample), 1-3-2(Engineering Sample) J9F-9K2: 1-3-3(Normal Sample)
Adapter1 (for J9B series)	:	Manufacturer: Shenzhen JingQuanHua & Everrise Intelligent Electric Co.,Ltd. Model: NSA300EF-24012500 Input: 100-240V~ 50/60Hz 3.5A Output: 24.0V=12.5A 300.0W
Adapter2 (for J9F series)	:	Manufacturer: Shenzhen JingQuanHua & Everrise Intelligent Electric Co.,Ltd. Model: NSA240EC-2401001 Input: 100-240V~ 50/60Hz, 2.5A Output: 24.0V=10.0A
RF Specification		
Operation Mode	:	☐ a ☐ n(HT20) ☐ n(HT40) ☐ ac(VHT20)

		☐ ac(VHT40) ☐ ac(VHT80) ☐ ac(VHT160) ☒ ax(HEW20) ☒ ax(HEW40) ☒ ax(HEW80) ☐ ax(HEW160)
Device Category	:	☐ Indoor Access Point ☐ Standard Power Access Point
	:	☐ Subordinate Device ☐ Fixed Client
	:	☐ Standard Client ☐ Dual Client
	:	☒ Indoor Client
RU Configuration	:	☒ Full RU ☐ Partial RU
Operation Frequency	:	☒ Wi-Fi UNII5: 5925~6425MHz ☒ Wi-Fi UNII6: 6425~6525MHz ☒ Wi-Fi UNII7: 6525~6875MHz ☒ Wi-Fi UNII8: 6875~7125MHz
	:	Wi-Fi UNII5: ☒ 24 Channels for 20MHz bandwidth (5955-6415MHz) ☒ 12 Channels for 40MHz bandwidth (5965-6405MHz) ☒ 6 Channels for 80MHz bandwidth (5985-6385MHz) ☐ 3 Channels for 160MHz bandwidth (6025-6345MHz) Wi-Fi UNII6: ☒ 5 Channels for 20MHz bandwidth (6435-6515MHz) ☒ 3 Channels for 40MHz bandwidth (6445-6525MHz) ☒ 1 Channels for 80MHz bandwidth (6465MHz) ☐ 1 Channels for 160MHz bandwidth (6505MHz) Wi-Fi UNII7: ☒ 18 Channels for 20MHz bandwidth (6535-6875MHz) ☒ 8 Channels for 40MHz bandwidth (6565-6845MHz) ☒ 5 Channels for 80MHz bandwidth (6545-6865MHz) ☐ 2 Channels for 160MHz bandwidth (6665-6825MHz) Wi-Fi UNII8: ☒ 12 Channels for 20MHz bandwidth (6895-7115MHz) ☒ 6 Channels for 40MHz bandwidth (6885-7085MHz) ☒ 2 Channels for 80MHz bandwidth (6945-7025MHz) ☐ 1 Channels for 160MHz bandwidth (6985MHz)
Modulation Type	:	☐ 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) ☐ 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM) ☐ 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) ☒ 802.11ax: OFDMA(BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Antenna Type	:	ANT1: FPC Antenna ANT2: FPC Antenna
Antenna Gain(Peak)	:	Wi-Fi UNII5 ANT1: 3.40dBi Wi-Fi UNII5 ANT2: 3.40dBi Wi-Fi UNII6 ANT1: 3.32dBi

		Wi-Fi UNII6 ANT2: 3.40dBi Wi-Fi UNII7 ANT1: 3.40dBi Wi-Fi UNII7 ANT2: 3.40dBi Wi-Fi UNII8 ANT1: 3.40dBi Wi-Fi UNII8 ANT2: 3.40dBi
Directional antenna gain	:	Wi-Fi UNII5: 6.41dBi Wi-Fi UNII6: 6.37dBi Wi-Fi UNII7: 6.41dBi Wi-Fi UNII8: 6.41dBi
Remark: (1) All of the RF specification are provided by customer. (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. (3) 802.11ax mode support MIMO. (4) Directional gain= $10 \log[(10G1/20 + 10G2/20)2/N \text{ ANT}] \text{ dBi}$		

1.3. Auxiliary Equipment Used During Test

Title	Manufacturer	Model No.	Serial No.
ROG Rapture Quad-band Gaming Router	ASUSTeK Computer Inc	GT-AXE16000 (FCC ID: MSQ-RTAX5D00, IC: 3568A-RTAX5D00)	RAIG5D2020695NL

1.4. Operation channel list

Operation Band: Wi-Fi UNII5

Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5955	3	5965	7	5985
5	5975	11	6005	23	6065
9	5995	19	6045	39	6145
13	6015	27	6085	55	6225
17	6035	35	6125	71	6305
21	6055	43	6165	87	6385
25	6075	51	6205		
29	6095	59	6245		
33	6115	67	6285		
37	6135	75	6325		
41	6155	83	6365		
45	6175	91	6405		
49	6195				
53	6215				
57	6235				
61	6255				
65	6275				
69	6295				
73	6315				
77	6335				
81	6355				
85	6375				
89	6395				
93	6415				

Operation Band: Wi-Fi UNII6

Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
97	6435	99	6445	103	6465
101	6455	107	6485		
105	6475	115	6525		
109	6495				
113	6515				

Operation Band: Wi-Fi UNII7

Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
117	6535	123	6565	119	6545
121	6555	131	6605	135	6625
125	6575	139	6645	151	6705
129	6595	147	6685	167	6785
133	6615	155	6725	183	6865
137	6635	163	6765		
141	6655	171	6805		
145	6675	179	6845		
149	6695				
153	6715				
157	6735				
161	6755				
165	6775				
169	6795				
173	6815				
177	6835				
181	6855				
185	6875				

Operation Band: Wi-Fi UNII8

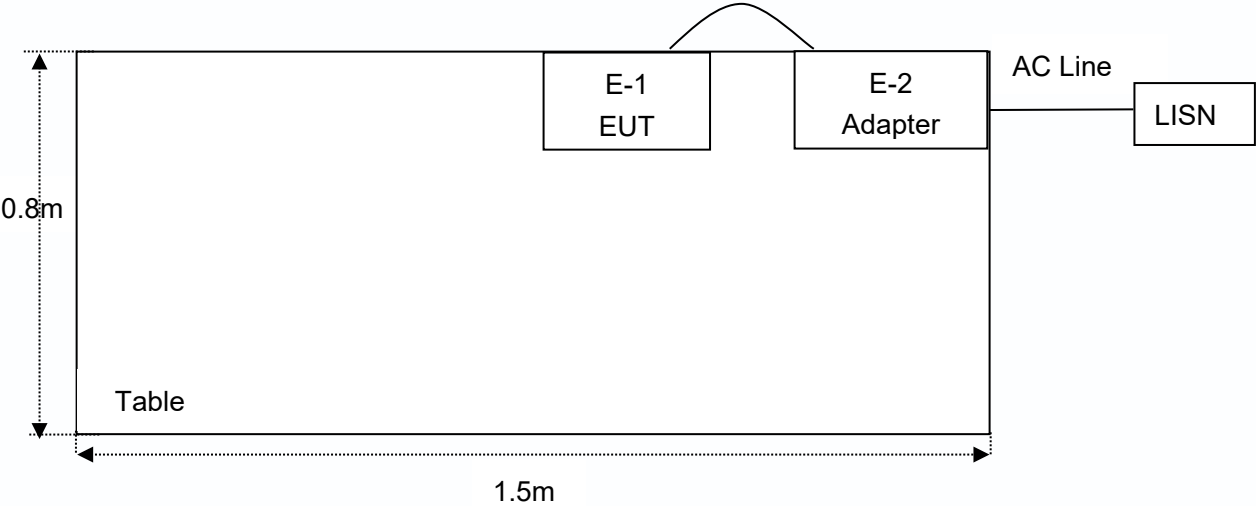
Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
189	6895	187	6885	199	6945
193	6915	195	6925	215	7025
197	6935	203	6965		
201	6955	211	7005		
205	6975	219	7045		
209	6995	227	7085		
213	7015				
217	7035				
221	7055				
225	7075				
229	7095				
233	7115				

Note:

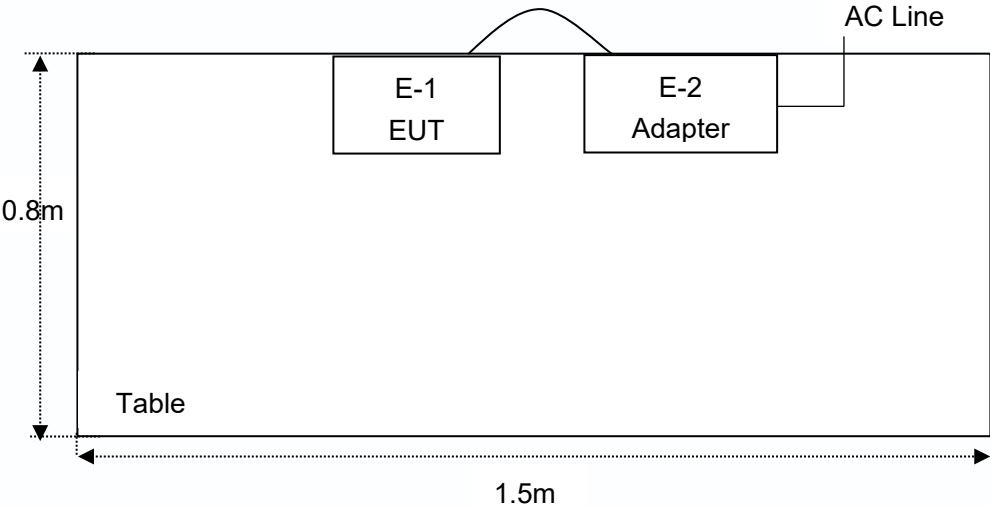
1. The measurements are performed at the highest, middle, lowest available channels.
2. The EUT has been tested as an independent unit. And Continual Transmitting in maximum power.
3. The EUT was programmed to be in continuously transmitting mode.

1.5. Description Of Test Setup

CE



RE



1.6. Test Equipment List

Conducted Emission					
Item	Equipment	Manufacturer	Model No.	Last Cal.	Cal.Due Date
1	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	2026-06-08	2027-06-07
2	Software Name EZ-EMC	Farad Technology	ANB-03A	/	/
3	EMI Test Receiver(CE2#)	Rohde & Schwarz	ESCI3	2025-12-29	2026-12-28
4	Three Phase V-type Artificial Power Network LISN 200A	EMtrace	PWL-50-3200A	2025-12-29	2026-12-28
5	10dB Attenuator	Emtrace	10dB100W	2025-12-29	2026-12-28
6	Pulse limiter	EMtrace	PL00903-2#	2025-12-29	2026-12-28

Radiation Spurious Emission (below 1GHz)					
Item	Equipment	Manufacturer	Model No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver(RE2/3#)	Rohde & Schwarz	ESR26	2025-12-30	2026-12-29
2	Pre-amplifier	SONOMA	310N	2025-12-30	2026-12-29
3	Bilog Broadband Antenna	Schwarzbeck	VULB9163	2025-10-26	2028-10-25
4	EMI Preamplifier	SKET Electronic	LNPA-0118G-45	2025-12-30	2026-12-29
5	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	2025-10-27	2028-10-26
6	Loop Antenna (9K-30M)	Schwarzbeck	FMZB1519B	2026-06-24	2029-06-23
7	EMI Test Software EZ-EMC	SHURPLE	N/A	/	/
8	MXG RF Vector Signal Generator	Agilent	N5182A	2025-12-29	2026-12-28
9	DC Power Supply	LW	TPR-6420D	2025-10-10	2026-10-09
10	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-HWHS80B	2026-06-08	2027-06-07
11	Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	2025-12-29	2026-12-28
12	High-Pass Filter	CDKMV	ZHPF-BM1100-4730	2025-10-10	2026-10-09
13	High-Pass Filter	CDKMV	ZHPF-M3.5-18G-3834	2025-12-30	2026-12-29
14	MXA Spectrum Analysis	KEYSIGHT	N9020A	2026-06-08	2027-06-07

Band edge emissions (Radiated)					
Radiation Spurious Emission (above 1GHz)					
Item	Equipment	Manufacturer	Model No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver(RE2/3#)	Rohde & Schwarz	ESR26	2025-12-30	2026-12-29
2	EMI Preamplifier	SKET Electronic	LNPA-0118G-45	2025-12-30	2026-12-29
3	Double Ridged Horn Antenna	SCHWARZBEC K	BBHA 9120D	2025-10-27	2028-10-26
4	EMI Test Software EZ-EMC	SHURPLE	N/A	/	/
5	Horn Antenna	A-INFO	LB-180400-KF	2024-01-22	2027-01-21
6	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	2025-12-29	2026-12-28
7	Amplifier	Talent Microwave	TLLA18G40G-53-30	2026-01-05	2027-01-04

Conducted Spurious Emission					
Maximum Output Power					
Power Spectral Density					
26dB Bandwidth					
Occupied Bandwidth					
Emission Mask					
Contention-Based Protocol					
Frequency stability					
Item	Equipment	Manufacturer	Model No.	Last Cal.	Cal.Due Date
1	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-HWHS80B	2026-06-08	2027-06-07
2	DC Power Supply	IVYTECH	IV3605	2026-06-08	2027-06-07
3	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	2025-12-29	2026-12-28
4	MXA Spectrum Analysis	KEYSIGHT	N9020A	2025-12-29	2026-12-28
5	MXG RF Vector Signal Generator	Agilent	N5182A	2025-12-29	2026-12-28
6	MXG RF Vector Signal Generator	Agilent	E4425B	2026-02-10	2027-02-09
7	RF Test software	Toscend	JS1120-3	/	/
8	RF Control Unit	Tonscend	JS0806-2	2025-12-29	2026-12-28

9	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	2025-12-29	2026-12-28
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1.7. Measurement Uncertainty

Parameter	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	2.8dB
Time	2%
Occupied Bandwidth	552Hz
Conducted Output Power	0.84dB
Conducted Spurious Emission	1.24dB
Radiated spurious emissions (Below 30MHz)	3.14dB
Radiated spurious emissions (30MHz~1GHz)	Horizontal: 4.44dB; Vertical: 4.82dB
Radiated spurious emissions (above 1GHz)	1G-6GHz: 4.64dB; 6G-18GHz: 4.82dB 18G-40GHz: 5.62dB
The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

1.8. Description of Test Facility

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

FCC-Registration No.:279531

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 279531.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

Sogood Industrial Zone Laboratory & 1/F. of Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.

1.9. Disclaimer

1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
2. The test report is invalid if there is any evidence and/or falsification.
3. The effect that the results relate only to the items tested.
4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
5. This report shall not be reproduced except in full without approval of the anbotek.
6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.
7. The data in this report will be synchronized with the corresponding national market supervision and management departments and cross-border e-commerce platforms as required by regulatory agencies.
8. Unless otherwise specified, use the binary decision rule of simple acceptance ($w=0$) for conformity determination with reference to ILAC-G8:09/2019.

2. Summary of Test Results

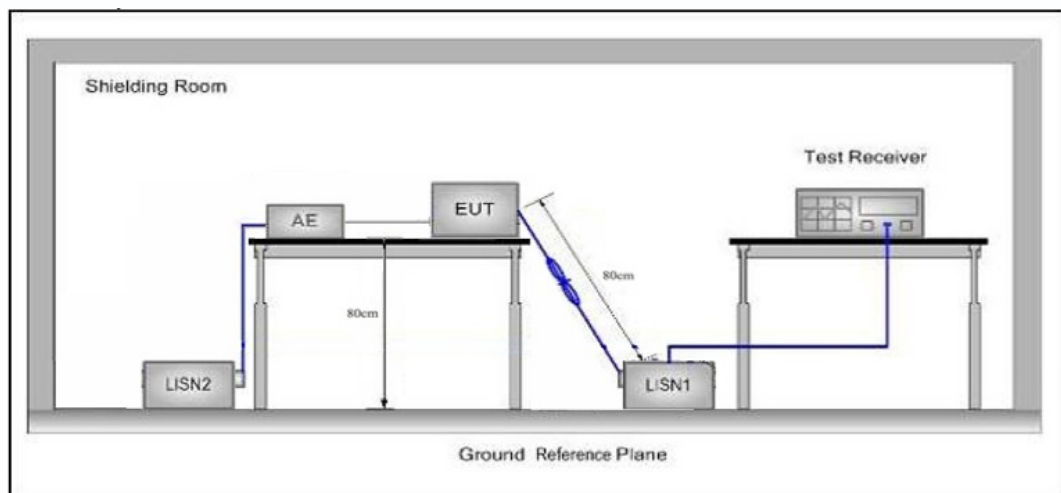
Standard	Test Type	Result
15.207 & 15.407(b)	Conducted Emission	PASS
15.205 & 15.209	Spurious Emission	PASS
15.407(a)(4)(5)(6)(7)(8)	Maximum Output Power Test	PASS
15.407(a)(4)(5)(6)(7)(8)	Power Spectral Density Test	PASS
15.407(a)(10) & 2.1049	26dB Bandwidth & 99% Occupied Bandwidth	PASS
15.407(b)(6)(7)	Emission Mask	PASS
15.407d(6)	Contention-Based Protocol	PASS
15.407(g)	Frequency stability	PASS
15.203	Antenna Requirement	PASS

3. Conducted Emission Test

3.1. Test Standard and Limit

Test Standard	FCC Part15 Section 15.207 & 15.407(b)		
Test Limit	Frequency	Maximum RF Line Voltage (dBuV)	
		Quasi-peak Level	Average Level
	150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
	500kHz~5MHz	56	46
	5MHz~30MHz	60	50
Remark: (1) *Decreasing linearly with logarithm of the frequency. (2) The lower limit shall apply at the transition frequency.			

3.2. Test Setup



3.3. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

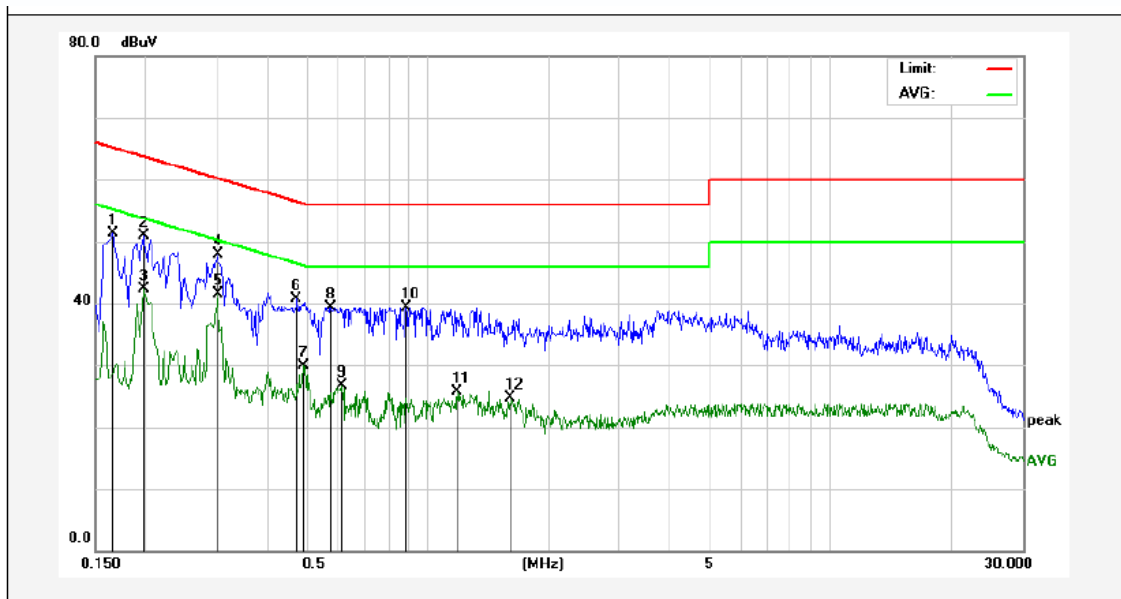
3.4. Test Data

During the test, pre-scan all modes, only the worst case is recorded in the report.

Please to see the following pages.

Conducted Emission Test Data

Test Sample: J9B-9K2
Test Site: 1# Shielded Room
Operating Condition: 802.11ax(HEW80)_6145MHz MIMO
Test Specification: AC 120V/60Hz for Adapter
Comment: Live Line
Temp.(°C)/Hum.(%RH): 23.8°C/57%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1660	31.45	19.78	51.23	65.15	-13.92	QP	
2	0.1980	31.17	19.78	50.95	63.69	-12.74	QP	
3	0.1980	22.60	19.78	42.38	53.69	-11.31	AVG	
4	0.3019	28.09	19.79	47.88	60.19	-12.31	QP	
5	0.3019	21.66	19.79	41.45	50.19	-8.74	AVG	
6	0.4739	20.81	19.80	40.61	56.45	-15.84	QP	
7	0.4939	10.14	19.80	29.94	46.10	-16.16	AVG	
8	0.5779	19.59	19.80	39.39	56.00	-16.61	QP	
9	0.6139	6.85	19.81	26.66	46.00	-19.34	AVG	
10	0.8860	19.55	19.84	39.39	56.00	-16.61	QP	
11	1.1859	5.87	19.84	25.71	46.00	-20.29	AVG	
12	1.6060	4.78	19.84	24.62	46.00	-21.38	AVG	

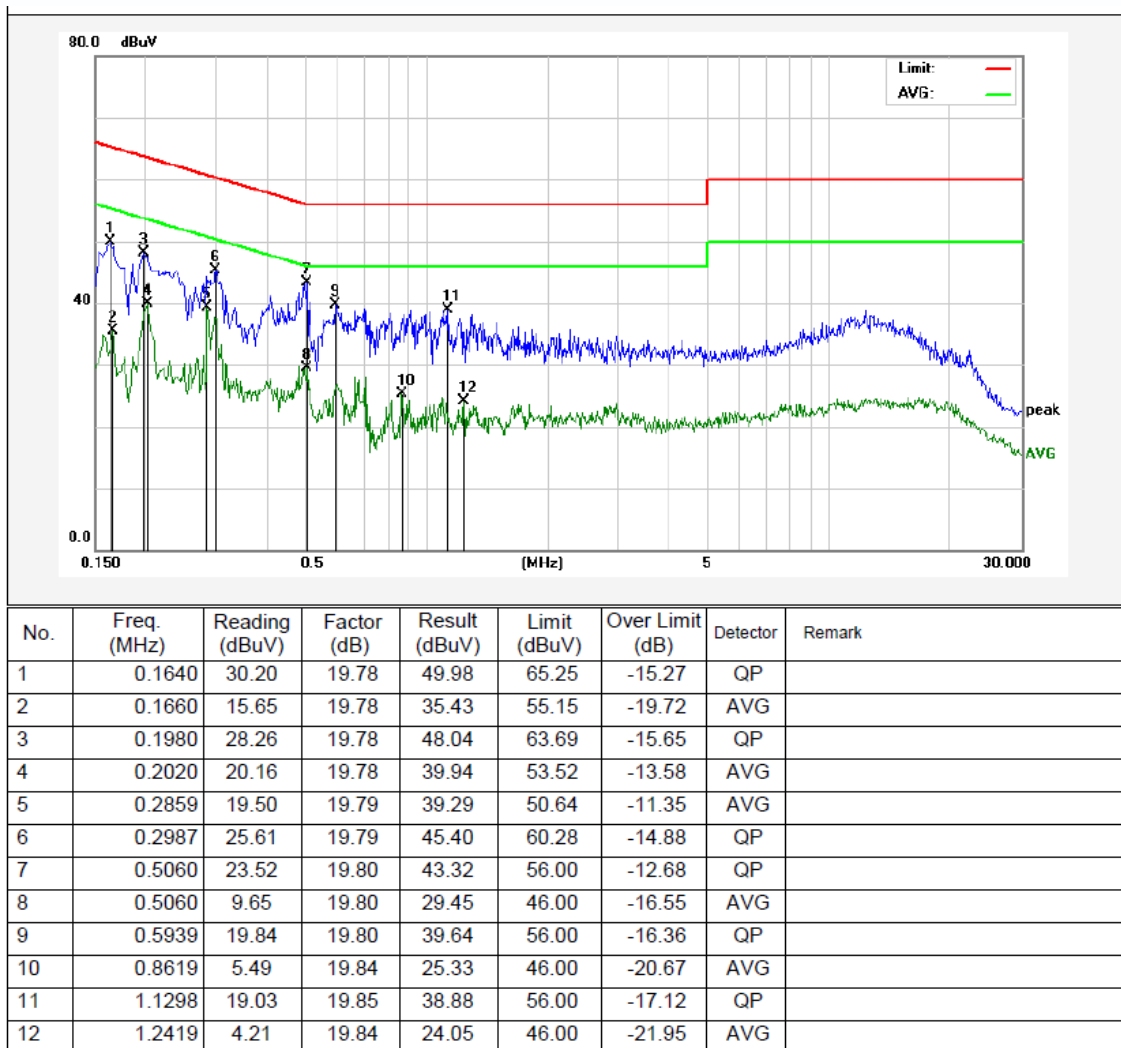
Note:

Result(dBμV) = Reading(dBμV) + Factor(dB);

Over Limit(dB) = Result(dBμV) - Limit(dBμV)

Conducted Emission Test Data

Test Sample: J9B-9K2
Test Site: 1# Shielded Room
Operating Condition: 802.11ax(HEW80)_6145MHz MIMO
Test Specification: AC 120V/60Hz for Adapter
Comment: Neutral Line
Temp.(°C)/Hum.(%RH): 23.8°C/57%RH



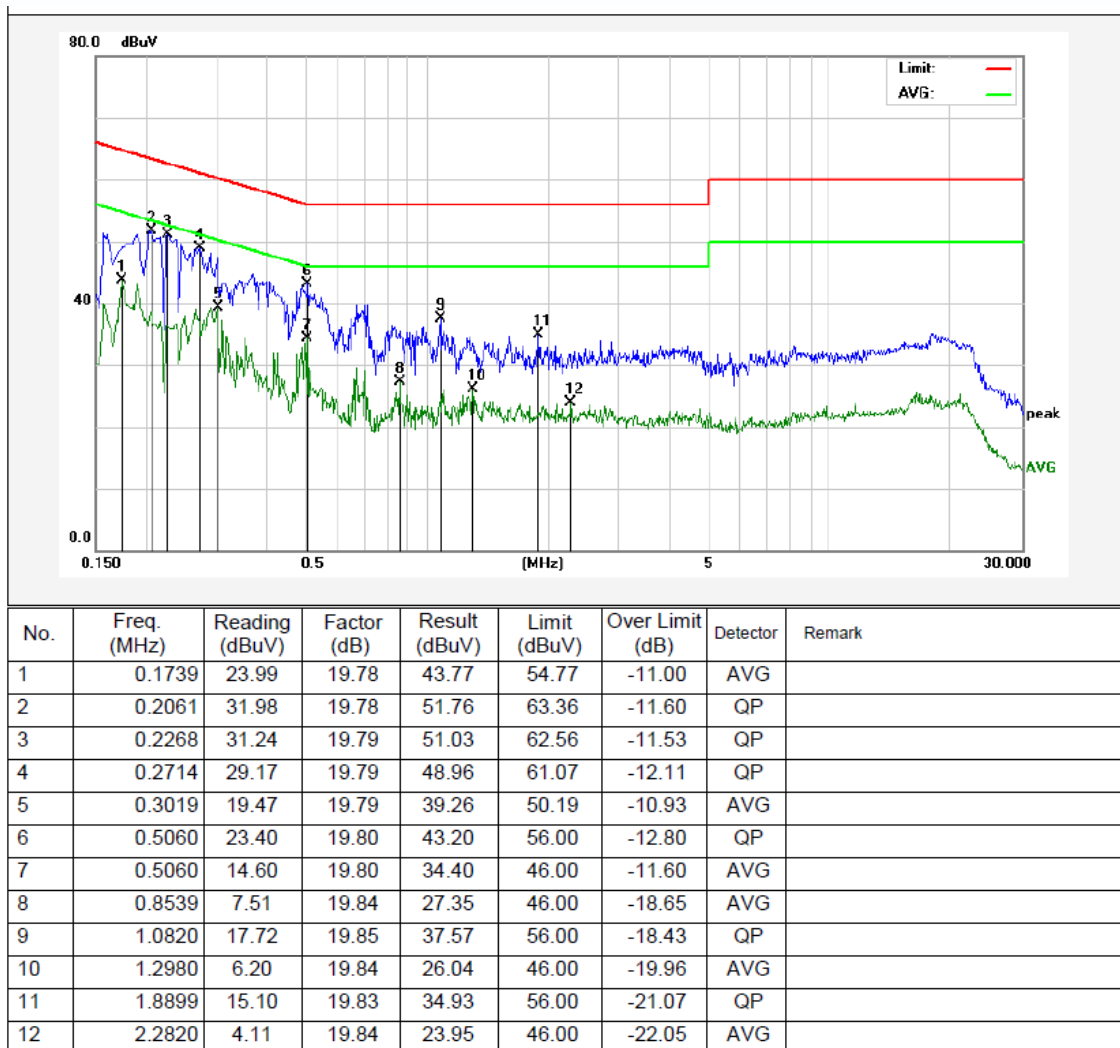
Note:

Result(dBμV) = Reading(dBμV) + Factor(dB);

Over Limit(dB) = Result(dBμV) - Limit(dBμV)

Conducted Emission Test Data

Test Sample: J9F-9K2
Test Site: 1# Shielded Room
Operating Condition: 802.11ax(HEW80)_6145MHz MIMO
Test Specification: AC 120V/60Hz for Adapter
Comment: Live Line
Temp.(°C)/Hum.(%RH): 23.8°C/57%RH



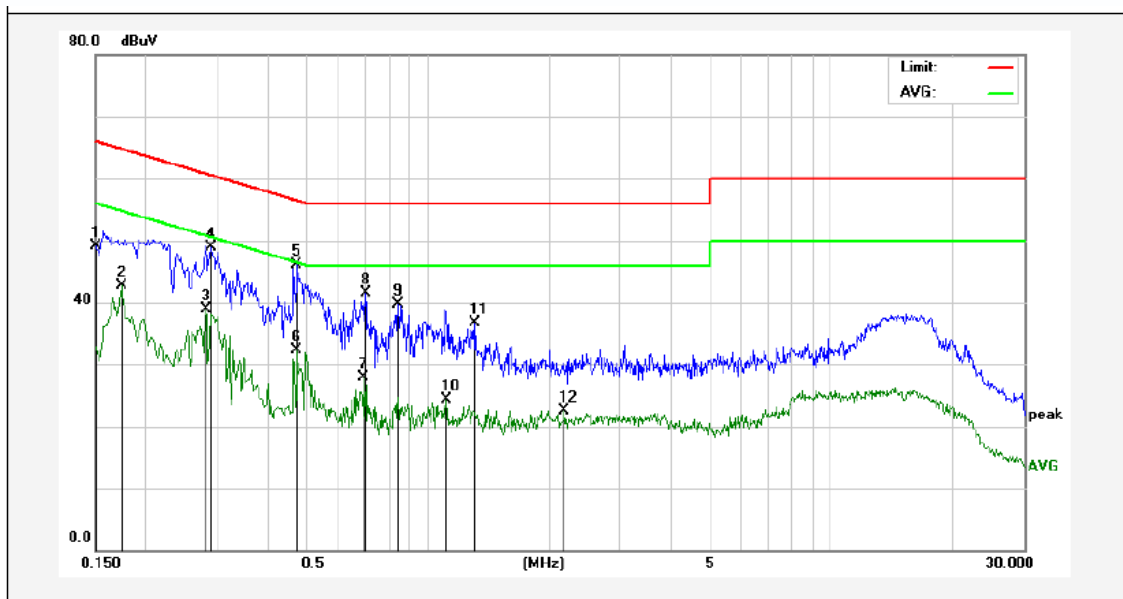
Note:

Result(dBμV) = Reading(dBμV) + Factor(dB);

Over Limit(dB) = Result(dBμV) - Limit(dBμV)

Conducted Emission Test Data

Test Sample: J9F-9K2
Test Site: 1# Shielded Room
Operating Condition: 802.11ax(HEW80)_6145MHz MIMO
Test Specification: AC 120V/60Hz for Adapter
Comment: Neutral Line
Temp.(°C)/Hum.(%RH): 23.8°C/57%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	29.39	19.78	49.17	65.99	-16.82	QP	
2	0.1737	22.88	19.78	42.66	54.78	-12.12	AVG	
3	0.2818	19.19	19.79	38.98	50.76	-11.78	AVG	
4	0.2898	29.17	19.79	48.96	60.53	-11.57	QP	
5	0.4738	26.29	19.80	46.09	56.45	-10.36	QP	
6	0.4738	12.59	19.80	32.39	46.45	-14.06	AVG	
7	0.6938	8.04	19.82	27.86	46.00	-18.14	AVG	
8	0.7018	21.77	19.82	41.59	56.00	-14.41	QP	
9	0.8458	19.91	19.84	39.75	56.00	-16.25	QP	
10	1.1140	4.53	19.85	24.38	46.00	-21.62	AVG	
11	1.3099	16.90	19.84	36.74	56.00	-19.26	QP	
12	2.1819	2.75	19.84	22.59	46.00	-23.41	AVG	

Note:

Result(dBμV) = Reading(dBμV) + Factor(dB);

Over Limit(dB) = Result(dBμV) - Limit(dBμV)

4. Radiation Spurious Emission and Band Edge

4.1. Test Standard and Limit

Radiated Spurious Emission					
Test Standard	FCC Part15 C Section 15.205 & 15.209 & 15.407(b)(6)(7)				
Test Limit	Frequency (MHz)	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz~0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz~88MHz	100	40.0	Quasi-peak	3
	88MHz~216MHz	150	43.5	Quasi-peak	3
	216MHz~960MHz	200	46.0	Quasi-peak	3
	960MHz~1000MHz	500	54.0	Quasi-peak	3
	Above 1000MHz	500	54.0	Average	3
		-	68.2	Peak	3
For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27dBm/MHz.					
Remark: (1) The lower limit shall apply at the transition frequency. (2) 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device. (3) Above 1GHz limit: $E[dB\mu V/m] = EIRP[dBm] + 95.2=68.2 \text{ dBuV/m}$, for $EIPR[dBm]=-27dBm$.					

4.2. Test Setup

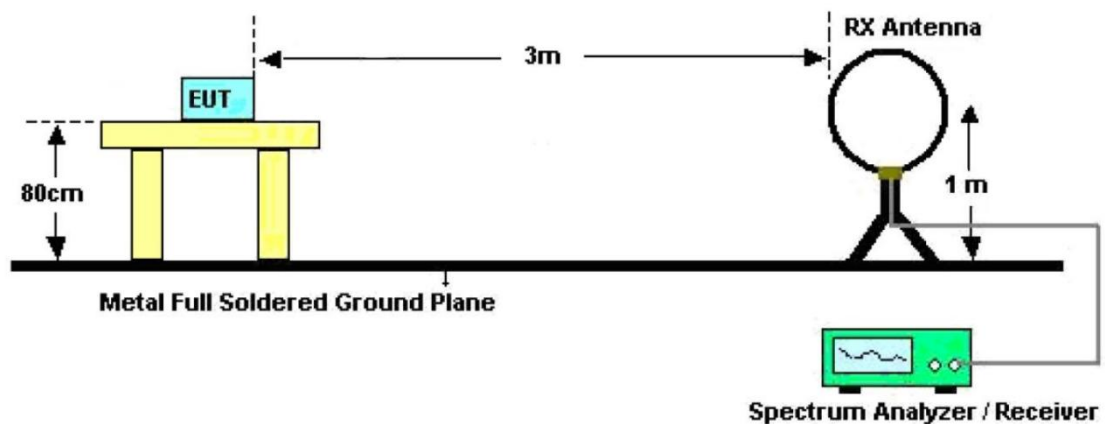


Figure 1. Below 30MHz

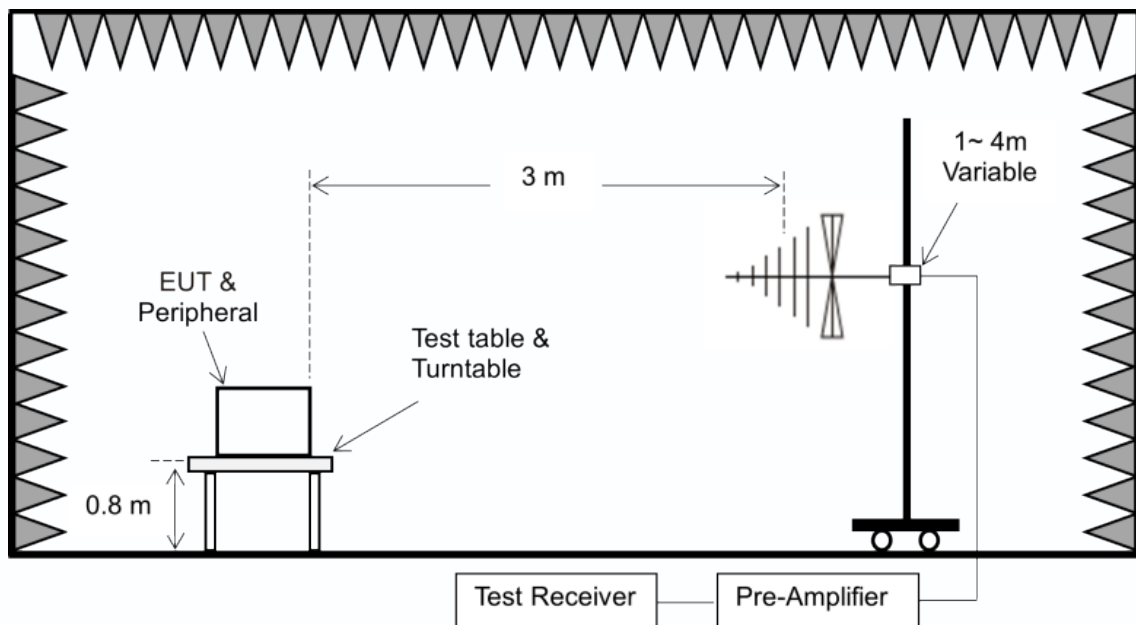


Figure 2. 30MHz to 1GHz

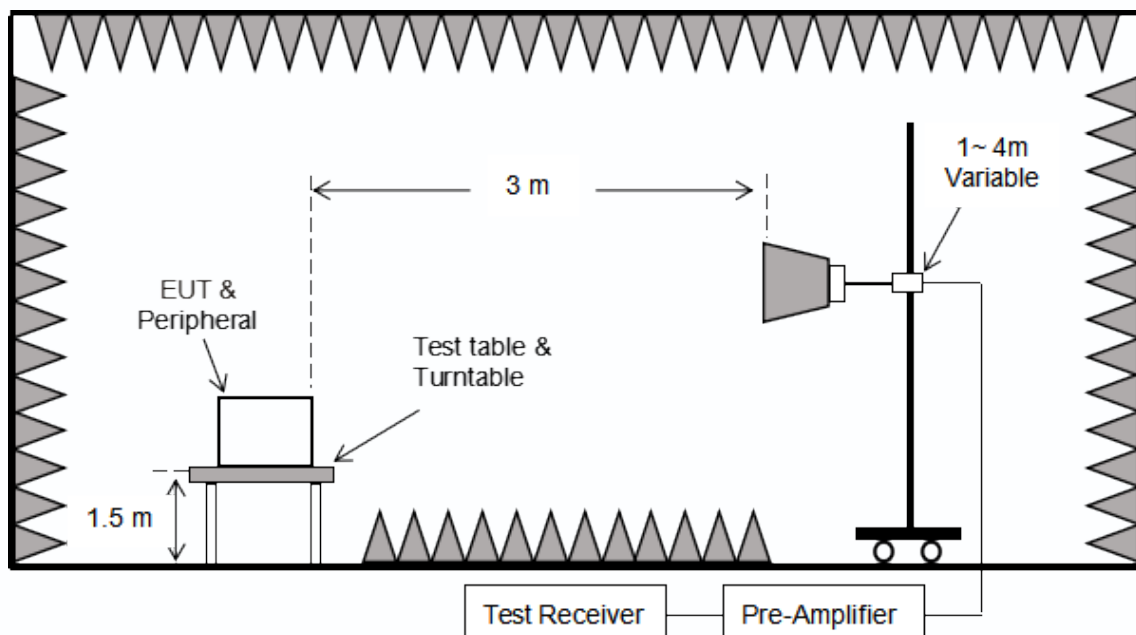


Figure 3. Above 1 GHz

4.3. Test Procedure

For below 1GHz: The EUT is placed on a turntable, which is 0.8m above the ground plane.

For above 1GHz: The EUT is placed on a turntable, which is 1.5m above the ground plane.

The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Rotated the EUT through three orthogonal axes to determine the maximum emissions, both horizontal and vertical polarization of the antenna are set on test. The EUT is tested in 9*6*6 Chamber. The device is evaluated in xyz orientation.

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

For 9kHz to 150kHz, Set the spectrum analyzer as:

RBW = 200Hz, VBW =1kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 150kHz to 30MHz, Set the spectrum analyzer as:

RBW = 9KHz, VBW =30kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 30MHz to 1000MHz, Set the spectrum analyzer as:

RBW = 100kHz, VBW =300kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For above 1GHz, Set the spectrum analyzer as:

RBW =1MHz, VBW =1MHz, Detector= Peak, Trace mode= Max hold, Sweep- auto couple.

RBW =1MHz, VBW =10Hz, Detector= Average, Trace mode= Max hold, Sweep- auto couple.

4.4. Test Data

PASS

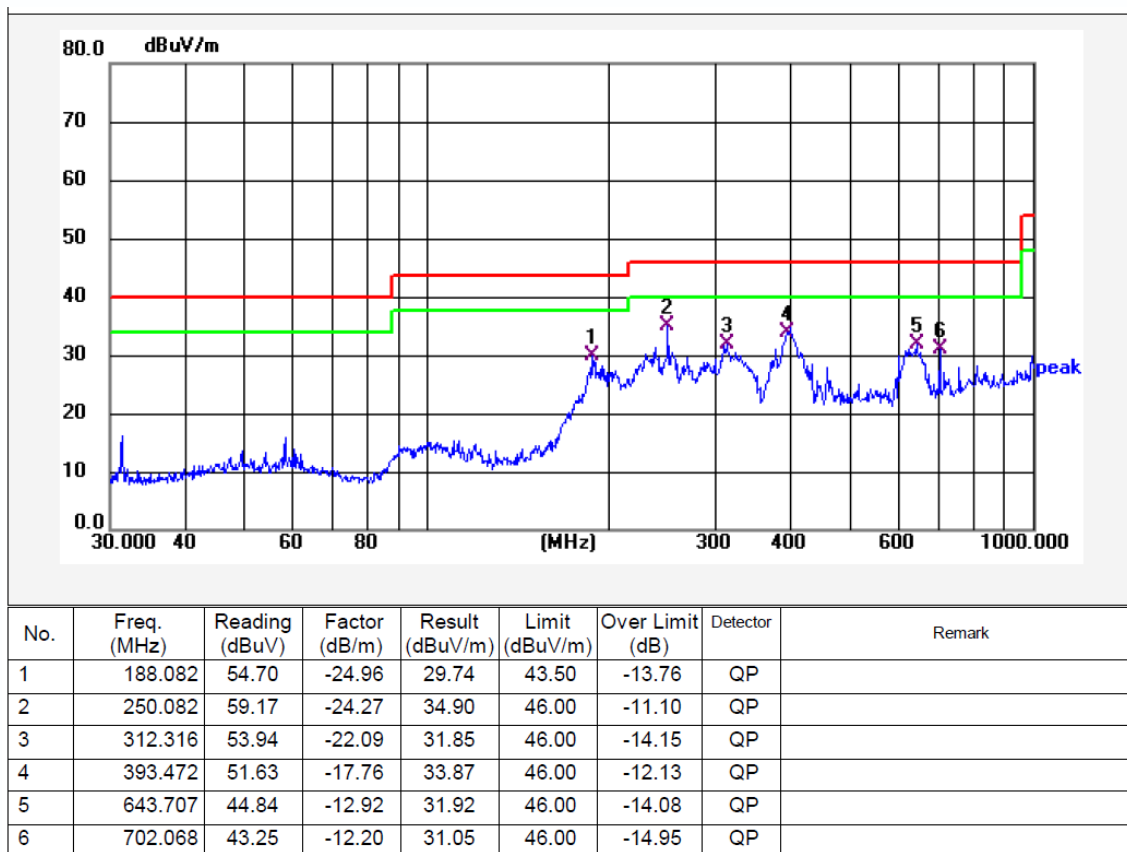
During the test, Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the X-axis is the worst case.

The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.

During the test, pre-scan all the modes, only the worst case is recorded in the report.

Test Results (30~1000MHz)

Test Sample: J9B-9K2
Test Mode: 802.11ax(HEW80)_6145MHz MIMO
Power Source: AC 120V/60Hz for Adapter
Polarization: Horizontal
Temp.(°C)/Hum.(%RH): 24.8°C/51%RH



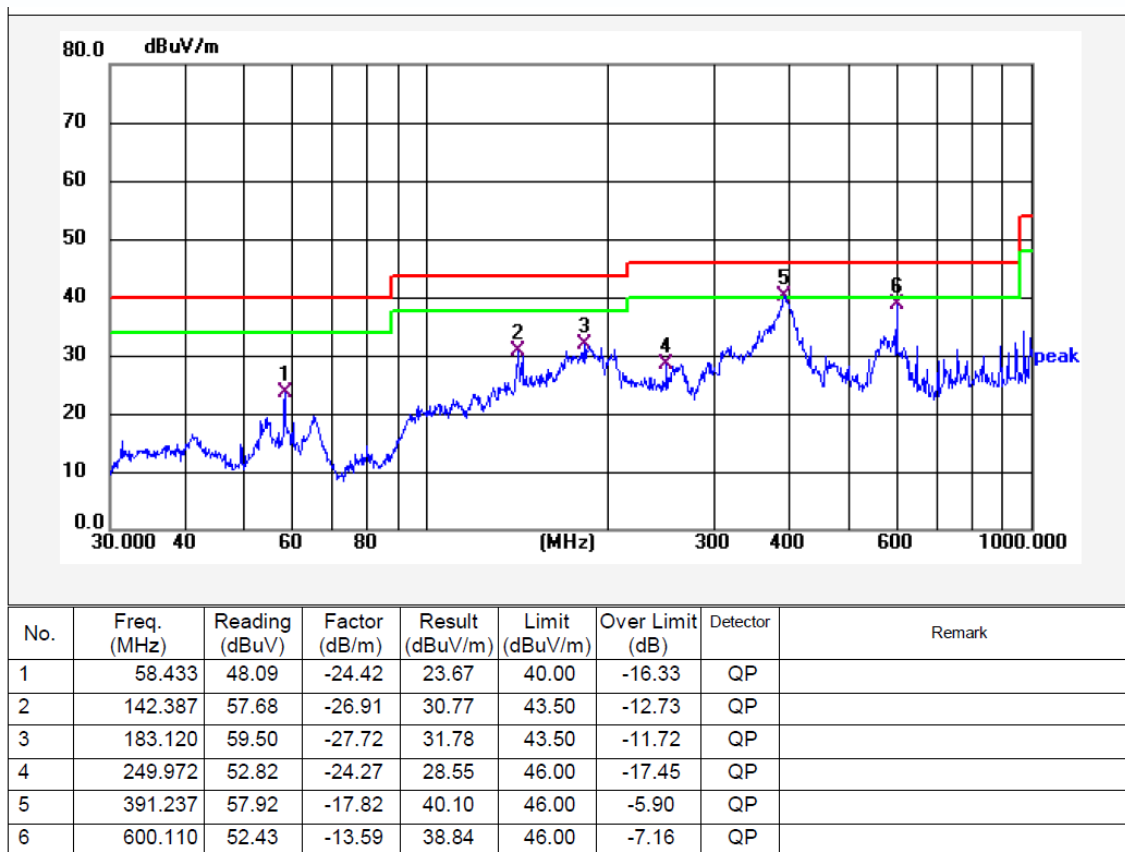
Note:

Result(dBμV/m) = Reading(dBμV) + Factor(dB/m);

Over Limit(dB) = Result(dBμV/m) - Limit(dBμV/m)

Test Results (30~1000MHz)

Test Sample: J9B-9K2
Test Mode: 802.11ax(HEW80)_6145MHz MIMO
Power Source: AC 120V/60Hz for Adapter
Polarization: Vertical
Temp.(°C)/Hum.(%RH): 24.8°C/51%RH



Note:

Result(dBμV/m) = Reading(dBμV) + Factor(dB/m);

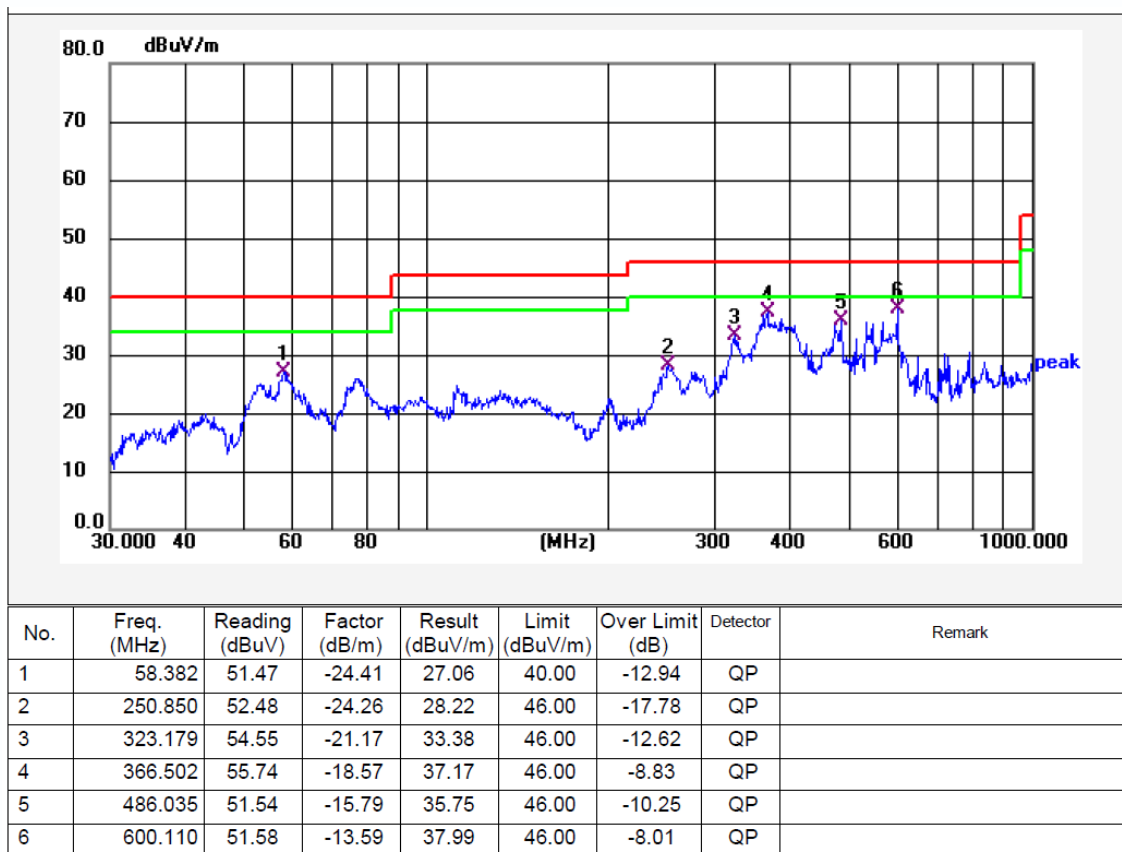
Over Limit(dB) = Result(dBμV/m) - Limit(dBμV/m)

Test Sample:	J9F-9K2
Test Mode:	802.11ax(HEW80)_6145MHz MIMO
Power Source:	AC 120V/60Hz for Adapter
Polarization:	Horizontal
Temp.(°C)/Hum.(%RH):	24.8°C/51%RH

Note:
 $\text{Result(dB}\mu\text{V/m)} = \text{Reading(dB}\mu\text{V)} + \text{Factor(dB/m)};$
 $\text{Over Limit(dB)} = \text{Result(dB}\mu\text{V/m)} - \text{Limit(dB}\mu\text{mV)}$

Test Results (30~1000MHz)

Test Sample: J9F-9K2
Test Mode: 802.11ax(HEW80)_6145MHz MIMO
Power Source: AC 120V/60Hz for Adapter
Polarization: Vertical
Temp.(°C)/Hum.(%RH): 24.8°C/51%RH



Note:

Result(dBμV/m) = Reading(dBμV) + Factor(dB/m);

Over Limit(dB) = Result(dBμV/m) - Limit(dBμV/m)

Test Results (Above 1000MHz)_Wi-Fi UNII5 Band:

Test Mode: IEEE 802.11ax(HEW80) MIMO							
Test channel: Low CH							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
11970.00	31.53	25.66	57.19	74.00	-16.81	V	Peak
17955.00	27.90	34.68	62.58	74.00	-11.42	V	Peak
11970.00	31.98	25.66	57.64	74.00	-16.36	H	Peak
17955.00	27.96	34.68	62.64	74.00	-11.36	H	Peak
11970.00	20.951	25.66	46.61	54.00	-7.39	V	AVG
17955.00	16.074	34.68	50.75	54.00	-3.25	V	AVG
11970.00	21.168	25.66	46.83	54.00	-7.17	H	AVG
17955.00	15.627	34.68	50.31	54.00	-3.69	H	AVG
Test channel: Middle CH							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
12290.00	30.89	26.17	57.06	74.00	-16.94	V	Peak
18435.00	28.43	35.84	64.27	74.00	-9.73	V	Peak
12290.00	31.47	26.17	57.64	74.00	-16.36	H	Peak
18435.00	27.48	35.84	63.32	74.00	-10.68	H	Peak
12290.00	21.221	26.17	47.39	54.00	-6.61	V	AVG
18435.00	15.194	35.84	51.03	54.00	-2.97	V	AVG
12290.00	21.158	26.17	47.33	54.00	-6.67	H	AVG
18435.00	14.707	35.84	50.55	54.00	-3.45	H	AVG
Test channel: High CH							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
12770.00	30.46	26.56	57.02	74.00	-16.98	V	Peak
19155.00	27.91	36.33	64.24	74.00	-9.76	V	Peak
12770.00	31.11	26.56	57.67	74.00	-16.33	H	Peak
19155.00	28.39	36.33	64.72	74.00	-9.28	H	Peak
12770.00	19.89	26.56	46.45	54.00	-7.55	V	AVG
19155.00	14.95	36.33	51.28	54.00	-2.72	V	AVG
12770.00	20.37	26.56	46.93	54.00	-7.07	H	AVG
19155.00	14.50	36.33	50.83	54.00	-3.17	H	AVG

Remark:

1. During the test, pre-scan the 802.11ax SISO and MIMO modes, and found the 802.11ax(HEW80) MIMO mode is worse case , the report only record this mode.
2. Result =Reading + Factor

Test Results (Above 1000MHz)_Wi-Fi UNII6 Band:

Test Mode: IEEE 802.11ax(HEW80) MIMO							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
12930.00	31.41	25.66	57.07	74.00	-16.93	V	Peak
19395.00	27.68	34.68	62.36	74.00	-11.64	V	Peak
12930.00	31.71	25.66	57.37	74.00	-16.63	H	Peak
19395.00	27.80	34.68	62.48	74.00	-11.52	H	Peak
12930.00	20.734	25.66	46.39	54.00	-7.61	V	AVG
19395.00	15.761	34.68	50.44	54.00	-3.56	V	AVG
12930.00	20.903	25.66	46.56	54.00	-7.44	H	AVG
19395.00	15.507	34.68	50.19	54.00	-3.81	H	AVG

Remark:

1. During the test, pre-scan the 802.11ax SISO and MIMO modes, and found the 802.11ax(HEW80) MIMO mode is worse case , the report only record this mode.
2. Result =Reading + Factor

Test Results (Above 1000MHz)_Wi-Fi UNII7 Band:

Test Mode: IEEE 802.11ax(HEW80) MIMO							
Test channel: Low CH							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
13090.00	31.31	25.66	56.97	74.00	-17.03	V	Peak
19635.00	27.50	34.68	62.18	74.00	-11.82	V	Peak
13090.00	31.49	25.66	57.15	74.00	-16.85	H	Peak
19635.00	27.66	34.68	62.34	74.00	-11.66	H	Peak
13090.00	20.554	25.66	46.21	54.00	-7.79	V	AVG
19635.00	15.501	34.68	50.18	54.00	-3.82	V	AVG
13090.00	20.683	25.66	46.34	54.00	-7.66	H	AVG
19635.00	15.407	34.68	50.09	54.00	-3.91	H	AVG
Test channel: Middle CH							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
13410.00	30.67	26.17	56.84	74.00	-17.16	V	Peak
20115.00	28.03	35.84	63.87	74.00	-10.13	V	Peak
13410.00	30.98	26.17	57.15	74.00	-16.85	H	Peak
20115.00	27.18	35.84	63.02	74.00	-10.98	H	Peak
13410.00	20.824	26.17	46.99	54.00	-7.01	V	AVG
20115.00	14.621	35.84	50.46	54.00	-3.54	V	AVG
13410.00	20.673	26.17	46.84	54.00	-7.16	H	AVG
20115.00	14.487	35.84	50.33	54.00	-3.67	H	AVG
Test channel: High CH							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
13730.00	30.24	26.56	56.80	74.00	-17.20	V	Peak
20595.00	27.51	36.33	63.84	74.00	-10.16	V	Peak
13730.00	30.62	26.56	57.18	74.00	-16.82	H	Peak
20595.00	28.09	36.33	64.42	74.00	-9.58	H	Peak
13730.00	19.49	26.56	46.05	54.00	-7.95	V	AVG
20595.00	14.38	36.33	50.71	54.00	-3.29	V	AVG
13730.00	19.88	26.56	46.44	54.00	-7.56	H	AVG
20595.00	14.28	36.33	50.61	54.00	-3.39	H	AVG

Remark:

1. During the test, pre-scan the 802.11ax SISO and MIMO modes, and found the 802.11ax(HEW80) MIMO mode is worse case , the report only record this mode.
2. Result =Reading + Factor

Test Results (Above 1000MHz)_Wi-Fi UNII8 Band:

Test Mode: IEEE 802.11ax(HEW80) MIMO							
Test channel: Low CH							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
13890.00	31.64	25.66	57.30	74.00	-16.70	V	Peak
20835.00	28.11	34.68	62.79	74.00	-11.21	V	Peak
13890.00	32.23	25.66	57.89	74.00	-16.11	H	Peak
20835.00	28.12	34.68	62.80	74.00	-11.20	H	Peak
13890.00	21.157	25.66	46.82	54.00	-7.18	V	AVG
20835.00	16.372	34.68	51.05	54.00	-2.95	V	AVG
13890.00	21.420	25.66	47.08	54.00	-6.92	H	AVG
20835.00	15.742	34.68	50.42	54.00	-3.58	H	AVG
Test channel: High CH							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
14050.00	31.00	26.17	57.17	74.00	-16.83	V	Peak
21075.00	28.64	35.84	64.48	74.00	-9.52	V	Peak
14050.00	31.72	26.17	57.89	74.00	-16.11	H	Peak
21075.00	27.64	35.84	63.48	74.00	-10.52	H	Peak
14050.00	21.427	26.17	47.60	54.00	-6.40	V	AVG
21075.00	15.492	35.84	51.33	54.00	-2.67	V	AVG
14050.00	21.410	26.17	47.58	54.00	-6.42	H	AVG
21075.00	14.822	35.84	50.66	54.00	-3.34	H	AVG

Remark:

1. During the test, pre-scan the 802.11ax SISO and MIMO modes, and found the 802.11ax(HEW80) MIMO mode is worse case , the report only record this mode.
2. Result =Reading + Factor

Radiated Band Edge:
WiFi UNII5:

Test Mode: IEEE 802.11ax(HEW20)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	37.12	16.75	53.87	74.00	-20.13	H	Peak
5925.00	39.22	16.75	55.97	74.00	-18.03	V	Peak
5925.00	27.02	16.75	43.77	54.00	-10.23	H	AVG
5925.00	29.11	16.75	45.86	54.00	-8.14	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	37.53	17.83	55.36	74.00	-18.64	H	Peak
7125.00	40.56	17.83	58.39	74.00	-15.61	V	Peak
7125.00	28.90	17.83	46.73	54.00	-7.27	H	AVG
7125.00	29.75	17.83	47.58	54.00	-6.42	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Test Mode: IEEE 802.11ax(HEW40)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	36.03	16.75	52.78	74.00	-21.22	H	Peak
5925.00	36.43	16.75	53.18	74.00	-20.82	V	Peak
5925.00	26.28	16.75	43.03	54.00	-10.97	H	AVG
5925.00	26.95	16.75	43.70	54.00	-10.30	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	38.15	17.83	55.98	74.00	-18.02	H	Peak
7125.00	37.26	17.83	55.09	74.00	-18.91	V	Peak
7125.00	27.57	17.83	45.40	54.00	-8.60	H	AVG
7125.00	27.67	17.83	45.50	54.00	-8.50	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Test Mode: IEEE 802.11ax(HEW80)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	36.10	16.75	52.85	68.20	-15.35	H	Peak
5925.00	36.61	16.75	53.36	68.20	-14.84	V	Peak
5925.00	26.77	16.75	43.52	54.00	-10.48	H	AVG
5925.00	26.97	16.75	43.72	54.00	-10.28	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	38.47	17.83	56.30	68.20	-11.90	H	Peak
7125.00	37.58	17.83	55.41	68.20	-12.79	V	Peak
7125.00	29.00	17.83	46.83	54.00	-7.17	H	AVG
7125.00	28.24	17.83	46.07	54.00	-7.93	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Radiated Band Edge:
WiFi UNII6:

Test Mode: IEEE 802.11ax(HEW20)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	37.37	16.75	54.12	74.00	-19.88	H	Peak
5925.00	39.51	16.75	56.26	74.00	-17.74	V	Peak
5925.00	27.20	16.75	43.95	54.00	-10.05	H	AVG
5925.00	29.36	16.75	46.11	54.00	-7.89	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	37.71	17.83	55.54	74.00	-18.46	H	Peak
7125.00	40.91	17.83	58.74	74.00	-15.26	V	Peak
7125.00	29.18	17.83	47.01	54.00	-6.99	H	AVG
7125.00	29.93	17.83	47.76	54.00	-6.24	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Test Mode: IEEE 802.11ax(HEW40)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	36.31	16.75	53.06	74.00	-20.94	H	Peak
5925.00	36.61	16.75	53.36	74.00	-20.64	V	Peak
5925.00	26.67	16.75	43.42	54.00	-10.58	H	AVG
5925.00	27.23	16.75	43.98	54.00	-10.02	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	38.38	17.83	56.21	74.00	-17.79	H	Peak
7125.00	37.42	17.83	55.25	74.00	-18.75	V	Peak
7125.00	27.73	17.83	45.56	54.00	-8.44	H	AVG
7125.00	28.03	17.83	45.86	54.00	-8.14	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Test Mode: IEEE 802.11ax(HEW80)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	36.26	16.75	53.01	68.20	-15.19	H	Peak
5925.00	36.96	16.75	53.71	68.20	-14.49	V	Peak
5925.00	27.13	16.75	43.88	54.00	-10.12	H	AVG
5925.00	27.22	16.75	43.97	54.00	-10.03	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	38.82	17.83	56.65	68.20	-11.55	H	Peak
7125.00	37.86	17.83	55.69	68.20	-12.51	V	Peak
7125.00	29.41	17.83	47.24	54.00	-6.76	H	AVG
7125.00	28.49	17.83	46.32	54.00	-7.68	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Radiated Band Edge:
WiFi UNII7:

Test Mode: IEEE 802.11ax(HEW20)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	36.74	16.75	53.49	74.00	-20.51	H	Peak
5925.00	38.77	16.75	55.52	74.00	-18.48	V	Peak
5925.00	26.74	16.75	43.49	54.00	-10.51	H	AVG
5925.00	28.73	16.75	45.48	54.00	-8.52	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	37.25	17.83	55.08	74.00	-18.92	H	Peak
7125.00	40.05	17.83	57.88	74.00	-16.12	V	Peak
7125.00	28.49	17.83	46.32	54.00	-7.68	H	AVG
7125.00	29.47	17.83	47.30	54.00	-6.70	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Test Mode: IEEE 802.11ax(HEW40)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	35.62	16.75	52.37	74.00	-21.63	H	Peak
5925.00	36.15	16.75	52.90	74.00	-21.10	V	Peak
5925.00	25.70	16.75	42.45	54.00	-11.55	H	AVG
5925.00	26.54	16.75	43.29	54.00	-10.71	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	37.81	17.83	55.64	74.00	-18.36	H	Peak
7125.00	37.03	17.83	54.86	74.00	-19.14	V	Peak
7125.00	27.34	17.83	45.17	54.00	-8.83	H	AVG
7125.00	27.12	17.83	44.95	54.00	-9.05	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Test Mode: IEEE 802.11ax(HEW80)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	35.87	16.75	52.62	68.20	-15.58	H	Peak
5925.00	36.10	16.75	52.85	68.20	-15.35	V	Peak
5925.00	26.22	16.75	42.97	54.00	-11.03	H	AVG
5925.00	26.59	16.75	43.34	54.00	-10.66	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	37.96	17.83	55.79	68.20	-12.41	H	Peak
7125.00	37.17	17.83	55.00	68.20	-13.20	V	Peak
7125.00	28.39	17.83	46.22	54.00	-7.78	H	AVG
7125.00	27.86	17.83	45.69	54.00	-8.31	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Radiated Band Edge:
WiFi UNII8:

Test Mode: IEEE 802.11ax(HEW20)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	37.07	16.75	53.82	74.00	-20.18	H	Peak
5925.00	39.16	16.75	55.91	74.00	-18.09	V	Peak
5925.00	26.98	16.75	43.73	54.00	-10.27	H	AVG
5925.00	29.06	16.75	45.81	54.00	-8.19	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	37.49	17.83	55.32	74.00	-18.68	H	Peak
7125.00	40.50	17.83	58.33	74.00	-15.67	V	Peak
7125.00	28.85	17.83	46.68	54.00	-7.32	H	AVG
7125.00	29.71	17.83	47.54	54.00	-6.46	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Test Mode: IEEE 802.11ax(HEW40)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	35.98	16.75	52.73	74.00	-21.27	H	Peak
5925.00	36.39	16.75	53.14	74.00	-20.86	V	Peak
5925.00	26.21	16.75	42.96	54.00	-11.04	H	AVG
5925.00	26.90	16.75	43.65	54.00	-10.35	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	38.11	17.83	55.94	74.00	-18.06	H	Peak
7125.00	37.24	17.83	55.07	74.00	-18.93	V	Peak
7125.00	27.55	17.83	45.38	54.00	-8.62	H	AVG
7125.00	27.60	17.83	45.43	54.00	-8.57	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Test Mode: IEEE 802.11ax(HEW80)							
Test channel: Lowest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5925.00	36.08	16.75	52.83	68.20	-15.37	H	Peak
5925.00	36.55	16.75	53.30	68.20	-14.90	V	Peak
5925.00	26.70	16.75	43.45	54.00	-10.55	H	AVG
5925.00	26.92	16.75	43.67	54.00	-10.33	V	AVG
Test channel: Highest							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
7125.00	38.41	17.83	56.24	68.20	-11.96	H	Peak
7125.00	37.53	17.83	55.36	68.20	-12.84	V	Peak
7125.00	28.93	17.83	46.76	54.00	-7.24	H	AVG
7125.00	28.19	17.83	46.02	54.00	-7.98	V	AVG

Remark: 1. Result =Reading + Factor

2. During the test, SISO and MIMO modes have been tested, and only worst case (MIMO) data is listed in the report.

Conducted Measurement:

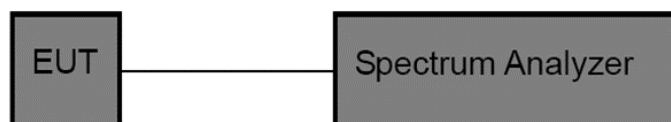
Please refer to Appendix F of the Appendix Test Data.

5. Maximum Output Power Test

5.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.407(a)(4)(5)(6)(7)(8)	
Test Limit	5.925 - 6.425GHz	1) For standard power access point and fixed client device: e.i.r.p. $\leq$ 36dBm. For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm). 2) For indoor access point: e.i.r.p. $\leq$ 30dBm. 3) For subordinate device operating under the control of an indoor access point: e.i.r.p. $\leq$ 30dBm. 4) For client devices operating under the control of a standard power access point: e.i.r.p. $\leq$ 30dBm. 5) For client devices operating under the control of an indoor access point: e.i.r.p. $\leq$ 24dBm.
	6.425 - 6.525GHz	1) For indoor access point: e.i.r.p. $\leq$ 30dBm. 2) For subordinate device operating under the control of an indoor access point: e.i.r.p. $\leq$ 30dBm. 3) For client devices operating under the control of an indoor access point: e.i.r.p. $\leq$ 24dBm.
	6.525 - 6.875GHz	1) For standard power access point and fixed client device: e.i.r.p. $\leq$ 36dBm. For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm). 2) For indoor access point: e.i.r.p. $\leq$ 30dBm. 3) For subordinate device operating under the control of an indoor access point: e.i.r.p. $\leq$ 30dBm. 4) For client devices operating under the control of a standard power access point: e.i.r.p. $\leq$ 30dBm. 5) For client devices operating under the control of an indoor access point: e.i.r.p. $\leq$ 24dBm.
	6.875 - 7.125GHz	1) For indoor access point: e.i.r.p. $\leq$ 30dBm. 2) For subordinate device operating under the control of an indoor access point: e.i.r.p. $\leq$ 30dBm. 3) For client devices operating under the control of an indoor access point: e.i.r.p. $\leq$ 24dBm.

5.2. Test Setup



5.3. Test Procedure

1. Measure the duty cycle D of the transmitter output signal.
2. Set span to encompass the entire 99% OBW of the signal.
3. Set RBW = 1 MHz.
4. Set VBW $\geq$ [3 $\times$ RBW].

5. Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$.
6. Sweep time = auto.
7. Detector = RMS
8. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the ON and OFF periods of the transmitter.
9. Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
10. Add $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Note: The cable loss and attenuator loss were offset into measure device as amplitude offset.

5.4. Test Data

Pass

Please refer to Appendix C of the Appendix Test Data.

Additional test for duty cycle.

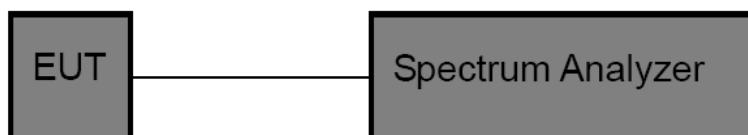
Please refer to Appendix B of the Appendix Test Data.

6. Power Spectral Density Test

6.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.407(a)(4)(5)(6)(7)(8)	
Test Limit	5.925 - 6.425GHz	1) For standard power access point and fixed client device: e.i.r.p. PSD $\leq$ 23dBm/MHz. 2) For indoor access point: e.i.r.p. PSD $\leq$ 5dBm/MHz. 3) For subordinate device operating under the control of an indoor access point: e.i.r.p. PSD $\leq$ 5dBm/MHz. 4) For client devices operating under the control of a standard power access point: e.i.r.p. PSD $\leq$ 17dBm/MHz. 5) For client devices operating under the control of an indoor access point: e.i.r.p. PSD $\leq$ -1dBm/MHz.
	6.425 - 6.525GHz	1) For indoor access point: e.i.r.p. PSD $\leq$ 5dBm/MHz. 2) For subordinate device operating under the control of an indoor access point: e.i.r.p. PSD $\leq$ 5dBm/MHz. 3) For client devices operating under the control of an indoor access point: e.i.r.p. PSD $\leq$ -1dBm/MHz.
	6.525 - 6.875GHz	1) For standard power access point and fixed client device: e.i.r.p. PSD $\leq$ 23dBm/MHz. 2) For indoor access point: e.i.r.p. PSD $\leq$ 5dBm/MHz. 3) For subordinate device operating under the control of an indoor access point: e.i.r.p. PSD $\leq$ 5dBm/MHz. 4) For client devices operating under the control of a standard power access point: e.i.r.p. PSD $\leq$ 17dBm/MHz. 5) For client devices operating under the control of an indoor access point: e.i.r.p. PSD $\leq$ -1dBm/MHz.
	6.875 - 7.125GHz	1) For indoor access point: e.i.r.p. PSD $\leq$ 5dBm/MHz. 2) For subordinate device operating under the control of an indoor access point: e.i.r.p. PSD $\leq$ 5dBm/MHz. 3) For client devices operating under the control of an indoor access point: e.i.r.p. PSD $\leq$ -1dBm/MHz.

6.2. Test Setup



6.3. Test Procedure

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz).

1. The EUT is directly connected to the spectrum analyzer;
2. Set RBW =1MHz;
3. Set VBW $\geq$ 3 RBW=3MHz;
3. Set the span to encompass the entire emissions bandwidth (EBW) of the signal;
5. Detector=RMS;
6. Sweep time= auto couple;
7. Trace mode=max. hold;

6.4. Test Data

Pass

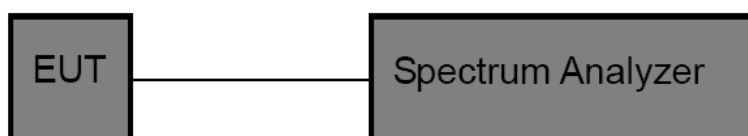
Please refer to Appendix D of the Appendix Test Data.

7. 26dB Bandwidth & 99% Occupied Bandwidth Test

7.1. Test Standard

Test Standard	FCC Part15 C Section 15.407(a) (10)& 2.1049
Test Limit	The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.

7.2. Test Setup



7.3. Test Procedure

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

Set the spectrum analyzer as:

26 dB bandwidth

RBW = approximately 1% of the emission bandwidth;

Set the VBW>RBW;

Detector= Peak

Trace mode= Max hold.

Sweep- auto couple.

4. Measure the maximum width of the emission that is 26dB down from the maximum of the emission.
Compare this with the RBW setting of the analyzer.
5. Repeat until all the rest channels are investigated.

99%bandwidth

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span= 1.5 times to 5.0 times the OBW
3. Set RBW= 1% to 5% of the OBW
4. Set VBW>3 xRBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99% power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99% power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached: that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached: that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two

frequencies.

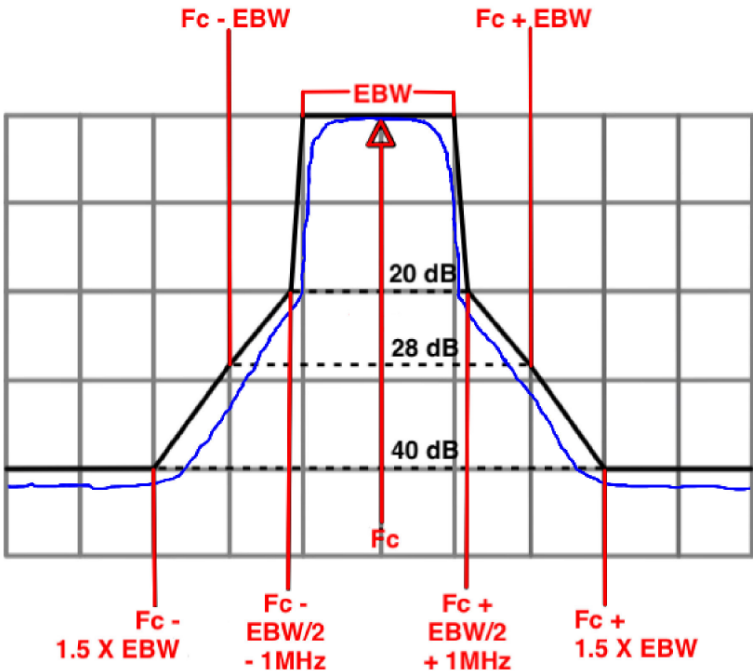
7.4. Test Data

Pass

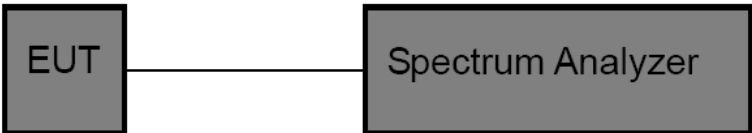
Please refer to Appendix A1&A2 of the Appendix Test Data.

8. Emission Mask

8.1. Test Standard

Test Standard	FCC Part15 C Section 15.407(b)(6)(7)
Test Limit	(1) For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB. (2) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27dBm/MHz. 

8.2. Test Setup



8.3. Test Procedure

1. Connect output of the antenna port to a spectrum analyzer.
2. Set the reference level based on power measurements of the signal.
3. Measure the 26dB EBW which will be used to determine the channel edge.

Measure the power spectral density which will be used for emission mask reference.

Measure the power spectral density used for emissions mask reference.

Set the spectrum analyzer as:

Set span to encompass the entire 26dB EBW of the signal.

Set RBW = same RBW used for 26dB EBW measurement.

Set VBW $\geq 3 \times$ RBW

Sweep time = auto

Detect = RMS

Trace average at least 100 traces

7. For the purposes of developing the emission mask, the channel bandwidth is defined as the 26dB EBW.

8. Repeat until all the rest channels are investigated.

8.4. Test Data

Pass

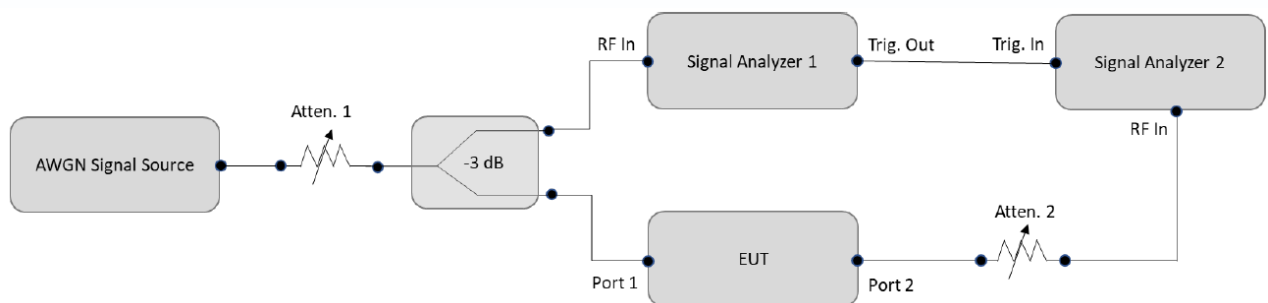
Please refer to Appendix E of the Appendix Test Data.

9. Contention-Based Protocol

9.1. Test Standard and Limit

Test Standard	FCC Part15 Section 15.407d(6)
Test Limit	Indoor access points, subordinate devices and client devices operating in the 5.925–7.125 GHz band must employ a contention-based protocol. Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel (in which incumbent signal is transmitted) and stay off the incumbent channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm)¹. The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain. To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel. For example, an 802.11 device that plans to transmit a 40 MHz- wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally, low-power indoor devices must detect co-channel energy with 90% or greater certainty.

9.2. Test Setup



9.3. Test Procedure

1. Configure the EUT to transmit with a constant duty cycle.
2. Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
3. Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2, as shown in Figure 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
4. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two.
5. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
6. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm

threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT as shown in Figure 2.

7. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.

8. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.

9. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.

10. Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal and repeat the process.

9.4. Test Data

Pass

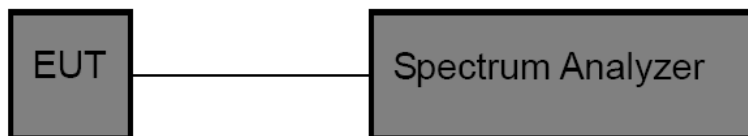
Please refer to Appendix G and Appendix H of the Appendix Test Data.

10. Frequency stability

10.1. Test Standard and Limit

Test Standard	FCC Part15 Section 15.407(g)
Test Limit	Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

10.2. Test Setup



10.3. Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize.
- Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

10.4. Test Data

Pass

Please to see the following pages.

Test Mode: Wi-Fi UNII5							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit	Verdict
802.11ax (HEW20)	MIMO	5955	20	102.00	5955.05	5925 to 6425	Pass
				120.00	5955.06	5925 to 6425	Pass
				138.00	5955.01	5925 to 6425	Pass
			-30	120.00	5955.12	5925 to 6425	Pass
			-20	120.00	5955.11	5925 to 6425	Pass
			-10	120.00	5955.08	5925 to 6425	Pass
			0	120.00	5955.02	5925 to 6425	Pass
			10	120.00	5955.11	5925 to 6425	Pass
			30	120.00	5955.06	5925 to 6425	Pass
			40	120.00	5955.03	5925 to 6425	Pass
			50	120.00	5955.10	5925 to 6425	Pass
		6175	20	102.00	6175.07	5925 to 6425	Pass
				120.00	6175.06	5925 to 6425	Pass
				138.00	6175.10	5925 to 6425	Pass
			-30	120.00	6175.09	5925 to 6425	Pass
			-20	120.00	6175.05	5925 to 6425	Pass
			-10	120.00	6175.02	5925 to 6425	Pass
			0	120.00	6175.06	5925 to 6425	Pass
			10	120.00	6175.03	5925 to 6425	Pass
			30	120.00	6175.02	5925 to 6425	Pass
			40	120.00	6175.00	5925 to 6425	Pass
			50	120.00	6175.07	5925 to 6425	Pass
		6415	20	102.00	6415.08	5925 to 6425	Pass
				120.00	6415.12	5925 to 6425	Pass
				138.00	6415.03	5925 to 6425	Pass
			-30	120.00	6415.06	5925 to 6425	Pass
			-20	120.00	6415.12	5925 to 6425	Pass
			-10	120.00	6415.11	5925 to 6425	Pass
			0	120.00	6415.12	5925 to 6425	Pass
			10	120.00	6415.09	5925 to 6425	Pass
			30	120.00	6415.09	5925 to 6425	Pass
			40	120.00	6415.11	5925 to 6425	Pass
			50	120.00	6415.05	5925 to 6425	Pass
802.11ax (HEW40)	MIMO	5965	20	102.00	5965.02	5925 to 6425	Pass
				120.00	5965.10	5925 to 6425	Pass
				138.00	5965.04	5925 to 6425	Pass
			-30	120.00	5965.06	5925 to 6425	Pass
			-20	120.00	5965.07	5925 to 6425	Pass

			-10	120.00	5965.11	5925 to 6425	Pass
			0	120.00	5965.02	5925 to 6425	Pass
			10	120.00	5965.06	5925 to 6425	Pass
			30	120.00	5965.03	5925 to 6425	Pass
			40	120.00	5965.03	5925 to 6425	Pass
			50	120.00	5965.06	5925 to 6425	Pass
		6165	20	102.00	6165.11	5925 to 6425	Pass
				120.00	6165.05	5925 to 6425	Pass
				138.00	6165.08	5925 to 6425	Pass
			-30	120.00	6165.11	5925 to 6425	Pass
			-20	120.00	6165.05	5925 to 6425	Pass
			-10	120.00	6165.12	5925 to 6425	Pass
			0	120.00	6165.05	5925 to 6425	Pass
			10	120.00	6165.02	5925 to 6425	Pass
			30	120.00	6165.03	5925 to 6425	Pass
			40	120.00	6165.02	5925 to 6425	Pass
			50	120.00	6165.06	5925 to 6425	Pass
		6405	20	102.00	6405.10	5925 to 6425	Pass
				120.00	6405.05	5925 to 6425	Pass
				138.00	6405.12	5925 to 6425	Pass
			-30	120.00	6405.05	5925 to 6425	Pass
			-20	120.00	6405.12	5925 to 6425	Pass
			-10	120.00	6405.13	5925 to 6425	Pass
			0	120.00	6405.07	5925 to 6425	Pass
			10	120.00	6405.10	5925 to 6425	Pass
			30	120.00	6405.10	5925 to 6425	Pass
			40	120.00	6405.08	5925 to 6425	Pass
			50	120.00	6405.03	5925 to 6425	Pass
802.11ax (HEW80)	MIMO	5985	20	102.00	5985.08	5925 to 6425	Pass
				120.00	5985.10	5925 to 6425	Pass
				138.00	5985.00	5925 to 6425	Pass
			-30	120.00	5985.00	5925 to 6425	Pass
			-20	120.00	5985.06	5925 to 6425	Pass
			-10	120.00	5985.01	5925 to 6425	Pass
			0	120.00	5985.11	5925 to 6425	Pass
			10	120.00	5985.05	5925 to 6425	Pass
			30	120.00	5985.08	5925 to 6425	Pass
			40	120.00	5985.01	5925 to 6425	Pass
			50	120.00	5985.01	5925 to 6425	Pass
		6145	20	102.00	6145.11	5925 to 6425	Pass
				120.00	6145.07	5925 to 6425	Pass

				138.00	6145.08	5925 to 6425	Pass
			-30	120.00	6145.07	5925 to 6425	Pass
			-20	120.00	6145.09	5925 to 6425	Pass
			-10	120.00	6145.06	5925 to 6425	Pass
			0	120.00	6145.10	5925 to 6425	Pass
			10	120.00	6145.11	5925 to 6425	Pass
			30	120.00	6145.11	5925 to 6425	Pass
			40	120.00	6145.02	5925 to 6425	Pass
			50	120.00	6145.07	5925 to 6425	Pass
		6385	20	102.00	6385.01	5925 to 6425	Pass
				120.00	6385.09	5925 to 6425	Pass
				138.00	6385.10	5925 to 6425	Pass
			-30	120.00	6385.09	5925 to 6425	Pass
			-20	120.00	6385.07	5925 to 6425	Pass
			-10	120.00	6385.07	5925 to 6425	Pass
			0	120.00	6385.09	5925 to 6425	Pass
			10	120.00	6385.10	5925 to 6425	Pass
			30	120.00	6385.08	5925 to 6425	Pass
			40	120.00	6385.11	5925 to 6425	Pass
			50	120.00	6385.05	5925 to 6425	Pass

Test Mode: Wi-Fi UNII6							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit	Verdict
802.11ax (HEW20)	MIMO	6435	20	102.00	6435.07	6425 to 6525	Pass
				120.00	6435.02	6425 to 6525	Pass
				138.00	6435.06	6425 to 6525	Pass
			-30	120.00	6435.12	6425 to 6525	Pass
			-20	120.00	6435.00	6425 to 6525	Pass
			-10	120.00	6435.10	6425 to 6525	Pass
			0	120.00	6435.02	6425 to 6525	Pass
			10	120.00	6435.03	6425 to 6525	Pass
			30	120.00	6435.03	6425 to 6525	Pass
			40	120.00	6435.02	6425 to 6525	Pass
			50	120.00	6435.11	6425 to 6525	Pass
		6475	20	102.00	6475.08	6425 to 6525	Pass
				120.00	6475.08	6425 to 6525	Pass
				138.00	6475.09	6425 to 6525	Pass
			-30	120.00	6475.10	6425 to 6525	Pass
			-20	120.00	6475.08	6425 to 6525	Pass
			-10	120.00	6475.12	6425 to 6525	Pass

			0	120.00	6475.08	6425 to 6525	Pass
			10	120.00	6475.09	6425 to 6525	Pass
			30	120.00	6475.10	6425 to 6525	Pass
			40	120.00	6475.04	6425 to 6525	Pass
			50	120.00	6475.11	6425 to 6525	Pass
		6515	20	102.00	6515.13	6425 to 6525	Pass
				120.00	6515.11	6425 to 6525	Pass
				138.00	6515.09	6425 to 6525	Pass
			-30	120.00	6515.01	6425 to 6525	Pass
			-20	120.00	6515.13	6425 to 6525	Pass
			-10	120.00	6515.04	6425 to 6525	Pass
			0	120.00	6515.02	6425 to 6525	Pass
			10	120.00	6515.01	6425 to 6525	Pass
			30	120.00	6515.07	6425 to 6525	Pass
			40	120.00	6515.07	6425 to 6525	Pass
			50	120.00	6515.06	6425 to 6525	Pass
802.11ax (HEW40)	MIMO	6445	20	102.00	6445.01	6425 to 6525	Pass
				120.00	6445.09	6425 to 6525	Pass
				138.00	6445.06	6425 to 6525	Pass
			-30	120.00	6445.12	6425 to 6525	Pass
			-20	120.00	6445.01	6425 to 6525	Pass
			-10	120.00	6445.10	6425 to 6525	Pass
			0	120.00	6445.03	6425 to 6525	Pass
			10	120.00	6445.04	6425 to 6525	Pass
			30	120.00	6445.06	6425 to 6525	Pass
			40	120.00	6445.06	6425 to 6525	Pass
			50	120.00	6445.09	6425 to 6525	Pass
		6485	20	102.00	6485.04	6425 to 6525	Pass
				120.00	6485.07	6425 to 6525	Pass
				138.00	6485.00	6425 to 6525	Pass
			-30	120.00	6485.11	6425 to 6525	Pass
			-20	120.00	6485.06	6425 to 6525	Pass
			-10	120.00	6485.03	6425 to 6525	Pass
			0	120.00	6485.06	6425 to 6525	Pass
			10	120.00	6485.09	6425 to 6525	Pass
			30	120.00	6485.11	6425 to 6525	Pass
			40	120.00	6485.03	6425 to 6525	Pass
			50	120.00	6485.10	6425 to 6525	Pass
802.11ax (HEW80)	MIMO	6465	20	102.00	6465.04	6425 to 6525	Pass
				120.00	6465.03	6425 to 6525	Pass
				138.00	6465.03	6425 to 6525	Pass

			-30	120.00	6465.08	6425 to 6525	Pass
			-20	120.00	6465.03	6425 to 6525	Pass
			-10	120.00	6465.07	6425 to 6525	Pass
			0	120.00	6465.07	6425 to 6525	Pass
			10	120.00	6465.03	6425 to 6525	Pass
			30	120.00	6465.10	6425 to 6525	Pass
			40	120.00	6465.12	6425 to 6525	Pass
			50	120.00	6465.03	6425 to 6525	Pass

Test Mode: Wi-Fi UNII7							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit	Verdict
802.11ax (HEW20)	MIMO	6535	20	102.00	6535.11	6525 to 6875	Pass
				120.00	6535.02	6525 to 6875	Pass
				138.00	6535.05	6525 to 6875	Pass
			-30	120.00	6535.03	6525 to 6875	Pass
			-20	120.00	6535.01	6525 to 6875	Pass
			-10	120.00	6535.12	6525 to 6875	Pass
			0	120.00	6535.06	6525 to 6875	Pass
			10	120.00	6535.11	6525 to 6875	Pass
			30	120.00	6535.07	6525 to 6875	Pass
			40	120.00	6535.04	6525 to 6875	Pass
			50	120.00	6535.13	6525 to 6875	Pass
		6695	20	102.00	6695.12	6525 to 6875	Pass
				120.00	6695.13	6525 to 6875	Pass
				138.00	6695.01	6525 to 6875	Pass
			-30	120.00	6695.01	6525 to 6875	Pass
			-20	120.00	6695.11	6525 to 6875	Pass
			-10	120.00	6695.03	6525 to 6875	Pass
			0	120.00	6695.00	6525 to 6875	Pass
			10	120.00	6695.07	6525 to 6875	Pass
			30	120.00	6695.04	6525 to 6875	Pass
			40	120.00	6695.06	6525 to 6875	Pass
			50	120.00	6695.06	6525 to 6875	Pass
		6875	20	102.00	6875.06	6525 to 6875	Pass
				120.00	6875.06	6525 to 6875	Pass
				138.00	6875.05	6525 to 6875	Pass
			-30	120.00	6875.07	6525 to 6875	Pass
			-20	120.00	6875.06	6525 to 6875	Pass
			-10	120.00	6875.09	6525 to 6875	Pass
			0	120.00	6875.00	6525 to 6875	Pass

			10	120.00	6875.05	6525 to 6875	Pass
			30	120.00	6875.04	6525 to 6875	Pass
			40	120.00	6875.08	6525 to 6875	Pass
			50	120.00	6875.02	6525 to 6875	Pass
802.11ax (HEW40)	MIMO	6565	20	102.00	6565.06	6525 to 6875	Pass
				120.00	6565.12	6525 to 6875	Pass
				138.00	6565.09	6525 to 6875	Pass
			-30	120.00	6565.08	6525 to 6875	Pass
			-20	120.00	6565.11	6525 to 6875	Pass
			-10	120.00	6565.04	6525 to 6875	Pass
			0	120.00	6565.03	6525 to 6875	Pass
			10	120.00	6565.02	6525 to 6875	Pass
			30	120.00	6565.11	6525 to 6875	Pass
			40	120.00	6565.08	6525 to 6875	Pass
			50	120.00	6565.03	6525 to 6875	Pass
		6685	20	102.00	6685.02	6525 to 6875	Pass
				120.00	6685.07	6525 to 6875	Pass
				138.00	6685.06	6525 to 6875	Pass
			-30	120.00	6685.03	6525 to 6875	Pass
			-20	120.00	6685.02	6525 to 6875	Pass
			-10	120.00	6685.12	6525 to 6875	Pass
			0	120.00	6685.04	6525 to 6875	Pass
			10	120.00	6685.00	6525 to 6875	Pass
			30	120.00	6685.12	6525 to 6875	Pass
			40	120.00	6685.01	6525 to 6875	Pass
			50	120.00	6685.06	6525 to 6875	Pass
		6845	20	102.00	6845.03	6525 to 6875	Pass
				120.00	6845.02	6525 to 6875	Pass
				138.00	6845.01	6525 to 6875	Pass
			-30	120.00	6845.07	6525 to 6875	Pass
			-20	120.00	6845.10	6525 to 6875	Pass
			-10	120.00	6845.12	6525 to 6875	Pass
			0	120.00	6845.11	6525 to 6875	Pass
			10	120.00	6845.12	6525 to 6875	Pass
			30	120.00	6845.09	6525 to 6875	Pass
			40	120.00	6845.07	6525 to 6875	Pass
			50	120.00	6845.12	6525 to 6875	Pass
802.11ax (HEW80)	MIMO	6545	20	102.00	6545.09	6525 to 6875	Pass
				120.00	6545.06	6525 to 6875	Pass
				138.00	6545.04	6525 to 6875	Pass
			-30	120.00	6545.03	6525 to 6875	Pass

			-20	120.00	6545.02	6525 to 6875	Pass
			-10	120.00	6545.01	6525 to 6875	Pass
			0	120.00	6545.12	6525 to 6875	Pass
			10	120.00	6545.05	6525 to 6875	Pass
			30	120.00	6545.10	6525 to 6875	Pass
			40	120.00	6545.03	6525 to 6875	Pass
			50	120.00	6545.05	6525 to 6875	Pass
		6705	20	102.00	6705.10	6525 to 6875	Pass
				120.00	6705.12	6525 to 6875	Pass
				138.00	6705.11	6525 to 6875	Pass
			-30	120.00	6705.06	6525 to 6875	Pass
			-20	120.00	6705.01	6525 to 6875	Pass
			-10	120.00	6705.06	6525 to 6875	Pass
			0	120.00	6705.03	6525 to 6875	Pass
			10	120.00	6705.04	6525 to 6875	Pass
			30	120.00	6705.02	6525 to 6875	Pass
			40	120.00	6705.04	6525 to 6875	Pass
			50	120.00	6705.11	6525 to 6875	Pass
		6865	20	102.00	6865.02	6525 to 6875	Pass
				120.00	6865.11	6525 to 6875	Pass
				138.00	6865.06	6525 to 6875	Pass
			-30	120.00	6865.11	6525 to 6875	Pass
			-20	120.00	6865.07	6525 to 6875	Pass
			-10	120.00	6865.09	6525 to 6875	Pass
			0	120.00	6865.02	6525 to 6875	Pass
			10	120.00	6865.05	6525 to 6875	Pass
			30	120.00	6865.13	6525 to 6875	Pass
			40	120.00	6865.07	6525 to 6875	Pass
			50	120.00	6865.12	6525 to 6875	Pass

Test Mode: Wi-Fi UNII8							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit	Verdict
802.11ax (HEW20)	MIMO	6895	20	102.00	6895.10	6875 to 7125	Pass
				120.00	6895.09	6875 to 7125	Pass
				138.00	6895.03	6875 to 7125	Pass
			-30	120.00	6895.12	6875 to 7125	Pass
			-20	120.00	6895.09	6875 to 7125	Pass
			-10	120.00	6895.12	6875 to 7125	Pass
			0	120.00	6895.02	6875 to 7125	Pass
			10	120.00	6895.06	6875 to 7125	Pass

			30	120.00	6895.12	6875 to 7125	Pass
			40	120.00	6895.12	6875 to 7125	Pass
			50	120.00	6895.05	6875 to 7125	Pass
		6995	20	102.00	6995.05	6875 to 7125	Pass
				120.00	6995.12	6875 to 7125	Pass
				138.00	6995.04	6875 to 7125	Pass
			-30	120.00	6995.08	6875 to 7125	Pass
			-20	120.00	6995.08	6875 to 7125	Pass
			-10	120.00	6995.05	6875 to 7125	Pass
			0	120.00	6995.10	6875 to 7125	Pass
			10	120.00	6995.10	6875 to 7125	Pass
			30	120.00	6995.12	6875 to 7125	Pass
			40	120.00	6995.11	6875 to 7125	Pass
			50	120.00	6995.03	6875 to 7125	Pass
		7115	20	102.00	7115.13	6875 to 7125	Pass
				120.00	7115.08	6875 to 7125	Pass
				138.00	7115.07	6875 to 7125	Pass
			-30	120.00	7115.02	6875 to 7125	Pass
			-20	120.00	7115.07	6875 to 7125	Pass
			-10	120.00	7115.04	6875 to 7125	Pass
			0	120.00	7115.10	6875 to 7125	Pass
			10	120.00	7115.08	6875 to 7125	Pass
			30	120.00	7115.05	6875 to 7125	Pass
			40	120.00	7115.00	6875 to 7125	Pass
			50	120.00	7115.03	6875 to 7125	Pass
802.11ax (HEW40)	MIMO	6885	20	102.00	6885.07	6875 to 7125	Pass
				120.00	6885.04	6875 to 7125	Pass
				138.00	6885.07	6875 to 7125	Pass
			-30	120.00	6885.04	6875 to 7125	Pass
			-20	120.00	6885.04	6875 to 7125	Pass
			-10	120.00	6885.01	6875 to 7125	Pass
			0	120.00	6885.00	6875 to 7125	Pass
			10	120.00	6885.03	6875 to 7125	Pass
			30	120.00	6885.05	6875 to 7125	Pass
			40	120.00	6885.00	6875 to 7125	Pass
			50	120.00	6885.00	6875 to 7125	Pass
		6965	20	102.00	6965.01	6875 to 7125	Pass
				120.00	6965.13	6875 to 7125	Pass
				138.00	6965.06	6875 to 7125	Pass
			-30	120.00	6965.08	6875 to 7125	Pass
			-20	120.00	6965.08	6875 to 7125	Pass

			-10	120.00	6965.08	6875 to 7125	Pass
			0	120.00	6965.01	6875 to 7125	Pass
			10	120.00	6965.01	6875 to 7125	Pass
			30	120.00	6965.03	6875 to 7125	Pass
			40	120.00	6965.07	6875 to 7125	Pass
			50	120.00	6965.07	6875 to 7125	Pass
		7085	20	102.00	7085.11	6875 to 7125	Pass
				120.00	7085.12	6875 to 7125	Pass
				138.00	7085.01	6875 to 7125	Pass
			-30	120.00	7085.06	6875 to 7125	Pass
			-20	120.00	7085.08	6875 to 7125	Pass
			-10	120.00	7085.05	6875 to 7125	Pass
			0	120.00	7085.06	6875 to 7125	Pass
			10	120.00	7085.04	6875 to 7125	Pass
			30	120.00	7085.10	6875 to 7125	Pass
			40	120.00	7085.03	6875 to 7125	Pass
			50	120.00	7085.05	6875 to 7125	Pass
802.11ax (HEW80)	MIMO	6945	20	102.00	6945.11	6875 to 7125	Pass
				120.00	6945.09	6875 to 7125	Pass
				138.00	6945.07	6875 to 7125	Pass
			-30	120.00	6945.03	6875 to 7125	Pass
			-20	120.00	6945.00	6875 to 7125	Pass
			-10	120.00	6945.09	6875 to 7125	Pass
			0	120.00	6945.04	6875 to 7125	Pass
			10	120.00	6945.01	6875 to 7125	Pass
			30	120.00	6945.00	6875 to 7125	Pass
			40	120.00	6945.08	6875 to 7125	Pass
			50	120.00	6945.07	6875 to 7125	Pass
		7025	20	102.00	7025.09	6875 to 7125	Pass
				120.00	7025.05	6875 to 7125	Pass
				138.00	7025.00	6875 to 7125	Pass
			-30	120.00	7025.01	6875 to 7125	Pass
			-20	120.00	7025.13	6875 to 7125	Pass
			-10	120.00	7025.02	6875 to 7125	Pass
			0	120.00	7025.04	6875 to 7125	Pass
			10	120.00	7025.06	6875 to 7125	Pass
			30	120.00	7025.03	6875 to 7125	Pass
			40	120.00	7025.04	6875 to 7125	Pass
			50	120.00	7025.07	6875 to 7125	Pass

11. Antenna Requirement

11.1. Test Standard and Requirement

Test Standard	FCC Part15 Section 15.203 /15.407
Requirement	1) 15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 2) 15.407 requirement: if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Antenna Connected Construction

The antenna is FPC Antenna which permanently attached, and the best case gain of the 3.40dBi for Wi-Fi UNII5 ANT1, 3.40dBi for Wi-Fi UNII5 ANT2, 3.32dBi for Wi-Fi UNII6 ANT1, 3.40dBi for Wi-Fi UNII6 ANT2, 3.40dBi for Wi-Fi UNII7 ANT1, 3.40dBi for Wi-Fi UNII7 ANT2, 3.40dBi for Wi-Fi UNII8 ANT1, 3.40dBi for Wi-Fi UNII8 ANT2. It complies with the standard requirement.

APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph_RF

APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

APPENDIX III -- INTERNAL PHOTOGRAPH

Please refer to separated files Appendix III -- Internal Photograph

----- End of Report -----

