DEKRA Testing and Certification, S.A.U.
Parque Tecnológico de Andalucía,
c/ Severo Ochoa nº 2 · 29590 Campanillas · Málaga · España
C.I.F. A29507456

ISED CABid: ES1909

Test Report No:
NIE: 69535RRF.024

Partial Test Report

USA FCC Part 15.31h, 15.247, 15.209, 15.407
CANADA RSS-247, RSS-Gen

(*) Identification of item tested	Automotive infotainment System
(*) Trademark	Mercedes-Benz
(*) Model and /or type reference	NTG7Q PREMIUM
Other identification of the product	FCC ID: T8GNTG7QPRE IC: 6434A-NTG7QPRE
(*) Features	FM/AM/DAB/DVBT USB, Bluetooth, WLAN, GNSS. HW version: D11 SW version: E329
Manufacturer	HARMAN BECKER AUTOMOTIVE SYSTEMS GMBH BECKER-GOERING-STR. 16; 76307 KARLSBAD GERMANY
Test method requested, standard	USA FCC Part 15.407 (10-1-21) Edition: Unlicensed National Information Infrastructure (U-NII) Devices. General technical requirements. Band U-NII-3 (5725 MHz – 5850 MHz). USA FCC Part 15.247 (10-1-21 Edition): Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. USA FCC Part 15.209 (10-1-21 Edition): Radiated emission limits; general requirements. CANADA RSS-247 Issue 2 (February 2017). CANADA RSS-Gen Issue 5 amendment 1 (March 2019). Guidance for Performing Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid Systems Devices Operating Under Section 15.247 of the FCC Rules. 558074 D01 Meas Guidance v05r02 dated April 2, 2019. Guidance for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices 789033 D02 General U-NII Test Procedures New Rules v02r01 dated Dec 14, 2017. Guidance for Emission Testing of Transmitters with Multiple Outputs in the Same Band 662911 D01 Multiple Transmitter Output v02r01 dated 10/31/2013. ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.

Approved by (name / position & signature)	Rafael López Martín EMC Consumer & RF Lab. Manager  2022.09.22 08:19:27 +02'00'
Date of issue	2022-09-22
Report template No	FDT08_24 (*) “Data provided by the client”

Index

Acronyms

Acronym ID	Acronym Description
# of Tx Chains	Number of Transmission Chains
Detector	Detector used
Equipment	Equipment Type
Freq	Frequency
Freq Rng	Frequency Range
MP	Measurement Point
Mod	Modulation
Pol	Polarization
Unwanted Freq	Unwanted Emissions Frequency
Unwanted Lvl	Unwanted Emissions Level

Competences and guarantees

DEKRA Testing and Certification S.A.U. is a testing laboratory accredited by the National Accreditation Body (ENAC -Entidad Nacional de Acreditación), to perform the tests indicated in the Certificate No. 51/LE 147.

DEKRA Testing and Certification is a FCC-recognized accredited testing laboratory with appropriate scope of accreditation that covers the performed tests in this report.

DEKRA Testing and Certification is an ISED-recognized accredited testing laboratory, CABid: ES1909, with the appropriate scope of accreditation that covers the performed tests in this report.

In order to assure the traceability to other national and international laboratories, DEKRA Testing and Certification S.A.U. has a calibration and maintenance program for its measurement equipment.

DEKRA Testing and Certification S.A.U. guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Testing and Certification S.A.U. at the time of performance of the test.

DEKRA Testing and Certification S.A.U. is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Testing and Certification S.A.U.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Testing and Certification S.A.U. and the Accreditation Bodies.

Uncertainty

Uncertainty (factor k=2) was calculated according to the DEKRA Testing and Certification S.A.U. internal document PODT000.

The total uncertainty of the measurement system for the radiated emissions of EUT from 30 MHz to 1 GHz is: Measurement uncertainty ≤ ± 5,03 dB with factor (k = 2).

The total uncertainty of the measurement system for the radiated emissions of EUT from 1 GHz to 17 GHz is: Measurement uncertainty ≤ ± 4,32 dB with factor (k = 2).

The total uncertainty of the measurement system for the radiated emissions of EUT from 17 GHz to 26 GHz is: Measurement uncertainty ≤ ± 4,58 dB with factor (k = 2).

Data provided by the client

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested").

2. The sample consists of a Automotive infotainment System. Automotive head unit to be installed in cars with the following features: FM/AM/DAB/DVBT, USB, Bluetooth, WLAN and GNSS .

DEKRA Testing and Certification S.A.U. declines any responsibility with respect to the information provided by the client and that may affect the validity of results.

Usage of samples

Samples undergoing test have been selected by: The client.

Id	Control Number	Description	Model	Serial Nº	Date of Reception	Application
S/01	69535_24.1	Automotive infotainment System	NTG7Q PREMIUM	HBM657FM0N4884015	2022-06-13	Element Under Test
S/01	69535_17.1	RF Harness	--	--	2022-06-13	Element Under Test
S/01	60268_123.1	RF cable with 4 antennas	--	--	2019-09-31	Element Under Test

Notes referenced to samples during the project:

Id	Type
S/01	Test samples used for Radiated testing

Test sample description

<table>
<tr><td rowspan="7">Ports…… :</td><td rowspan="2">Port name and description</td><td colspan="4">Cable</td></tr>
<tr><td>Specified max length [m]</td><td>Attached during test</td><td>Shielded</td><td>Coupled to patient(3)</td></tr>
<tr><td>Car Connector A</td><td>>3m</td><td>[X]</td><td>[ ]</td><td>[ ]</td></tr>
<tr><td>Car Connector B</td><td>>3m</td><td>[X]</td><td>[ ]</td><td>[ ]</td></tr>
<tr><td>Display Connector CID/PIP / RVC</td><td>>3m</td><td>[X]</td><td>[X]</td><td>[ ]</td></tr>
<tr><td>USB Connector</td><td><3m</td><td>[X]</td><td>[X]</td><td>[ ]</td></tr>
<tr><td>Eth Connector</td><td>>3m</td><td>[X]</td><td>[ ]</td><td>[ ]</td></tr>
<tr><td>BT/WLAN-Antenna</td><td>>3m</td><td>[X]</td><td>[X]</td><td>[ ]</td></tr>
<tr><td>Supplementary information to the ports…… :</td><td colspan="5">GNSS Antenna >3m</td></tr>
<tr><td rowspan="5">Rated power supply .....:</td><td colspan="2" rowspan="2">Voltage and Frequency</td><td colspan="4">Reference poles</td></tr>
<tr><td>L1</td><td>L2</td><td>L3</td><td>N</td><td>PE</td></tr>
<tr><td>[ ]</td><td>AC: .....</td><td>[ ]</td><td>[ ]</td><td>[ ]</td><td>[ ]</td><td>[ ]</td></tr>
<tr><td>[ ]</td><td>AC: .....</td><td>[ ]</td><td>[ ]</td><td>[ ]</td><td>[ ]</td><td>[ ]</td></tr>
<tr><td>[X]</td><td colspan="5">DC: .....</td></tr>
<tr><td></td><td>[ ]</td><td colspan="5">DC: 12V car battery /attenuator (9,5-15,5v normal operation)</td></tr>
<tr><td>Rated Power .....:</td><td colspan="6">12V</td></tr>
<tr><td>Clock frequencies.....:</td><td colspan="6">.....</td></tr>
<tr><td>Other parameters .....:</td><td colspan="6">.....</td></tr>
<tr><td>Software version .....:</td><td colspan="6">E329</td></tr>
<tr><td>Hardware version .....:</td><td colspan="6">D11</td></tr>
<tr><td>Dimensions in cm (W x H x D) ....:</td><td colspan="6">.....</td></tr>
<tr><td rowspan="5">Mounting position .....:</td><td>[ ]</td><td colspan="5">Table top equipment</td></tr>
<tr><td>[ ]</td><td colspan="5">Wall/Ceiling mounted equipment</td></tr>
<tr><td>[ ]</td><td colspan="5">Floor standing equipment</td></tr>
<tr><td>[ ]</td><td colspan="5">Hand-held equipment</td></tr>
<tr><td>[X]</td><td colspan="5">Other: automotive</td></tr>
</table>

Modules/parts.....:	Module/parts of test item	Type	Manufacturer
	.....	.....	.....
	.....	.....	.....
	.....	.....	.....
	.....	.....	.....
Accessories (not part of the test item) .....:	Description	Type	Manufacturer
	HARMANeco (with Display or headless)	HARMANeco	HARMAN
	Cable harness	harness	HARMAN
	Display	different suppliers	different versions
	BT/WLAN-Antenna	OEM-Antenna	HIRSCHMANN
	.....	.....	.....
	.....	.....	.....
Documents as provided by the applicant.....:	Description	File name	Issue date
	Technical description	Technical Description NTG7_A20 200717 SOP2 AllVariant.pdf	A20
	Testing Guide	NTG7-TestsetupScript_191209 HU+RSU_v2.0.pdf	v2.0
	.....	.....	.....
	.....	.....	.....

(3) Only for Medical Equipment

Identification of the client

HARMAN BECKER AUTOMOTIVE SYSTEMS GMBH
BECKER-GOERING-STR. 16; 76307 KARLSBAD GERMANY

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	2022-07-20
Date (finish)	2022-07-22

Document history

Report number	Date	Description
69535RRF.024	2022-09-22	First release.

Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 20 % Max. = 75 %

In the semianechoic chamber, the following limits were not exceeded during the test.

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 20 % Max. = 75 %

Remarks and comments

The tests have been performed by the technical personnel: Rafael Fernández Martin and Miguel Manuel López.

Used instrumentation:

Control No.	Equipment	Model	Manufacturer	Next Calibration
6791	SEMIANECHOIC ABSORBER LINED CHAMBER IV	FACT 3 200 STP	ETS LINDGREN	NA
6792	SHIELDED ROOM	S101	ETS LINDGREN	NA
6143	HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2023-10-29
6142	PRE-AMPLIFIER G>38dB 30MHz-6GHz	BLNA 0160-01N	BONN ELEKTRONIK	2023-06-16
6496	HORN ANTENNA 1-18GHz	BBHA 9120 D	SCHWARZBECK	2023-08-24
3783	PRE-AMPLIFIER G>30dB 1GHz-18GHz	BLMA 0118-3A	BONN ELEKTRONIK	2022-12-01
4657	HORN ANTENNA 18-40GHz	BBHA 9170	SCHWARZBECK	2023-05-05
8856	PRE-AMPLIFIER G>30dB 18-40GHz	BLMA 1840-4A	BONN ELEKTRONIK	2022-09-08
7817	EMI TEST RECEIVER 2Hz-44GHz	ESW44	ROHDE AND SCHWARZ	2023-12-30
7445	DC POWER SUPPLY 30V/5A	KEYSIGHT TECHNOLOGIES	U8002A	NA
7760	DIGITAL MULTIMETER	FLUKE	175	2022-11-04
4848	SOFTWARE FOR EMC/RF TESTING	EMC32	ROHDE AND SCHWARZ	NA

Testing verdicts

Fail	F
Not applicable	N/A
Pass	P

Summary

Requirement – Test case	FCC PART 15 PARAGRAPH / RSS-247	Verdict	Remark
FCC 15.209 (a), 15.247 (d), 15.407 (b) / RSS-Gen 8.9, RSS-247 5.5, 6.2.1.2, 6.2.2.2, 6.2.3.2 & 6.2.4.2:		P	(1)
Supplementary information and remarks: (1) Only co-location radiated spurious emission test was requested.			

Appendix A: Test results.

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TEST CONDITIONS

(*): Data provided by the client.

POWER SUPPLY (*):

Vnominal: 12 Vdc

Type of Power Supply: External power supply (Car Battery).

ANTENNA (*):

802.11 bgn SISO:

Type of Antenna: External antenna.

Maximum Declared Antenna Gain: +2.4 dBi

802.11 a20 / n2040 / ac2040 / ac80:

Type of Antenna: External antenna.

Maximum Declared Antenna Gain: +2.5 dBi.

TEST FREQUENCIES (*):

	WLAN 2.4 GHz (IEEE 802.11 b/g/n20)/ DTS	
Mode:	802.11 g SISO: 6 Mbps.	
Channel Spacing:	20 MHz	
Frequency Range:	2412 MHz to 2472 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Low: 1	2412

	WLAN 5 GHz (IEEE 802.11 a20/n2040/ac204080) / U-NII-1	
Mode:	802.11 a20 SISO: 6, 9, 12, 18, 24, 36, 48 & 54 Mbps.	
Frequency Range:	5150 MHz to 5250 MHz	
Channel Spacing:	20 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	High: 48	5240

	WLAN 5 GHz (IEEE 802.11 a20/n2040/ac204080) / U-NII-3	
Mode:	802.11 ac20 SISO: 6, 9, 12, 18, 24, 36, 48 & 54 Mbps.	
Frequency Range:	5725 MHz to 5850 MHz	
Channel Spacing:	20 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Low: 149	5745

The test set-up was made in accordance to the general provisions of FCC DTS Measurement 558074 D01 DTS Meas Guidance v05r2 dated April 2, 2019 and FCC Unlicensed National Information Infrastructure (U-NII) Devices 789033 D02 General U-NII Test Procedures New Rules v02r01 dated Dec 14, 2017.

The EUT was tested in the following operating mode:

- Continuous transmission with a modulated carrier at maximum power in all required channels selecting the supported data rates/modulations types.

During transmitter test the EUT was being controlled by the SW tool to operate in a continuous transmit mode on the test channel as required and in each of the different modulation modes.

Selected Transmission Mode for each Radio:

The following configurations were selected based on preliminary testing that identified those corresponding to the worst cases:

* WLAN 2.4 GHz: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in 802.11 g / 6Mbps mode configuration as this mode was found as the worst case for spurious emissions than all the other 2.4 GHz WLAN SISO modes.

* WLAN 5 GHz U-NII-1 band: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in 802.11 ac20 / MCS0 mode configuration as these modes were found as the worst case for spurious emissions than all the other 5 GHz WLAN U-NII-1 band SISO modes.

* WLAN 5 GHz U-NII-3 band: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in 802.11 a20 / 6Mbps mode configuration as these modes were found as the worst case for spurious emissions than all the other 5 GHz WLAN U-NII-3 band SISO modes.

TESTED SIMULTANEOUS TRANSMISSION MODES:

*** Co-location WLAN 2.4 GHz, WLAN 5 GHz U-NII-1 band**, with the EUT configured to simultaneously transmit two signals at maximum output power:
WLAN 2.4GHz in 802.11 g / 6 Mbps, WLAN 5GHz in 802.11 ac20 / MCS0.

*** Co-location WLAN 2.4 GHz, WLAN 5 GHz U-NII-3 band**, with the EUT configured to simultaneously transmit two signals at maximum output power:
WLAN 2.4GHz in 802.11 g / 6 Mbps, WLAN 5GHz in 802.11 a20 / 6Mbps.

RADIATED MEASUREMENTS:

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna (Bilog antenna for the range between 30 MHz to 1000 MHz and 1 GHz-17 GHz Double ridge horn antenna) is situated at a distance of 3 m and at a distance of 1.5 m for the frequency range 17 GHz-26 GHz (17 GHz-40 GHz horn antenna).

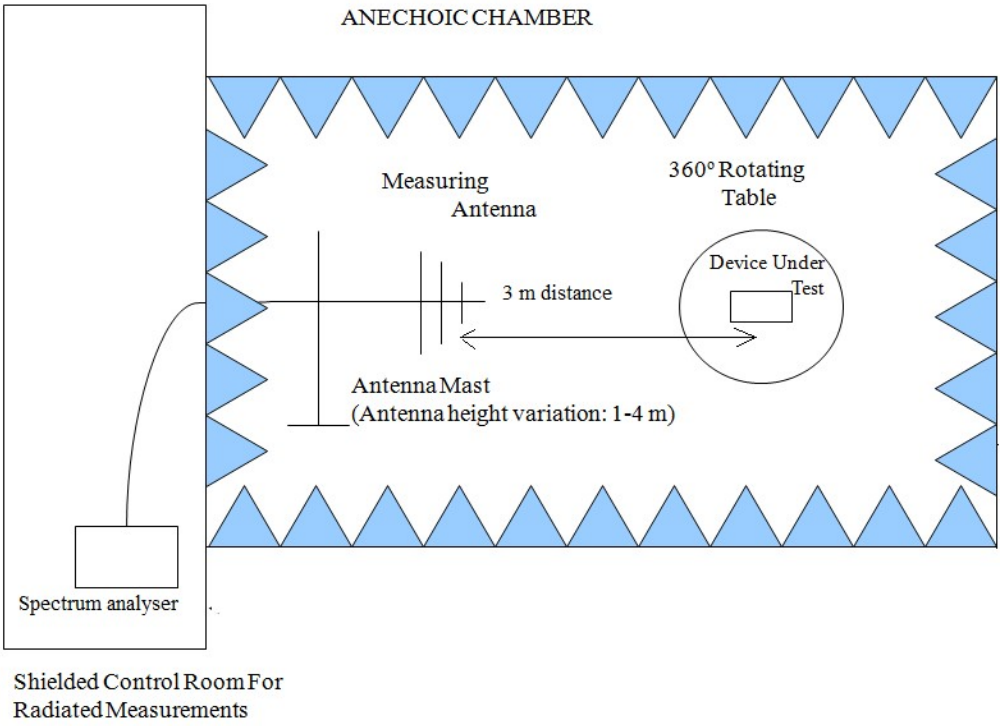
For radiated emissions in the range 17 GHz-26 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360º and the antenna height (Bilog antenna and Double ridge horn antenna) was varied from 1 to 4 meters to find the maximum radiated emission.

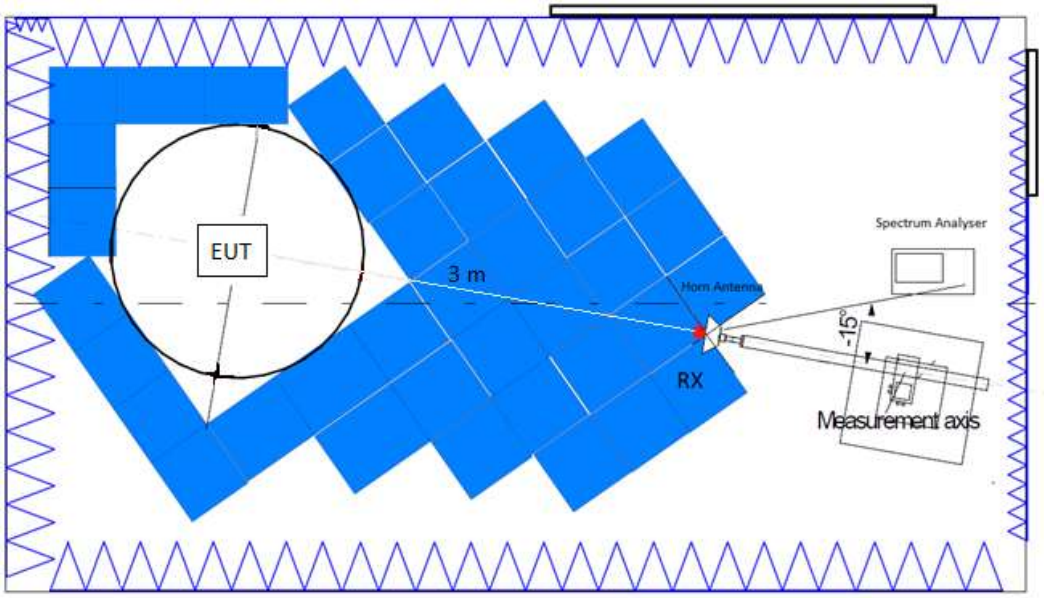
Measurements were made in both horizontal and vertical planes of polarization.

A resolution bandwidth/video bandwidth of 100 kHz / 300 kHz was used for frequencies below 1 GHz and 1 MHz / 3 MHz for frequencies above 1 GHz.

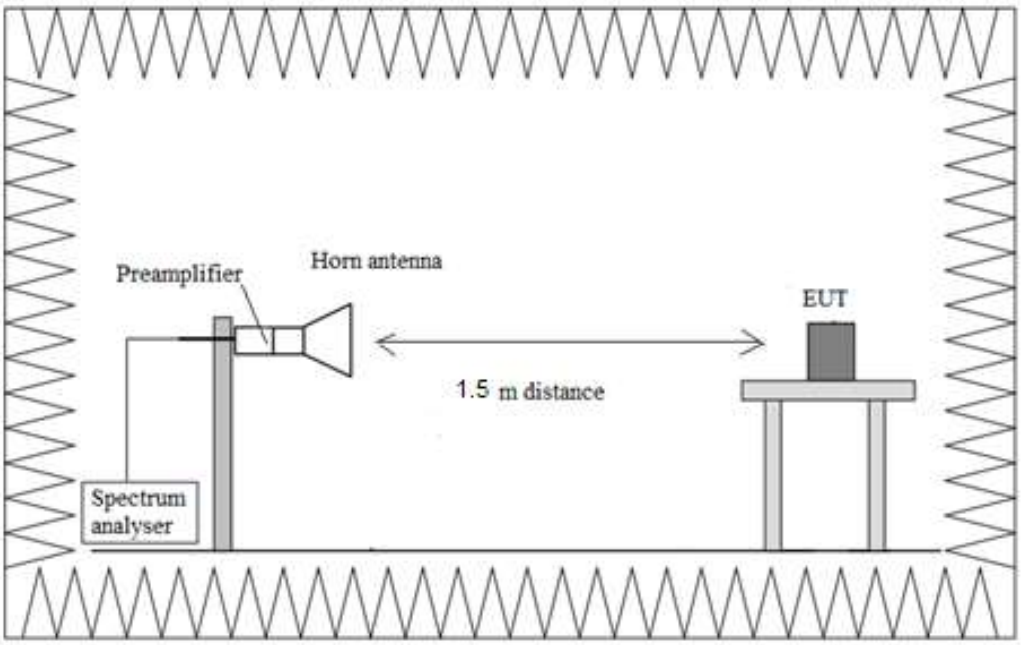
Radiated measurements setup from 30 MHz to 1 GHz:



Radiated measurements setup from 1 GHz to 17 GHz:



Radiated measurements setup f > 17 GHz:



TEST CASES DETAILS

FCC 15.209 (a), 15.247 (d), 15.407 (b)

RSS-247 5.5, 6.2.1.2, 6.2.2.2, 6.2.3.2 & 6.2.4.2 Emission limitations radiated (Transmitter)

Limits

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)/RSS-Gen):

Frequency Range (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705 - 30.0	30	-	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

RSS-247: Attenuation below the general field strength limits specified in RSS-Gen is not required.

Results

The situation and orientation was varied to find the maximum radiated emission. It was also rotated 360º and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

Measurements were made in both horizontal and vertical planes of polarization.

All tests were performed in a semi-anechoic chamber at a distance of 3 m for the frequency range 30 MHz-40 GHz.

The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

Test performed on the following worst cases in all relevant tests channels:

- **Mode 802.11 b, 802.11 a20 U-NII-1.**

802.11 g: BW=20 MHz, Low Channel (2412 MHz), 6Mbps.
802.11 ac20: BW=20 MHz, High Channel (5240 MHz), MCS0.

LIMIT: The spurious frequencies were measured at 3 meter. The limit of the test is determined by:

Frequency Range	Detector	Limit at 3m (dBµV/m)
30 MHz to 88 MHz	QP	40 dBµV/m
88 MHz to 216 MHz	QP	43.5 dBµV/m
216 MHz to 960 MHz	QP	46 dBµV/m
1 GHz to 26 GHz	PK	74 dBµV/m
26 to 40 GHz	PK	68.23 dBµV/m (*) OR 74 dBµV/m (**)
1 to 40 GHz	AVG	54 dBµV/m (**)

(*) Radiated emissions which fall in the non-restricted bands.

(**) Radiated emissions which fall in the restricted bands, as defined in §15.205(a).

Frequency range 30 MHz - 1 GHz

The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode.

No spurious signals found at less than 20 dB below the limit.

Frequency range 1 - 40 GHz

Spurious signals detected at less than 20 dB below the limit:

Spurious Freq (MHz)	Emission Lvl (dBµV/m)	Pol	Detector
1210.00000	43.79	H	PK
1366.00000	43.44	V	PK
2275.00000	42.38	V	PK
4111.80000	47.82	V	PK
4824.10000	61.05	V	PK
	48.39		AVG
5389.00000	52.26	V	PK

Verdict

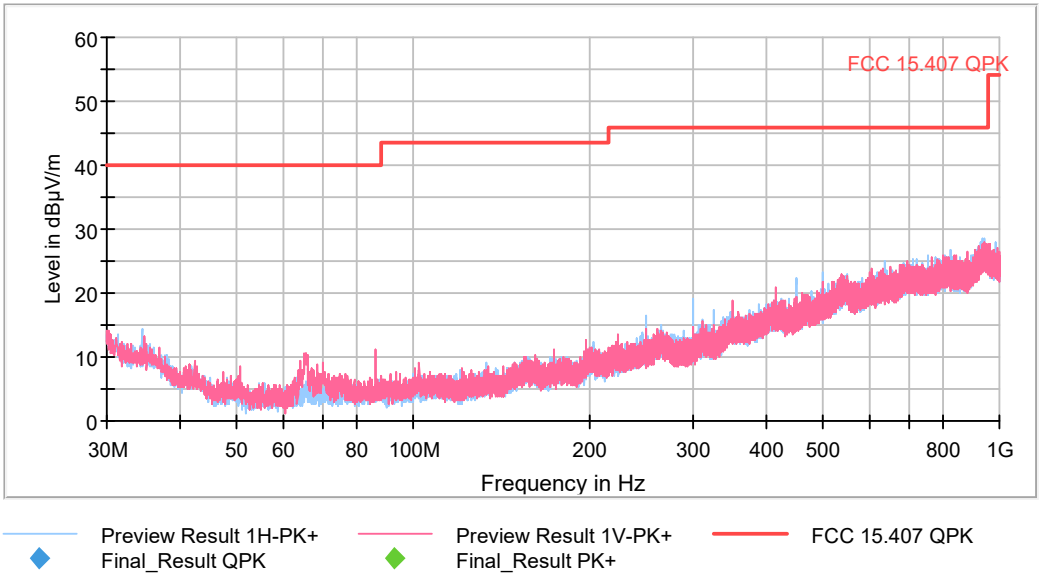
Pass

Attachments

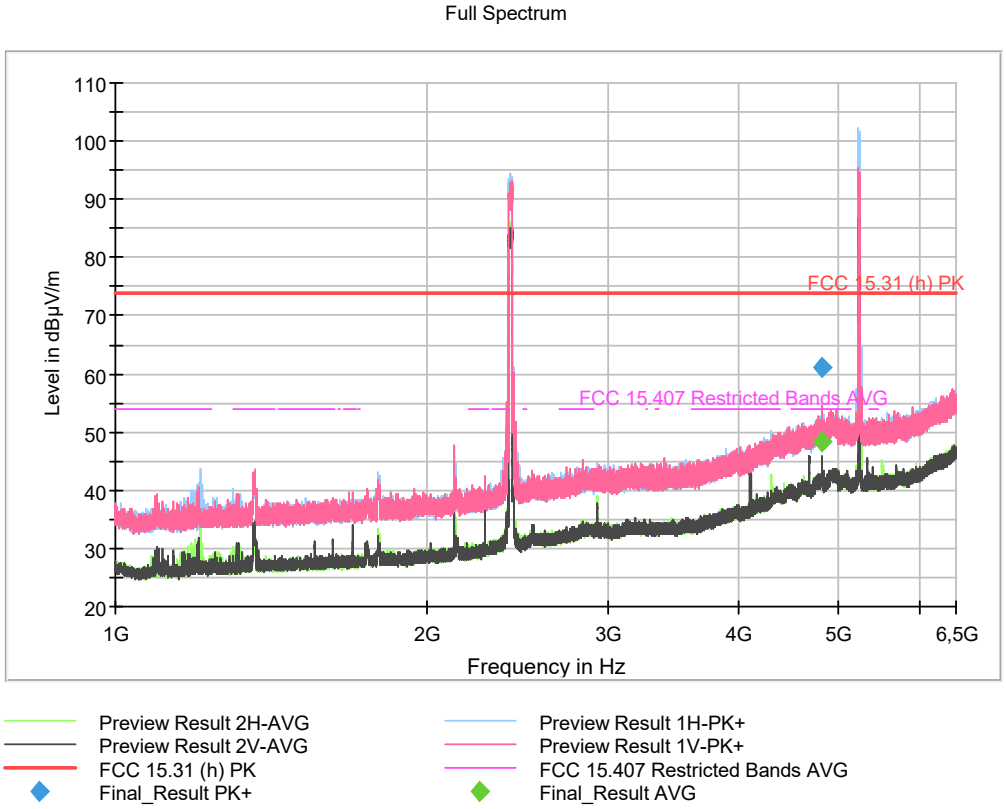
The measurement settings for each range of frequency is as follows:

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44]					
30 MHz - 1 GHz	30,312 kHz	PK+	100 kHz	1 s	30 dB
Subrange	**Step Size**	**Detectors**	**Bandwidth**	**Sweep Time**	**Preamp**
Receiver: [ESW 44]					
1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	0 dB
Subrange	**Step Size**	**Detectors**	**Bandwidth**	**Sweep Time**	**Preamp**
Receiver: [ESW 44]					
6,5 GHz - 17 GHz	105 kHz	PK+ ; AVG	1 MHz	1 s	30 dB
Subrange	**Step Size**	**Detectors**	**Bandwidth**	**Sweep Time**	**Preamp**
Receiver: [ESW 44]					
17 GHz - 40 GHz	766,667 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency range 30 MHz - 1 GHz



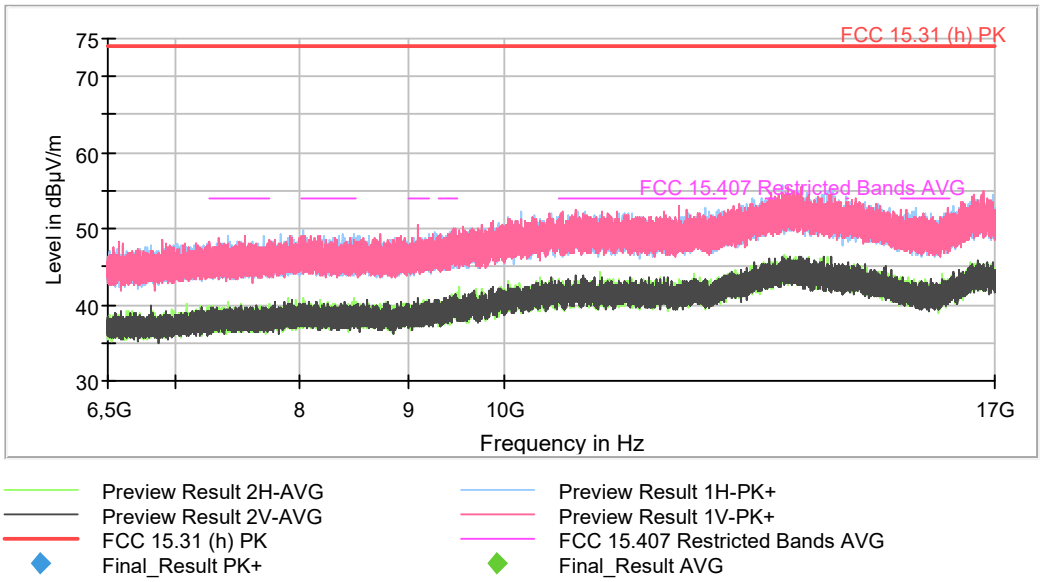
Frequency range 1 - 6.5 GHz



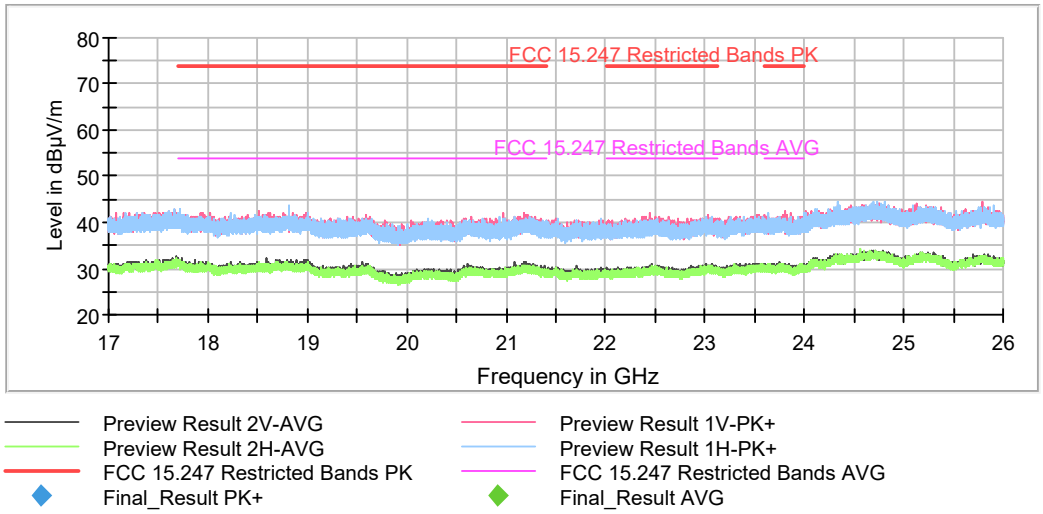
The peak on the left above the limit is the WLAN 2,4 GHz carrier frequency.

The peak on the right above the limit is the WLAN 5 GHz UNII-1 carrier frequency.

Frequency range 6.5 - 17 GHz

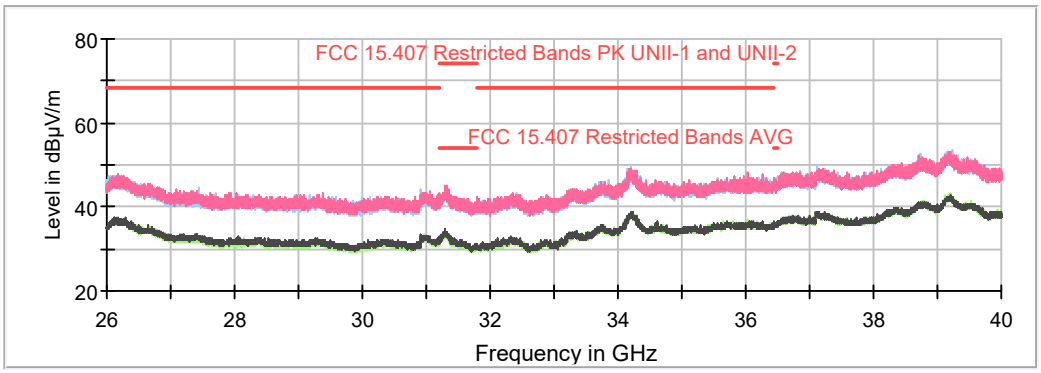


Frequency range 17 - 26 GHz



Preview Result 2V-AVG
Preview Result 2H-AVG
FCC 15.247 Restricted Bands PK
Final_Result PK+
Preview Result 1V-PK+
Preview Result 1H-PK+
FCC 15.247 Restricted Bands AVG
Final_Result AVG

Frequency range 26 - 40 GHz



Preview Result 2H-AVG
Preview Result 1H-PK+
Preview Result 2V-AVG
Preview Result 1V-PK+
FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
FCC 15.407 Restricted Bands AVG
Final_Result PK+
Final_Result AVG

- **Mode 802.11 b, 802.11 a20 U-NII-3.**

802.11 g: BW=20 MHz, Low Channel (2412 MHz), 6Mbps.
802.11 a20: BW=20 MHz, Low Channel (5745 MHz), 6Mbps.

LIMIT: The spurious frequencies were measured at 3 meter. The limit of the test is determined by:

Frequency Range	Detector	Limit at 3m (dBµV/m)
30 MHz to 88 MHz	QP	40 dBµV/m
88 MHz to 216 MHz	QP	43.5 dBµV/m
216 MHz to 960 MHz	QP	46 dBµV/m
1 GHz to 26 GHz	PK	74 dBµV/m
26 to 40 GHz	PK	68.23 dBµV/m (*) OR 74 dBµV/m (**)
1 to 40 GHz	AVG	54 dBµV/m (**)

(*) Radiated emissions which fall in the non-restricted bands.

(**) Radiated emissions which fall in the restricted bands, as defined in §15.205(a).

Frequency range 30 MHz - 1 GHz

The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode.

No spurious signals found at less than 20 dB below the limit.

Frequency range 1 - 40 GHz

Spurious signals detected at less than 20 dB below the limit:

Spurious Freq (MHz)	Emission Lvl (dBµV/m)	Pol	Detector
1061.60000	40.74	V	PK
1209.80000	45.39	H	PK
1363.10000	43.11	H	PK
2274.70000	40.78	V	PK
4820.90000	55.96	H	PK
	43.59		AVG

Verdict

Pass

Attachments

The measurement settings for each range of frequency is as follows:

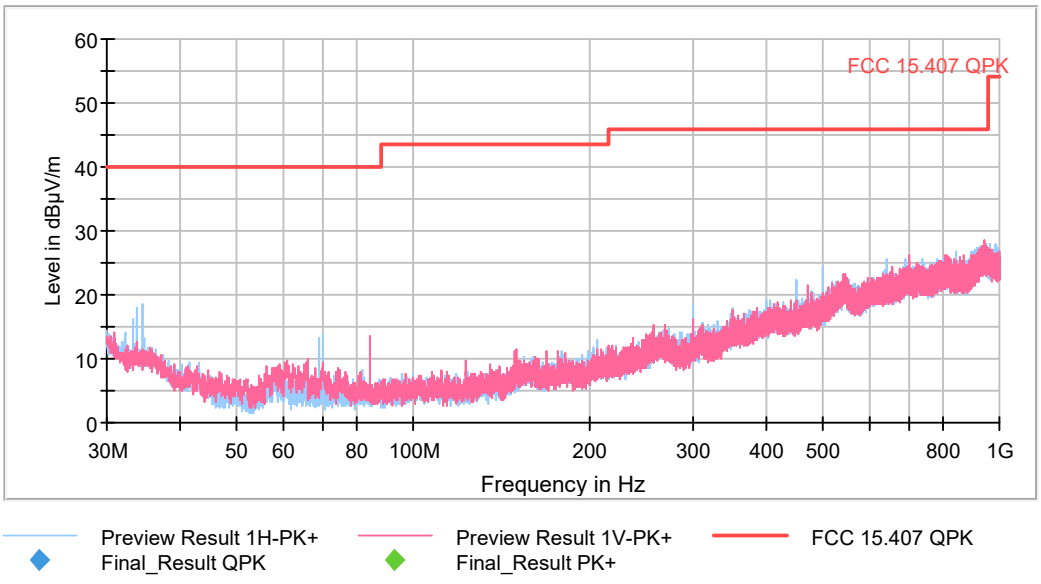
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44]					
30 MHz - 1 GHz	30,312 kHz	PK+	100 kHz	1 s	30 dB

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44]					
1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

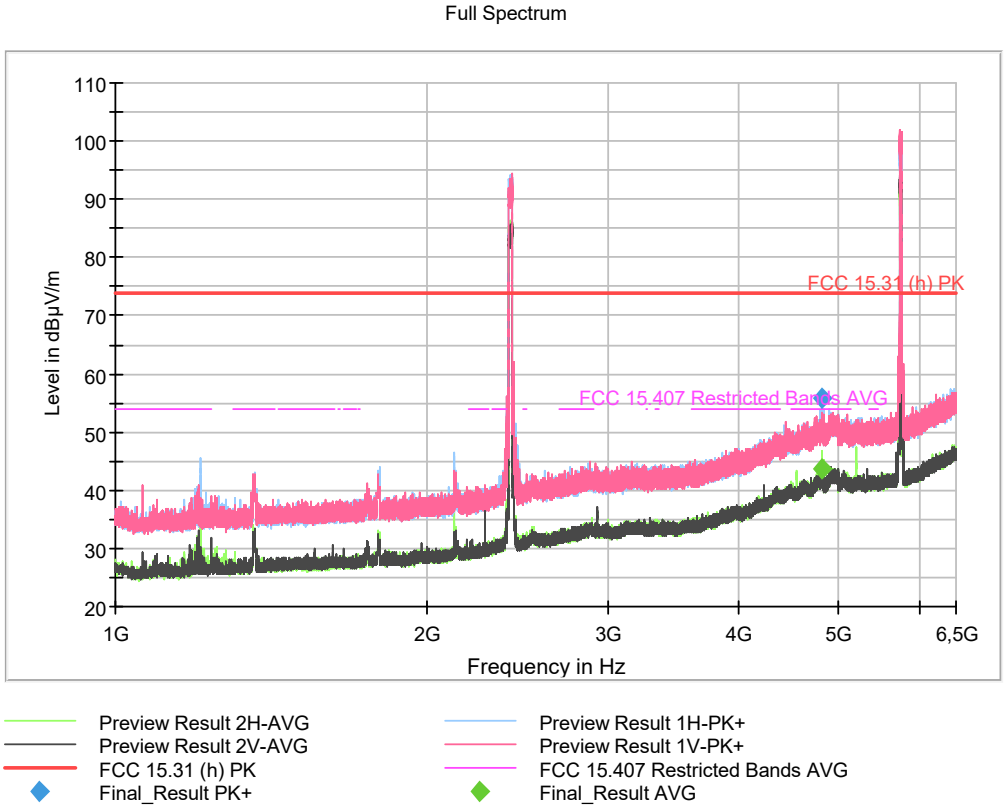
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44]					
6,5 GHz - 17 GHz	105 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44]					
17 GHz - 40 GHz	766,667 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency range 30 MHz - 1 GHz



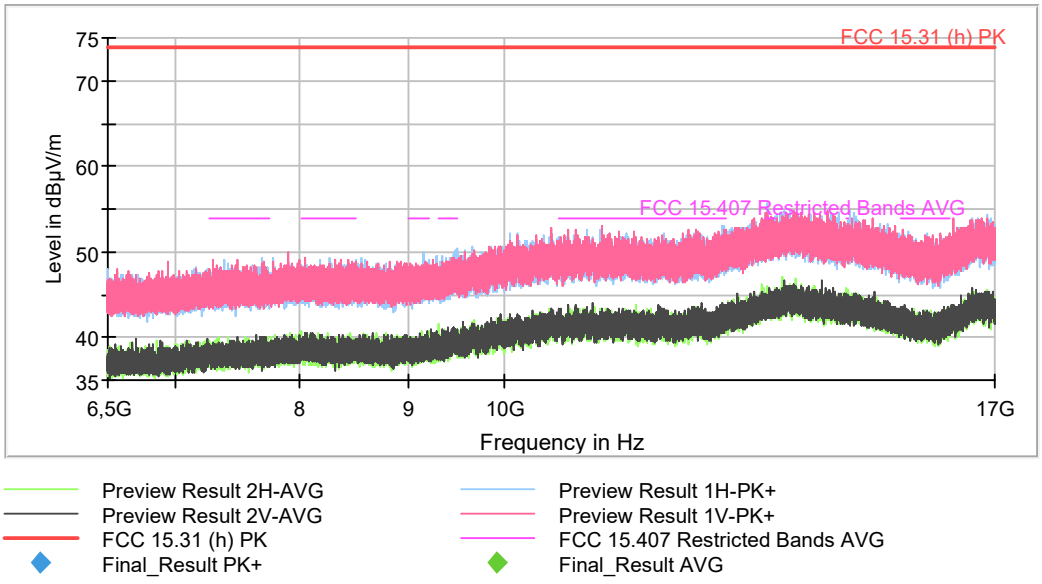
Frequency range 1 - 6.5 GHz



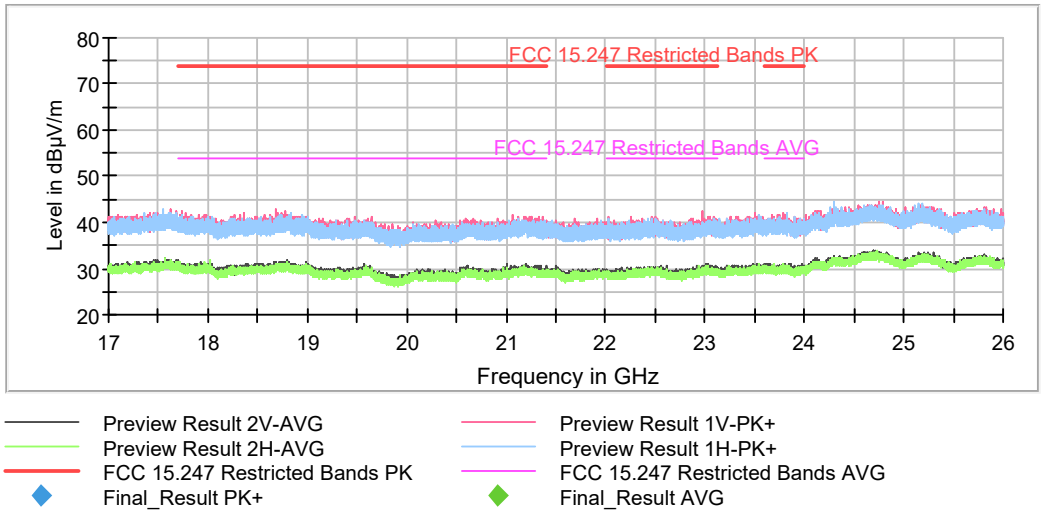
The peak on the left above the limit is the WLAN 2,4 GHz carrier frequency.

The peak on the right above the limit is the WLAN 5 GHz UNII-3 carrier frequency.

Frequency range 6.5 - 17 GHz

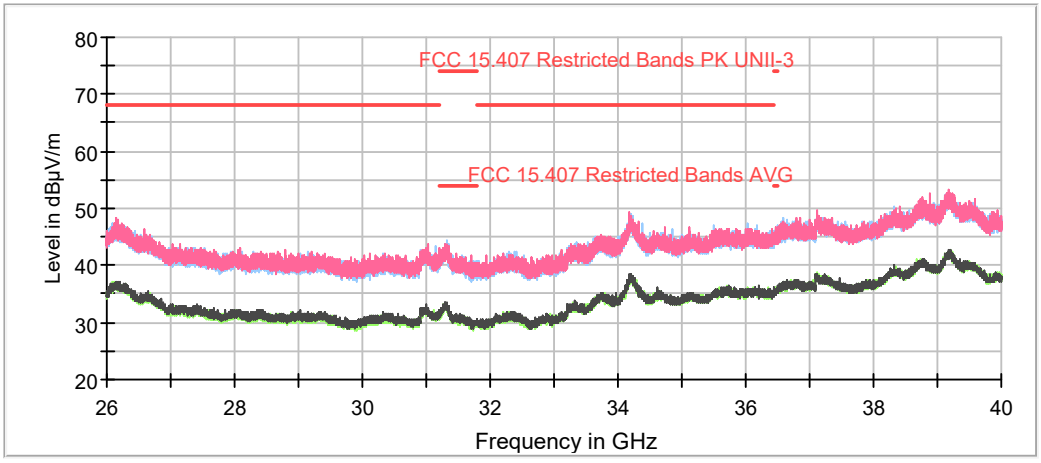


Frequency range 17 - 26 GHz



Preview Result 2V-AVG
Preview Result 2H-AVG
FCC 15.247 Restricted Bands PK
Final_Result PK+
Preview Result 1V-PK+
Preview Result 1H-PK+
FCC 15.247 Restricted Bands AVG
Final_Result AVG

Frequency range 26 - 40 GHz



Preview Result 2H-AVG
Preview Result 2V-AVG
FCC 15.407 Restricted Bands AVG
Final_Result PK+
Preview Result 1H-PK+
Preview Result 1V-PK+
FCC 15.407 Restricted Bands PK UNII-3
Final_Result AVG