



**FCC Part15, Subpart B
ICES-003**

TEST REPORT

For

Harman TAG2.0 OBD II device

MODEL NUMBER: HSA-20UG-BA

FCC ID: 2AHPN-HSA-20UG-BA

REPORT NUMBER: 4789869259-4

ISSUE DATE: May 13, 2021

Prepared for

**Harman International Industries, Inc.
30001, Cabot Drive, Novi, MI 48377, USA**

Prepared by

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The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products.

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	5/13/2021	Initial Issue	

Summary of Test Results

Standard	Test Item	Limit	Result	Remark
FCC Part15, Subpart B ANSI C63.4-2014 ICES-003 Issue 7	Conducted Disturbance	Class B	PASS	NOTE (1)
	Radiated Disturbance below 1 GHz	Class B	PASS	
	Radiated Disturbance above 1 GHz	Class B	PASS	NOTE (2)

Note:

- (1) This test is only applicable for devices which can be charged or powered by AC power cable.
- (2) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.
- (3) This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
- (4) The measurement result for the sample received is <Pass> according to < FCC Part15, Subpart B and ICES-003 Issue 7 > when <Accuracy Method> decision rule is applied.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Harman International Industries, Inc.
Address: 30001, Cabot Drive, Novi, MI 48377, USA

Manufacturer Information

Company Name: Harman International Industries, Inc.
Address: 30001, Cabot Drive, Novi, MI 48377, USA

EUT Information

EUT Name: Harman TAG2.0 OBD II device
Model: HSA-20UG-BA
Brand: OnStar Link
Sample Received Date: April 25, 2021
Sample Status: Normal
Sample ID: 3752794
Date of Tested: April 25, 2021~ May 10, 2021

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part15, Subpart B	PASS
ICES-003 Issue 7	PASS

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2. TEST METHODOLOGY

All tests were performed in accordance with the standard FCC Part15 Subpart B & ICES-003 Issue 7 & ANSI C63.4-2014.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p>FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Delcaration of Conformity (DoC) and Certification rules</p> <p>ISED (Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.</p> <p>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793.</p> <p>Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011</p>
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Note: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Measurement Frequency Range	K	U(dB)
Conducted emissions from the AC mains power ports	0.009 MHz ~ 0.15 MHz	2	4.00
Conducted emissions from the AC mains power ports	0.15 MHz ~ 30 MHz	2	3.62
Radiated emissions	30 MHz ~ 1 GHz	2	4.00
Radiated emissions	1 GHz ~ 18 GHz	2	5.78

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k=2.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Harman TAG2.0 OBD II device
Model	HSA-20UG-BA
Rating:	OBD interface DC 12V
Software Version	N75NA_TAG20_R4.0.1
Hardware Version	V1.0

5.2. TEST MODE

Test Mode	Description
Mode 1	WCDMA BAND 2 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect
Mode 2	WCDMA BAND 4 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect
Mode 3	WCDMA BAND 5 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect
Mode 4	LTE BAND 2 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect
Mode 5	LTE BAND 4 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect
Mode 6	LTE BAND 5 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect
Mode 7	LTE BAND 12 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect
Mode 8	LTE BAND 13 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect
Mode 9	LTE BAND 66 connect with CMW500 and data transfer+WiFi 2.4GHz connect+Bluetooth connect

5.3. EUT ACCESSORY

Note: no accessory.

5.4. SUPPORT UNITS FOR SYSTEM TEST

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Specification	Series No.
1	OBD board	N/A	N/A	N/A	N/A
2	Adapter	N/A	N/A	N/A	N/A
3	Mobile Phone	HUAWEI	ALP-AL00	N/A	N/A
4	Wideband Radio Communication Tester	R&S	CMW500	N/A	155523

The following cables were used to form a representative test configuration during the tests.

Item	Type of cable	Shielded Type	Ferrite Core	Specification
1	DC Cable for adapter	NO	NO	1.0m

6. MEASURING EQUIPMENT AND SOFTWARE USED

Conducted Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EMI Test Receiver	R&S	ESR3	101961	Nov. 12, 2020	Nov. 11, 2021
Two-Line V-Network	R&S	ENV216	101983	Nov. 12, 2020	Nov. 11, 2021
Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Nov. 12, 2020	Nov. 11, 2021
Wideband Radio Communication Tester	R&S	CMW500	155523	Nov. 20, 2020	Nov. 19, 2021
Software					
Description		Manufacturer		Name	Version
Test Software for Conducted Emissions		Farad		EZ-EMC	Ver. UL-3A1
Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Nov. 12, 2020	Nov. 11, 2021
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	April 24, 2020	April 23, 2020
Preamplifier	HP	8447D	2944A09099	Nov. 12, 2020	Nov. 11, 2021
EMI Measurement Receiver	R&S	ESR26	101377	Nov. 12, 2020	Nov. 11, 2021
Horn Antenna	TDK	HRN-0118	130939	Sept. 17, 2018	Sept. 17, 2021
Preamplifier	TDK	PA-02-0118	TRS-305-00067	Nov. 20, 2020	Nov. 19, 2021
High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Nov. 12, 2020	Nov. 11, 2021
Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Nov. 12, 2020	Nov. 11, 2021
Wideband Radio Communication Tester	R&S	CMW500	155523	Nov. 20, 2020	Nov. 19, 2021
Software					
Description		Manufacturer		Name	Version
Test Software for Radiated Emissions		Farad		EZ-EMC	Ver. UL-3A1

7. EMISSION TEST

7.1. CONDUCTED EMISSIONS MEASUREMENT

LIMITS

CFR 47 FCC Part15 Subpart B ICES-003 Issue 7				
FREQUENCY (MHz)	Class A (dB μ V)		Class B (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46*
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

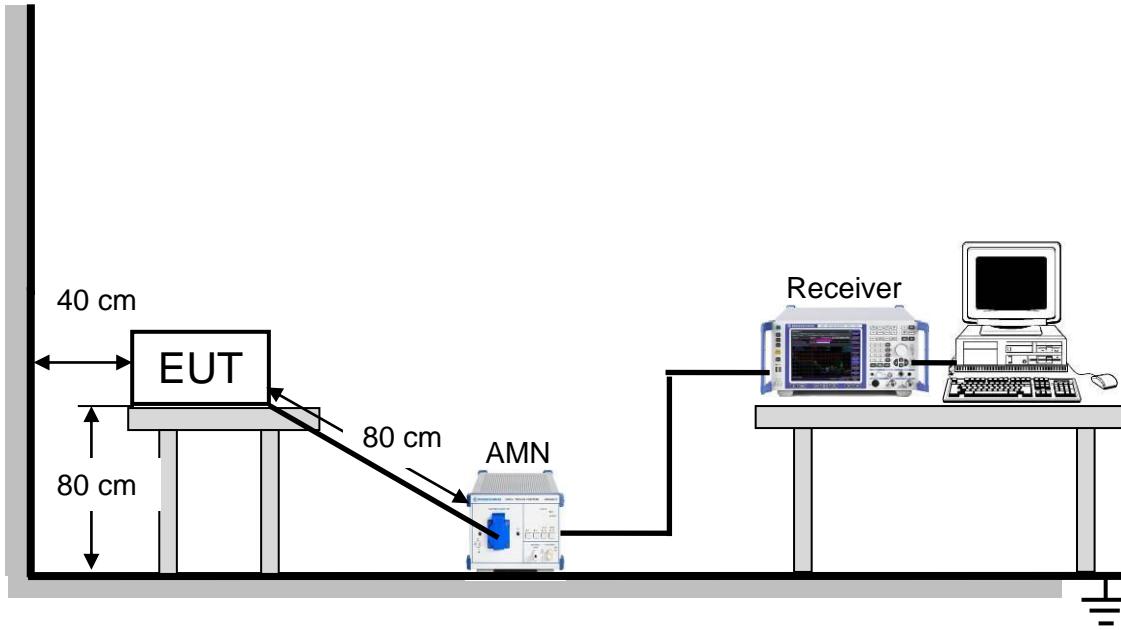
Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

TEST PROCEDURE

1. The testing follows the guidelines in ANSI C63.4-2014.
2. The EUT was placed on the top of a rotating table 0.8 meters above the horizontal ground plane and being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 ohm/50uH of coupling impedance for the measuring instrument.
3. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
4. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
5. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal used.
6. LISN at least 80 cm from nearest part of EUT chassis.

7. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

TEST SETUP



For the actual test configuration, please refer to Appendix I: Photographs of Test Configuration.

TEST ENVIRONMENT

Temperature	26.6 °C	Relative Humidity	67.4 %
Atmosphere Pressure	101 kPa		

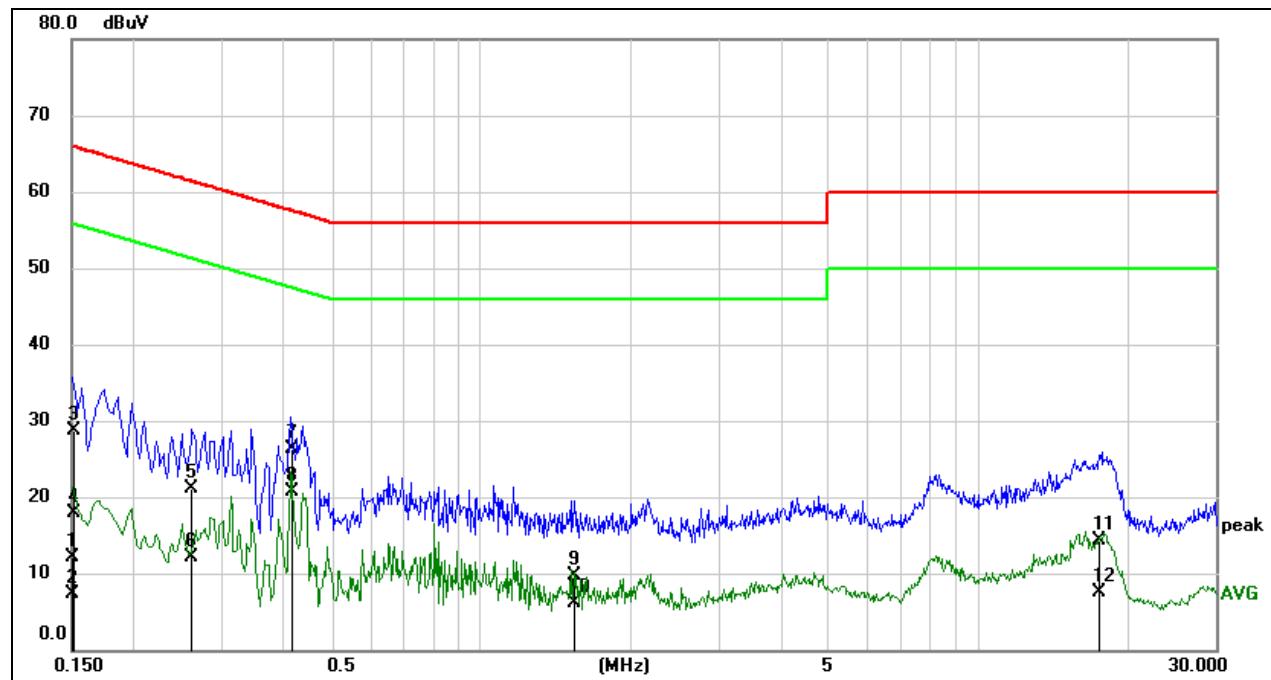
TEST MODE

Pre-test Mode:	Mode 1 ~ Mode 9
Final Test Mode:	Mode 1

Note: All test modes had been tested, but only the worst data recorded in the report.

TEST RESULTS

Conducted Emissions			
Test Mode:	Mode 1	Phase:	Line
Test Voltage	AC 120 V/60 Hz		

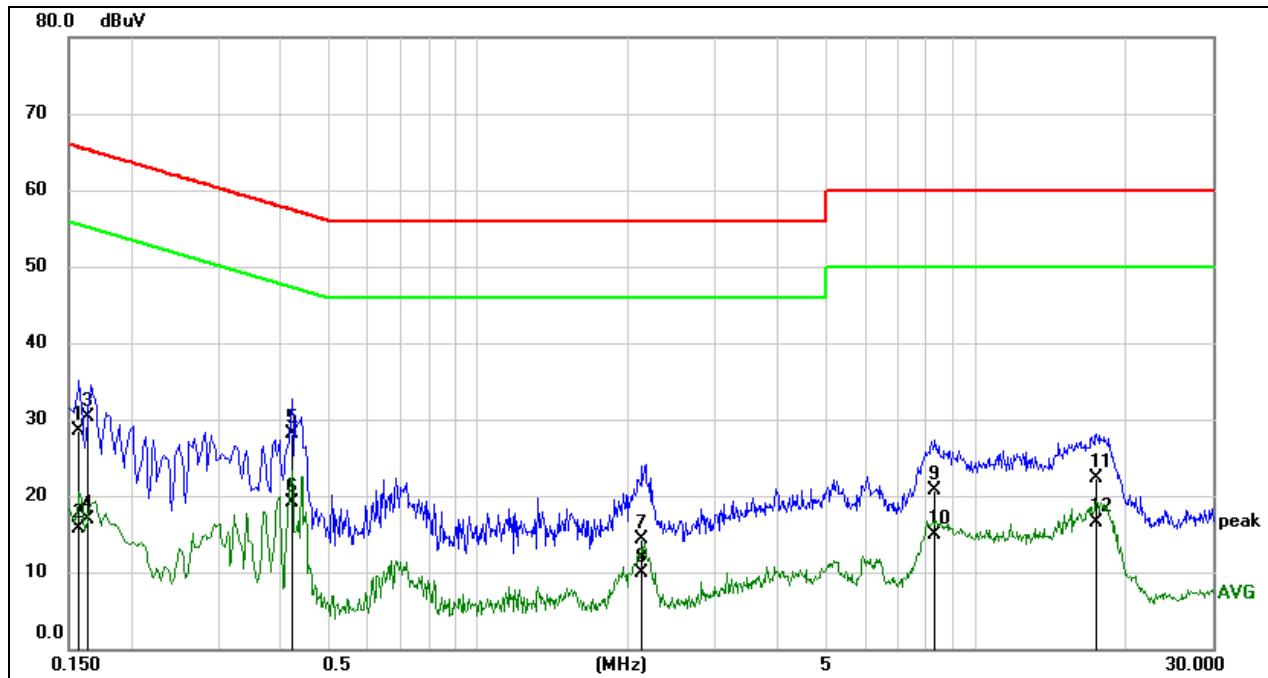


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	2.50	9.59	12.09	66.00	-53.91	QP
2	0.1500	-2.36	9.59	7.23	56.00	-48.77	AVG
3	0.1522	19.21	9.59	28.80	65.88	-37.08	QP
4	0.1522	8.27	9.59	17.86	55.88	-38.02	AVG
5	0.2608	11.56	9.59	21.15	61.41	-40.26	QP
6	0.2608	2.60	9.59	12.19	51.41	-39.22	AVG
7	0.4182	16.67	9.60	26.27	57.48	-31.21	QP
8	0.4182	11.12	9.60	20.72	47.48	-26.76	AVG
9	1.5345	0.06	9.62	9.68	56.00	-46.32	QP
10	1.5345	-3.45	9.62	6.17	46.00	-39.83	AVG
11	17.6547	4.60	9.75	14.35	60.00	-45.65	QP
12	17.6547	-2.30	9.75	7.45	50.00	-42.55	AVG

Note: 1. Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)

2. Margin = Result - Limit

Conducted Emissions			
Test Mode:	Mode 1	Phase:	Neutral
Test Voltage	AC 120 V/60 Hz		



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1573	18.98	9.59	28.57	65.61	-37.04	QP
2	0.1573	6.17	9.59	15.76	55.61	-39.85	AVG
3	0.1624	20.66	9.59	30.25	65.34	-35.09	QP
4	0.1624	7.33	9.59	16.92	55.34	-38.42	AVG
5	0.4221	18.51	9.60	28.11	57.41	-29.30	QP
6	0.4221	9.59	9.60	19.19	47.41	-28.22	AVG
7	2.1333	4.67	9.63	14.30	56.00	-41.70	QP
8	2.1333	0.23	9.63	9.86	46.00	-36.14	AVG
9	8.2889	11.04	9.61	20.65	60.00	-39.35	QP
10	8.2889	5.32	9.61	14.93	50.00	-35.07	AVG
11	17.4621	12.69	9.69	22.38	60.00	-37.62	QP
12	17.4621	6.79	9.69	16.48	50.00	-33.52	AVG

Note: 1. Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)

2. Margin = Result - Limit

7.2. RADIATED EMISSIONS MEASUREMENT

LIMITS

Below 1 GHz

CFR 47 FCC Part 15 Subpart B		
Frequency (MHz)	Class A	Class B
	Field strength (dBuV/m) (at 3 m)	Field strength (dBuV/m) (at 3 m)
30 - 88	49.5	40
88 - 216	53.9	43.5
216 - 960	56.9	46
Above 960	60	54

ICES-003 Issue 7		
Frequency (MHz)	Class A	Class B
	Field strength (dBuV/m) (at 3 m)	Field strength (dBuV/m) (at 3 m)
30 - 88	50	40
88 - 216	54	43.5
216 - 230	56.9	46
230 - 960	57	47
Above 960	60	54

Note: The different between FCC Part 15 Subpart B limit and ICES-003 Issue 7 limit is only in frequency band 230 MHz to 960 MHz, the limit of FCC Part 15 Subpart B is 1 dB smaller than the limit of ICES-003 Issue 7, if the test result complies with FCC Part 15 Subpart B limit, it deemed to comply with ICES-003 Issue 7 limit.

Above 1 GHz

CFR 47 FCC Part 15 Subpart B ICES-003 Issue 7				
Frequency (MHz)	Class A		Class B	
	(dBuV/m) (at 3 m)		(dBuV/m) (at 3 m)	
	Peak	Average	Peak	Average
Above 1000	80	60	74	54

Test Frequency Range of Radiated Disturbance Measurement

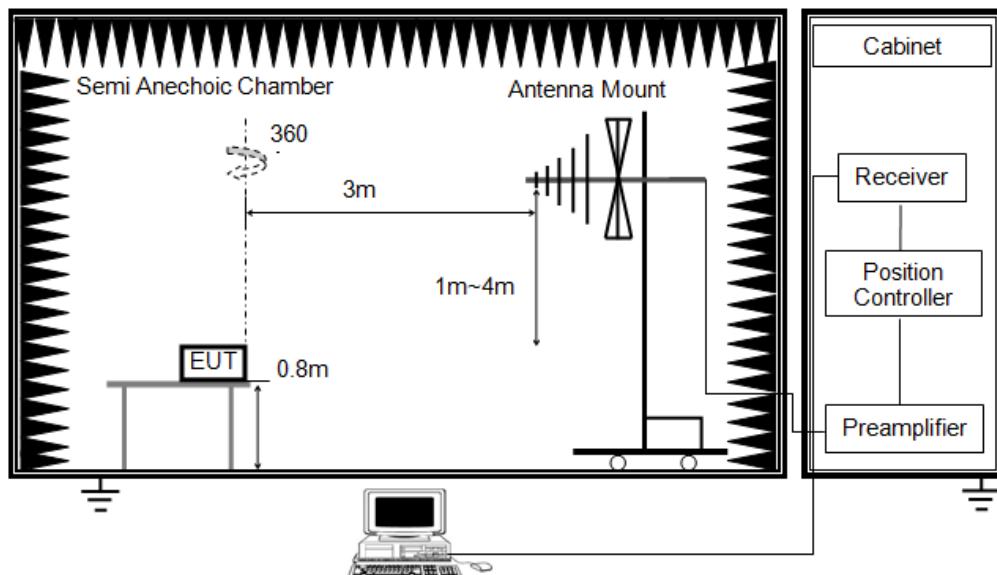
Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

NOTE:

- (1) The limit for radiated test was performed according to FCC Part 15, Subpart B;
- (2) The tighter limit applies at the band edges;
- (3) Emission level (dB_uV/m) = 20log Emission level (uV/m),
3m Emission level = 10 m Emission level + 20log(10 m/3 m);

TEST SETUP AND PROCEDURE

Below 1 GHz and above 30 MHz



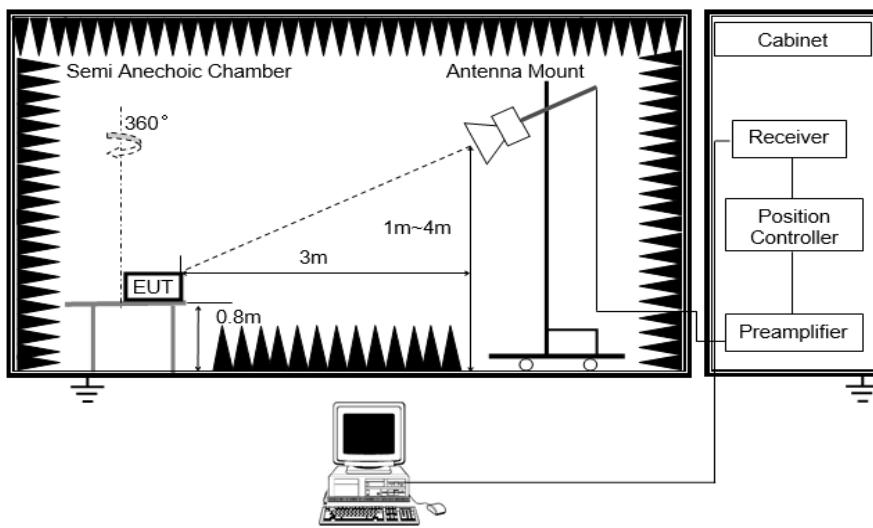
The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak and QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.4-2014.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp was used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
6. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal used.
7. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

8. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

Above 1 GHz



The setting of the spectrum analyser

RBW	1 MHz
VBW	3 MHz
Sweep	Auto
Detector	Peak: Peak AVG: RMS
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.4-2014.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
6. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal used.
7. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
8. For measurement above 1 GHz, the peak emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the peak limit specified in Section 15.109. If peak result complies with average limit, average result is deemed to comply with average limit.

9. The average emission measurement will be measured by the RMS detector and must comply with the average limit specified in Section 15.109.

TEST ENVIRONMENT

Radiated Emissions - Below 1 GHz		Radiated Emissions - Above 1 GHz	
Temperature:	25.1 °C	Temperature:	24.3 °C
Humidity:	63 %	Humidity:	61 %
Atmosphere Pressure	101 kPa	Atmosphere Pressure	101 kPa

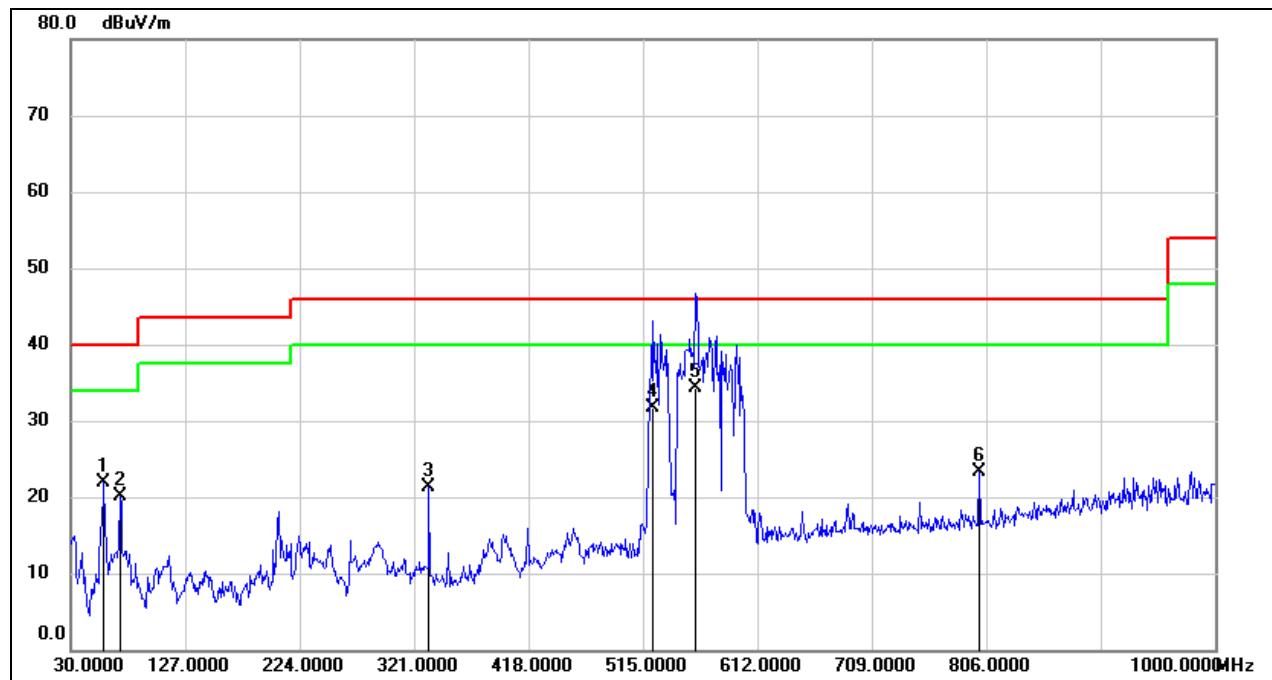
TEST MODE

Radiated Emissions - Below 1 GHz		Radiated Emissions - Above 1 GHz	
Pre-test Mode:	Mode 1 ~ Mode 9	Pre-test Mode:	Mode 1 ~ Mode 9
Final Test Mode:	Mode 4	Final Test Mode:	Mode 3

Note: All test modes had been tested, but only the worst data recorded in the report.

TEST RESULTS

Radiated Emissions – Below 1 GHz			
Measurement Method	Radiated	Polar:	Horizontal
Test Mode:	Mode 4	Test Voltage:	AC 120 V/60 Hz

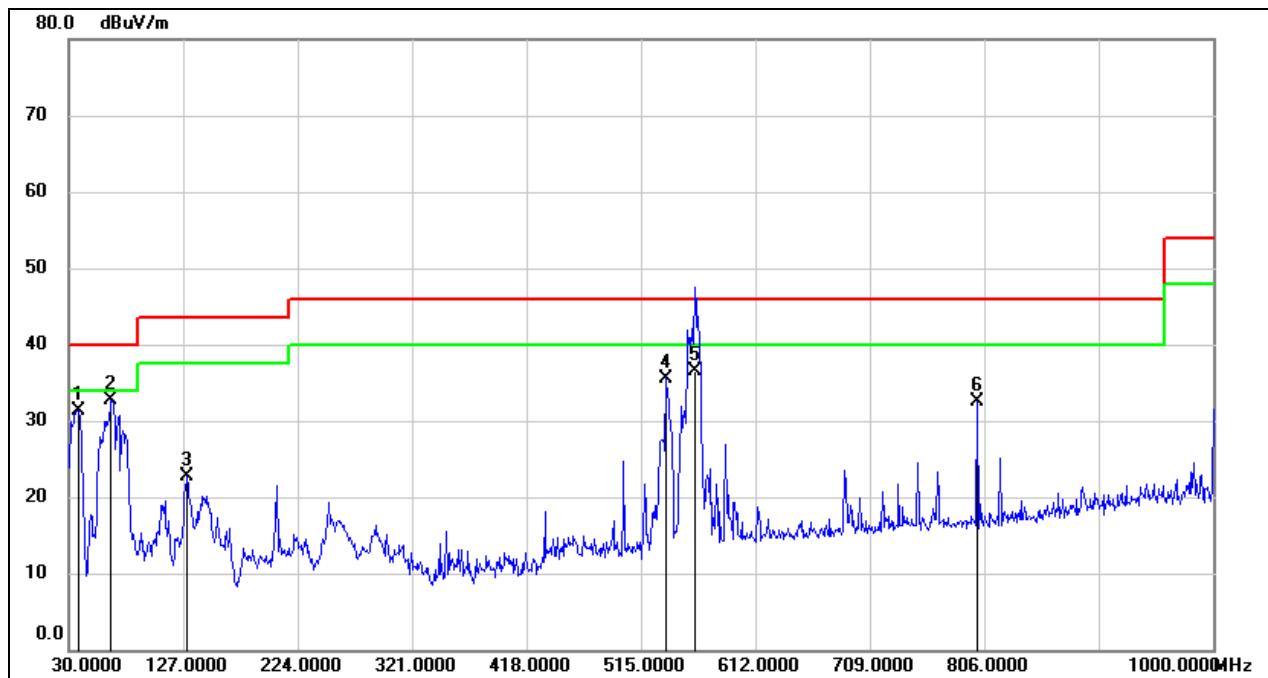


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	58.1300	42.51	-20.55	21.96	40.00	-18.04	QP
2	71.7100	40.90	-20.70	20.20	40.00	-19.80	QP
3	333.6099	35.92	-14.59	21.33	46.00	-24.67	QP
4	523.7300	42.75	-10.99	31.76	46.00	-14.24	QP
5	559.6200	44.62	-10.33	34.29	46.00	-11.71	QP
6	800.1800	30.71	-7.33	23.38	46.00	-22.62	QP

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

Radiated Emissions – Below 1 GHz

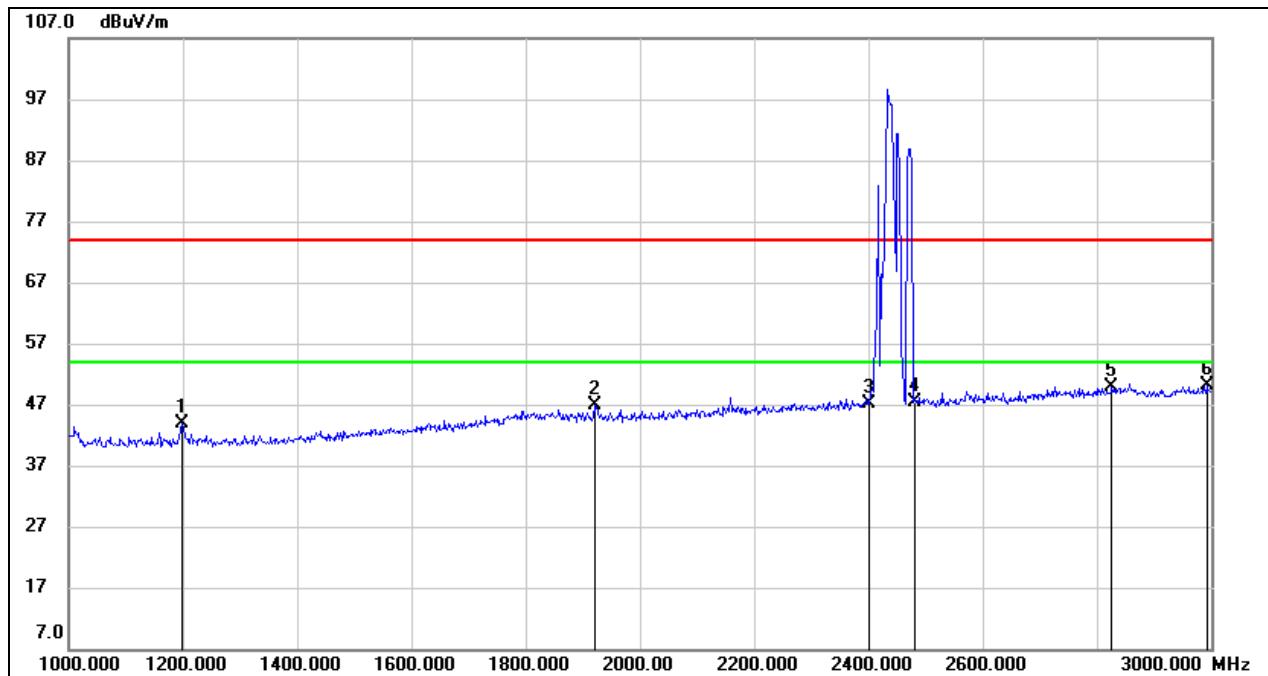
Measurement Method	Radiated	Polar:	Vertical
Test Mode:	Mode 4	Test Voltage:	AC 120 V/60 Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	38.7300	51.18	-19.81	31.37	40.00	-8.63	QP
2	65.8900	53.31	-20.55	32.76	40.00	-7.24	QP
3	129.9100	42.15	-19.36	22.79	43.50	-20.71	QP
4	536.3400	46.20	-10.60	35.60	46.00	-10.40	QP
5	560.5900	46.85	-10.31	36.54	46.00	-9.46	QP
6	800.1800	39.85	-7.33	32.52	46.00	-13.48	QP

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

Radiated Emissions – Above 1 GHz and Below 3 GHz			
Measurement Method	Radiated	Polar:	Horizontal
Test Mode:	Mode 3	Test Voltage:	AC 120 V/60 Hz

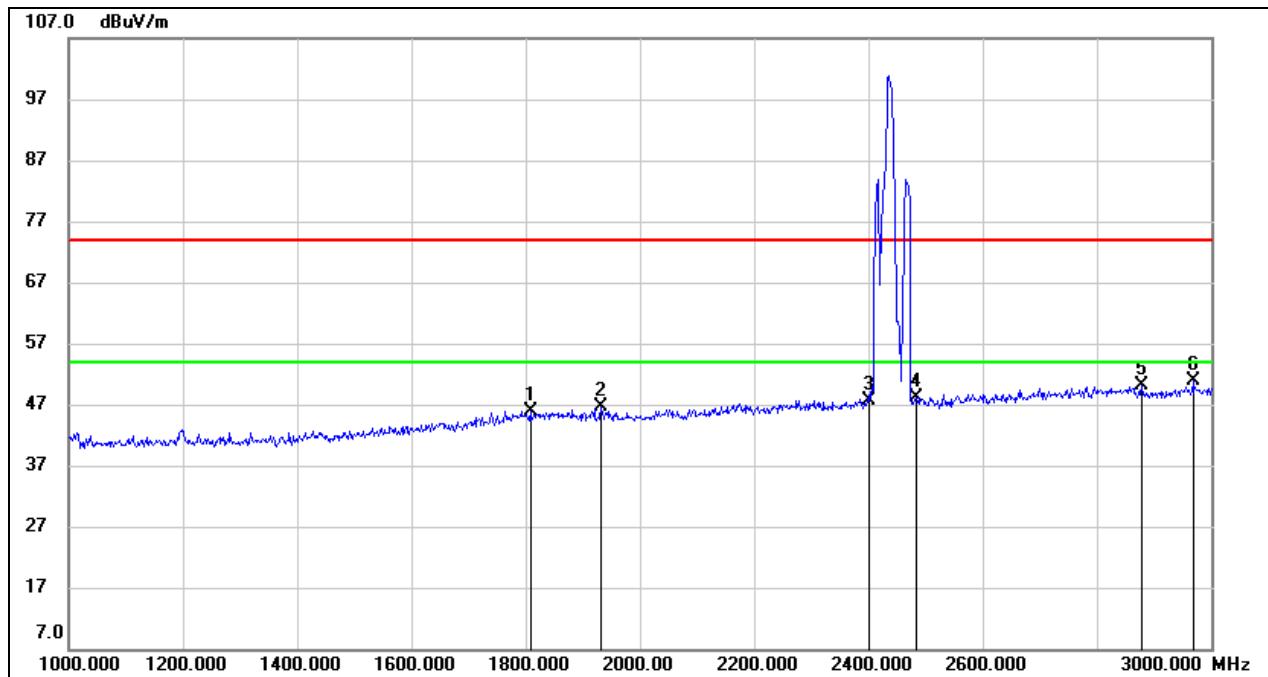


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1198.000	14.76	29.06	43.82	74.00	-30.18	peak
2	1920.000	14.91	32.08	46.99	74.00	-27.01	peak
3	2402.000	13.60	33.45	47.05	/	/	Note 5
4	2483.500	13.89	33.52	47.41	/	/	Note 5
5	2826.000	14.99	35.01	50.00	74.00	-24.00	peak
6	2992.000	14.52	35.65	50.17	74.00	-23.83	peak

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
 2. Margin = Result - Limit
 3. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 4. Peak: Peak detector.
 5. All the frequencies between mark 3 and mark 4 are the fundamental frequency which were transmitted by wireless module from EUT.

Radiated Emissions – Above 1 GHz and Below 3 GHz

Measurement Method	Radiated	Polar:	Vertical
Test Mode:	Mode 3	Test Voltage:	AC 120 V/60 Hz



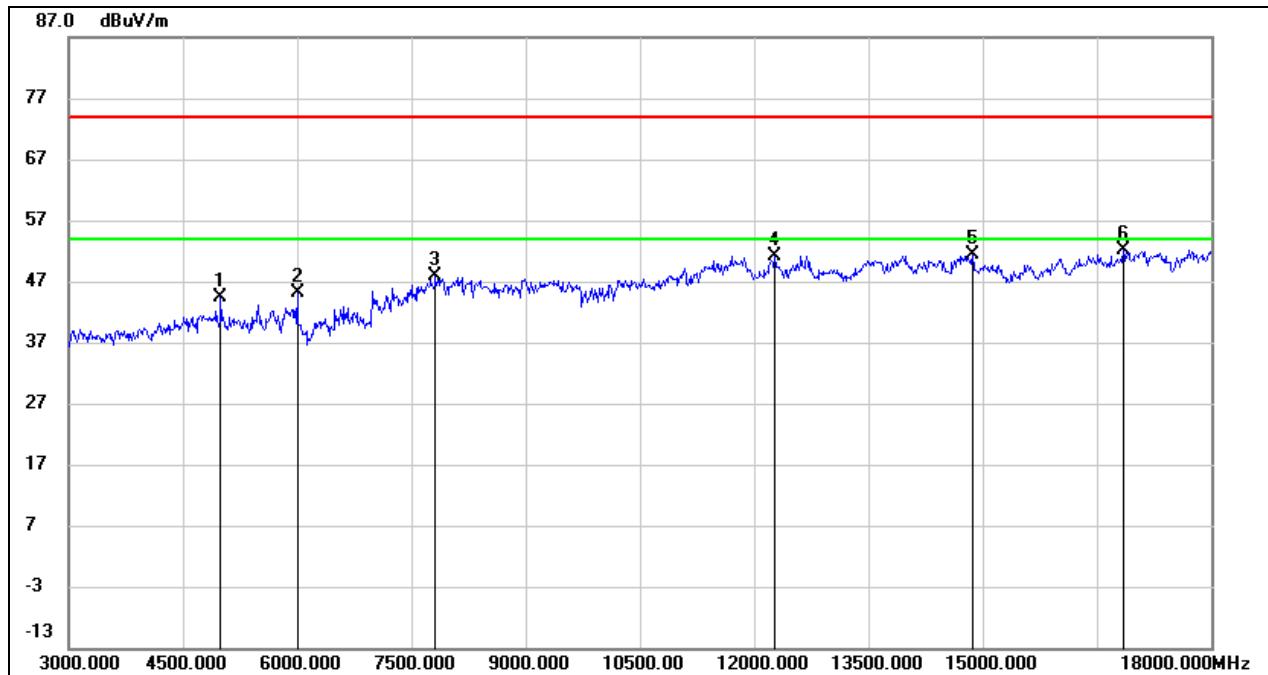
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1808.000	13.83	32.14	45.97	74.00	-28.03	peak
2	1932.000	14.62	32.07	46.69	74.00	-27.31	peak
3	2402.000	14.09	33.45	47.54	/	/	Note 5
4	2483.500	14.71	33.52	48.23	/	/	Note 5
5	2878.000	14.88	35.21	50.09	74.00	-23.91	peak
6	2968.000	15.28	35.55	50.83	74.00	-23.17	peak

Note:

1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit
3. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
4. Peak: Peak detector.
5. All the frequencies between mark 3 and mark 4 are the fundamental frequency which were transmitted by wireless module from EUT.

Radiated Emissions – Above 3 GHz

Measurement Method	Radiated	Polar:	Horizontal
Test Mode:	Mode 3	Test Voltage:	AC 120 V/60 Hz

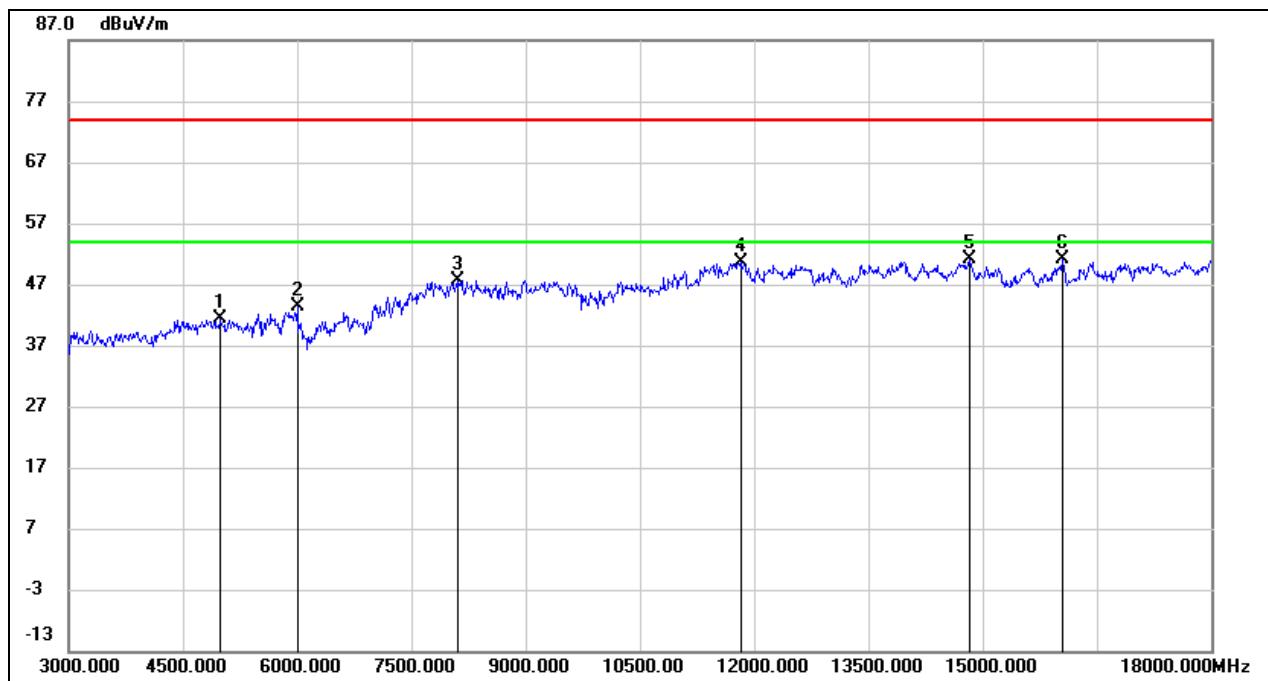


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4995.000	42.22	2.10	44.32	74.00	-29.68	peak
2	6000.000	41.25	4.00	45.25	74.00	-28.75	peak
3	7815.000	38.54	9.28	47.82	74.00	-26.18	peak
4	12270.000	35.13	16.04	51.17	74.00	-22.83	peak
5	14865.000	33.82	17.61	51.43	74.00	-22.57	peak
6	16845.000	31.11	21.10	52.21	74.00	-21.79	peak

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor + High Pass Filter Loss Factor)
 2. Margin = Result - Limit
 3. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 4. Peak: Peak detector.

Radiated Emissions – Above 3 GHz

Measurement Method	Radiated	Polar:	Vertical
Test Mode:	Mode 3	Test Voltage:	AC 120 V/60 Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4995.000	39.38	2.10	41.48	74.00	-32.52	peak
2	6000.000	39.49	4.00	43.49	74.00	-30.51	peak
3	8115.000	37.48	10.13	47.61	74.00	-26.39	peak
4	11820.000	35.37	15.29	50.66	74.00	-23.34	peak
5	14820.000	33.21	17.91	51.12	74.00	-22.88	peak
6	16050.000	32.64	18.40	51.04	74.00	-22.96	peak

Note: 1. Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor + High Pass Filter Loss Factor)
 2. Margin = Result - Limit
 3. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 4. Peak: Peak detector.