

RF Test Report

Applicant : Winmate Inc.

Product Name : Intel Wi-Fi 6E AX210 Module

Trade Name : Intel

Model Number : AX210NGW

Applicable Standard : FCC 47 CFR PART 15 SUBPART C
ANSI C63.10:2020

Received Date : Mar. 05, 2026

Test Period : Mar. 20, 2026 ~ Mar. 24, 2026

Issued Date : Apr. 16, 2026

Issued by

Eurofins E&E Wireless Taiwan Co., Ltd.
No. 140-1, Changan Street, Bade District,
Taoyuan City, Taiwan (R.O.C.)
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330
Frequency Range: 9 kHz to 325 GHz
Bade test site :
Test Firm Registration Number: 226252
Test Firm Designation Number: TW0010
Wugu test site :
Test Firm Registration Number: 191812
Test Firm Designation Number: TW0034

Note:

1. The test results are valid only for samples provided by customers and under the test conditions described in this report.
2. This report shall not be reproduced except in full, without the written approval of Eurofins E&E Wireless Taiwan Co., Ltd.
3. The relevant information is provided by customers in this test report. According to the correctness, appropriateness or completeness of the information provided by the customer, if there is any doubt or error in the information which affects the validity of the test results, the laboratory does not take the responsibility.

Revision History

Rev.	Issued Date	Description	Revised by
00	Apr. 16, 2026	Initial Issue	Rowan Hsieh

Verification of Compliance

Applicant : Winmate Inc.

Product Name : Intel Wi-Fi 6E AX210 Module

Trade Name : Intel

Model Number : AX210NGW

FCC ID : PX9AX210

Applicable Standard : FCC 47 CFR PART 15 SUBPART C
ANSI C63.10:2020

Test Result : Complied

Issued By : Eurofins E&E Wireless Taiwan Co., Ltd.
No. 140-1, Changan Street, Bade District,
Taoyuan City, Taiwan (R.O.C.)
Tel : +886-3-2710188 / Fax : +886-3-2710190
Taiwan Accreditation Foundation accreditation number: 1330



Eurofins E&E Wireless Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Eurofins E&E Wireless Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By : Kai Yu Yang
Kai Yu Yang / RF Supervisor

TABLE OF CONTENTS

1	General Information	5
1.1.	Summary of Test Result	5
1.2.	Testing Location	6
1.3.	Measurement Uncertainty	6
1.4.	Test Site Environment.....	6
2	EUT Description.....	7
3	Test Methodology.....	9
3.1.	Mode of Operation.....	9
3.2.	EUT Test Step	9
3.3.	Configuration of Test System Details.....	10
3.4.	Test Instruments	11
4	Measurement Procedure.....	12
4.1.	AC Power Line Conducted Emission Measurement.....	12
4.2.	Radiated Emission Measurement.....	14
5	Test Results	18
5.1.	Conducted Emission.....	18
5.2.	Radiated Emission Measurement.....	20

Appendix A. Test Setup Photographs

1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
15.207	AC Power Conducted Emission	PASS	----
15.247(d)	Transmitter Radiated Emissions	PASS	----
15.247(b)(3)	Max. Output Power	N/A	Note
15.247(a)(2)	6 dB RF Bandwidth	N/A	Note
15.247(e)	Maximum Power Spectral Density	N/A	Note
15.247(d)	Out of Band Conducted Spurious Emission	N/A	Note
15.203	Antenna Requirement	N/A	Note

Note: Citing the module report (200611-03.TR04), verification is required for conducted emission and co-location.

Decision Rule

- ☒ Uncertainty is not included.
- ☐ Uncertainty is included.

Standard	Description
CFR47, Part 15, Subpart C	Intentional Radiators
ANSI C63.10: 2020	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 558074 D01 15.247 Meas Guidance v05r02	GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES

1.2. Testing Location

Lab Name: Eurofins E&E Wireless Taiwan Co., Ltd.

Site Address: ☒ No. 140-1, Changan Street, Bade District, Taoyuan City, Taiwan (R.O.C.)

Site Address: ☐ No. 2, Wuquan 5th Rd. Wugu Dist., New Taipei City, Taiwan (R.O.C.)

1.3. Measurement Uncertainty

Test Item	Frequency	Uncertainty				
		BD		WG		
Conducted Emission	150 kHz ~ 30 MHz	2.7 dB		2.6 dB		
Test Item	Frequency	Uncertainty				
		96601-BD	96603-BD	96602-WG	96603-WG	96604-WG
Radiated Emission	9 kHz ~ 30 MHz	1.8 dB	1.8 dB	1.6 dB	1.6 dB	1.7 dB
	30 MHz ~ 1000 MHz	4.7 dB	4.6 dB	4.7 dB	4.7 dB	4.5 dB
	1000 MHz ~ 18000 MHz	4.4 dB	4.5 dB	4.5 dB	4.7 dB	5.0 dB
	18000 MHz ~ 26500 MHz	3.6 dB	3.8 dB	3.8 dB	4.0 dB	4.3 dB
	26500 MHz ~ 40000 MHz	3.9 dB	3.9 dB	4.0 dB	4.0 dB	4.4 dB

1.4. Test Site Environment

Items	Required (IEC 60068-1)	Interval(*)
Temperature (°C)	15-35	20-30
Humidity (%RH)	25-75	45-75

(*)The measurement ambient temperature is within this range.

2 EUT Description

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity(except Max. RF Output Power).

Applicant	Winmate Inc. 9F, No.111-6, Shing-De Rd., San-Chung District, New Taipei City 241, Taiwan	
Product Name	Intel Wi-Fi 6E AX210 Module	
Trade Name	Intel	
Model Number	AX210NGW	
FCC ID	PX9AX210	
Host Information	Product Name: Rugged Laptop Trade Name (1): Winmate Trade Name (2): ARMA Systems Model Name: L140AD-4, ARM-CORE14-ML01, ARM-CORE14-ML02, L140xxxxxxxx ("X"= A~Z,a~z,0~9,"-" Blank or Slash for marketing purpose only, no impact safety related constructions or critical components) All models are identical in electrical performance; the different appearances, logos, and model names are for marketing purposes.	
Frequency Range	2402 ~ 2480 MHz	
Modulation Type	GFSK	
Operate Temp. Range	-20 ~ +60 °C	
EUT Power Rating	DC 19 V, 6.31 A	
Antenna information	Type	Max. Gain (dBi)
	PIFA Antenna	0.14

Testing Sample No.	
Test Item	Sample Number
Conducted Emission	C263094_A005
Radiated	C263094_A005

EUT Modify Description :

Modify Description:

1. Additional chassis added, trade name: ARMA Systems, model number: FCC: L140AD-4, ARM-CORE14-ML01, ARM-CORE14-ML02, L140xxxxxxxx ("X"= A~Z,a~z,0~9,"-" Blank or Slash for marketing purpose only, no impact safety related constructions or critical components)
Model differences: All models are identical in electrical performance; the different appearances, logos, and model names are for marketing purposes.
2. Add one antenna which have the same antenna type as original grant, and each antenna gain is lower.
3. Unable WLAN 5.9G, WIFI-6E function by firmware, and there are no WIFI-6E driver installed in the system.
Host requires professional installation and cannot be modified by end users.
4. Update host product name.

After the evaluation, conducted emission and co-location need to be retest.

CH	Freq. (MHz)	CH	Freq. (MHz)	CH	Freq. (MHz)
0	2402	14	2430	28	2458
1	2404	15	2432	29	2460
2	2406	16	2434	30	2462
3	2408	17	2436	31	2464
4	2410	18	2438	32	2466
5	2412	19	2440	33	2468
6	2414	20	2442	34	2470
7	2416	21	2444	35	2472
8	2418	22	2446	36	2474
19	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454	---	---
13	2428	27	2456	---	---

3 Test Methodology

3.1. Mode of Operation

Decision of Test Eurofins has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode	Final-Test Mode
Transmit Mode	V

Software used to control the EUT for staying in continuous transmitting mode was programmed.

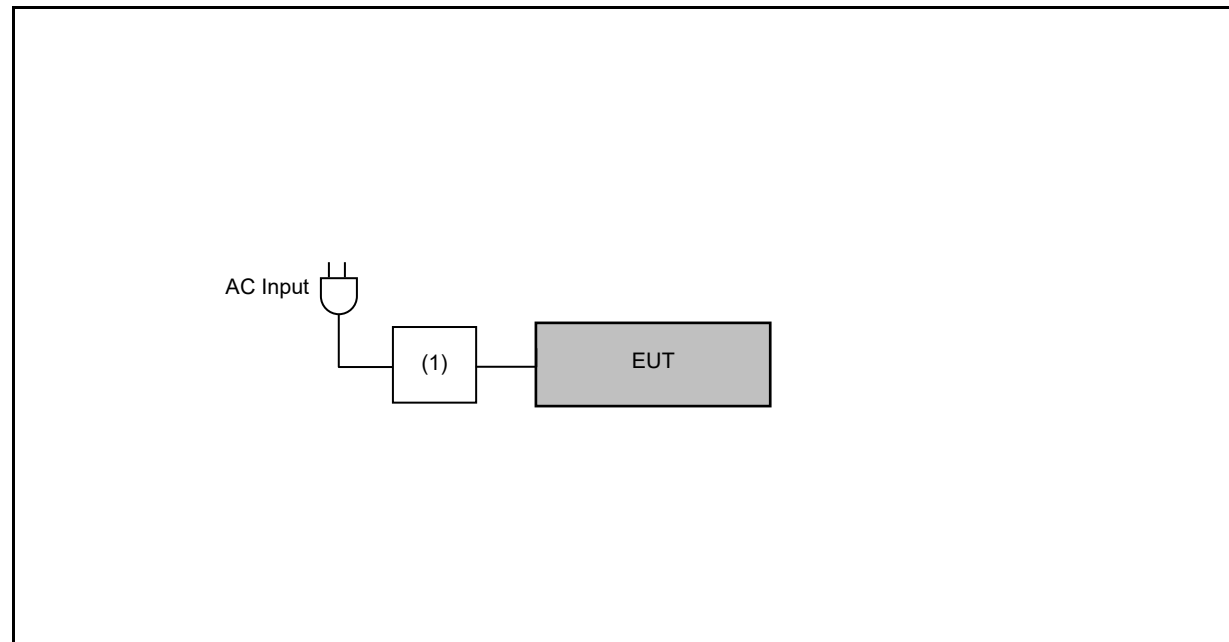
After verification, all tests were carried out with the worst case test modes.

3.2. EUT Test Step

1	Setup the EUT shown on "Configuration of Test System Details".
2	Turn on the power of all equipment.
3	Turn on TX function.
4	EUT run test program.

3.3. Configuration of Test System Details

Conduction Emission & Radiated Emissions



Devices Description					
	Product	Manufacturer	Model Number	Serial Number	Power Cord
(1)	Adapter	FSP	FSP120-ABAN5	---	PHP-301 PHS-301

3.4. Test Instruments

For Conducted Emission

Test Period: Mar. 24, 2026

Testing Engineer: Jayson Hsieh

Test Site		Conduction01-BD				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Test Receiver	R&S	ESCI	100367	May 26, 2025	1 year
☒	LISN	R&S	ENV216	101040	Feb. 26, 2025	1 year
☒	RF Cable	Woken	00100D1380194M	TE-02-03	Jun. 10, 2025	1 year
☒	Software	EZ EMC	1.1.4.3	N/A	N.C.R.	---

For Radiated Emissions

Test Period: Mar. 20, 2026

Testing Engineer: Marc Yeh

Test Site		96603-BD				
Radiation test sites		Semi Anechoic Room				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Spectrum Analyzer (10 Hz~44 GHz)	Keysight	N9020B	MY60112363	Jan. 09, 2026	1 year
☒	Broadband Amplifier (1 GHz~26.5 GHz)	Titan	T0912E01263025 A1F	002	Aug. 07, 2025	1 year
☒	Broadband Horn Antenna (1 GHz~18 GHz)	Schwarzbeck Mess-Elektronik	9120D	02207	Aug. 29, 2025	1 year
☒	Broadband Horn Antenna (18 GHz~40 GHz)	Schwarzbeck Mess-Elektronik	9170	9170-320	Jul. 31, 2025	1 year
☒	Coaxial Cable	Titan	T0710AT327A10A 100	J11005	Aug. 06, 2025	1 year
☒	Coaxial Cable	Titan	T0710AT327A10A 900	J11003	Aug. 06, 2025	1 year
☒	Coaxial Cable	Titan	CFD400NL-LW	171219	Aug. 06, 2025	1 year
☒	Software	R_RAM	1.4	N/A	N.C.R.	---

Note: N.C.R. = No Calibration Request.

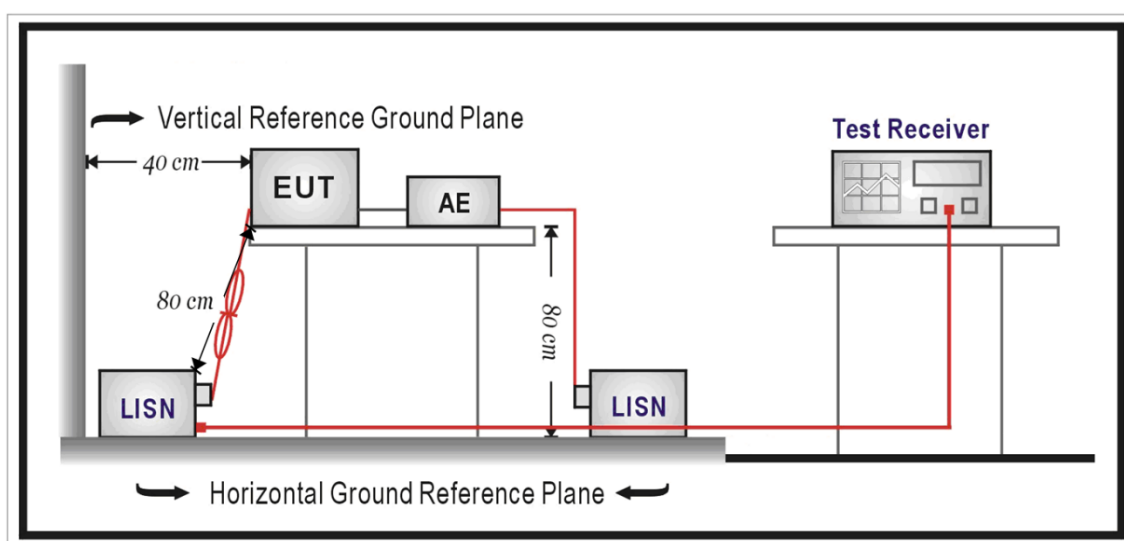
4 Measurement Procedure

4.1. AC Power Line Conducted Emission Measurement

■ Limit

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

■ Test Setup



■ Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a $50\ \Omega // 50\ \mu\text{H}$ coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a $50\ \Omega // 50\ \mu\text{H}$ coupling impedance with 50 ohm termination.

Tabletop device shall be placed on a non-conducting platform, of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The wall of screened room shall be located 40 cm to the rear of the EUT. Other surfaces of tabletop or floor standing EUT shall be at least 80 cm from any other ground conducting surface including one or more LISNs. For floor-standing device shall be placed under the EUT with a 12 mm insulating material.

Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a resolution bandwidth of 9 kHz. The equipment under test (EUT) shall be meet the limits in section 4.1, as applicable, including the average limit and the quasi-peak limit when using respectively, an average detector and quasi-peak detector measured in accordance with the methods described of related standard. When all of peak value were complied with quasi-peak and average limit from 150 kHz to 30 MHz then quasi-peak and average measurement was unnecessary.

The AMN shall be placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for AMNs mounted on top of the ground reference plane. This distance is between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8 m from the AMN. If the mains power cable is longer than 1 m then the cable shall be folded back and forth at the centre of the lead to form a bundle no longer than 0.4 m. All of 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 cm to 40 cm long. All of EUT and AE shall be separate place more than 0.1 m. All $50\ \Omega$ ports of the LISN shall be resistively terminated into $50\ \Omega$ loads when not connected to the measuring instrument.

If the reading of the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the higher reading shall be recorded with the exception of any brief isolated high reading which shall be ignored.

4.2. Radiated Emission Measurement

■ Limit

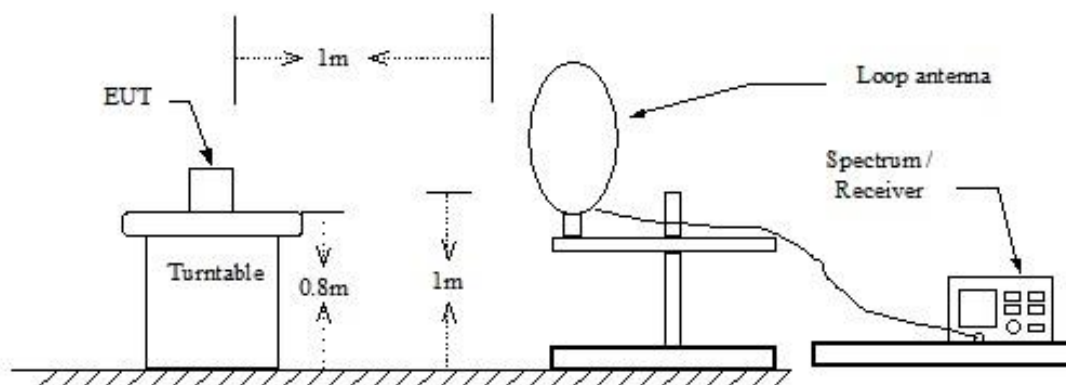
According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ at 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

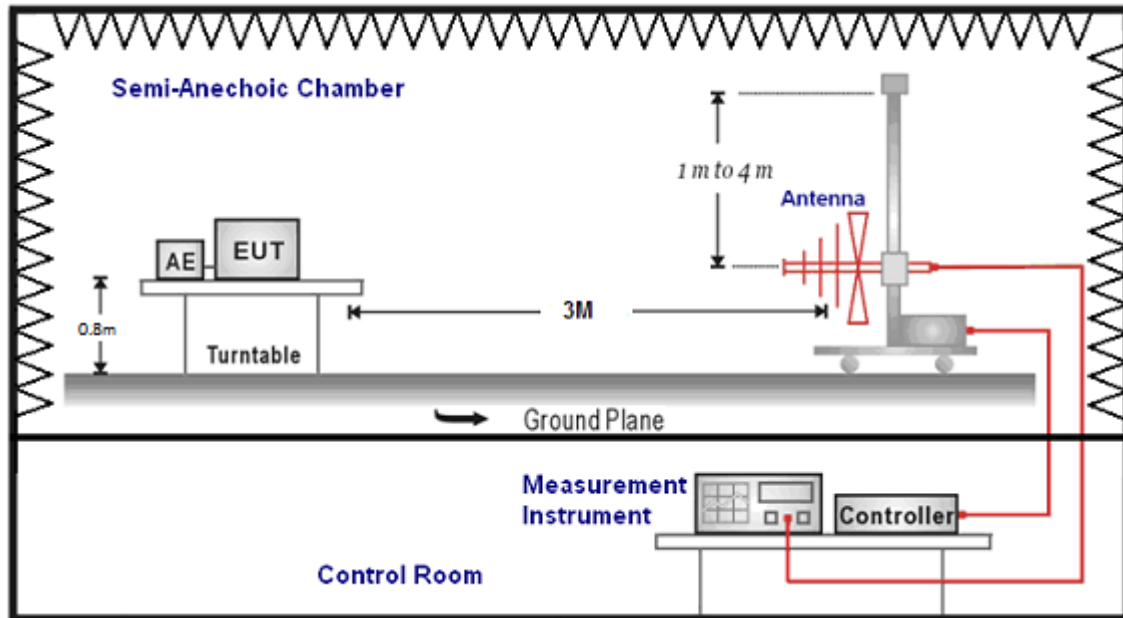
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

■ Setup

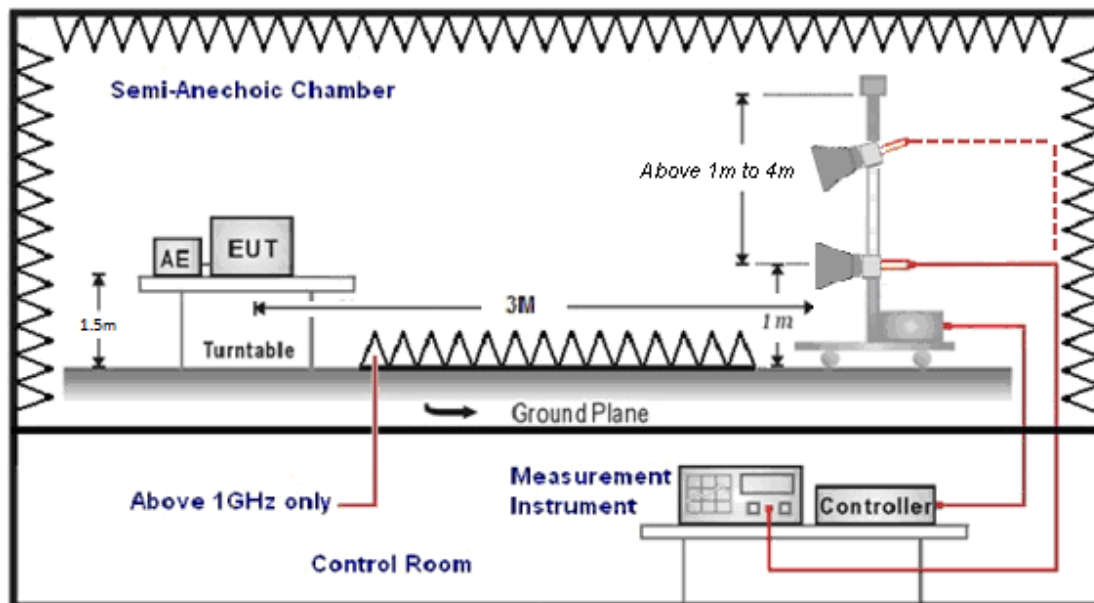
9 kHz ~ 30 MHz



Below 1 GHz



Above 1 GHz



■ Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 or 1.5 meters height, top surface 1.0 x 1.5 meter. During the test, EUT was set to transmit continuously & Measurements spectrum range from 9 kHz to 26.5 GHz is investigated.

For measurements below 30 MHz the resolution bandwidth is set to 10 kHz for peak detection measurements or 9 kHz for quasi-peak detection measurements. The video bandwidth is 3 times of the resolution bandwidth.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 3 MHz for peak measurements and 10 Hz for average measurements when Duty cycle >0.98 / $1/T$ for average measurements when Duty cycle <0.98 . A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

Biconilog/Horn Antenna were used in frequency 30 MHz to 18 GHz at a distance of 3 meter. Loop/Horn Antenna was used in frequency 9 kHz to 30 MHz and 18 to 26.5 GHz at a distance of 1 meter. The antenna at an angle toward the source of the emission. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20 dB/decade).

For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts per meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

(1) $\text{Amplitude (dBuV/m)} = \text{FI (dBuV)} + \text{AF (dBuV)} + \text{CL (dBuV)} - \text{Gain (dB)}$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

(2) $\text{Actual Amplitude (dBuV/m)} = \text{Amplitude (dBuV)} - \text{Dis(dB)}$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency : Transmitter Output < +30 dBm

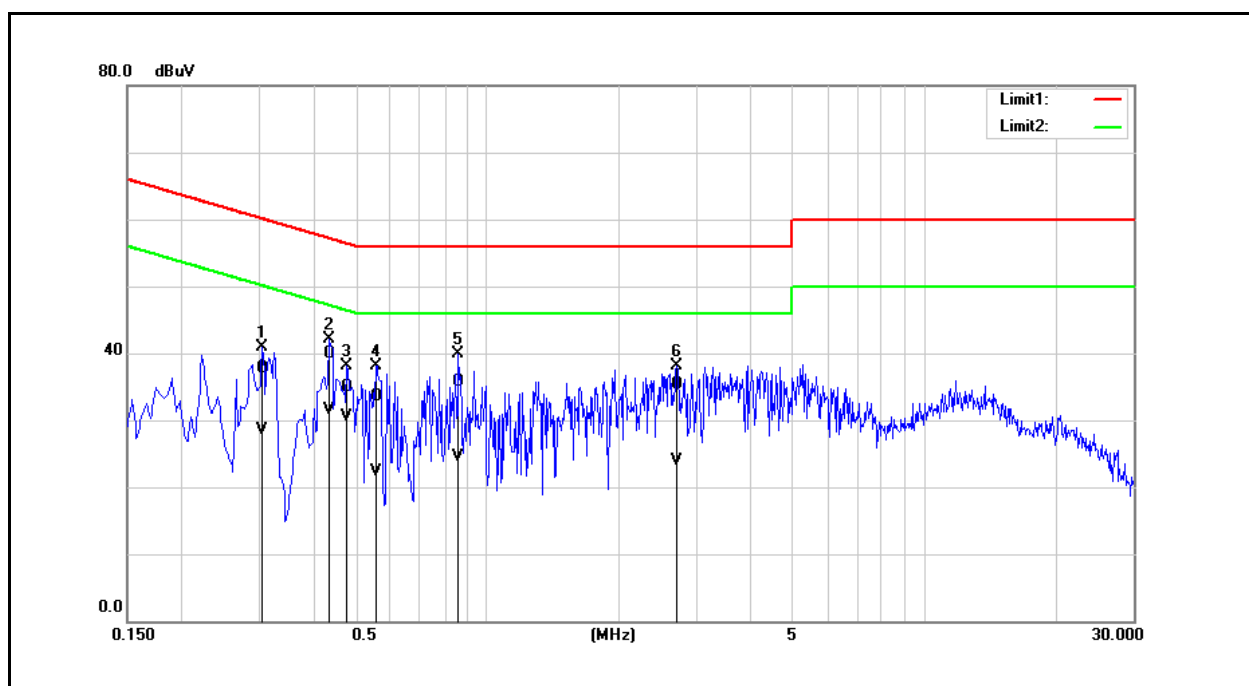
(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

Data of measurement within this frequency range without mark in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.

5 Test Results

5.1. Conducted Emission

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:			

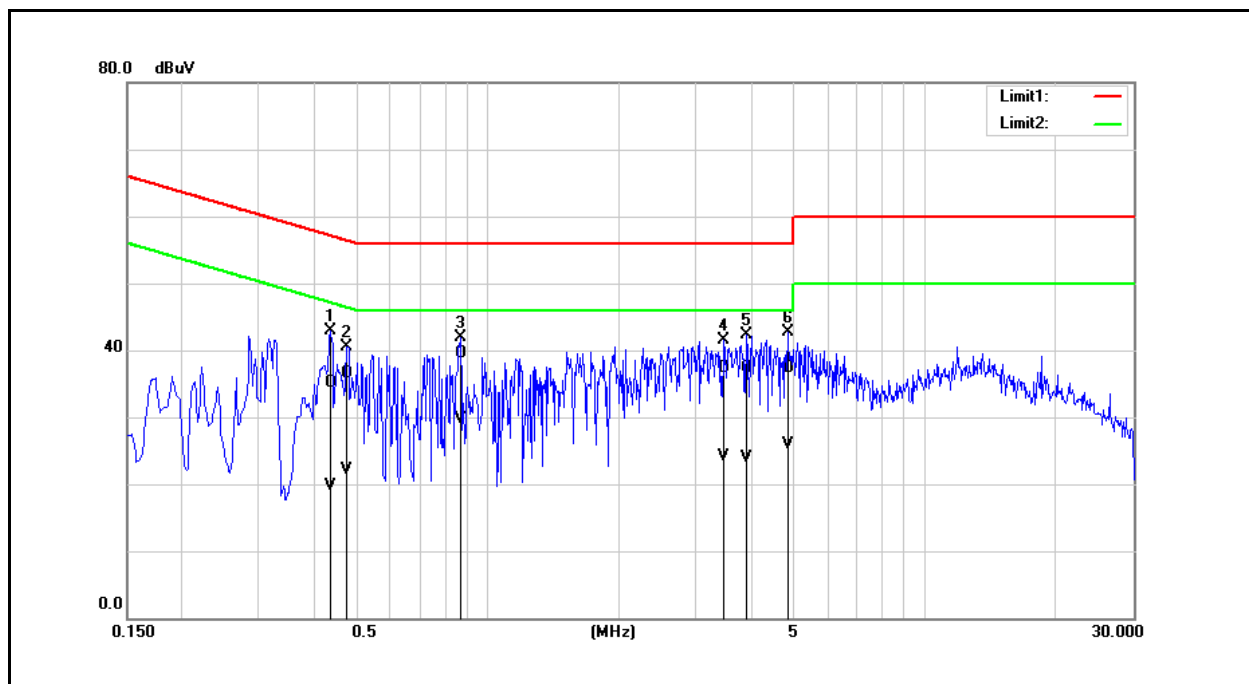


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.3060	27.96	18.75	9.68	37.64	28.43	60.08	50.08	-22.44	-21.65	Pass
2	0.4340	30.13	21.83	9.69	39.82	31.52	57.18	47.18	-17.36	-15.66	Pass
3	0.4780	25.13	20.82	9.69	34.82	30.51	56.37	46.37	-21.55	-15.86	Pass
4	0.5580	23.75	12.67	9.68	33.43	22.35	56.00	46.00	-22.57	-23.65	Pass
5	0.8580	26.08	14.78	9.68	35.76	24.46	56.00	46.00	-20.24	-21.54	Pass
6	2.7180	25.53	14.07	9.78	35.31	23.85	56.00	46.00	-20.69	-22.15	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard: Part 15.247 Line: N
Test item: Conducted Emission Power: AC 120 V/60 Hz
Mode: Transmit Mode
Description:



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.4380	25.48	10.09	9.64	35.12	19.73	57.10	47.10	-21.98	-27.37	Pass
2	0.4780	26.90	12.47	9.64	36.54	22.11	56.37	46.37	-19.83	-24.26	Pass
3	0.8700	29.81	20.14	9.65	39.46	29.79	56.00	46.00	-16.54	-16.21	Pass
4	3.4860	27.48	14.33	9.76	37.24	24.09	56.00	46.00	-18.76	-21.91	Pass
5	3.9140	27.60	14.19	9.77	37.37	23.96	56.00	46.00	-18.63	-22.04	Pass
6	4.8540	27.45	16.07	9.79	37.24	25.86	56.00	46.00	-18.76	-20.14	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

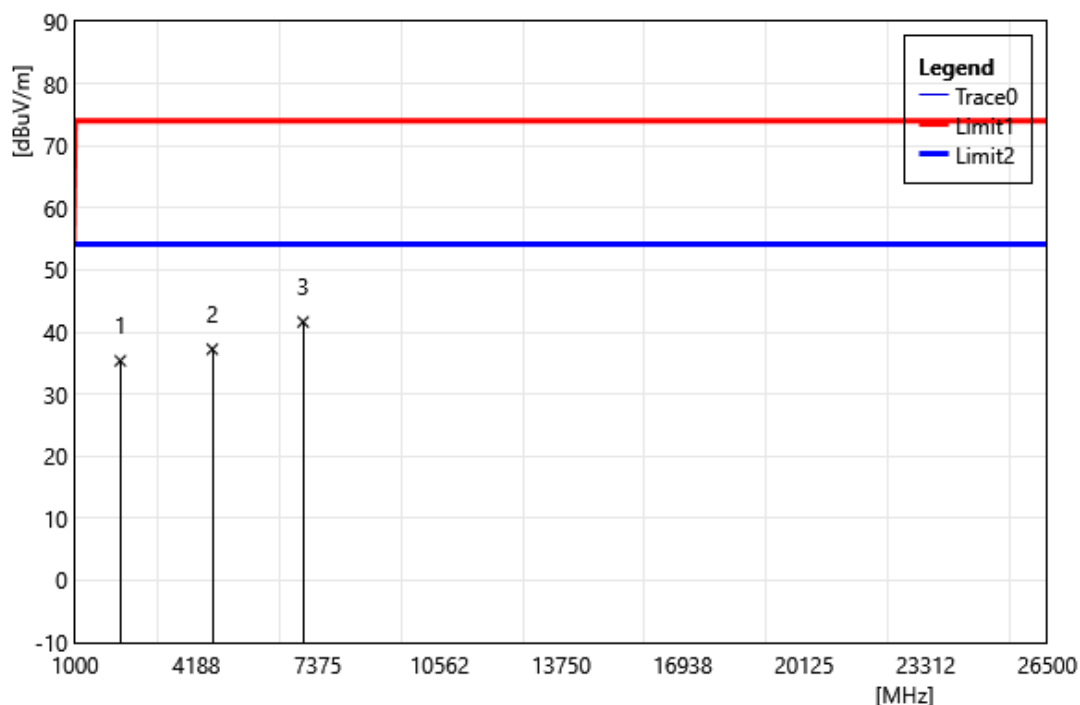
2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

5.2. Radiated Emission Measurement

Harmonic

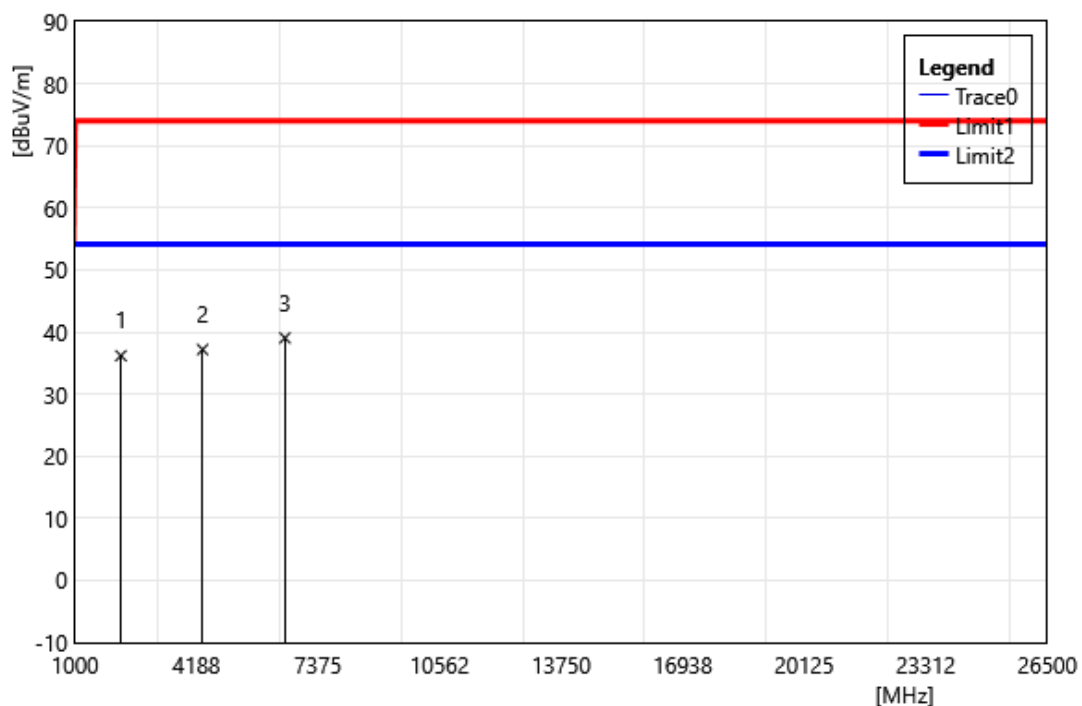
Above 1 GHz

Test Site:	966 Chamber	Standard:	Part 15.247
Test Mode:	Co-location (WLAN 2.4 GHz + Bluetooth)		
Polarization:	Vertical		
Remark:			



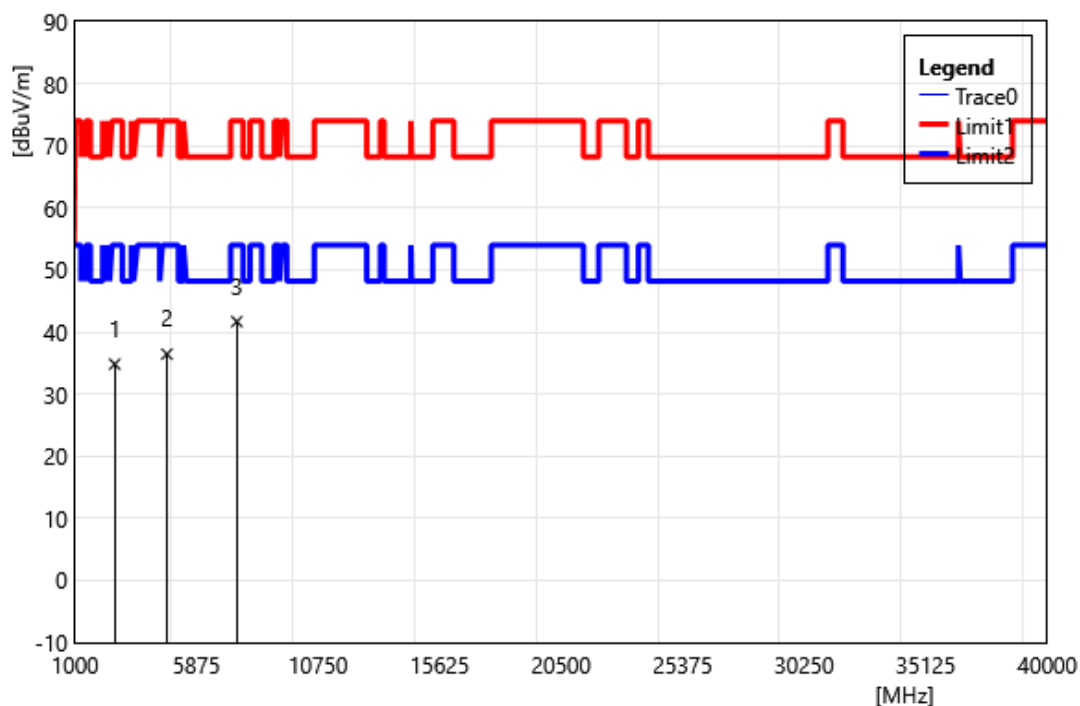
ID	Frequency MHz	Reading dBuV	Correct Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
1	2190.00	43.47	-8.10	35.37	74.00	-38.63	PEAK
2	4604.00	39.93	-2.69	37.24	74.00	-36.76	PEAK
3	6984.00	37.72	3.91	41.63	74.00	-32.37	PEAK

Test Site:	966 Chamber	Standard:	Part 15.247
Test Mode:	Co-location (WLAN 2.4 GHz + Bluetooth)		
Polarization:	Horizontal		
Remark:			



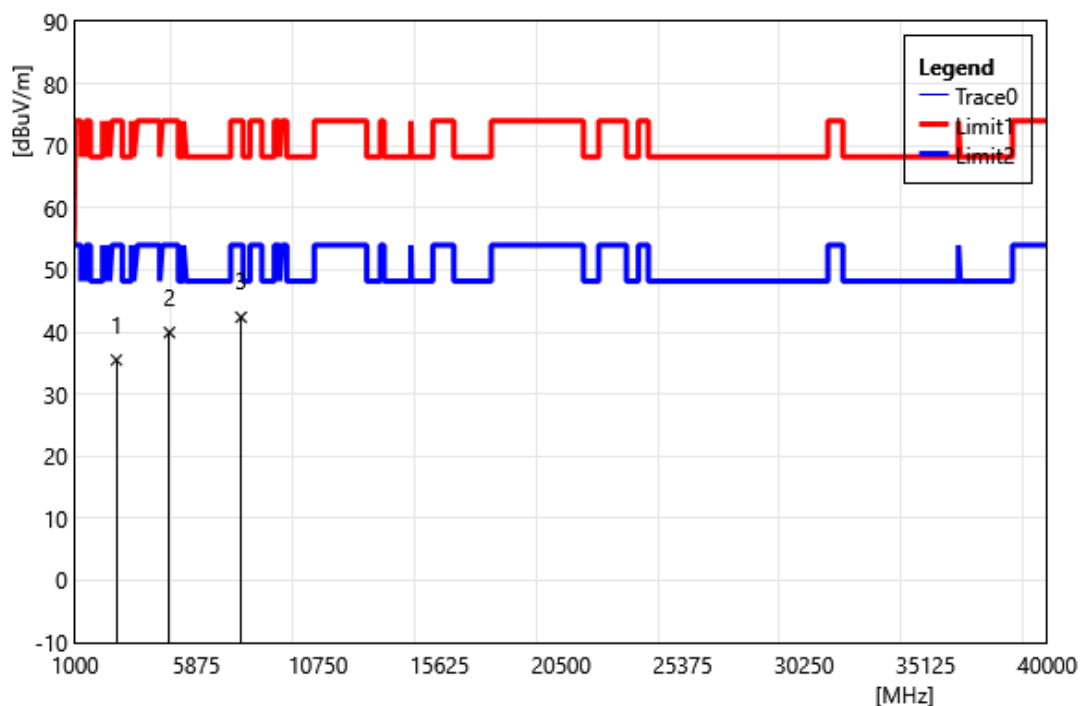
ID	Frequency MHz	Reading dBuV	Correct Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
1	2207.00	44.21	-8.03	36.18	74.00	-37.82	PEAK
2	4349.00	40.60	-3.41	37.19	74.00	-36.81	PEAK
3	6508.00	36.54	2.52	39.06	74.00	-34.94	PEAK

Test Site:	966 Chamber	Standard:	Part 15.247
Test Mode:	Co-location (WLAN 5 GHz + Bluetooth)		
Polarization:	Vertical		
Remark:			



ID	Frequency MHz	Reading dBuV	Correct Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
1	2598.00	42.51	-7.68	34.83	74.00	-39.17	PEAK
2	4689.00	38.69	-2.24	36.45	74.00	-37.55	PEAK
3	7494.00	35.84	5.85	41.69	74.00	-32.31	PEAK

Test Site:	966 Chamber	Standard:	Part 15.247
Test Mode:	Co-location (WLAN 5 GHz + Bluetooth)		
Polarization:	Horizontal		
Remark:			



ID	Frequency MHz	Reading dBuV	Correct Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
1	2666.00	42.90	-7.41	35.50	74.00	-38.51	PEAK
2	4791.00	42.05	-2.12	39.93	74.00	-34.07	PEAK
3	7664.00	36.94	5.45	42.39	74.00	-31.61	PEAK

---END---