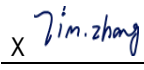


Prüfbericht-Nr.: Test report no.:	CN22OAWT 001	Auftrags-Nr.: Order no.:	168339816	Seite 1 von 22 Page 1 of 22
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2021-10-20	
Auftraggeber: Client:	SHEN ZHEN PUTIAN YONGGAO NEW ENERGY TECHNOLOGY CO.,LTD Room 201, Block A, No.1, Qianhaishen Port, Cooperative District, 518102 Shenzhen, P.R.China.			
Prüfgegenstand: Test item:	AC Wallbox Charging Station			
Bezeichnung / Typ-Nr.: Identification / Type no.:	WPTAC-7KW-S18-TD, WPTAC-7KW-S24-TD, WPTAC-9KW-S18-TD, WPTAC-9KW-S24-TD, WPTAC-11KW-S18-TD, WPTAC-11KW-S24-TD			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	CFR47 FCC Part 15: Subpart C Section 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: Date of sample receipt:	2021-12-10			
Prüfmuster-Nr.: Test sample no.:	A003145917-013~014 A003166015-001~002 A003166894-001			
Prüfzeitraum: Testing period:	2021-12-13 - 2022-02-16			
Ort der Prüfung: Place of testing:	Dongguan NTC Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	 X <u>Tim Zhang</u> Signed by: Tim Zhang		genehmigt von: authorized by:	 X <u>Lin Lin</u> Signed by: Lin Lin
Datum: Date:	2022-03-25		Ausstellungsdatum: Issue date:	2022-03-25
Stellung / Position:	Project Manager		Stellung / Position:	Reviewer
Sonstiges / Other:	FCC ID: 2A4EM-PTYGEVCHARGER IC: 28264-PTYG			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

V05

Prüfbericht - Nr.: CN22OAWT 001
Test Report No.:

Seite 2 von 22
Page 2 of 22

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 6dB BANDWIDTH

RESULT: Pass

5.1.5 99% BANDWIDTH

RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.8 CONDUCTED EMISSION

RESULT: Pass

Contents

1	GENERAL REMARKS	4
1.1	COMPLEMENTARY MATERIALS	4
2	TEST SITES.....	5
2.1	TEST FACILITIES.....	5
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS	5
2.3	TRACEABILITY.....	6
2.4	CALIBRATION.....	6
2.5	MEASUREMENT UNCERTAINTY	7
2.6	LOCATION OF ORIGINAL DATA	7
2.7	STATUS OF FACILITY USED FOR TESTING.....	7
3	GENERAL PRODUCT INFORMATION.....	8
3.1	PRODUCT FUNCTION AND INTENDED USE.....	8
3.2	RATINGS AND SYSTEM DETAILS	8
3.3	INDEPENDENT OPERATION MODES	10
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS.....	10
3.5	SUBMITTED DOCUMENTS.....	10
4	TEST SET-UP AND OPERATION MODES	11
4.1	PRINCIPLE OF CONFIGURATION SELECTION.....	11
4.2	TEST OPERATION AND TEST SOFTWARE	11
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT.....	11
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE.....	11
4.5	TEST SETUP DIAGRAM	12
5	TEST RESULTS.....	14
5.1	TRANSMITTER REQUIREMENT & TEST SUITES.....	14
5.1.1	<i>Antenna Requirement.....</i>	<i>14</i>
5.1.2	<i>Maximum Conducted Output Power</i>	<i>15</i>
5.1.3	<i>Conducted Power Spectral Density.....</i>	<i>16</i>
5.1.4	<i>6dB Bandwidth.....</i>	<i>17</i>
5.1.5	<i>99% Bandwidth</i>	<i>18</i>
5.1.6	<i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth</i>	<i>19</i>
5.1.7	<i>Radiated Spurious Emission.....</i>	<i>20</i>
5.1.8	<i>Conducted Emission.....</i>	<i>21</i>
6	PHOTOGRAPHS OF THE TEST SET-UP.....	22
7	LIST OF TABLES	22

Prüfbericht - Nr.: CN22OAWT 001
Test Report No.:

Seite 4 von 22
Page 4 of 22

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of Wi-Fi 802.11 b/g/n

2 Test Sites

2.1 Test Facilities

Dongguan NTC Co., Ltd.

Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan, Guangdong Province, 523000, P.R. China

A2LA Certificate Registration Number: 4429.01

CAB identifier: CN0015

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

☒ RF Connected Test					
Test Receiver	Rohde & Schwarz	ESCI7	100837	Mar. 13, 2021	1 Year
Antenna	Schwarzbeck	VULB9162	9162-010	Mar. 23, 2021	1 Year
Spectrum Analyzer	Rohde & Schwarz	FSU26	200409/026	Mar. 13, 2021	1 Year
Spectrum Analyzer	Keysight	N9020A	MY54200831	Mar. 13, 2021	1 Year
Spectrum Analyzer	Rohde & Schwarz	FSV40	101094	Mar. 13, 2021	1 Year
Horn Antenna	Schwarzbeck	BBHA9170	9170-172	Mar. 23, 2021	2 Years
Power Sensor	DARE	RPR3006W	15I00041SNO 64	Mar. 13, 2021	1 Year
Power Sensor	DARE	RPR3006W	15I00041SNO 88	Mar. 13, 2021	1 Year
Communication Tester	Rohde & Schwarz	CMW500	149004	Mar. 13, 2021	1 Year
Horn Antenna	COM-Power	AH-118	071078	Mar. 23, 2021	1 Year
Loop Antenna	Schwarzbeck	FMZB 1513	1513-272	Mar. 23, 2021	1 Year
Pre-Amplifier	HP	HP 8449B	3008A00964	Mar. 13, 2021	1 Year
Pre-Amplifier	HP	HP 8447D	1145A00203	Mar. 13, 2021	1 Year
RF Switching Unit	Compliance Direction Systems Inc.	RSU-M2	38311	Mar.13, 2021	1 Year
Temperature & Humidity Chamber	WANSUN	SS-HWHS- 80	N/A	Mar. 13, 2021	1 Year
DC Source	Maynuo	MY8811	N/A	Mar. 13, 2021	1 Year
Chamber	SAEMC	9*7*7m	N/A	Apr. 25, 2021	2 Years
Test Software	MV	MTS8310	N/A	N/A	1 Year
☒ Radiation chamber					
Test Receiver	Rohde & Schwarz	ESCI7	100837	Mar. 13, 2021	1 Year

Spectrum Analyzer	Rohde & Schwarz	FSU26	200409/026	Mar. 13, 2021	1 Year
Antenna	Schwarzbeck	VULB9162	9162-010	Mar. 23, 2021	1 Year
Loop Antenna	Schwarzbeck	FMZB 1513	1513-272	Mar. 23, 2021	1 Year
Horn Antenna	COM-Power	AH-118	071078	Mar. 23, 2021	1 Year
Pre-Amplifier	HP	HP 8447D	1145A00203	Mar. 13, 2021	1 Year
Pre-Amplifier	HP	HP 8449B	3008A00964	Mar. 13, 2021	1 Year
Chamber	SAEMC	9*7*7m	N/A	Apr. 25, 2021	2 Years
Test Software	EZ	EZ_EMC	N/A	N/A	N/A
Power Line Conducted Emissions Test					
Test Receiver	Rohde & Schwarz	ESCI	101152	Mar. 13, 2021	1 Year
L.I.S.N	Schwarzbeck	NNLK8129	8129-212	Mar. 13, 2021	1 Year
L.I.S.N	Rohde & Schwarz	ESH2-Z5	893606/014	Mar. 13, 2021	1 Year
RF Switching Unit	Compliance Direction Systems Inc.	RSU-M2	38311	Mar. 13, 2021	1 Year
Test Software	EZ	EZ_EMC	N/A	N/A	1 Year

2.3 Traceability

All measurement equipment calibrations are traceable to Calibration organization with relevant qualification.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Test Item	Uncertainty
Radio Frequency	$\pm 0.9 \times 10^{-7}$
RF Power (conducted)	± 1.6 dB
Radiated Emission of Transmitter, valid up to 26.5 GHz	± 5.14 dB
Radiated Emission of Receiver, valid up to 26.5 GHz	± 5.14 dB
Temperature	± 0.8 °C
Humidity	± 3.2 %
Voltage (DC)	± 0.5 %
Voltage (AC, <10kHz)	± 0.4 %
Uncertainty for Radiation Emission Test (9 kHz - 30 MHz)	± 4.95 dB
Uncertainty for Radiation Emission Test (30 MHz - 1 GHz)	± 4.68 dB
Uncertainty for Radiation Emission Test (1 GHz - 40 GHz)	± 5.12 dB
Uncertainty for Power Line Conduction Emission Test (9kHz – 150kHz)	± 3.04 dB
Uncertainty for Power Line Conduction Emission Test (150kHz – 30MHz)	± 2.52 dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The Dongguan NTC Co., Ltd. Test facility located at Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan City, Guangdong Province, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a AC Wallbox Charging Station which is used in conjunction with electric vehicle on-board charger, It can support floor and wall mounted installation. It is widely used in the ground and parking lot of residential areas, shopping malls and office places. It can also be installed in various large, medium and small electric vehicle charging stations to provide convenient and safe charging services for electric vehicle owners. It supports Bluetooth(BLE mode), Wi-Fi 802.11 b/g/n and RFID(13.56MHz) wireless technology.

Model difference description:

Model Name	Power	Cable Length	Screen
WPTAC-7KW-S18-TD	7 KW	18 Feet	Touch Screen
WPTAC-7KW-S24-TD	7 KW	24 Feet	Touch Screen
WPTAC-9KW-S18-TD	9 KW	18 Feet	Touch Screen
WPTAC-9KW-S24-TD	9 KW	24 Feet	Touch Screen
WPTAC-11KW-S18-TD	11 KW	18 Feet	Touch Screen
WPTAC-11KW-S24-TD	11 KW	24 Feet	Touch Screen

Note: They have the same wireless module, only the power and line length are different, so we choose WPTAC-11KW-S24-TD for test.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	AC Wallbox Charging Station
Type Designation:	WPTAC-7KW-S18-TD, WPTAC-7KW-S24-TD, WPTAC-9KW-S18-TD, WPTAC-9KW-S24-TD, WPTAC-11KW-S18-TD, WPTAC-11KW-S24-TD
Trademark:	N/A
FCC ID:	2A4EM-PTYGEVCHARGER
IC:	28264-PTYG
IC company name and address:	SHENZHEN PUTIAN YONGGAO NEW ENERGY TECHNOLOGY CO.,LTD 5FL., BUILDING 2, JINCHI EXHIBITION INNOVATION PARK, NO.59, HAOYE RD., BAOAN DISTRICT, SHEN ZHEN 518100, CHINA
HVIN:	WPTAC-7KW-S18-TD, WPTAC-7KW-S24-TD, WPTAC-9KW-S18-TD, WPTAC-9KW-S24-TD, WPTAC-11KW-S18-TD, WPTAC-11KW-S24-TD
Operating Voltage:	AC 208~240V, 50/60Hz
Testing Voltage:	AC 240V, 60Hz

Technical Specification of RFID	
Operating Frequency:	13.56MHz
Type of Modulation:	ASK
Channel Number:	1 channels
Antenna Type:	Integral Antenna
Antenna Gain:	6.0 dBi
Technical Specification of Bluetooth (Low Energy mode)	
Operating Frequency:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK
Channel Number:	40 channels
Channel Separation:	1MHz, 2MHz
Antenna Type:	Integral Antenna
Antenna Gain:	2.0 dBi
Technical Specification of Wi-Fi 802.11 b/g/n	
Operating Frequency:	2412 - 2462 MHz for 802.11b/g/n(HT20) 2422 - 2452 MHz for 802.11n(HT40)
Type of Modulation:	DSSS(DBPSK/DQPSK/CCK) OFDM(BPSK/QPSK/16QAM/64QAM)
Data Rate:	1/2/5.5/11 Mbps for 802.11b 6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS7 Mbps for 802.11n(HT20) MCS0 ~ MCS7 Mbps for 802.11n(HT40)
Channel Number:	11 channels for 802.11b/g/n(HT20) 7 channels for 802.11n(HT40)
Channel Separation:	5 MHz
Antenna Type:	Integral Antenna
Antenna Gain:	2.0 dBi

Table 3: RF Channel and Frequency of Wi-Fi 802.11 b/g/n

RF Channel	802.11 b/g/n(HT20)	802.11 n(HT40)
	Frequency (MHz)	Frequency (MHz)
01	2412	/
02	2417	/
03	2422	2422
04	2427	2427
05	2432	2432
06	2437	2437
07	2442	2442
08	2447	2447
09	2452	2452
10	2457	/
11	2462	/

Test frequencies are lowest channel: 2412 MHz, middle channel: 2437 MHz and highest channel: 2462 MHz for 802.11b/g/n(HT20)

Test frequencies are lowest channel: 2422 MHz, middle channel: 2437 MHz and highest channel: 2452 MHz for 802.11n(HT40)

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Wi-Fi 802.11 b/g/n wireless transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, Wi-Fi 802.11 b/g/n connecting mode
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|---|---|
| ☒ Application Form | ☒ Rating Label |
| ☒ Operation Description | ☒ Schematics |
| ☒ Block Diagram | ☒ Photo Document |
| ☒ User Manual | ☒ Model Difference Letter |

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013 & ANSI C63.4: 2014.

According to clause 3.1, all tests were performed on model WPTAC-11KW-S24-TD in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 4: Auxiliary Equipment Used during Test

Description	Manufacturer	Model	S/N	Rating
-	-	-	-	-

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

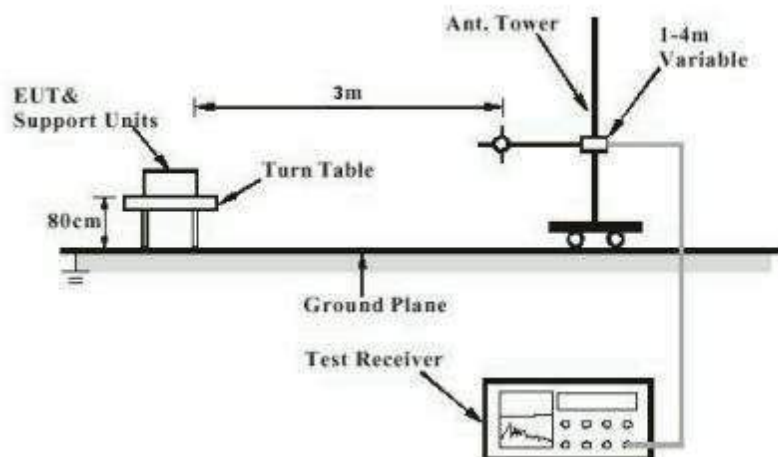


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

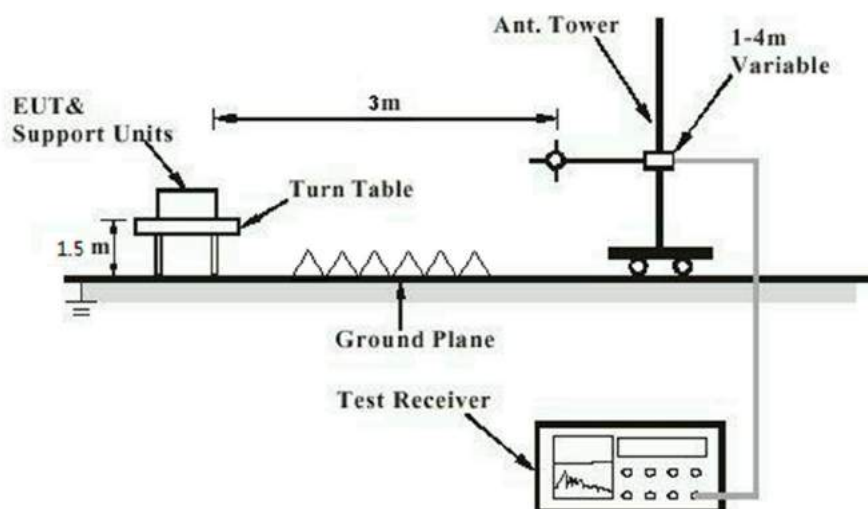


Diagram of Measurement Configuration for Mains Conduction Measurement

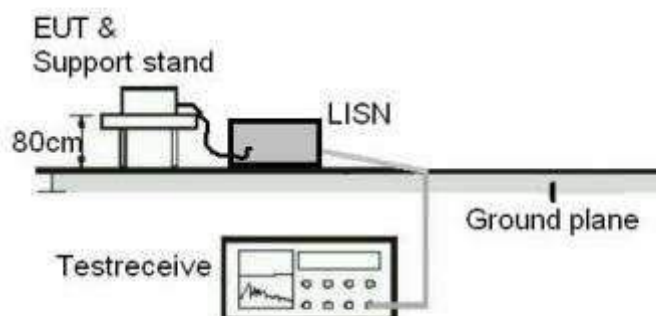
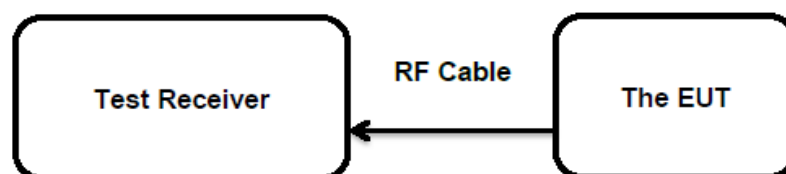


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203
RSS-Gen Clause 6.8

According to the manufacturer declared, the EUT has a Integral antenna, the directional gain of antenna is 2.0 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

Prüfbericht - Nr.: CN22OAWT 001

Test Report No.:

Seite 15 von 22

Page 15 of 22

5.1.2 Maximum Conducted Output Power

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(b)(3) RSS-247 Clause 5.4(d)
Basic standard	: ANSI C63.10: 2013
Limits	: 1.0 Watts(30dBm) e.i.r.p < 4.0 Watts(36dBm)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2022-01-12
Input voltage	: AC 240V/60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.6 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN22OAWT 001

Test Report No.:

Seite 16 von 22

Page 16 of 22

5.1.3 Conducted Power Spectral Density

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(e) RSS-247 Clause 5.2(b)
Basic standard	: ANSI C63.10: 2013
Limits	: < 8 dBm / 3kHz
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2022-01-12
Input voltage	: AC 240V/60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.6 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN22OAWT 001

Test Report No.:

Seite 17 von 22

Page 17 of 22

5.1.4 6dB Bandwidth

RESULT:**Pass****Test Specification**

Test standard	:	FCC Part 15.247(a)(2) RSS-247 Clause 5.2(a)
Basic standard	:	ANSI C63.10: 2013
Limits	:	> 500 kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-01-12
Input voltage	:	AC 240V/60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.6 °C
Relative humidity	:	55 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN22OAWT 001

Test Report No.:

Seite 18 von 22

Page 18 of 22

5.1.5 99% Bandwidth**RESULT:****Pass****Test Specification**

Test standard	:	FCC Part 15.247(a)
	:	RSS-Gen Clause 6.7
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-01-12
Input voltage	:	AC 240V/60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.6 °C
Relative humidity	:	55 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN22OAWT 001

Test Report No.:

Seite 19 von 22

Page 19 of 22

5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	: ANSI C63.10: 2013
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2022-01-12
Input voltage	: AC 240V/60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.6 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN22OAWT 001

Test Report No.:

Seite 20 von 22

Page 20 of 22

5.1.7 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3
Basic standard	: ANSI C63.10: 2013
Limits	: Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 5
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2022-01-11
Input voltage	: AC 240V/60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: Refer to test result

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN22OAWT 001

Test Report No.:

Seite 21 von 22

Page 21 of 22

5.1.8 Conducted Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.207(a) RSS-Gen Section 8.8
Basic standard	: ANSI C63.10: 2013
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2021-12-18
Input voltage	: AC 240V/60Hz
Operation mode	: B
Earthing	: Not connected
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: Refer to test result

For the measurement records, refer to the appendix A.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the test photo document.

7 List of Tables

Table 1: List of Test and Measurement Equipment.....	5
Table 2: Technical Specification of EUT	8
Table 3: RF Channel and Frequency of Wi-Fi 802.11 b/g/n	9
Table 4: Auxiliary Equipment Used during Test	11

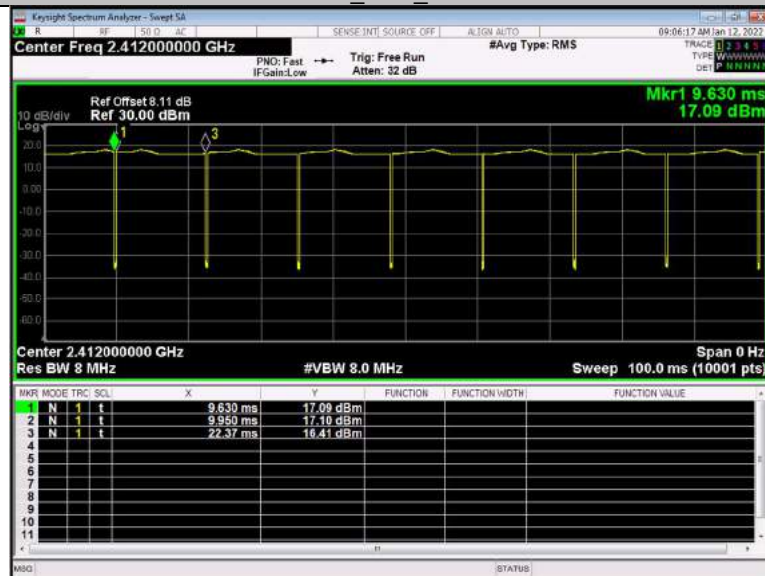
Appendix A: Test Results of Wi-Fi 802.11 b/g/n and Conducted Emission on AC Mains

APPENDIX A: TEST RESULTS OF WI-FI 802.11 B/G/N AND CONDUCTED EMISSION ON AC MAINS.....	1
APPENDIX A.1: TEST RESULTS OF DUTY CYCLE	2
APPENDIX A.2: TEST RESULTS OF MAXIMUM PEAK CONDUCTED OUTPUT POWER AND EIRP	4
APPENDIX A.3: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	5
APPENDIX A.4: TEST RESULTS OF 6dB BANDWIDTH	10
APPENDIX A.5: TEST RESULTS OF 99% BANDWIDTH	15
APPENDIX A.6: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED	20
APPENDIX A.7: TEST RESULTS OF CONDUCTED BAND EDGE	29
APPENDIX A.8: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	33
30MHz - 1GHz (Worst case).....	33
1GHz - 18GHz.....	35
CO-LOCATED RADIATED SPURIOUS EMISSIONS.....	59
APPENDIX A.9: TEST RESULTS OF CONDUCTED EMISSION	63

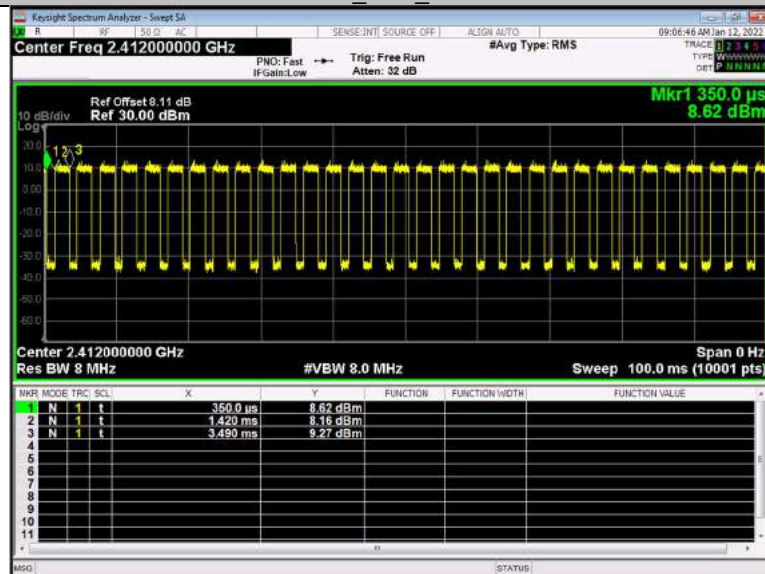
Appendix A.1: Test Results of Duty Cycle

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
b	2412	Ant1	97.49	0.11	0.08
g	2412	Ant1	65.92	1.81	0.48
n(HT20)	2412	Ant1	73	1.37	0.52
n(HT40)	2422	Ant1	50	3.01	1.05

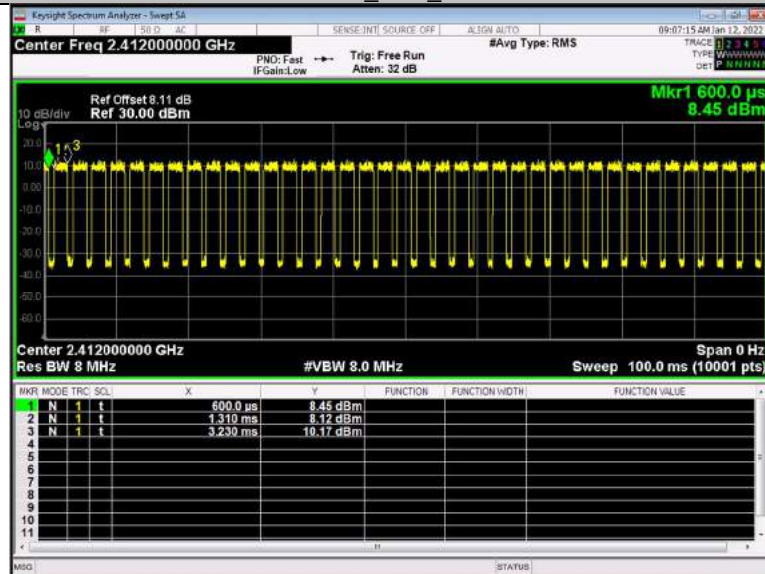
11B_Ant1_2412



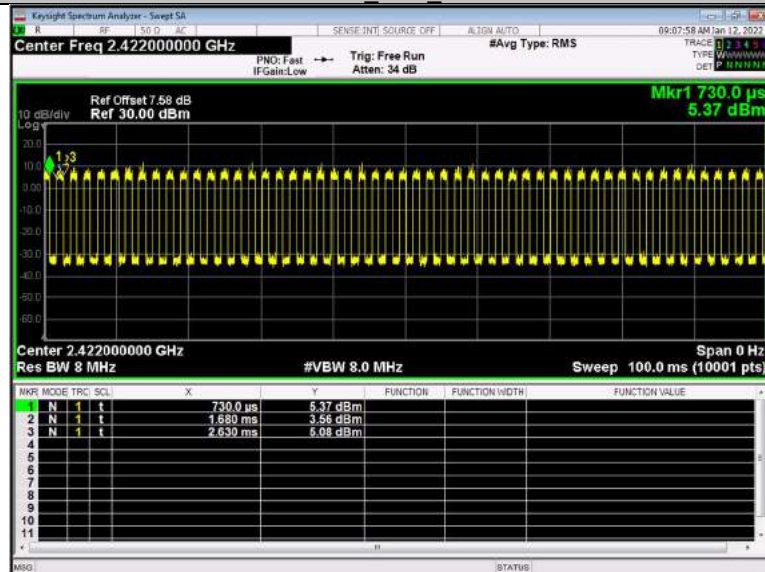
11G_Ant1_2412



11N20_Ant1_2412



11N40_Ant1_2422



Appendix A.2: Test Results of Maximum Peak Conducted Output Power and EIRP

TestMode	Antenna	Channel	Conducted Power[dBm]	Duty cycle Factor	Total Power [dBm]	Conducted Limit[dBm]	EIRP [dBm]	EIRP Limit[dBm]	Verdict
11B	Ant1	2412	13.009	0.11	13.119	≤30	15.119	≤36	PASS
		2437	13.04	0.11	13.15	≤30	15.15	≤36	PASS
		2462	13.188	0.11	13.298	≤30	15.298	≤36	PASS
11G	Ant1	2412	11.817	1.81	13.627	≤30	15.627	≤36	PASS
		2437	11.292	1.81	13.102	≤30	15.102	≤36	PASS
		2462	12.951	1.81	14.761	≤30	16.761	≤36	PASS
11N20SISO	Ant1	2412	12.14	1.37	13.51	≤30	15.51	≤36	PASS
		2437	10.315	1.37	11.685	≤30	13.685	≤36	PASS
		2462	11.217	1.37	12.587	≤30	14.587	≤36	PASS
11N40SISO	Ant1	2422	10.677	3.01	13.687	≤30	15.687	≤36	PASS
		2437	10.241	3.01	13.251	≤30	15.251	≤36	PASS
		2452	10.849	3.01	13.859	≤30	15.859	≤36	PASS

Appendix A.3: Test Results of Conducted Power Spectral Density

TestMode	Antenna	Channel	Test Result [dBm/3- 100kHz]	Duty cycle Factor	Total PSD[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-13.432	0.11	-13.322	≤8	PASS
		2437	-13.115	0.11	-13.005	≤8	PASS
		2462	-12.931	0.11	-12.821	≤8	PASS
11G	Ant1	2412	-21.172	1.81	-19.362	≤8	PASS
		2437	-22.014	1.81	-20.204	≤8	PASS
		2462	-16.399	1.81	-14.589	≤8	PASS
11N20SISO	Ant1	2412	-22.162	1.37	-20.792	≤8	PASS
		2437	-23.362	1.37	-21.992	≤8	PASS
		2462	-18.745	1.37	-17.375	≤8	PASS
11N40SISO	Ant1	2422	-26.846	3.01	-23.836	≤8	PASS
		2437	-27.019	3.01	-24.009	≤8	PASS
		2452	-26.378	3.01	-23.368	≤8	PASS

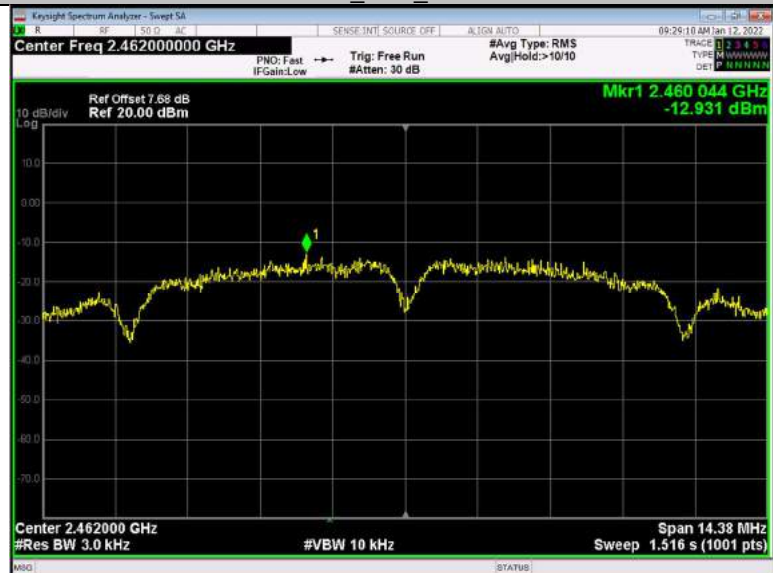
11B_Ant1_2412



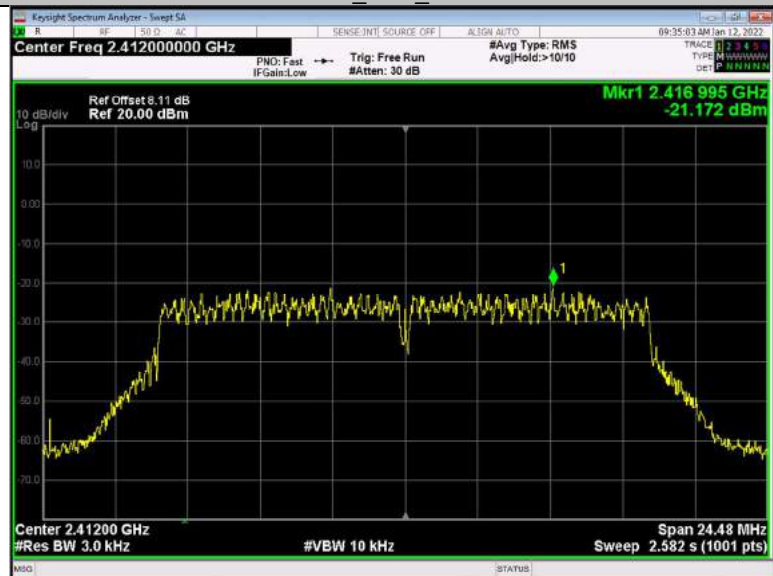
11B_Ant1_2437



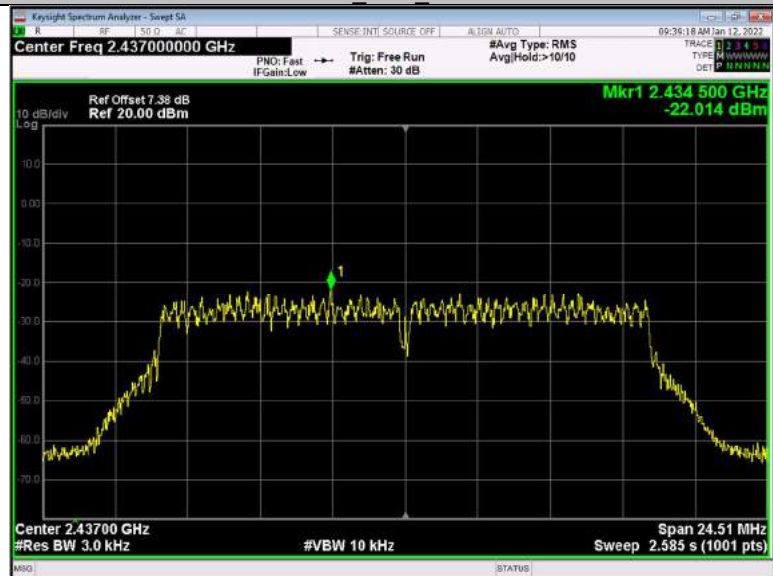
11B_Ant1_2462



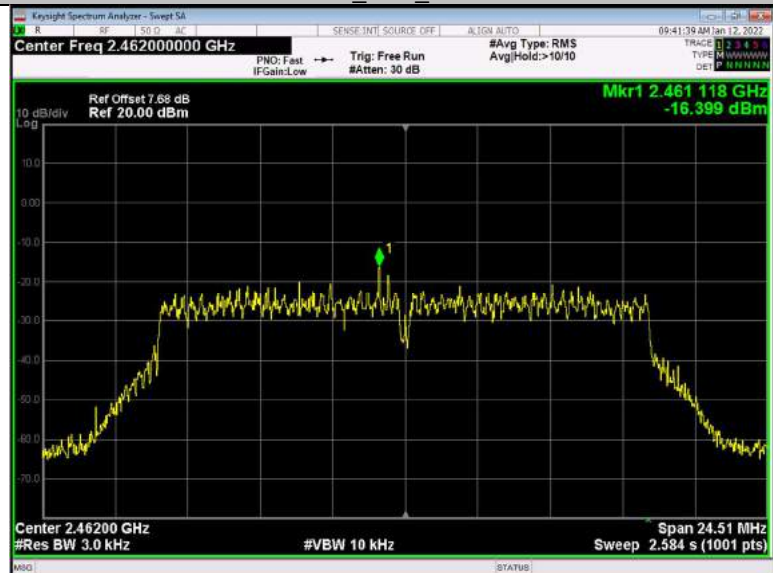
11G_Ant1_2412



11G_Ant1_2437



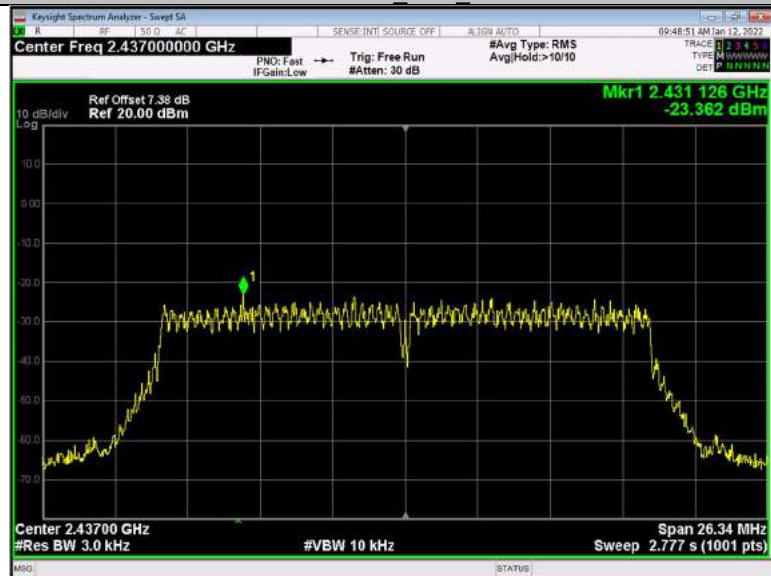
11G_Ant1_2462



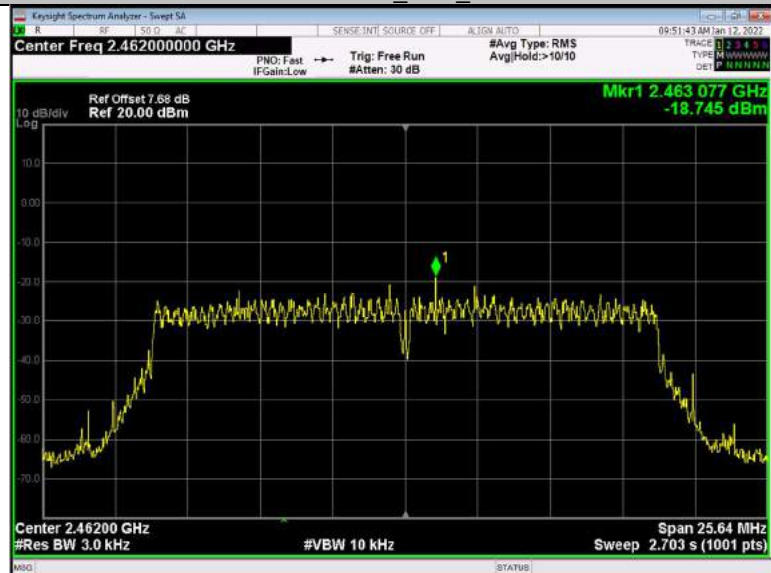
11N20SISO_Ant1_2412



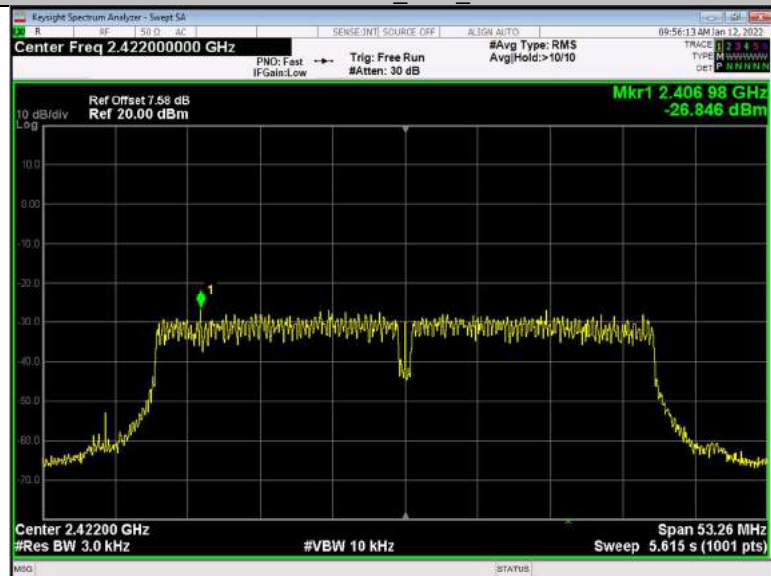
11N20SISO_Ant1_2437



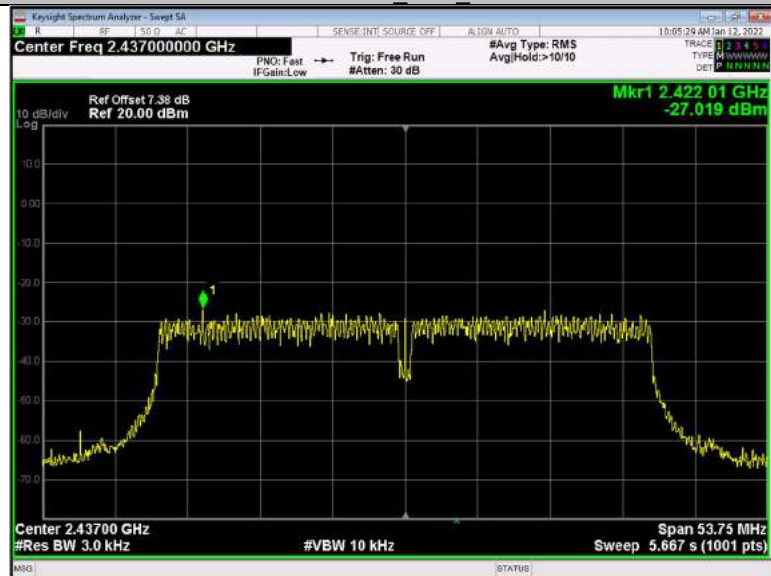
11N20SISO_Ant1_2462



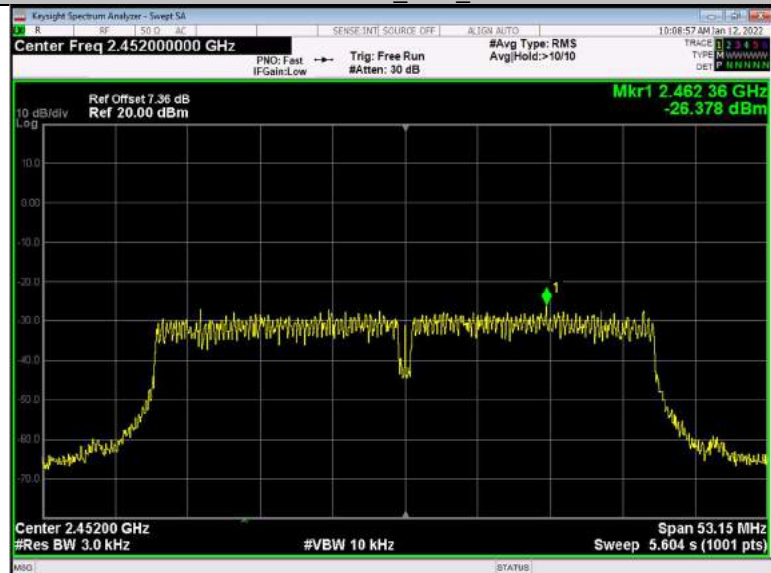
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix A.4: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.581	0.5	PASS
		2437	10.043	0.5	PASS
		2462	9.586	0.5	PASS
11G	Ant1	2412	16.323	0.5	PASS
		2437	16.343	0.5	PASS
		2462	16.337	0.5	PASS
11N20SISO	Ant1	2412	17.103	0.5	PASS
		2437	17.561	0.5	PASS
		2462	17.093	0.5	PASS
11N40SISO	Ant1	2422	35.505	0.5	PASS
		2437	35.830	0.5	PASS
		2452	35.433	0.5	PASS

11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



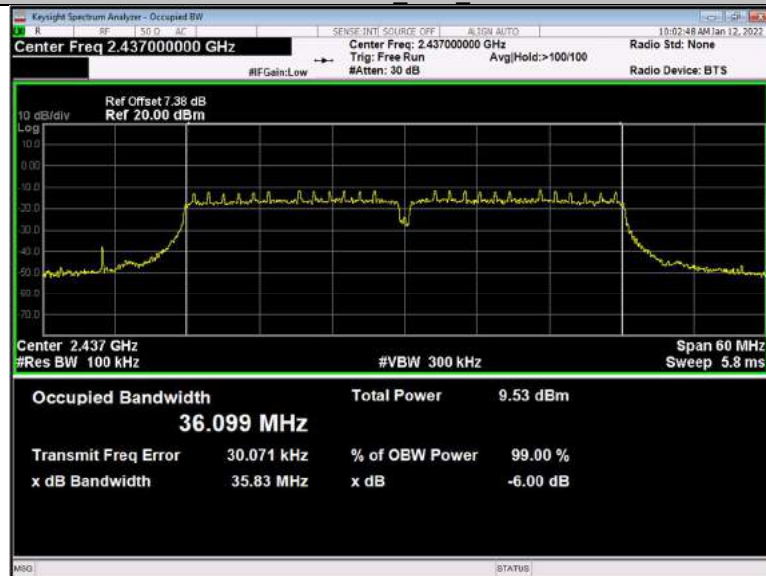
11N20SISO_Ant1_2462



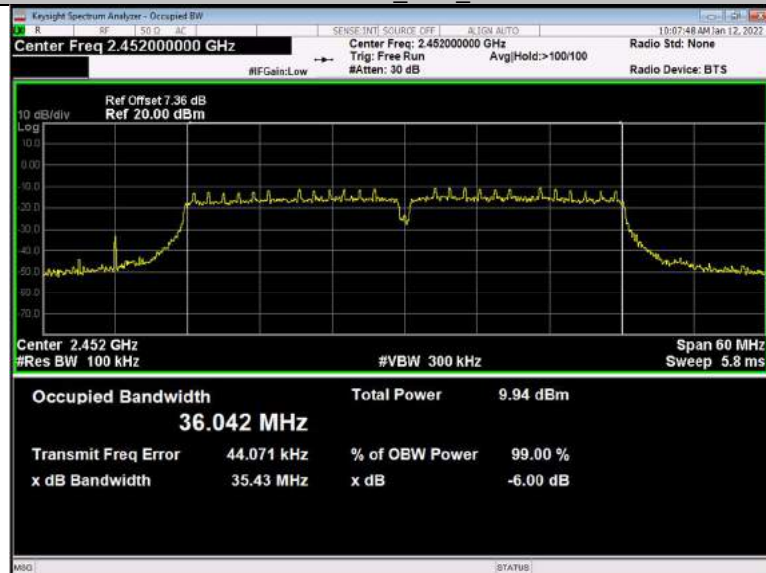
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix A.5: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.79977	---	PASS
		2437	14.91295	---	PASS
		2462	14.78585	---	PASS
11G	Ant1	2412	16.64736	---	PASS
		2437	16.65911	---	PASS
		2462	16.60664	---	PASS
11N20SISO	Ant1	2412	17.66065	---	PASS
		2437	17.68177	---	PASS
		2462	17.645	---	PASS
11N40SISO	Ant1	2422	36.31619	---	PASS
		2437	36.37617	---	PASS
		2452	36.30908	---	PASS

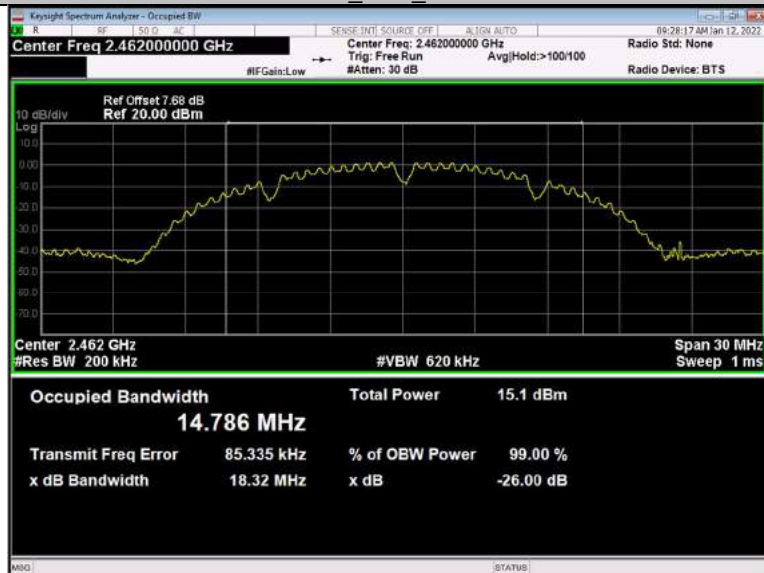
11B_Ant1_2412



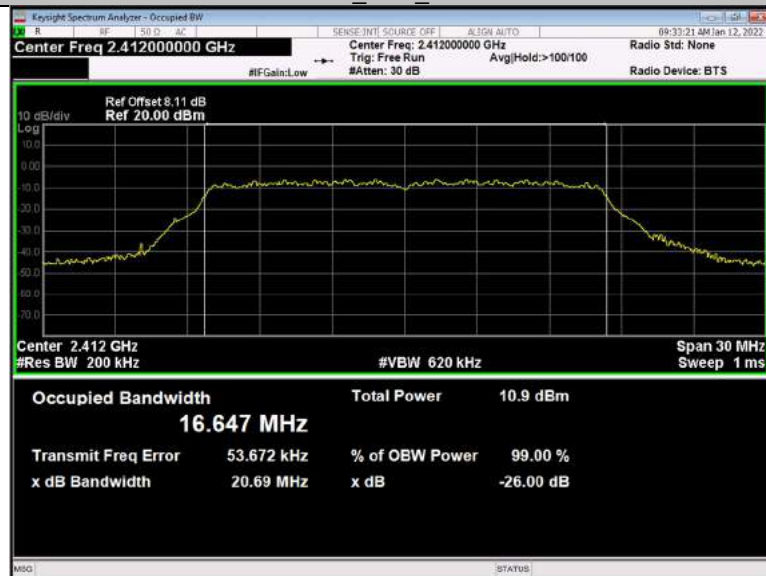
11B_Ant1_2437



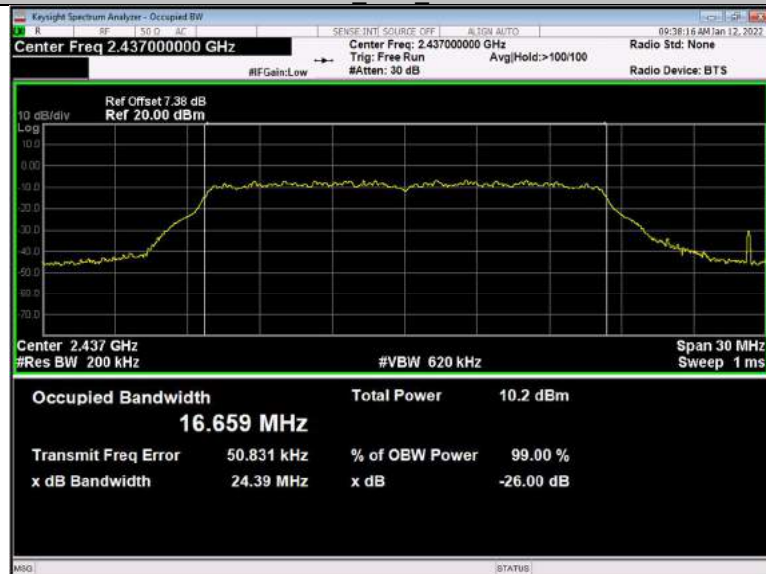
11B_Ant1_2462



11G_Ant1_2412



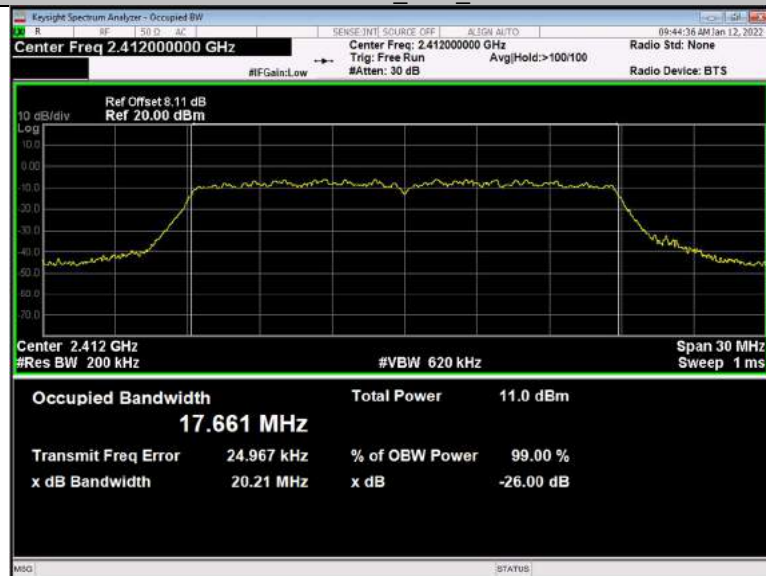
11G_Ant1_2437



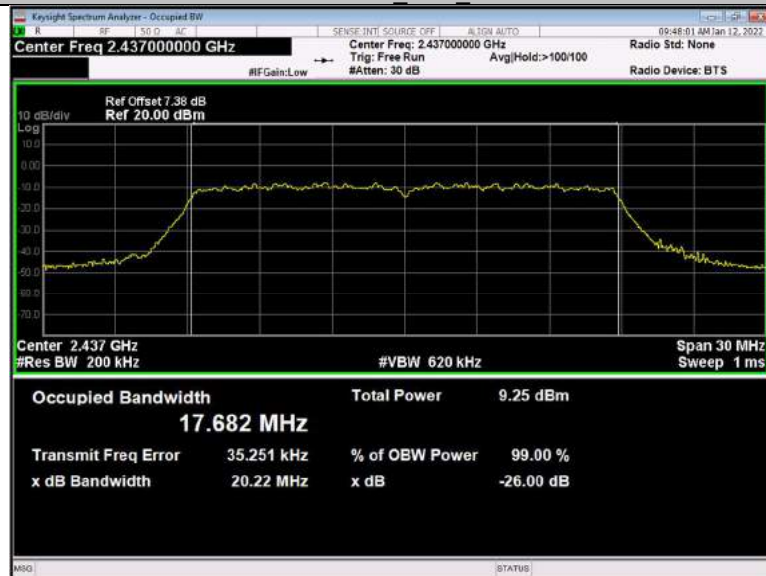
11G_Ant1_2462



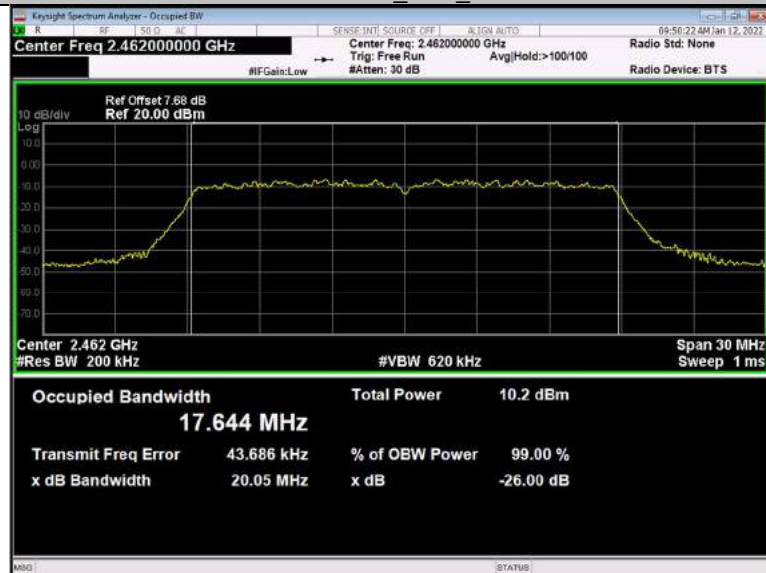
11N20SISO_Ant1_2412



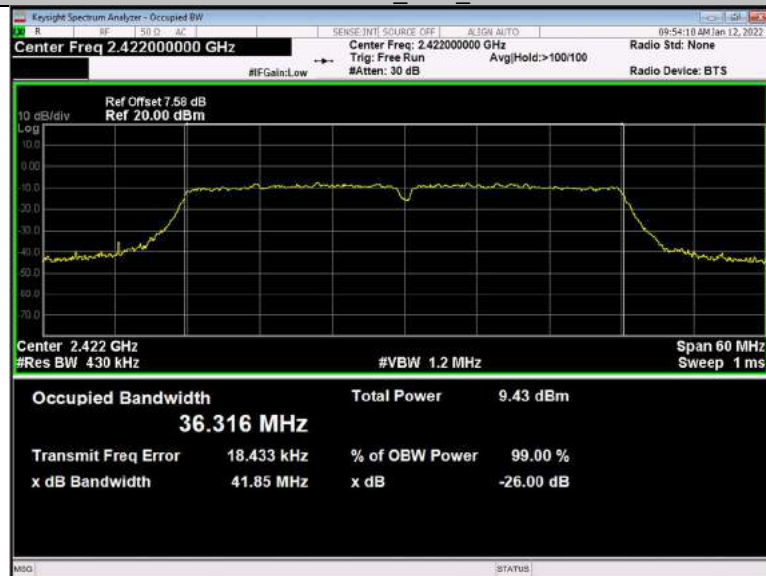
11N20SISO_Ant1_2437



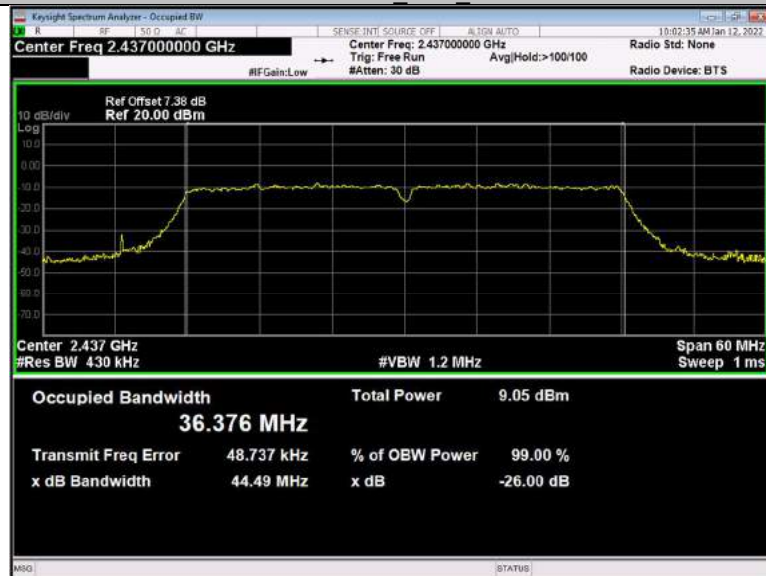
11N20SISO_Ant1_2462



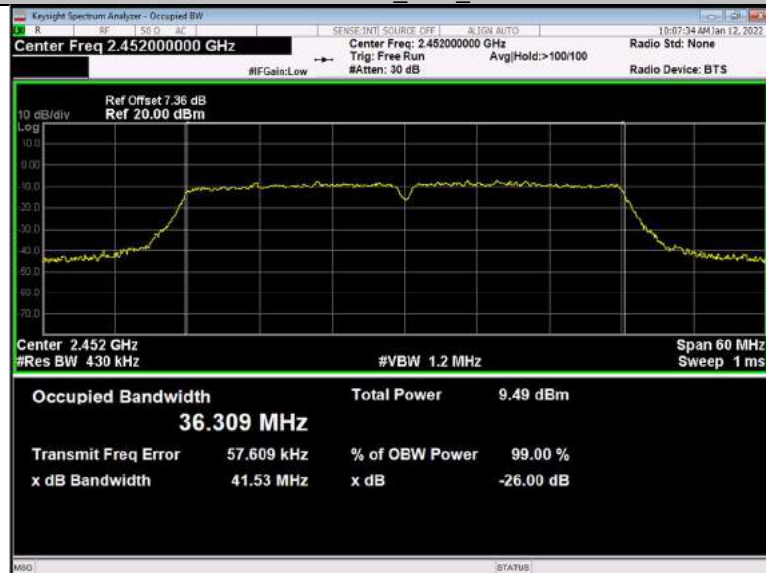
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



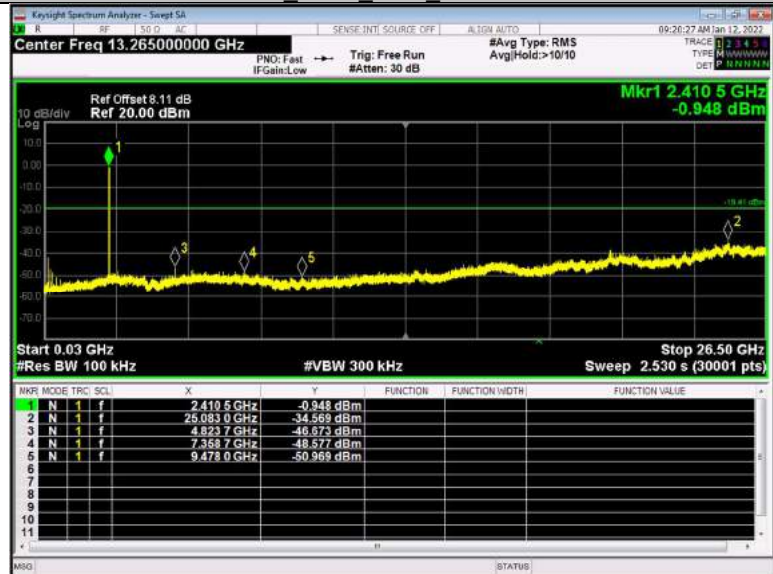
Appendix A.6: Test Results of Conducted Spurious Emissions Measured

TestMode	Antenna	Channel	Result [dBm]	Limit [dBc]	Verdict
11B	ANT1	2412	-35.15	-20	PASS
		2437	-37.02	-20	PASS
		2462	-35.74	-20	PASS
11G	ANT1	2412	-27.24	-20	PASS
		2437	-27.92	-20	PASS
		2462	-29.16	-20	PASS
11N20SISO	ANT1	2412	-27.06	-20	PASS
		2437	-27.01	-20	PASS
		2462	-27.54	-20	PASS
11N40SISO	Ant1	2422	-24.21	-20	PASS
		2437	-24.20	-20	PASS
		2452	-24.39	-20	PASS

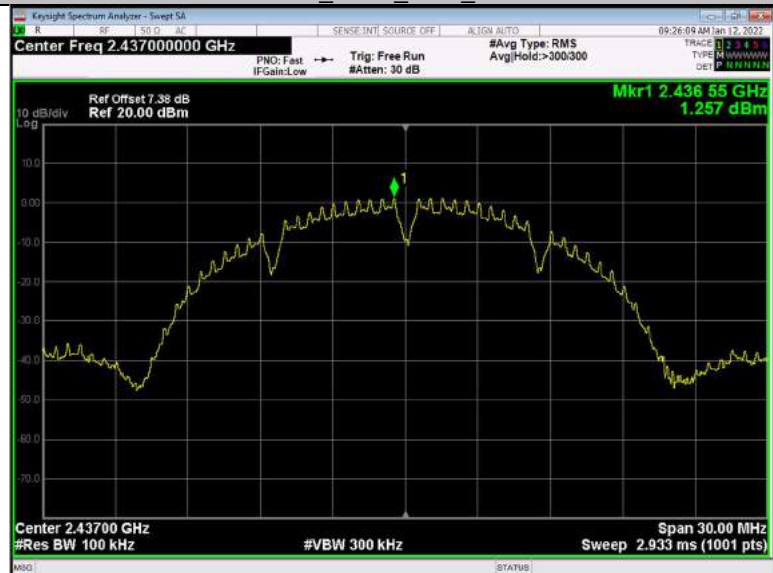
11B_ANT1_2412_Ref



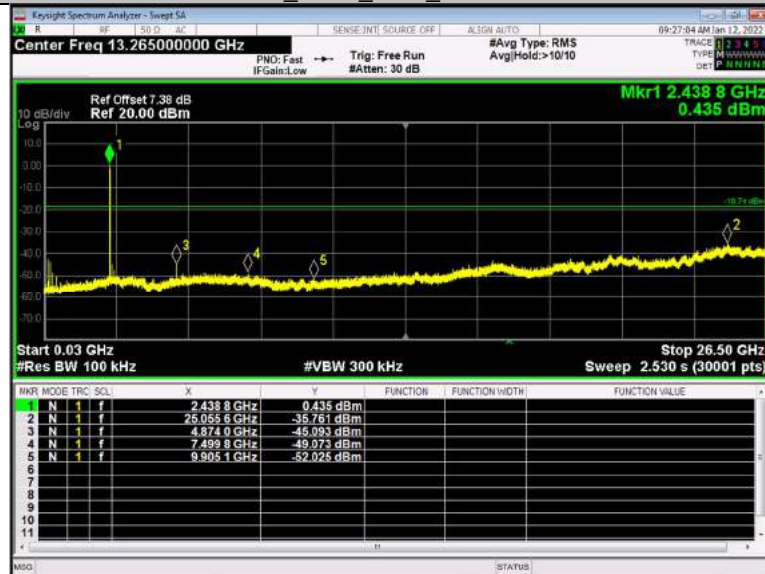
11B_ANT1_2412_30~26500



11B_ANT1_2437_Ref



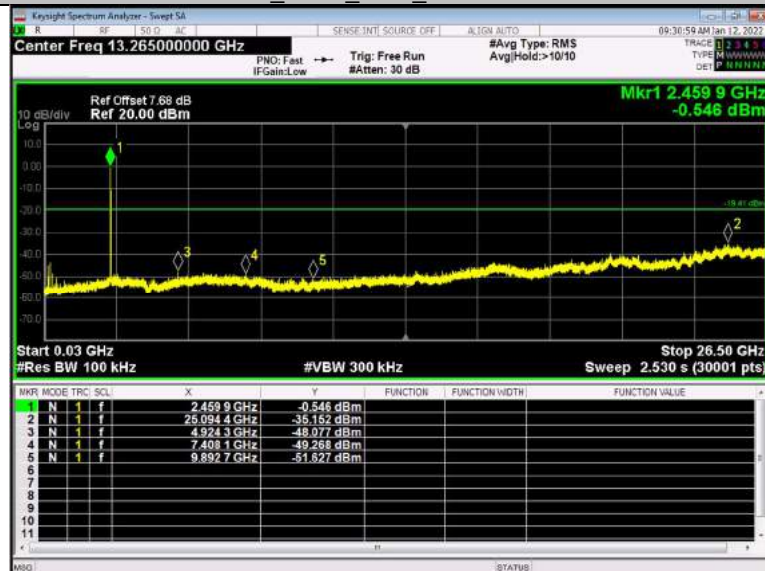
11B_ANT1_2437_30~26500



11B_ANT1_2462_Ref



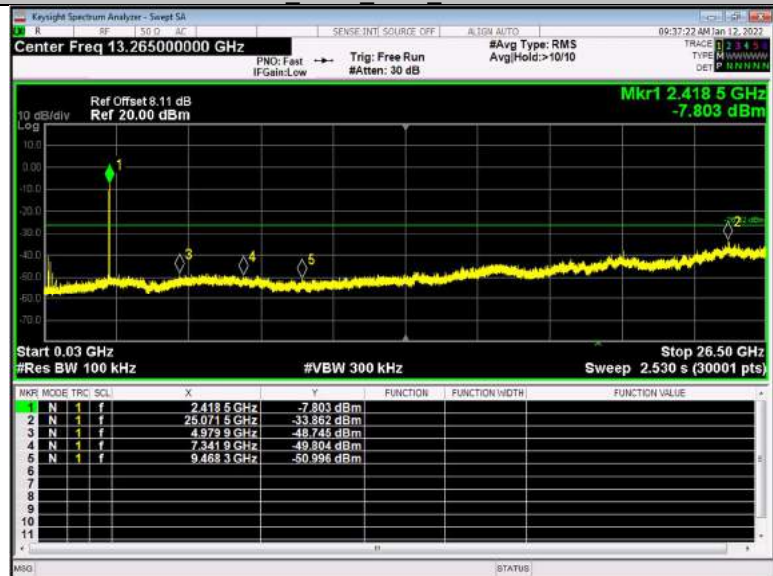
11B_ANT1_2462_1000~26500



11G_ANT1_2412_Ref



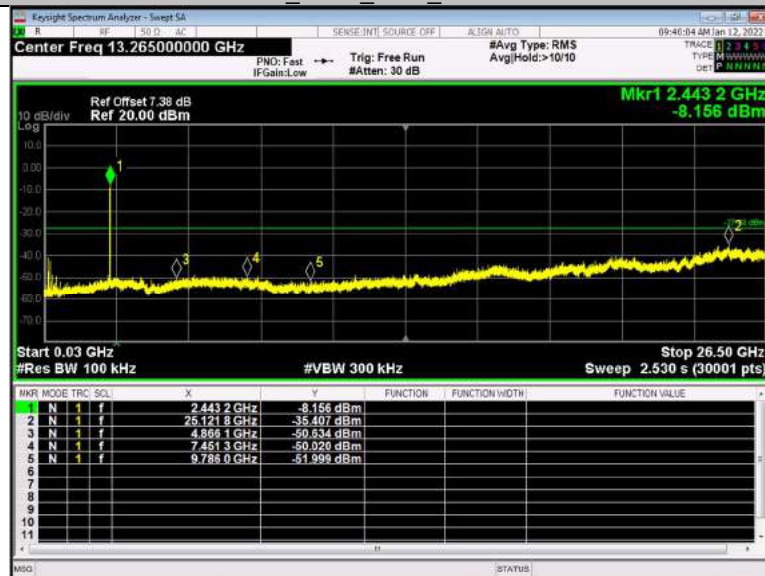
11G_ANT1_2412_30~26500



11G_ANT1_2437_Ref



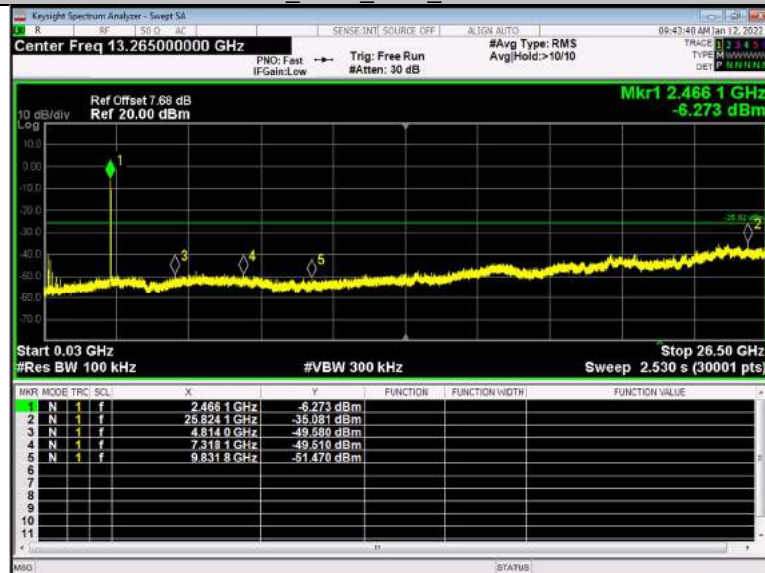
11G_ANT1_2437_30~26500



11G_ANT1_2462_Ref



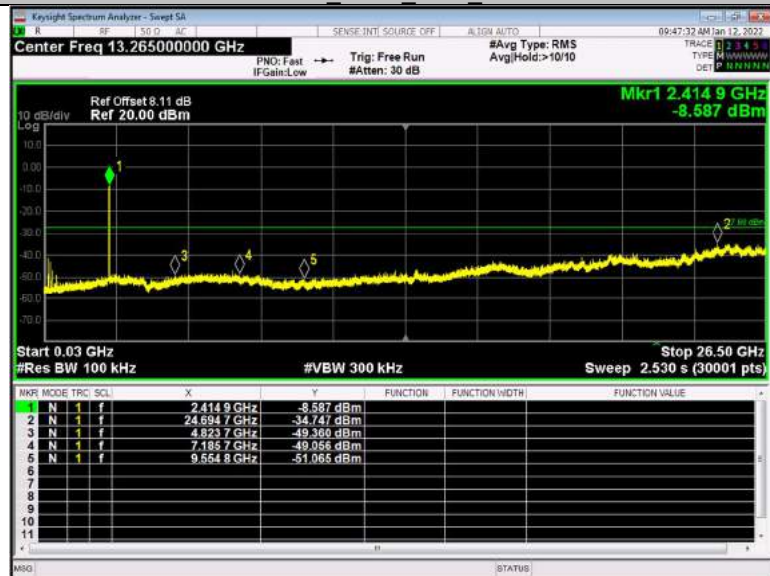
11G_ANT1_2462_30~26500



11N20SISO_ANT1_2412_Ref



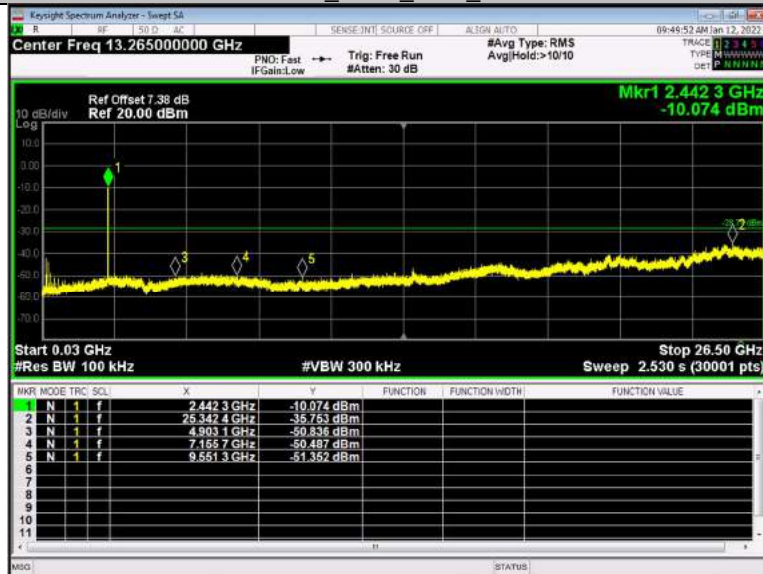
11N20SISO_ANT1_2412_30~26500



11N20SISO_ANT1_2437_Ref



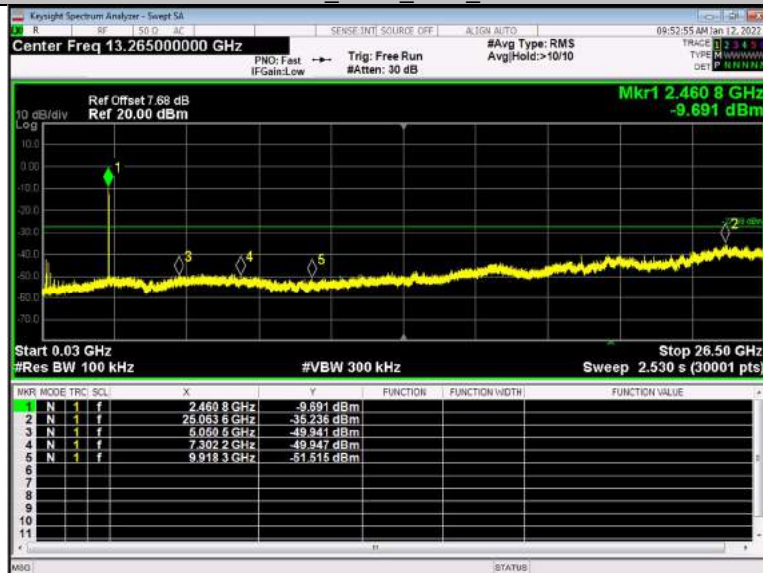
11N20SISO_ANT1_2437_30~26500



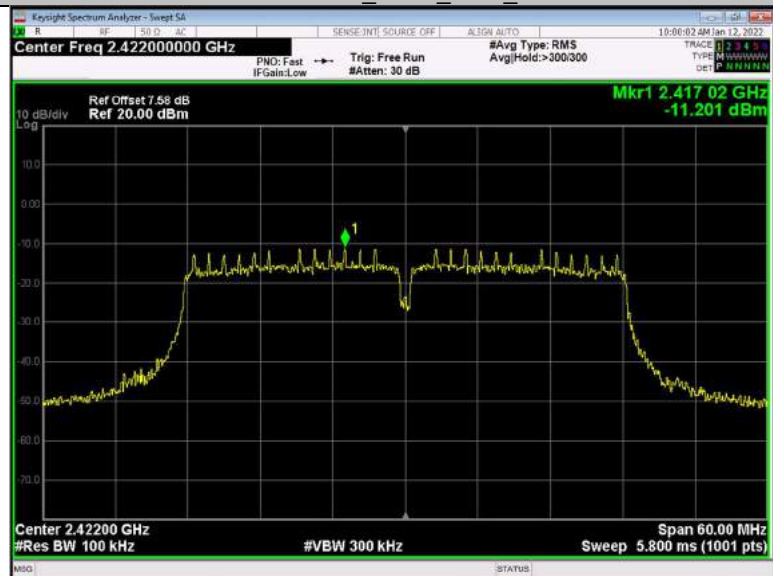
11N20SISO_ANT1_2462_Ref



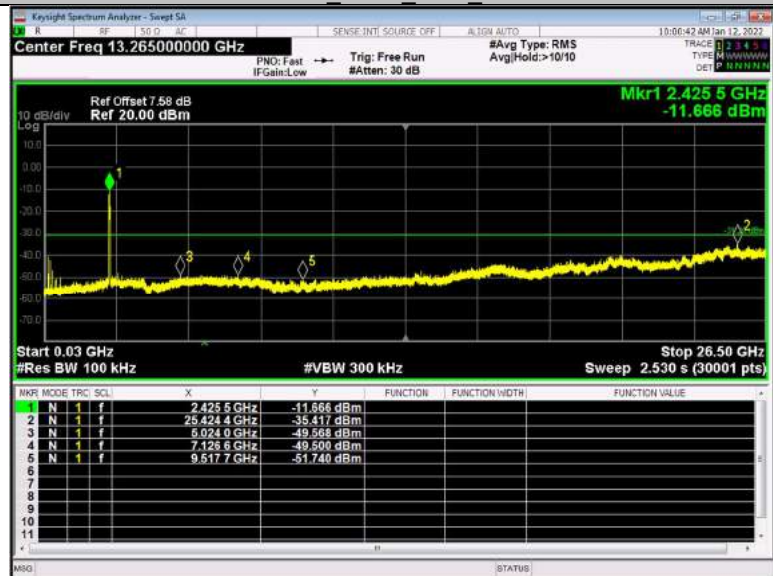
11N20SISO_ANT1_2462_30~26500



11N40SISO_ANT1_2422_Ref



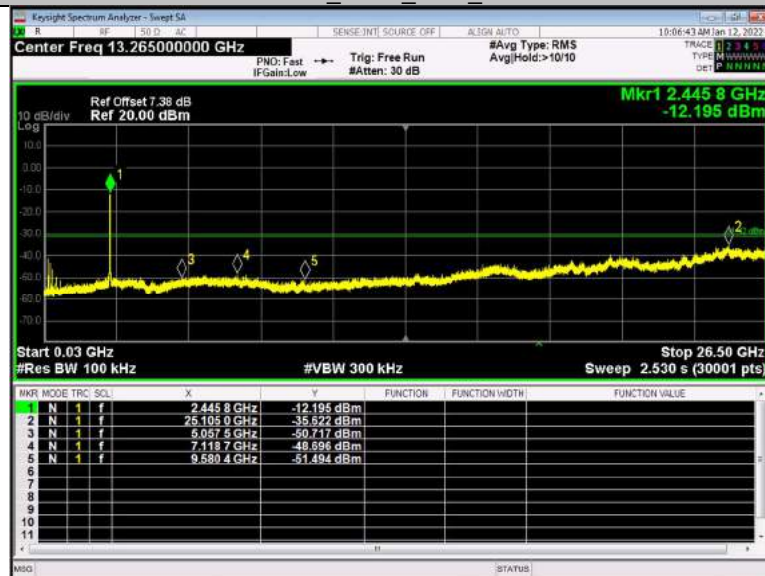
11N40SISO_ANT1_2422_30~26500



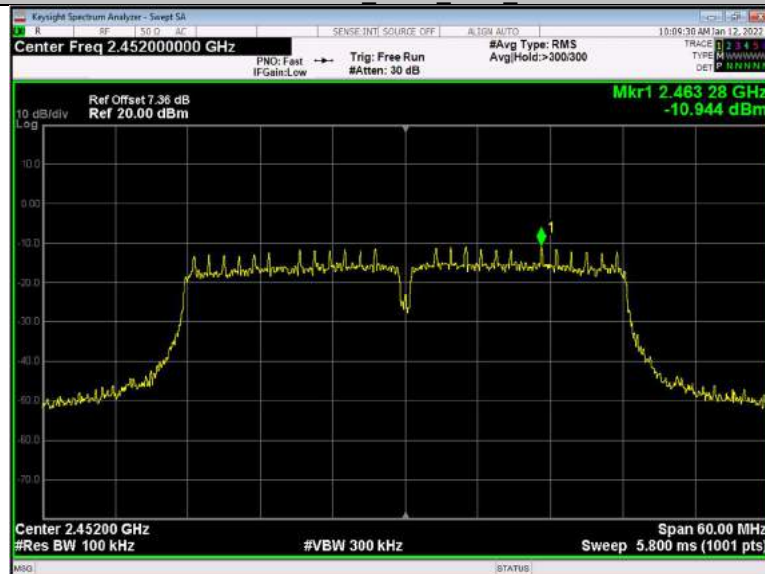
11N40SISO_ANT1_2437_Ref



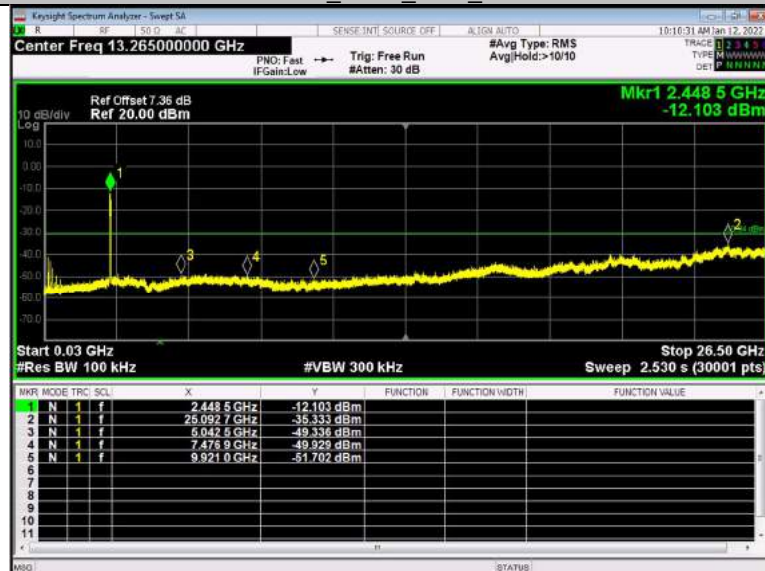
11N40SISO_ANT1_2437_30~26500



11N40SISO_ANT1_2452_Ref



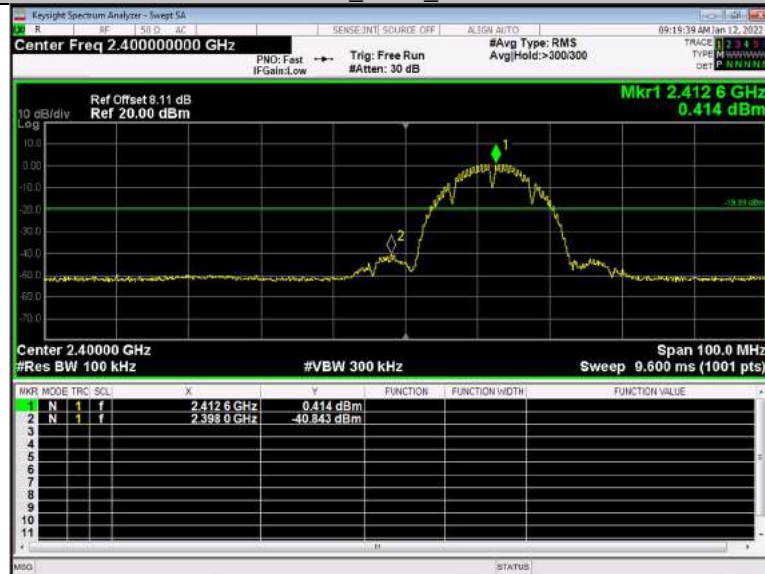
11N40SISO_ANT1_2452_30~26500



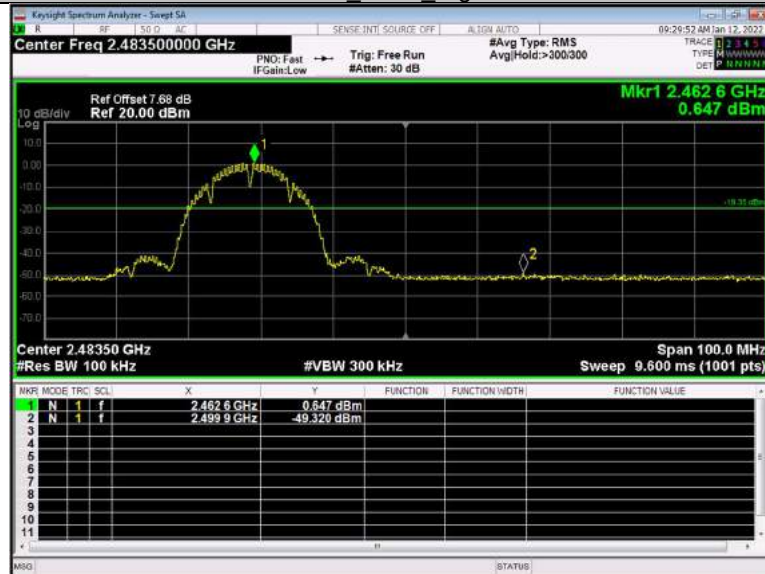
Appendix A.7: Test Results of Conducted Band Edge

TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBc]	Verdict
11B	Ant1	Low	2412	-41.25	-20	PASS
		High	2462	-49.96	-20	PASS
11G	Ant1	Low	2412	-38.42	-20	PASS
		High	2462	-40.76	-20	PASS
11N20SISO	Ant1	Low	2412	-37.96	-20	PASS
		High	2462	-42.33	-20	PASS
11N40SISO	Ant1	Low	2422	-31.23	-20	PASS
		High	2452	-38.08	-20	PASS

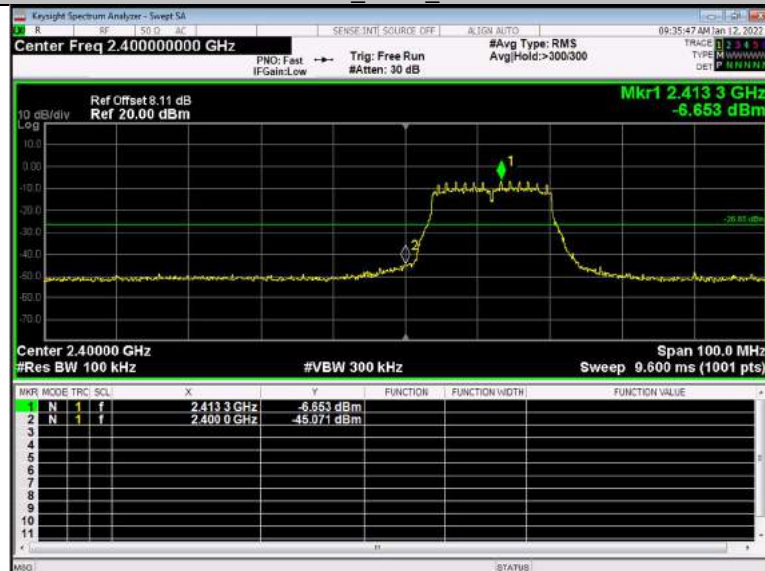
11B_ANT1_Low



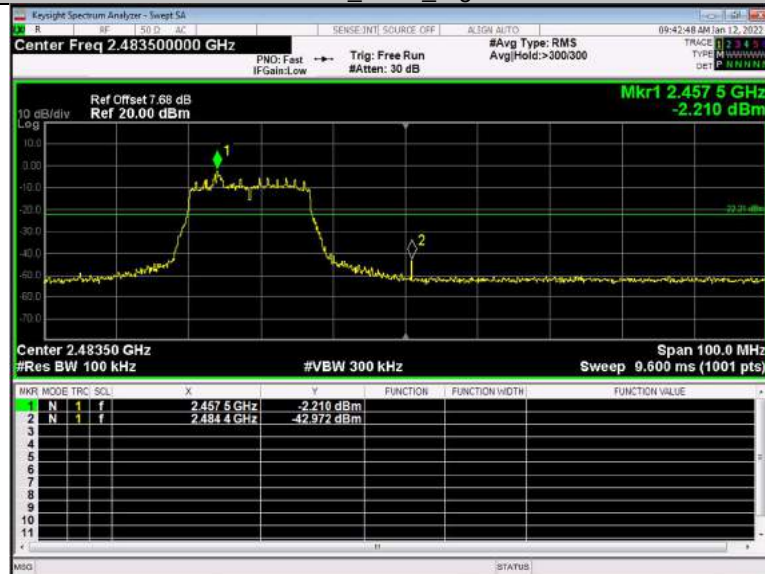
11B_ANT1_High



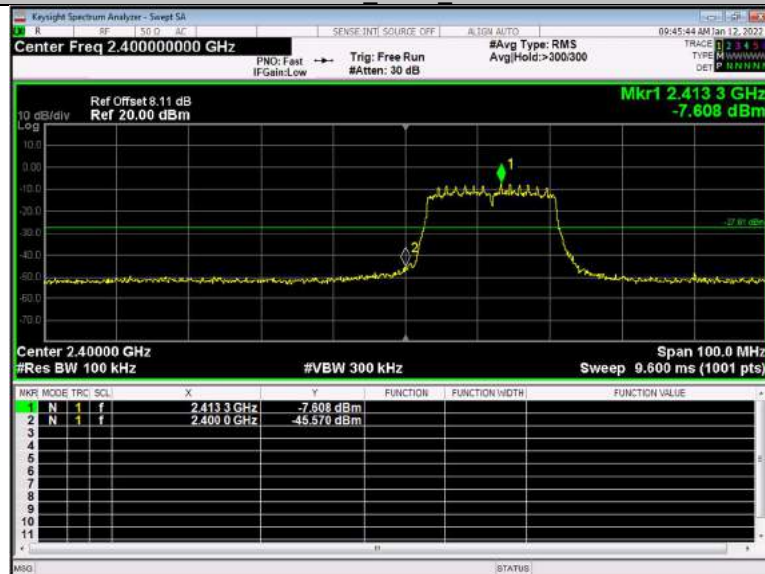
11G_ANT1_Low



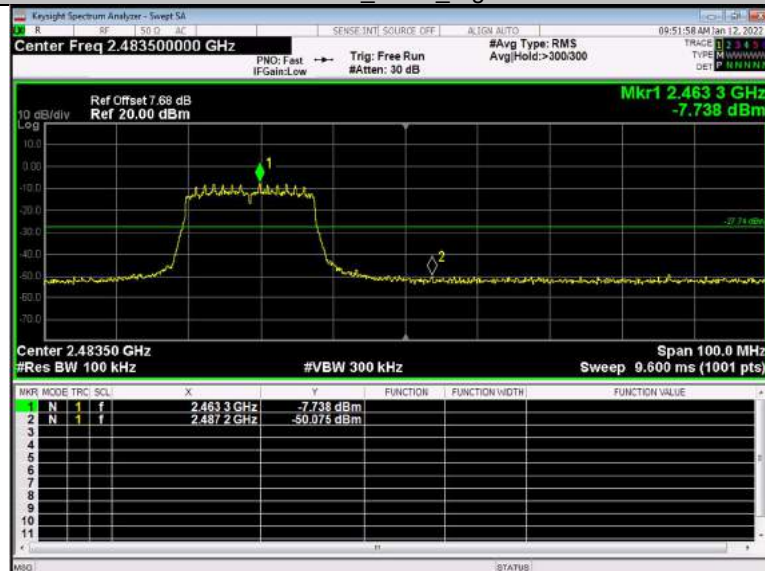
11G_ANT1_High



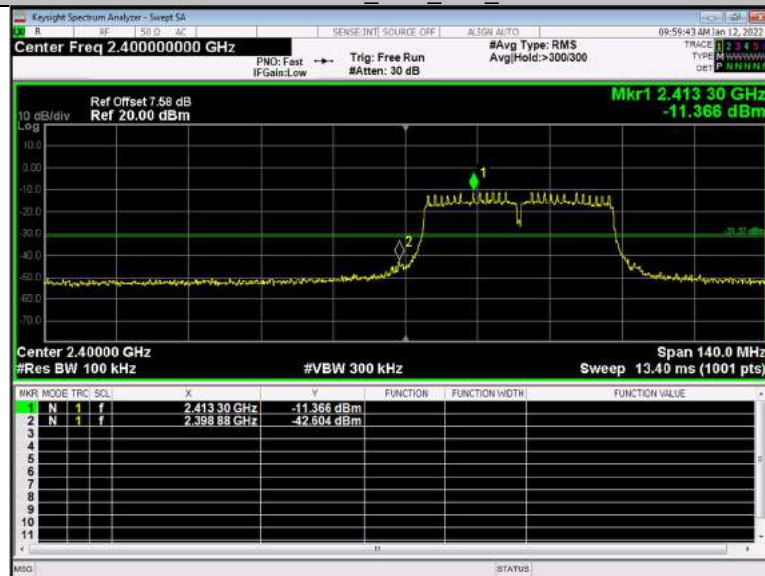
11N20_ANT1_Low



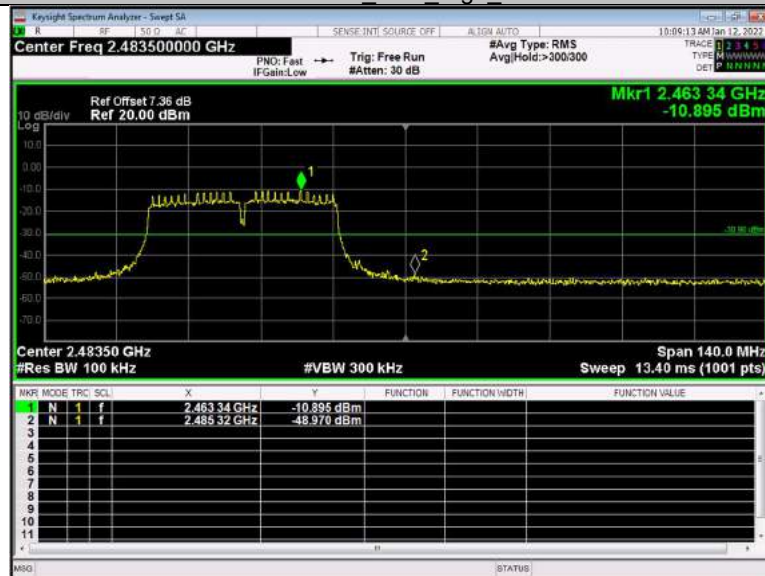
11N20_ANT1_High



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



Note: Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

Appendix A.8: Test Results of Radiated Spurious Emissions

30MHz - 1GHz (Worst case)

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°, Humi:47%, Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11b
Polarization : Horizontal

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		54.2500	32.98	-7.39	25.59	40.00	-14.41	QP	
2	*	116.3300	46.20	-8.62	37.58	43.50	-5.92	QP	
3		138.6400	46.77	-10.90	35.87	43.50	-7.63	QP	
4		155.1300	45.11	-10.68	34.43	43.50	-9.07	QP	
5		181.3200	36.12	-9.12	27.00	43.50	-16.50	QP	
6		480.0800	33.90	-2.05	31.85	46.00	-14.15	QP	

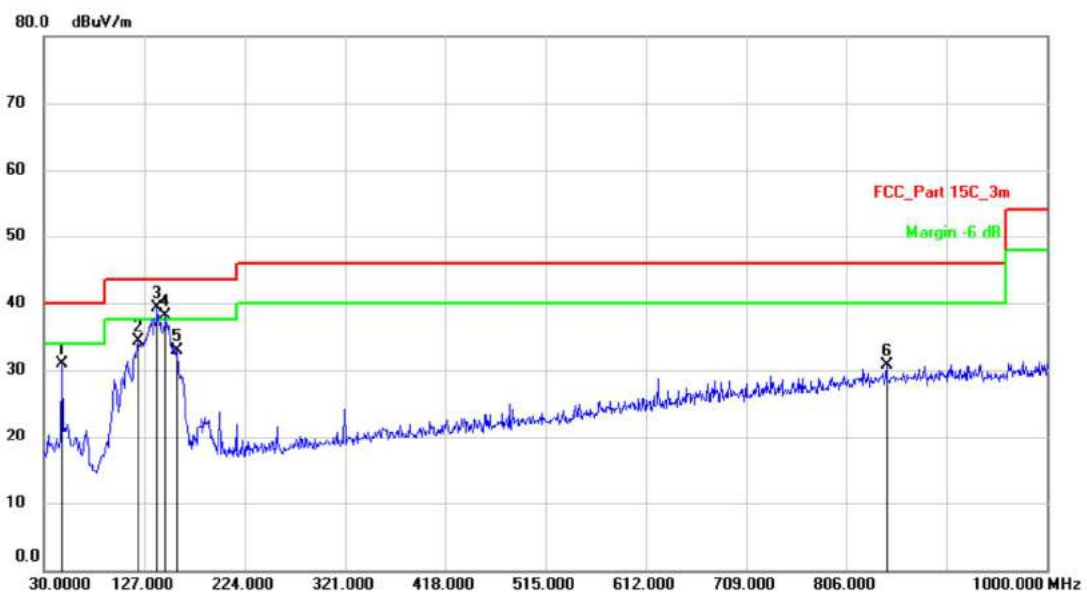
Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°, Humi:47%, Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11b
Polarization : Horizontal

Radiated Emission Measurement

Date: 2021/12/7

Time: 13:40:40



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		47.4600	38.18	-7.30	30.88	40.00	-9.12	QP	
2		121.1800	45.42	-11.13	34.29	43.50	-9.21	QP	
3	*	139.6100	50.86	-11.48	39.38	43.50	-4.12	QP	
4	!	147.3700	49.86	-11.75	38.11	43.50	-5.39	QP	
5		159.0100	44.06	-11.08	32.98	43.50	-10.52	QP	
6		844.8000	25.94	4.71	30.65	46.00	-15.35	QP	

Note: 1. Result Level = Read Level + Correct Factor.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

1GHz - 18GHz

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°, Humi:47%, Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11b Low channel **Polarization** : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:03:18



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2390.000	69.33	0.09	69.42	74.00	-4.58	peak	
2		2390.000	38.21	0.09	38.30	54.00	-15.70	AVG	
3		4824.000	57.56	6.38	63.94	74.00	-10.06	peak	
4		4824.000	41.42	6.38	47.80	54.00	-6.20	AVG	
5		7236.000	55.11	10.48	65.59	74.00	-8.41	peak	
6		7236.000	38.71	10.48	49.19	54.00	-4.81	AVG	

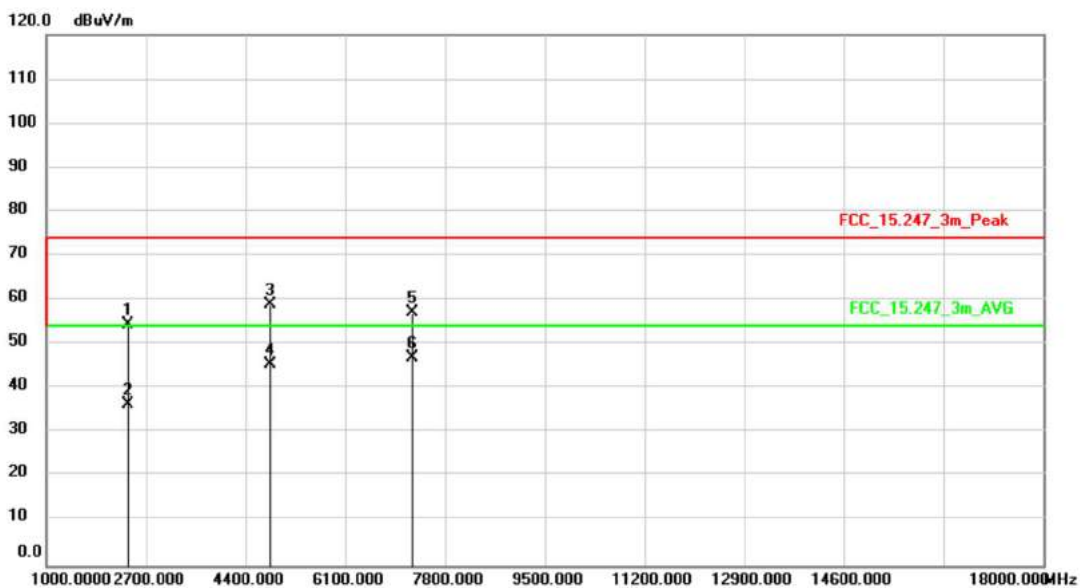
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11b Low channel
Polarization : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:10:08



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	54.28	0.09	54.37	74.00	-19.63	peak	
2		2390.000	36.44	0.09	36.53	54.00	-17.47	AVG	
3		4824.000	52.65	6.38	59.03	74.00	-14.97	peak	
4		4824.000	39.06	6.38	45.44	54.00	-8.56	AVG	
5		7236.000	46.80	10.48	57.28	74.00	-16.72	peak	
6	*	7236.000	36.59	10.48	47.07	54.00	-6.93	AVG	

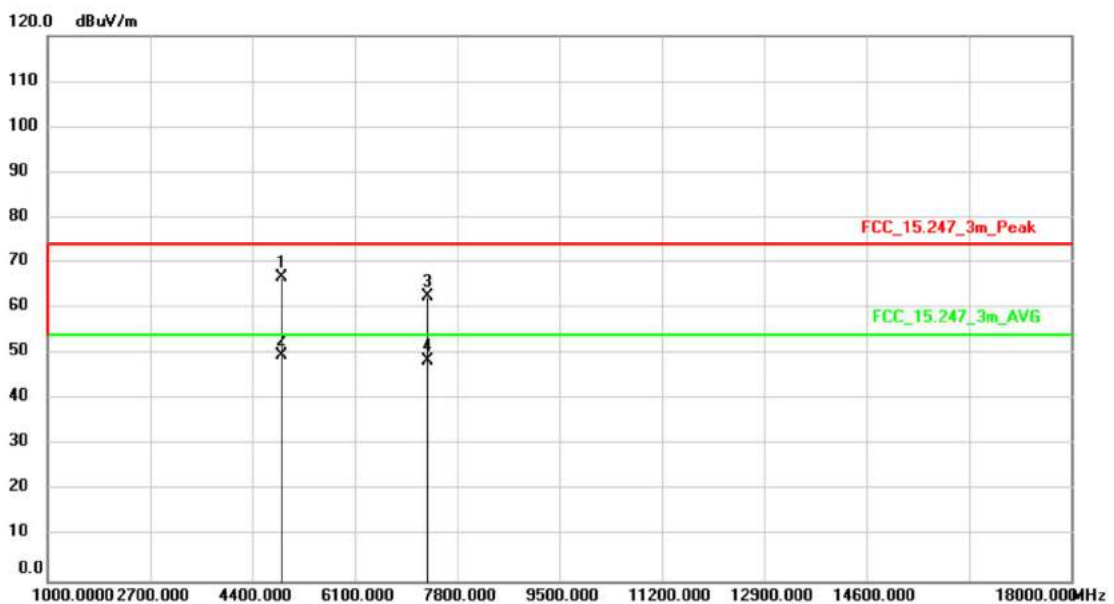
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11b Middle channel
Polarization : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:17:43



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	60.22	6.56	66.78	74.00	-7.22	peak	
2	*	4874.000	43.18	6.56	49.74	54.00	-4.26	AVG	
3		7311.000	51.88	10.53	62.41	74.00	-11.59	peak	
4		7311.000	37.89	10.53	48.42	54.00	-5.58	AVG	

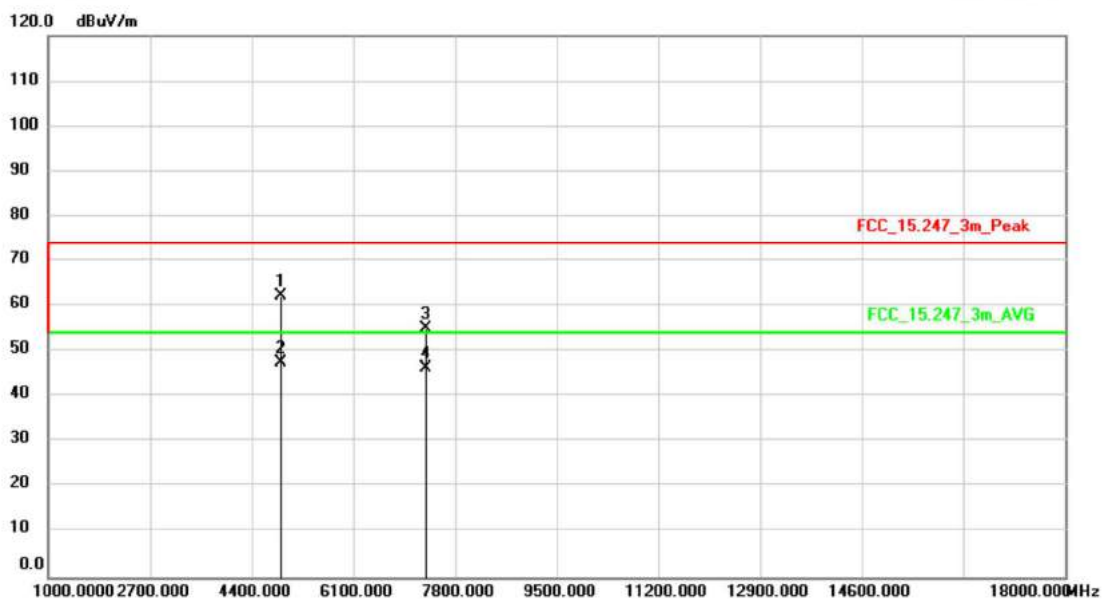
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11b Middle channel
Polarization : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:25:24



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.000	55.82	6.56	62.38	74.00	-11.62	peak
2	*	4874.000	40.89	6.56	47.45	54.00	-6.55	AVG
3		7311.000	44.44	10.53	54.97	74.00	-19.03	peak
4		7311.000	35.91	10.53	46.44	54.00	-7.56	AVG

Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

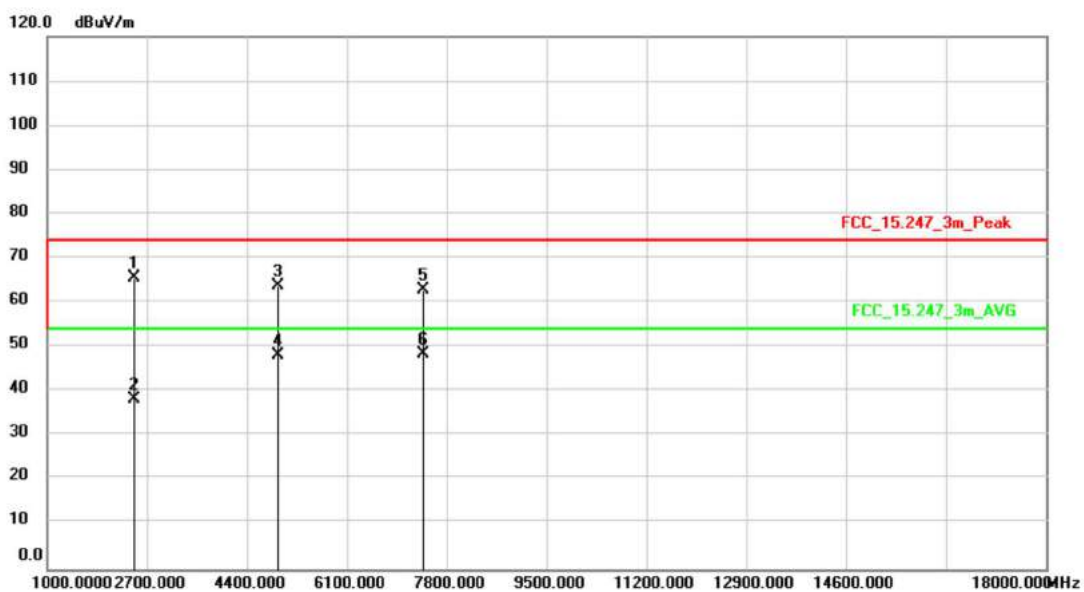
Test Site : 3m Chamber
EUT : AC Wallbox Charging Station
Power Supply : AC 240V/60Hz
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Note : 2.4G WIFI 802.11b High channel

Tested By : Hancock
Model Number : WPTAC-11KW-S24-TD
Test Mode : TX MODE
Distance : 3m
Polarization : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:30:54



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	65.21	0.34	65.55	74.00	-8.45	peak	
2		2483.500	37.80	0.34	38.14	54.00	-15.86	AVG	
3		4924.000	57.03	6.76	63.79	74.00	-10.21	peak	
4		4924.000	41.46	6.76	48.22	54.00	-5.78	AVG	
5		7386.000	52.25	10.57	62.82	74.00	-11.18	peak	
6	*	7386.000	37.80	10.57	48.37	54.00	-5.63	AVG	

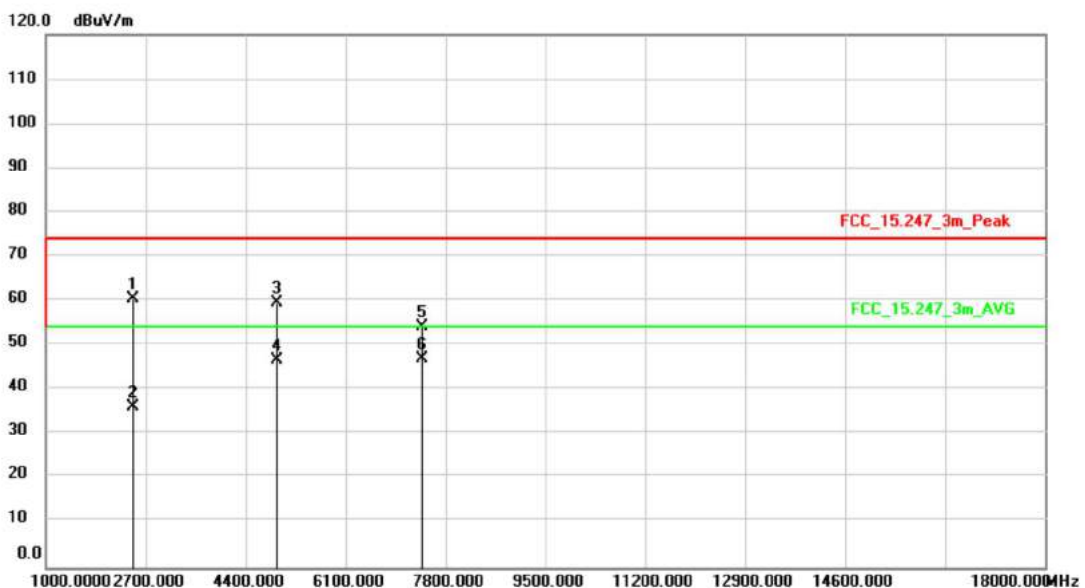
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11b High channel
Polarization : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:36:30



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	60.19	0.34	60.53	74.00	-13.47	peak	
2		2483.500	35.90	0.34	36.24	54.00	-17.76	AVG	
3		4924.000	52.66	6.76	59.42	74.00	-14.58	peak	
4		4924.000	39.96	6.76	46.72	54.00	-7.28	AVG	
5		7386.000	43.55	10.57	54.12	74.00	-19.88	peak	
6	*	7386.000	36.25	10.57	46.82	54.00	-7.18	AVG	

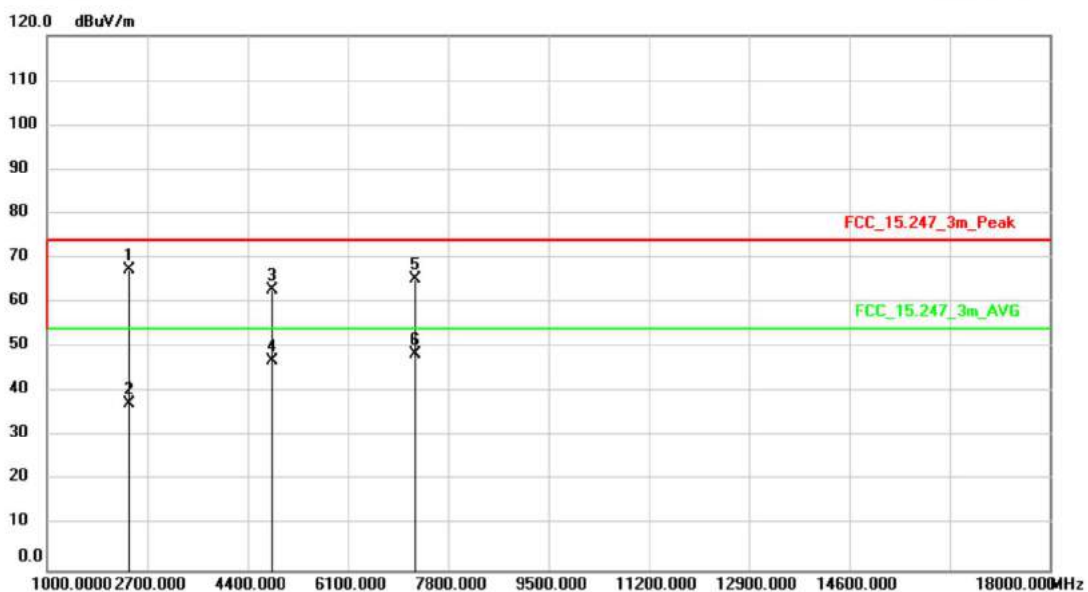
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11g Low channel
Polarization : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:44:23



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	67.17	0.09	67.26	74.00	-6.74	peak	
2		2390.000	37.16	0.09	37.25	54.00	-16.75	AVG	
3		4824.000	56.47	6.38	62.85	74.00	-11.15	peak	
4		4824.000	40.57	6.38	46.95	54.00	-7.05	AVG	
5		7236.000	54.85	10.48	65.33	74.00	-8.67	peak	
6	*	7236.000	37.99	10.48	48.47	54.00	-5.53	AVG	

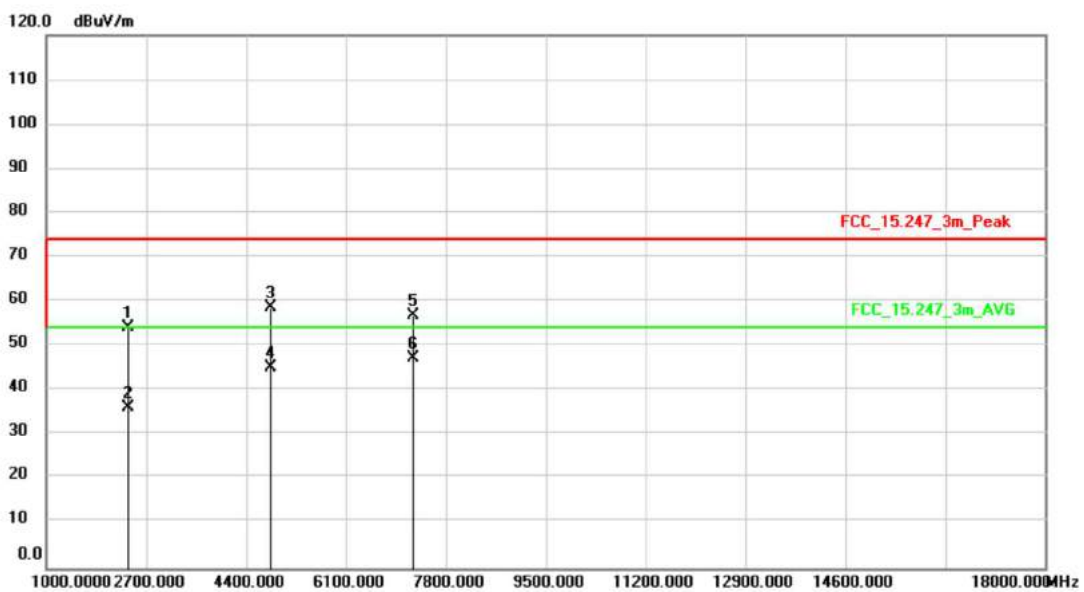
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11g Low channel **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:50:17



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	54.14	0.09	54.23	74.00	-19.77	peak	
2		2390.000	35.95	0.09	36.04	54.00	-17.96	AVG	
3		4824.000	52.37	6.38	58.75	74.00	-15.25	peak	
4		4824.000	38.90	6.38	45.28	54.00	-8.72	AVG	
5		7236.000	46.44	10.48	56.92	74.00	-17.08	peak	
6	*	7236.000	36.67	10.48	47.15	54.00	-6.85	AVG	

Note: 1. Result Level = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

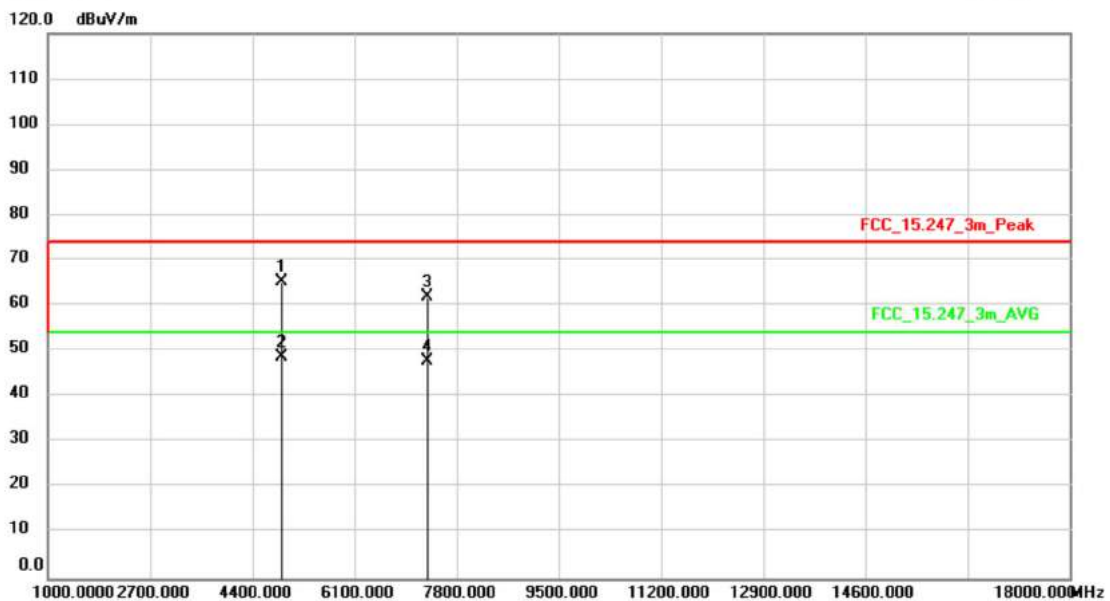
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11g Middle channel
Polarization : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 18:56:08



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.000	58.76	6.56	65.32	74.00	-8.68	peak
2	*	4874.000	42.23	6.56	48.79	54.00	-5.21	AVG
3		7311.000	51.32	10.53	61.85	74.00	-12.15	peak
4		7311.000	37.36	10.53	47.89	54.00	-6.11	AVG

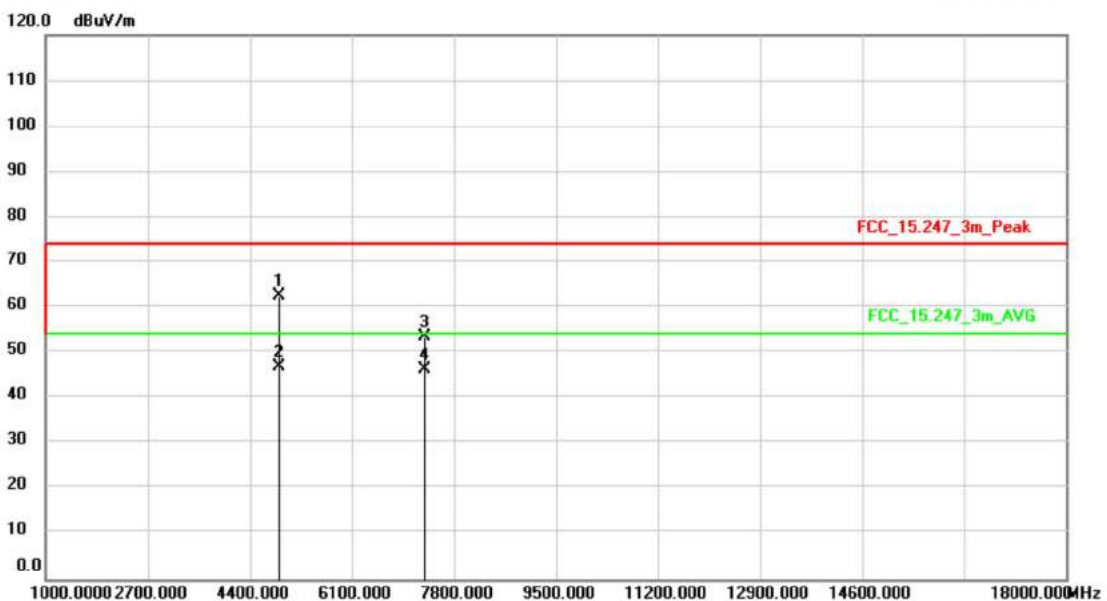
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11g Middle channel
Polarization : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:02:45



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	55.98	6.56	62.54	74.00	-11.46	peak	
2	*	4874.000	40.33	6.56	46.89	54.00	-7.11	AVG	
3		7311.000	42.96	10.53	53.49	74.00	-20.51	peak	
4		7311.000	35.75	10.53	46.28	54.00	-7.72	AVG	

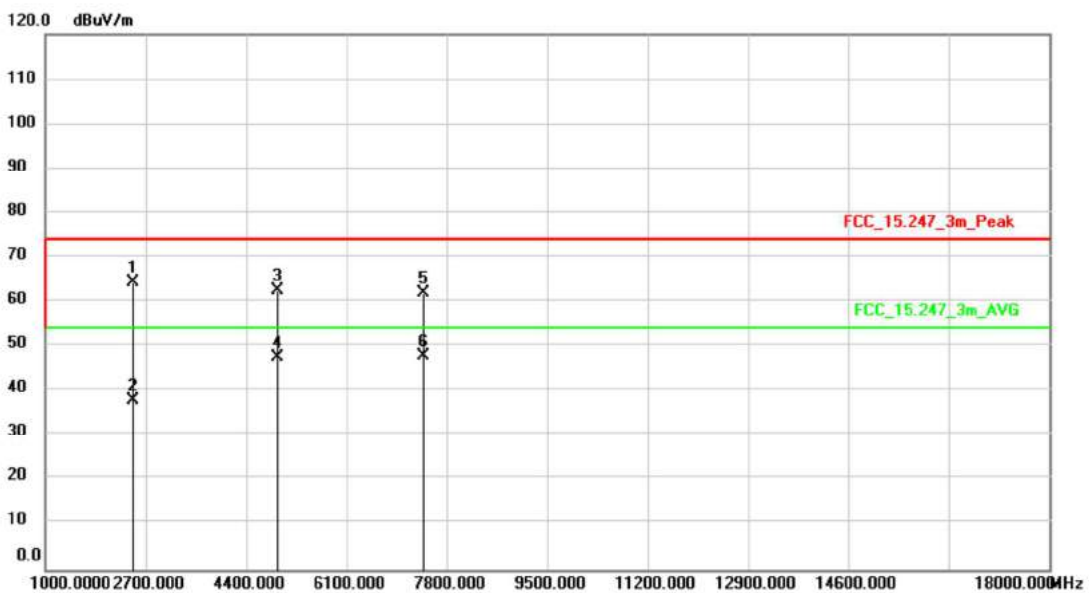
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11g High channel **Polarization** : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:08:52



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	64.01	0.34	64.35	74.00	-9.65	peak	
2		2483.500	37.58	0.34	37.92	54.00	-16.08	AVG	
3		4924.000	55.72	6.76	62.48	74.00	-11.52	peak	
4		4924.000	40.89	6.76	47.65	54.00	-6.35	AVG	
5		7386.000	51.43	10.57	62.00	74.00	-12.00	peak	
6	*	7386.000	37.32	10.57	47.89	54.00	-6.11	AVG	

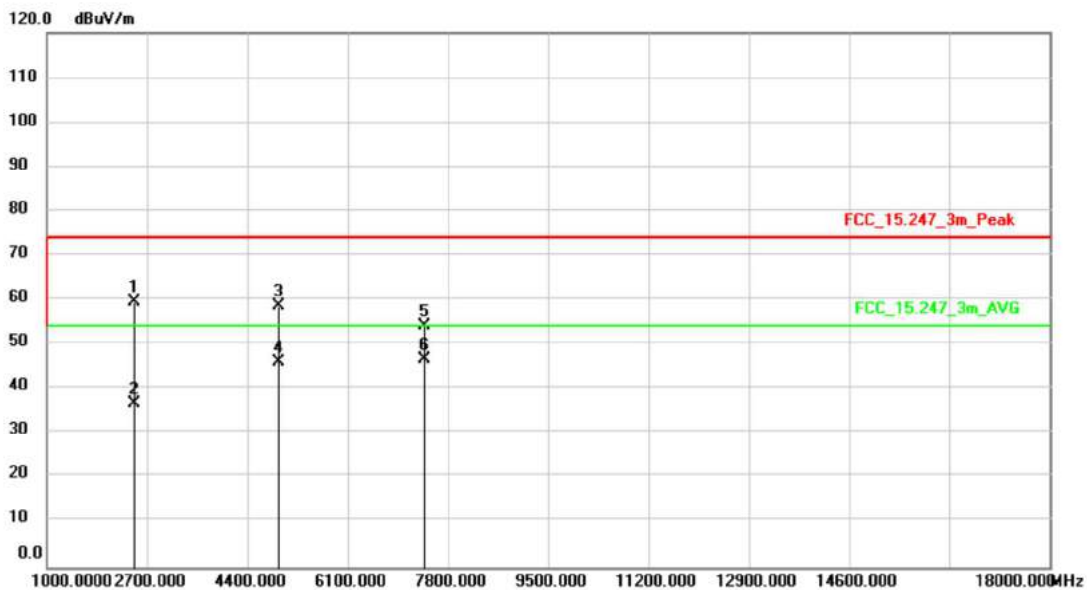
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11g High channel **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:14:27



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	59.34	0.34	59.68	74.00	-14.32	peak	
2		2483.500	36.44	0.34	36.78	54.00	-17.22	AVG	
3		4924.000	51.85	6.76	58.61	74.00	-15.39	peak	
4		4924.000	39.23	6.76	45.99	54.00	-8.01	AVG	
5		7386.000	43.49	10.57	54.06	74.00	-19.94	peak	
6	*	7386.000	36.15	10.57	46.72	54.00	-7.28	AVG	

Note: 1. Result Level = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

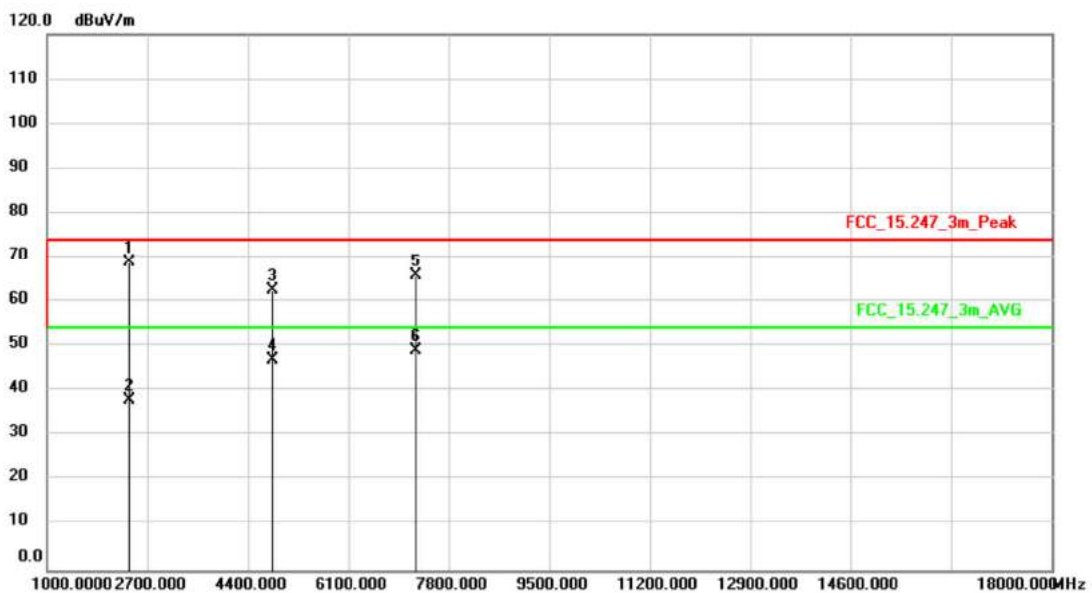
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11N20 Low channel **Polarization** : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:20:25



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2390.000	68.83	0.09	68.92	74.00	-5.08	peak	
2		2390.000	37.79	0.09	37.88	54.00	-16.12	AVG	
3		4824.000	56.08	6.38	62.46	74.00	-11.54	peak	
4		4824.000	40.54	6.38	46.92	54.00	-7.08	AVG	
5		7236.000	55.32	10.48	65.80	74.00	-8.20	peak	
6		7236.000	38.44	10.48	48.92	54.00	-5.08	AVG	

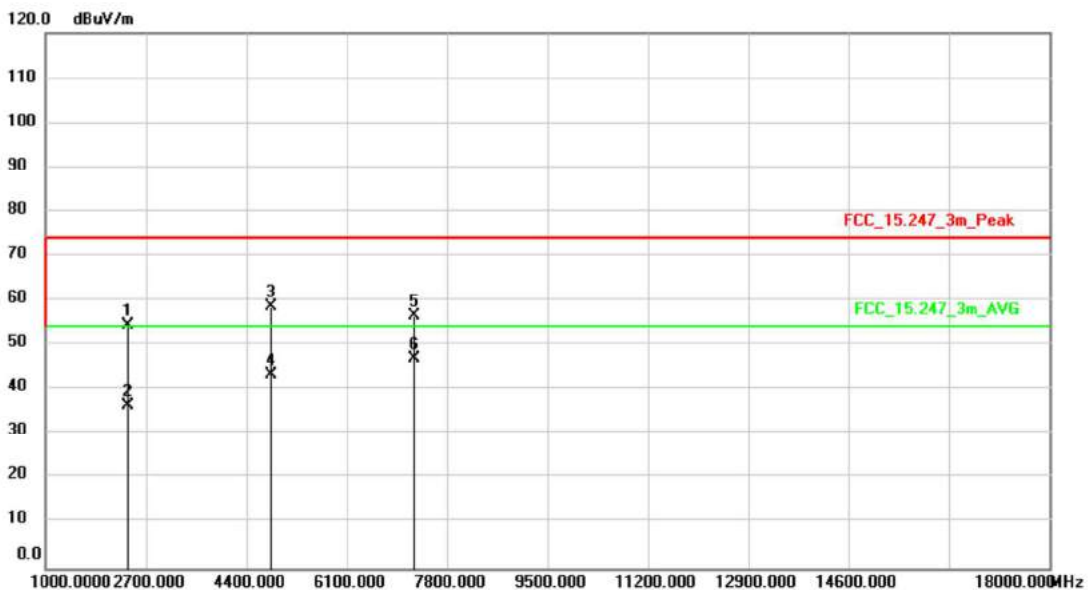
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11N20 Low channel **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:27:05



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	54.24	0.09	54.33	74.00	-19.67	peak	
2		2390.000	36.50	0.09	36.59	54.00	-17.41	AVG	
3		4824.000	52.23	6.38	58.61	74.00	-15.39	peak	
4		4824.000	36.90	6.38	43.28	54.00	-10.72	AVG	
5		7236.000	46.00	10.48	56.48	74.00	-17.52	peak	
6	*	7236.000	36.44	10.48	46.92	54.00	-7.08	AVG	

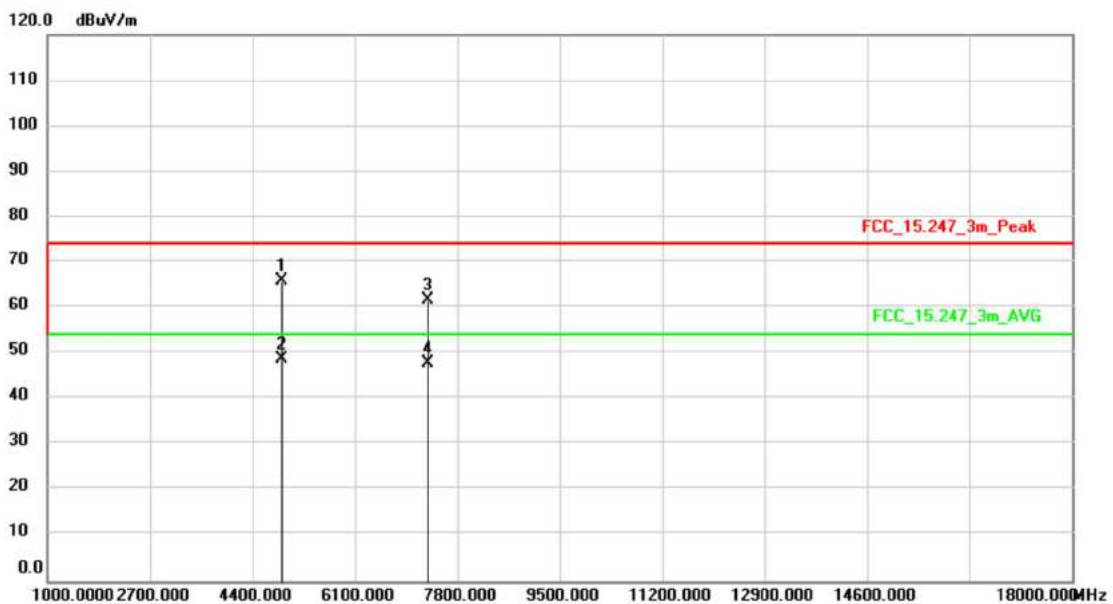
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11N20 Middle channel
Polarization : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:35:28



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	59.15	6.56	65.71	74.00	-8.29	peak	
2	*	4874.000	42.19	6.56	48.75	54.00	-5.25	AVG	
3		7311.000	51.05	10.53	61.58	74.00	-12.42	peak	
4		7311.000	37.33	10.53	47.86	54.00	-6.14	AVG	

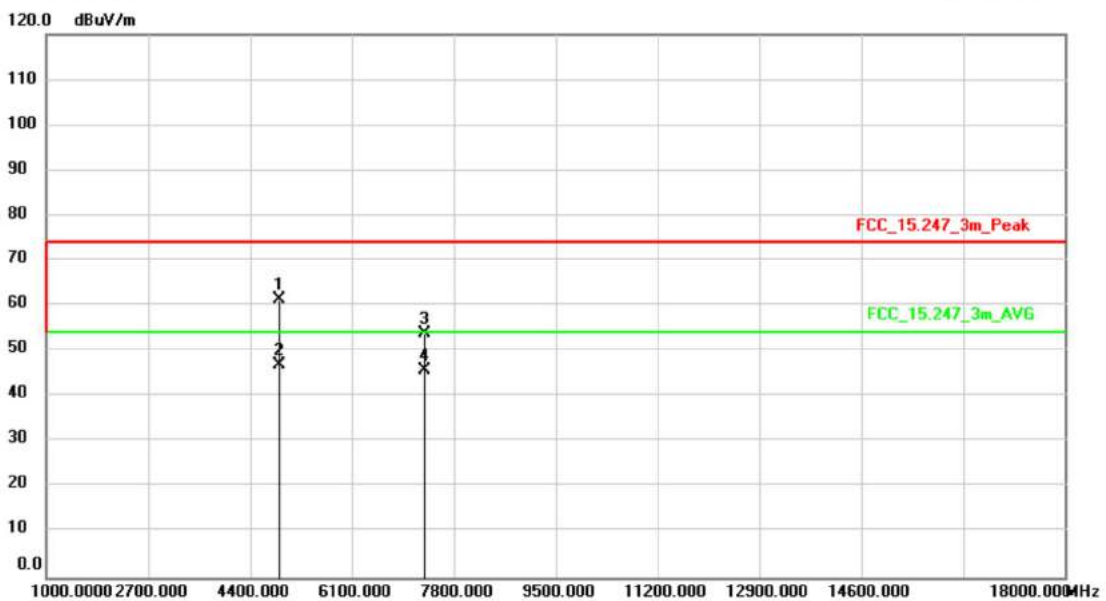
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11n20 Middle channel **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:41:31



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	54.77	6.56	61.33	74.00	-12.67	peak	
2	*	4874.000	40.26	6.56	46.82	54.00	-7.18	AVG	
3		7311.000	43.39	10.53	53.92	74.00	-20.08	peak	
4		7311.000	35.29	10.53	45.82	54.00	-8.18	AVG	

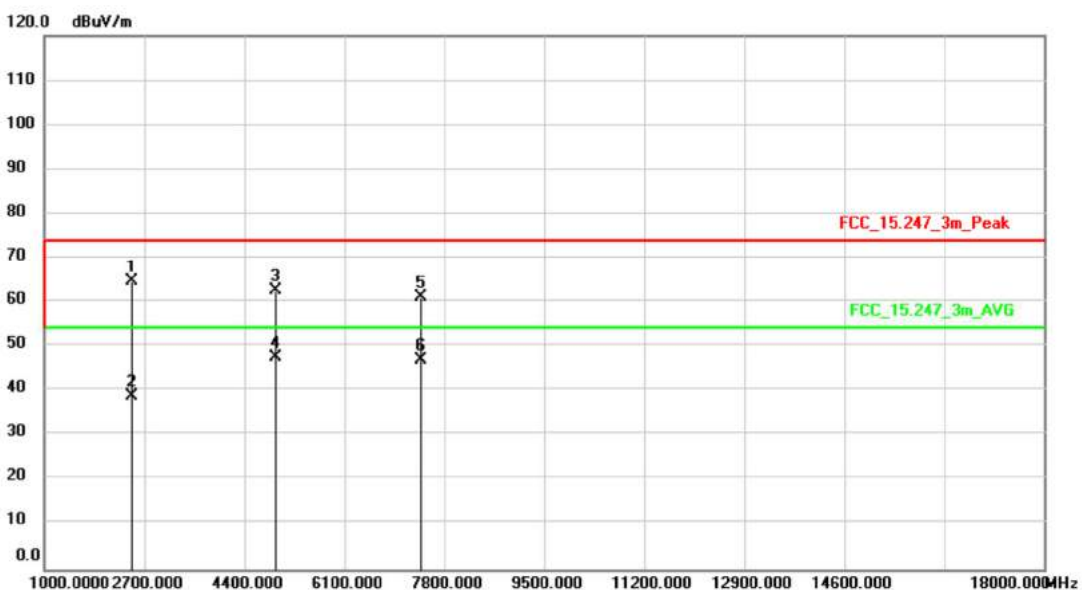
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11n20 High channel **Polarization** : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:48:06



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	64.24	0.34	64.58	74.00	-9.42	peak	
2		2483.500	38.45	0.34	38.79	54.00	-15.21	AVG	
3		4924.000	55.72	6.76	62.48	74.00	-11.52	peak	
4	*	4924.000	40.93	6.76	47.69	54.00	-6.31	AVG	
5		7386.000	50.58	10.57	61.15	74.00	-12.85	peak	
6		7386.000	36.52	10.57	47.09	54.00	-6.91	AVG	

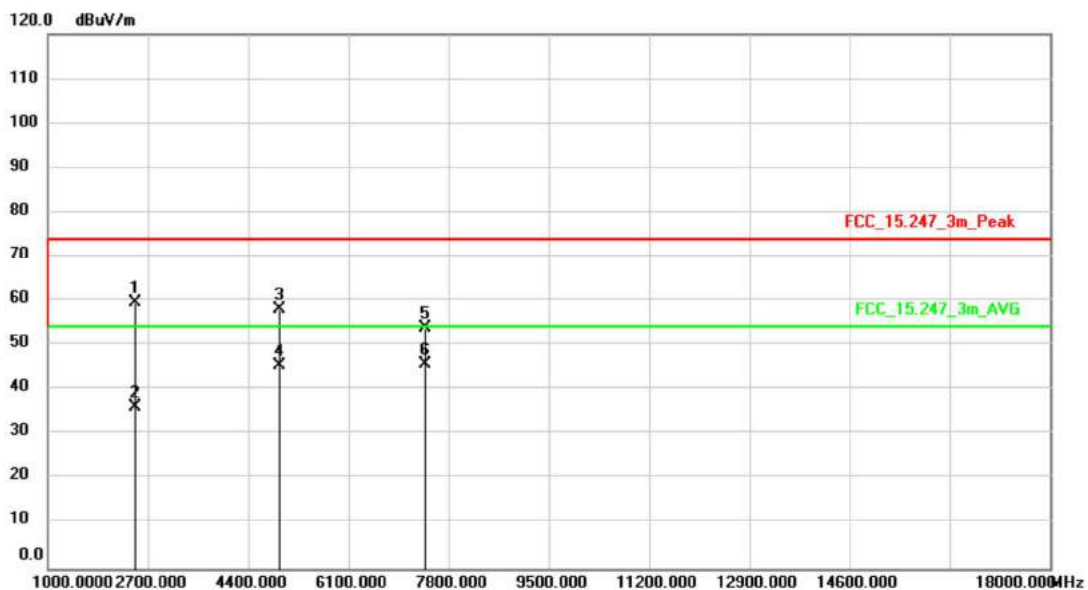
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11n20 High channel **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 19:53:30



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	59.33	0.34	59.67	74.00	-14.33	peak	
2		2483.500	35.94	0.34	36.28	54.00	-17.72	AVG	
3		4924.000	51.40	6.76	58.16	74.00	-15.84	peak	
4		4924.000	38.57	6.76	45.33	54.00	-8.67	AVG	
5		7386.000	43.35	10.57	53.92	74.00	-20.08	peak	
6	*	7386.000	35.25	10.57	45.82	54.00	-8.18	AVG	

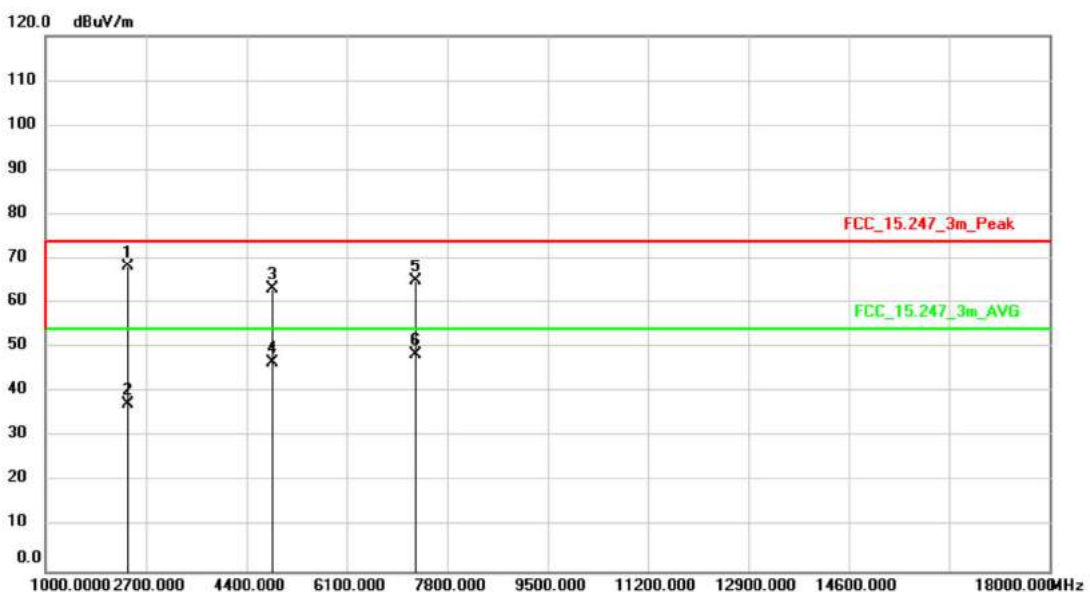
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : 2.4G WIFI 802.11N40 Low channel
Polarization : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 20:00:13



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	68.11	0.09	68.20	74.00	-5.80	peak	
2		2390.000	37.20	0.09	37.29	54.00	-16.71	AVG	
3		4844.000	56.75	6.45	63.20	74.00	-10.80	peak	
4		4844.000	40.10	6.45	46.55	54.00	-7.45	AVG	
5		7266.000	54.39	10.53	64.92	74.00	-9.08	peak	
6	*	7266.000	38.06	10.53	48.59	54.00	-5.41	AVG	

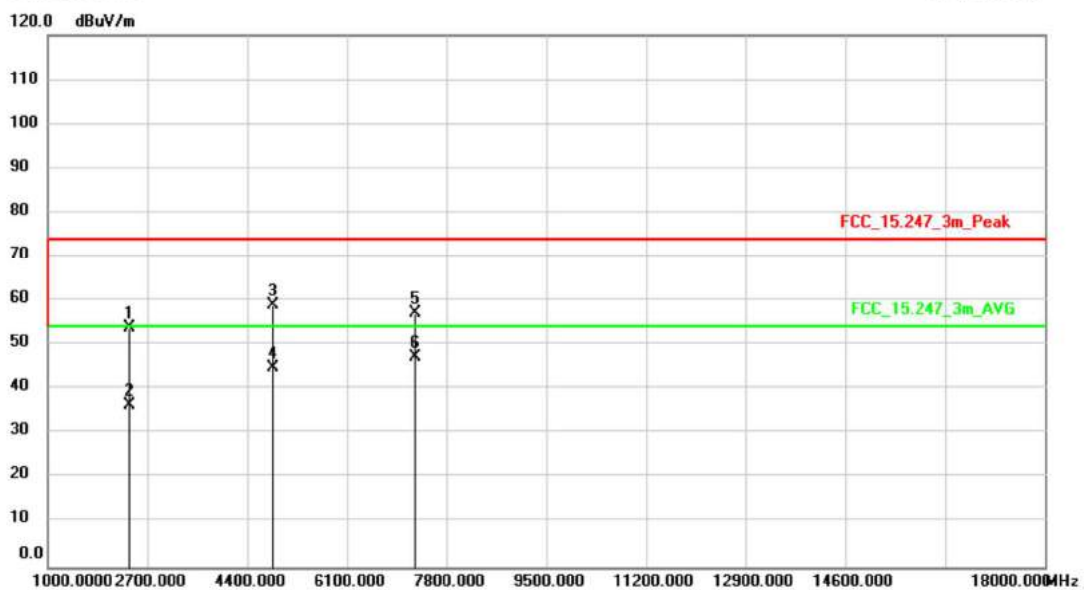
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11N40 Low channel **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 20:07:16



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	53.86	0.09	53.95	74.00	-20.05	peak	
2		2390.000	36.43	0.09	36.52	54.00	-17.48	AVG	
3		4844.000	52.40	6.45	58.85	74.00	-15.15	peak	
4		4844.000	38.40	6.45	44.85	54.00	-9.15	AVG	
5		7266.000	46.73	10.53	57.26	74.00	-16.74	peak	
6	*	7266.000	36.63	10.53	47.16	54.00	-6.84	AVG	

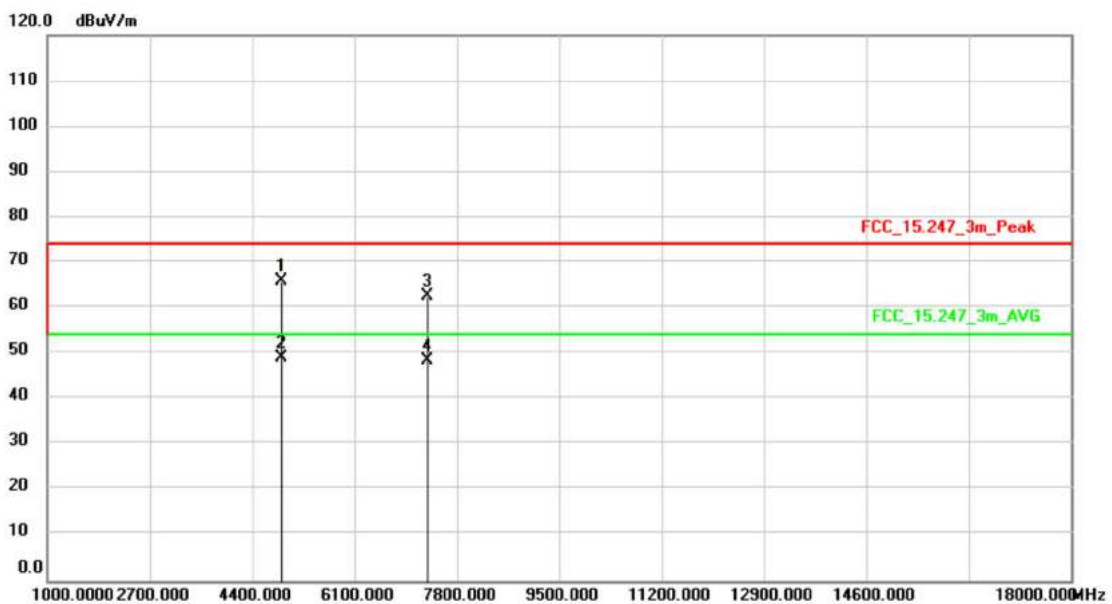
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11N40 Middle channel **Polarization** : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 20:14:29



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	59.23	6.56	65.79	74.00	-8.21	peak	
2	*	4874.000	42.47	6.56	49.03	54.00	-4.97	AVG	
3		7311.000	51.97	10.53	62.50	74.00	-11.50	peak	
4		7311.000	37.80	10.53	48.33	54.00	-5.67	AVG	

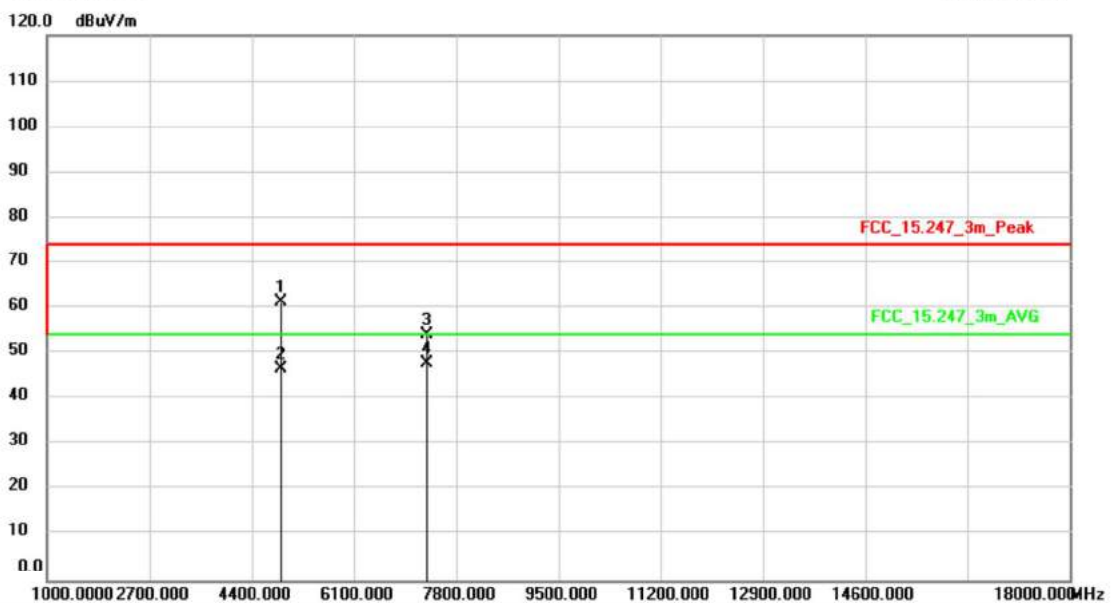
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11N40 Middle channel **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 20:20:01



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	54.80	6.56	61.36	74.00	-12.64	peak	
2		4874.000	39.96	6.56	46.52	54.00	-7.48	AVG	
3		7311.000	43.75	10.53	54.28	74.00	-19.72	peak	
4	*	7311.000	37.32	10.53	47.85	54.00	-6.15	AVG	

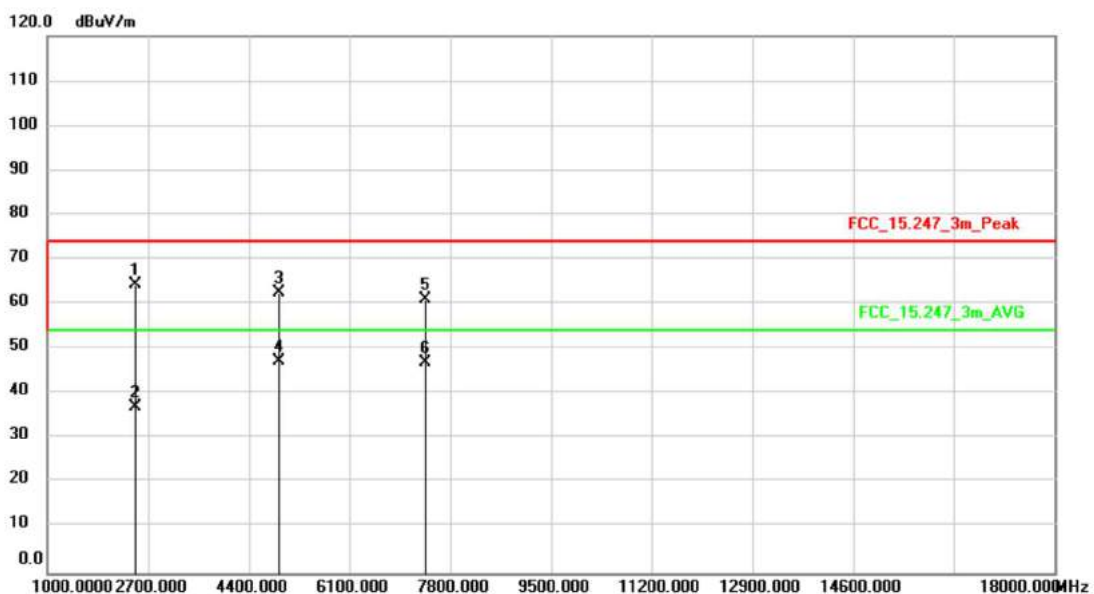
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11N40 High channel **Polarization** : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 20:28:04



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	63.89	0.34	64.23	74.00	-9.77	peak	
2		2483.500	36.82	0.34	37.16	54.00	-16.84	AVG	
3		4904.000	55.77	6.68	62.45	74.00	-11.55	peak	
4	*	4904.000	40.61	6.68	47.29	54.00	-6.71	AVG	
5		7356.000	50.40	10.55	60.95	74.00	-13.05	peak	
6		7356.000	36.55	10.55	47.10	54.00	-6.90	AVG	

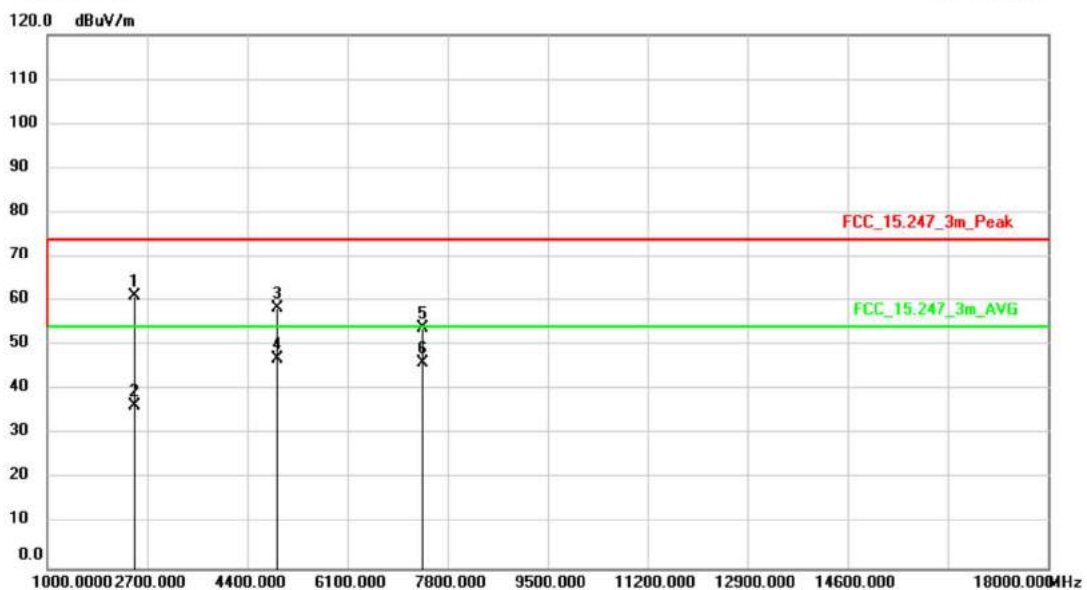
Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : 2.4G WIFI 802.11N40 High channel **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 20:36:33



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	60.66	0.34	61.00	74.00	-13.00	peak	
2		2483.500	36.20	0.34	36.54	54.00	-17.46	AVG	
3		4904.000	51.76	6.68	58.44	74.00	-15.56	peak	
4	*	4904.000	40.14	6.68	46.82	54.00	-7.18	AVG	
5		7356.000	43.26	10.55	53.81	74.00	-20.19	peak	
6		7356.000	35.60	10.55	46.15	54.00	-7.85	AVG	

Note: 1. Result Level = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

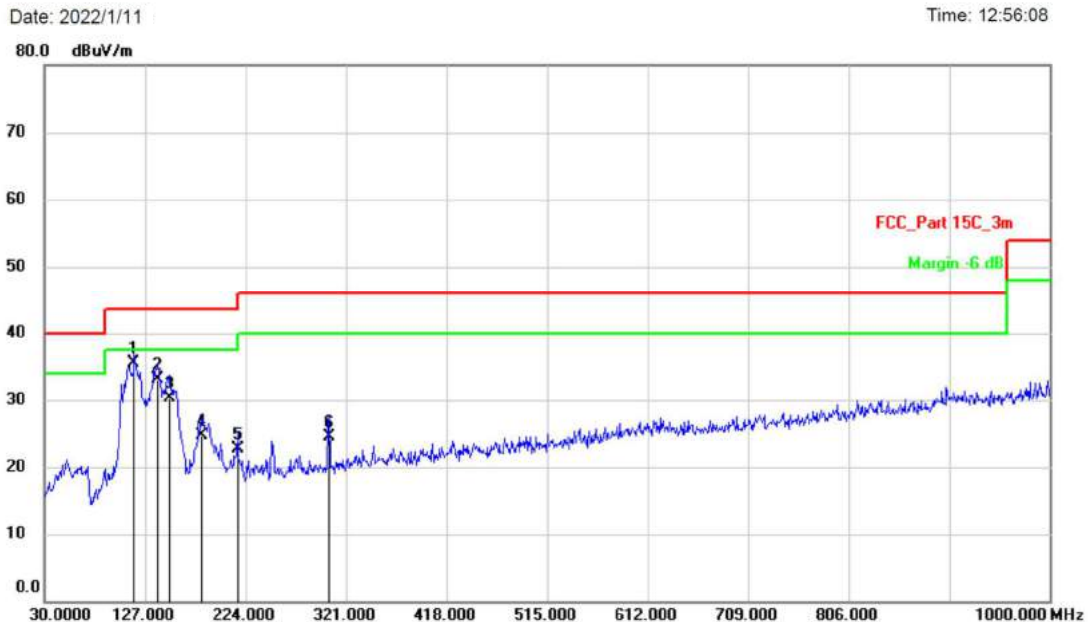
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

CO-LOCATED RADIATED SPURIOUS EMISSIONS

Note: Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported, We tested different modes, but only recorded the data of the worst mode.

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°, Humi:47%, Press:100.1kPa
Distance : 3m
Note : WIFI+BT+RFID operation
Polarization : Horizontal

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	116.3300	44.11	-8.62	35.49	43.50	-8.01	QP	
2		139.6100	43.99	-10.95	33.04	43.50	-10.46	QP	
3		150.2800	41.15	-10.87	30.28	43.50	-13.22	QP	
4		182.2899	33.70	-9.01	24.69	43.50	-18.81	QP	
5		216.2400	30.10	-7.49	22.61	46.00	-23.39	QP	
6		304.5100	29.93	-5.39	24.54	46.00	-21.46	QP	

Note: 1. Result Level = Read Level + Correct Factor.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

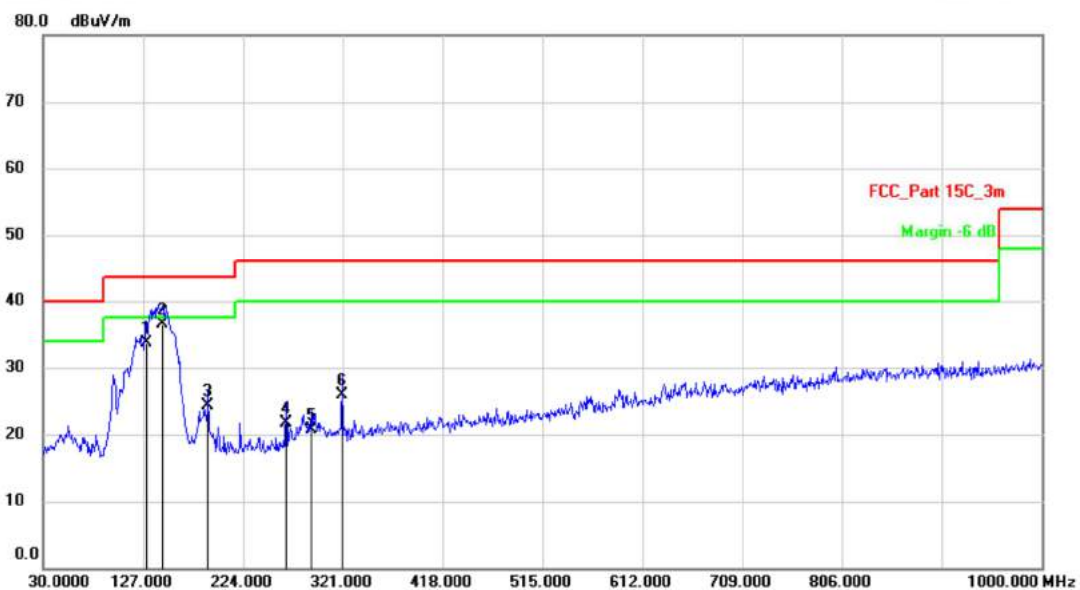
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°, Humi:47%, Press:100.1kPa **Distance** : 3m
Note : WIFI+BT+RFID operation **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 13:05:24



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		129.9100	45.08	-11.29	33.79	43.50	-9.71	QP	
2	*	145.4299	48.24	-11.66	36.58	43.50	-6.92	QP	
3		190.0500	33.40	-9.09	24.31	43.50	-19.19	QP	
4		265.7100	28.78	-7.08	21.70	46.00	-24.30	QP	
5		290.9300	27.39	-6.71	20.68	46.00	-25.32	QP	
6		320.0300	31.97	-5.98	25.99	46.00	-20.01	QP	

Note: 1. Result Level = Read Level + Correct Factor.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

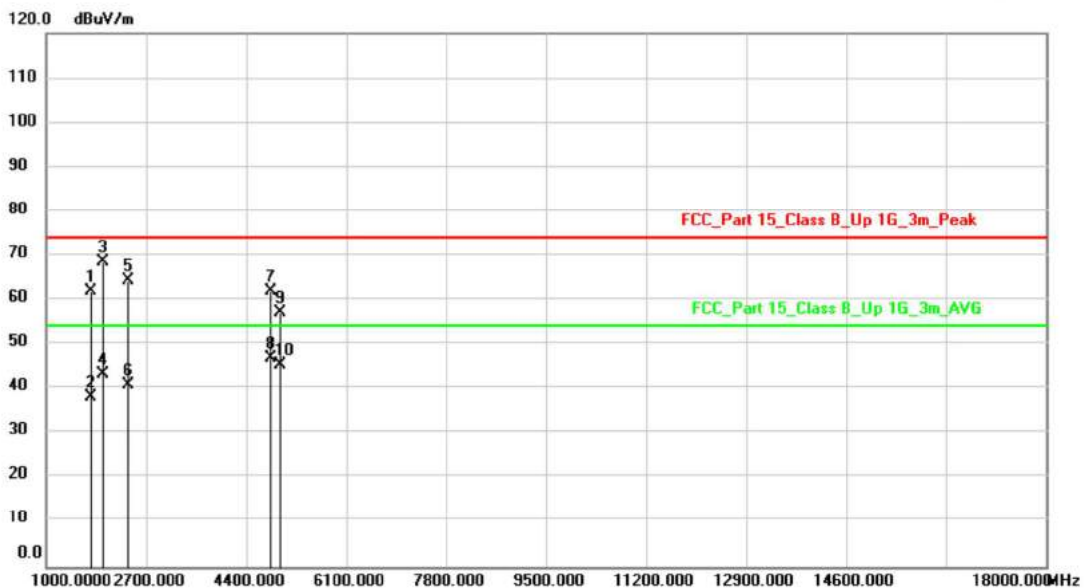
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

Test Site : 3m Chamber
Tested By : Hancock
EUT : AC Wallbox Charging Station
Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz
Test Mode : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa
Distance : 3m
Note : WIFI+BT+RFID operation
Polarization : Horizontal

Radiated Emission Measurement

Date: 2022/1/11

Time: 13:24:17



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1765.000	66.01	-3.95	62.06	74.00	-11.94	peak	
2		1765.000	42.17	-3.95	38.22	54.00	-15.78	AVG	
3	*	1956.250	69.88	-1.43	68.45	74.00	-5.55	peak	
4		1956.250	44.70	-1.43	43.27	54.00	-10.73	AVG	
5		2398.000	64.17	0.13	64.30	74.00	-9.70	peak	
6		2398.000	40.74	0.13	40.87	54.00	-13.13	AVG	
7		4824.000	55.57	6.38	61.95	74.00	-12.05	peak	
8		4824.000	40.63	6.38	47.01	54.00	-6.99	AVG	
9		4954.000	50.31	6.87	57.18	74.00	-16.82	peak	
10		4954.000	38.70	6.87	45.57	54.00	-8.43	AVG	

Note: 1. Result Level = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

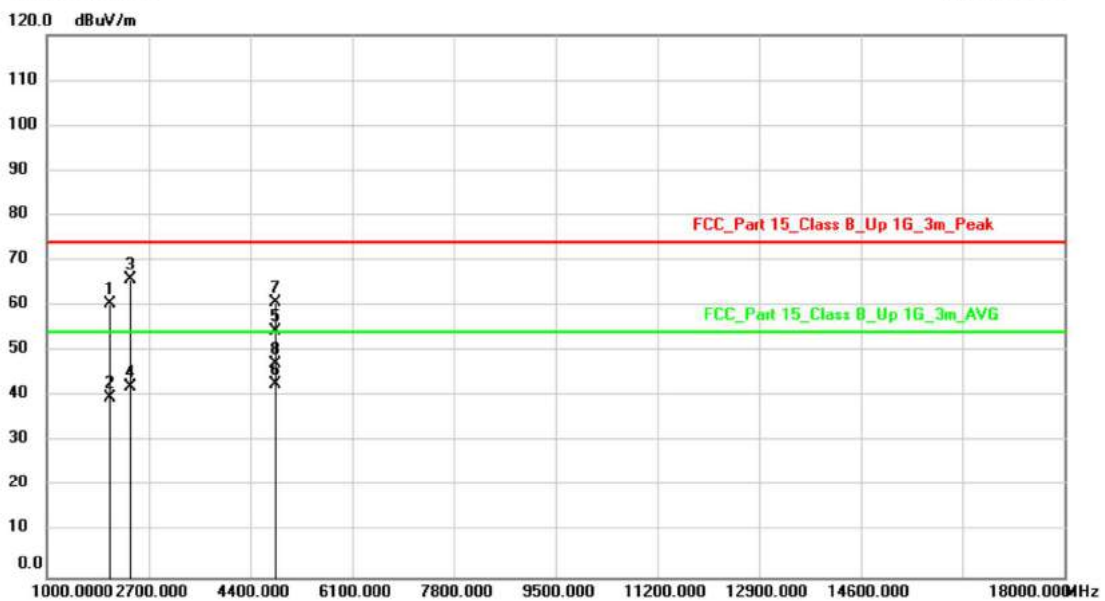
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site : 3m Chamber **Tested By** : Hancock
EUT : AC Wallbox Charging Station **Model Number** : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz **Test Mode** : TX MODE
Condition : Temp:26°,Humi:47%,Press:100.1kPa **Distance** : 3m
Note : WIFI+BT+RFID operation **Polarization** : Vertical

Radiated Emission Measurement

Date: 2022/1/11

Time: 13:31:39



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2062.500	61.25	-0.71	60.54	74.00	-13.46	peak	
2		2062.500	40.60	-0.71	39.89	54.00	-14.11	AVG	
3		2399.970	65.65	0.13	65.78	74.00	-8.22	peak	
4		2399.970	41.99	0.13	42.12	54.00	-11.88	AVG	
5		4807.960	48.14	6.33	54.47	74.00	-19.53	peak	
6		4807.960	36.48	6.33	42.81	54.00	-11.19	AVG	
7		4823.577	54.26	6.38	60.64	74.00	-13.36	peak	
8	*	4823.577	40.77	6.38	47.15	54.00	-6.85	AVG	

Note: 1. Result Level = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

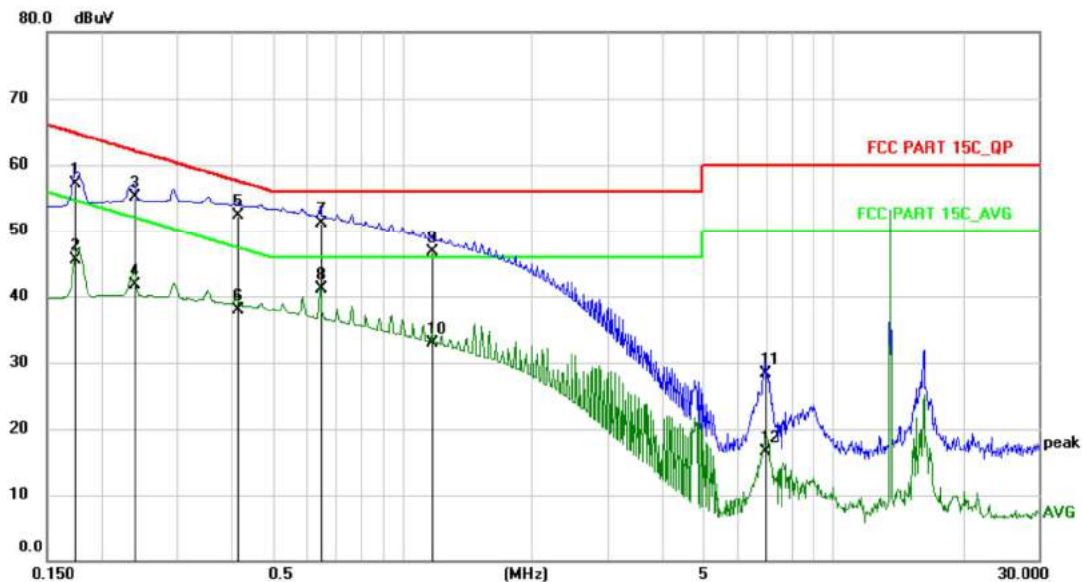
Appendix A.9: Test Results of Conducted Emission

Test Site : Shield Room
Test Date : 2021-12-18 Tested By : Chance
EUT : AC Wallbox Charging Station Model Number : WPTAC-11KW-S24-TD
Power Supply : AC 240V/60Hz Test Mode : Wifi link mode
Condition : TEMP:26°C, RH:50.0%, BP:101.0kPa Phase : NEUTRAL
Memo : 2.4G WIFI

Conducted Emission Measurement

Date: 2021/12/18

Time: 11:31:52



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1740	46.60	10.60	57.20	64.77	-7.57	QP	
2	0.1740	34.90	10.60	45.50	54.77	-9.27	AVG	
3	0.2380	44.50	10.60	55.10	62.17	-7.07	QP	
4	0.2380	31.20	10.60	41.80	52.17	-10.37	AVG	
5	0.4140	41.78	10.62	52.40	57.57	-5.17	QP	
6	0.4140	27.28	10.62	37.90	47.57	-9.67	AVG	
7	0.6460	40.45	10.65	51.10	56.00	-4.90	QP	
8 *	0.6460	30.55	10.65	41.20	46.00	-4.80	AVG	
9	1.1780	36.00	10.70	46.70	56.00	-9.30	QP	
10	1.1780	22.30	10.70	33.00	46.00	-13.00	AVG	
11	6.9500	17.58	10.72	28.30	60.00	-31.70	QP	
12	6.9500	5.88	10.72	16.60	50.00	-33.40	AVG	

Note:

1. Result Level = Read Level +Correct.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

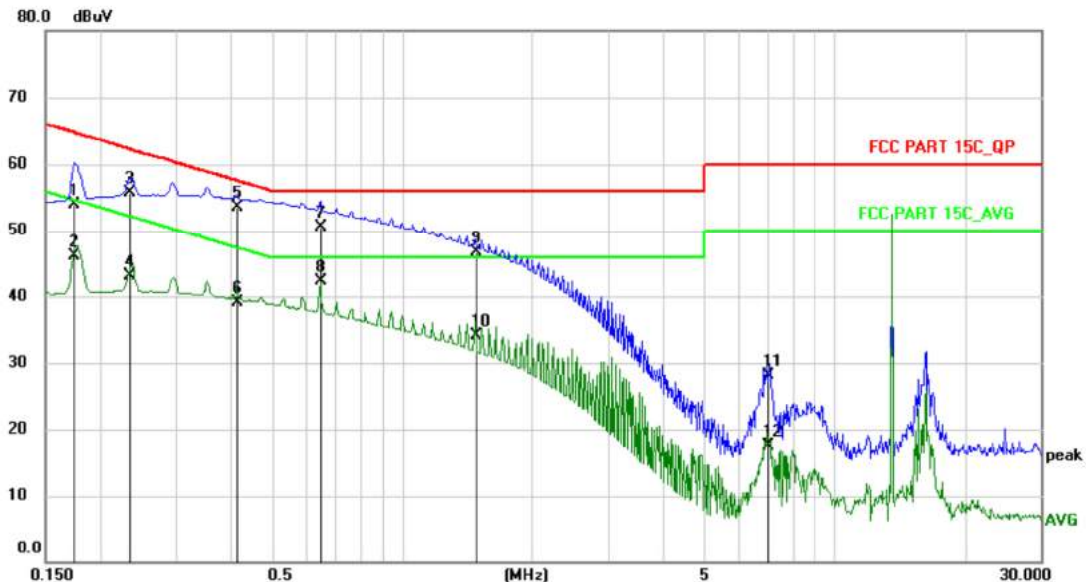
Test Site : Shield Room
Test Date : 2021-12-18
EUT : AC Wallbox Charging Station
Power Supply : AC 240V/60Hz
Condition : TEMP:26°C, RH:50.0%, BP:101.0kPa
Memo : 2.4G WIFI

Tested By : Chance
Model Number : WPTAC-11KW-S24-TD
Test Mode : Wifi link mode
Phase : LINE

Conducted Emission Measurement

Date: 2021/12/18

Time: 11:26:18



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1740	43.40	10.60	54.00	64.77	-10.77	QP	
2	0.1740	35.60	10.60	46.20	54.77	-8.57	AVG	
3	0.2340	45.20	10.60	55.80	62.31	-6.51	QP	
4	0.2340	32.50	10.60	43.10	52.31	-9.21	AVG	
5	0.4139	42.88	10.62	53.50	57.57	-4.07	QP	
6	0.4139	28.48	10.62	39.10	47.57	-8.47	AVG	
7	0.6500	39.95	10.65	50.60	56.00	-5.40	QP	
8 *	0.6500	31.75	10.65	42.40	46.00	-3.60	AVG	
9	1.4738	36.00	10.70	46.70	56.00	-9.30	QP	
10	1.4738	23.50	10.70	34.20	46.00	-11.80	AVG	
11	7.0100	17.38	10.72	28.10	60.00	-31.90	QP	
12	7.0100	6.78	10.72	17.50	50.00	-32.50	AVG	

Note:

1. Result Level = Read Level +Correct.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.