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
Lab. Company Number: 4621A

Test Report No:
72872RRF.003

Partial Test Report
USA FCC 15.31, 15.209, 15.225, 15.247
CANADA RSS-210, RSS-247, RSS-Gen

(*) Identification of item tested	Central Unit 2 - LatAm variant
(*) Trademark	Verisure
(*) Model and /or type reference	GW-CU2L
Other identification of the product	FCC ID: 2A93W-GW-CU2L IC: Not provided
(*) Features	Central processing, Ethernet, Wi-Fi, Cellular, DECT, ISM HW version: A5 SW version: 1.8.26
Applicant	Verisure Sàrl Chemin Jean-Baptiste Vandelle 3 1290 Versoix (Switzerland)
Test method requested, standard	USA FCC Part 15.31(h) (10-1-21 Edition): Measurement standard. USA FCC Part 15.209 (10-1-21 Edition): Radiated emission limits; general requirements. USA FCC Part 15.225 (10-1-21 Edition): Operation within the band 13.110 -14.010. USA FCC Part 15.247 (10-1-21 Edition): Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. CANADA RSS-210 Issue 10, Dec. 2019. CANADA RSS-247 Issue 2, Feb. 2017. CANADA RSS-Gen Issue 5 (April 2018), Amendment 2 (February 2021). ANSI C63.10-2020: American National Standard for Testing Unlicensed Wireless Devices. ANSI C63.26-2015. IEEE/ANSI Standard for Testing of Transmitters Used in Licensed Radio Services. - FCC 15.31 (h), FCC 15.209 (a), FCC 15.247 (d) / RSS-210 B.10 (b), RSS-247 5.5, RSS-Gen 8.9 Emission limitations radiated (Transmitter)
Approved by (name / position & signature)	José Manuel Gómez Galván EMC Consumer & RF Lab. Manager  Firmado digitalmente por 53680346W JOSE MANUEL GOMEZ (C:A29507456)
Date of issue	2023-08-18
Report template No	FDT08_24 (*) "Data provided by the client"

Index

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 an FCC-recognized accredited testing laboratory with appropriate scope of accreditation that include testing performed in this test report.

DEKRA Testing and Certification is an ISED-recognized accredited testing laboratory, CABid: ES1909, Company Number: 4621A, 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 the EUT from 9 kHz to 30 MHz is:
Measurement uncertainty $\leq \pm$ 3.04 dB with factor (k=2).
The total uncertainty of the measurement system for the radiated emissions of the EUT from 30 MHz to 1 GHz is:
Measurement uncertainty $\leq \pm$ 5.35 dB with factor (k=2).
The total uncertainty of the measurement system for the radiated emissions of the EUT from 1 to 17 GHz is:
Measurement uncertainty $\leq \pm$ 4.32 dB with factor (k=2).
The total uncertainty of the measurement system for the radiated emissions of the EUT from 17 to 26.5 GHz is:
Measurement uncertainty $\leq \pm$ 4.71 dB with factor (k=2).
The total uncertainty of the measurement system for the radiated emissions of the EUT from 26.5 to 40 GHz is:
Measurement uncertainty $\leq \pm$ 4.92 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 Central Unit 2 - LatAm variant. Central Unit of the alarm suite. It acts as the main hub and gateway.

3. Equipment supports frequency sharing techniques.

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	72872C_96.1	Central Unit 2 - LatAm variant (radiated)	GW-CU2L	26MN JYSP	2023-04-05	Element Under Test
S/01	72872C_39.1	AC/DC adapter	AA18A-120GVS1	--	2022-12-22	Element Under Test
S/01	72872C_19.1	Raspberry Pi	--	--	2022-12-12	Auxiliary Element
S/01	72872C_35.1	Ethernet cable	--	--	2022-12-22	Auxiliary Element
S/01	72872C_65.1	AC/DC adapter	KSA-15E-051300HE	--	2022-12-28	Auxiliary Element
S/01	72872C_70.1	HDMI cable	--	--	2022-12-28	Auxiliary Element

Notes referenced to samples during the project:

Id	Type
S/01	Test samples used for Radiated testing.

Test sample description

<table>
<tr><td rowspan="3">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>RJ45 Ethernet socket</td><td>.....</td><td>[X]</td><td>[ ]</td><td>[ ]</td></tr>
<tr><td>Supplementary information to the ports…… :</td><td>DC power barrel jack</td><td>.....</td><td>[X]</td><td>[ ]</td><td>[ ]</td></tr>
<tr><td>Rated power supply .....:</td><td colspan="5">Insertion loss for semi-rigids for conducted testing: 0.5-1.5GHz: 0.1 dB; 1.5-3.5GHz: 0.2dB; 3.5-5.5GHz: 0.3dB; 5.5-6.5GHz: 0.5dB.</td></tr>
<tr><td rowspan="3">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>[X]</td><td>AC:100-240Vac @50-60Hz</td><td>[ ]</td><td>[ ]</td><td>[ ]</td><td>[ ]</td><td>[ ]</td></tr>
<tr><td>[ ]</td><td colspan="5">DC: 12-14.5V 1.5A</td></tr>
<tr><td>Rated Power .....:</td><td colspan="6">18 W</td></tr>
<tr><td>Clock frequencies.....:</td><td colspan="6">32.786 kHz, 13.824 MHz, 24 MHz, 25 MHz, 26 MHz, 37.4 MHz (+ frequencies derived)</td></tr>
<tr><td>Other parameters .....:</td><td colspan="6">.....</td></tr>
<tr><td>Software version .....:</td><td colspan="6">1.8.26</td></tr>
<tr><td>Hardware version .....:</td><td colspan="6">A5</td></tr>
<tr><td>Dimensions in cm (W x H x D) ....:</td><td colspan="6">17.4 x 10.5 x 3</td></tr>
<tr><td rowspan="5">Mounting position .....:</td><td>[ ]</td><td colspan="5">Table top equipment</td></tr>
<tr><td>[X]</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>[ ]</td><td colspan="5">Other: .....</td></tr>
<tr><td rowspan="4">Modules/parts.....:</td><td colspan="3">Module/parts of test item</td><td>Type</td><td colspan="2">Manufacturer</td></tr>
<tr><td colspan="3">Wall bracket</td><td>.....</td><td colspan="2">Verisure</td></tr>
<tr><td colspan="3">Power supply</td><td>.....</td><td colspan="2">Phihong</td></tr>
<tr><td></td><td colspan="3">Description</td><td>Type</td><td colspan="2">Manufacturer</td></tr>
</table>

Accessories (not part of the test item) .....:	Aux. test computer	.....	Raspberry Pi
Documents as provided by the applicant.....:	Description	File name	Issue date
	.....	.....	.....

(3) Only for Medical Equipment

Identification of the client

ESML SD IBERIA HOLDING SA
Calle Priégola, 2, Pozuelo de Alarcon, 28224, Madrid, Spain

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	18-07-2023
Date (finish)	28-07-2023

Document history

Report number	Date	Description
72872RRF.003	2023-08-18	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: Fernando Chito.

Used instrumentation:

Radiated Measurements:

		Last Calibration	Due Calibration
1.	Semianechoic Absorber Lined Chamber ETS LINDGREN FACT 3 200 STP	N/A	N/A
2.	Shielded Room ETS LINDGREN S101	N/A	N/A
3.	Active Loop Antenna HEWLETT PACKARD 11966A	2022-08	2024-08
4.	Hybrid Bilog Antenna 30MHz-6GHz	2022-09	2024-09
5.	RF Preamplifier, G>38dB 30MHz-6GHz BONN ELEKTRONIK BLNA 0360-01N	2023-06	2024-06
6.	EMI Test Receiver 7 GHz ROHDE AND SCHWARZ ESR7	2021-11	2023-11
7.	Horn Antenna 1-18 GHz SCHWARZBECK MESS-ELEKTRONIK BBHA 9120 D	2020-08	2023-08
8.	RF Preamplifier G>30dB, 1-18GHz BONN ELEKTRONIK BLMA 0118-3A	2022-12	2023-12
9.	EMI Test Receiver 2 Hz - 44 GHz, ROHDE AND SCHWARZ ESW44	2021-12	2023-12
10.	DIGITAL MULTIMETER FLUKE 175	2022-11	2023-11
11.	EMC/RF Testing SW ROHDE AND SCHWARZ EMC32	N/A	N/A

Testing verdicts

Not applicable:	N/A
Pass:	P
Fail:	F
Not measured :	N/M

Summary

FCC 15.31, 15.209, 15.225, 15.247 / RSS-210, RSS-247, RSS-Gen PARAGRAPH		
Requirement – Test case	**Verdict**	**Remark**
FCC 15.31 (h), FCC 15.209 (a), FCC 15.247 (d) / RSS-210 B.10 (b), RSS-247 5.5, RSS-Gen 8.9 Emission limitations radiated (Transmitter)	P	(1)
Supplementary information and remarks: (1) Only Simultaneous Transmission Radiated Spurious Emissions test was requested.		

Appendix A: Test results

INDEX

TEST CONDITIONS

(*): Data provided by the client.

POWER SUPPLY (*):

Vnominal:	115 Vac
Type of Power Supply:	AC power

ANTENNA (*):

Cellular:

Type of Antenna:	Monopoles (printed on PCB). 2 antennas: Main and diversity.
Maximum Declared Antenna Gain:	Main antenna: 2.2 dBi. Diversity antenna: 1.4 dBi.

WiFi 2.4GHz

Type of Antenna:	Monopoles (printed on PCB). 2 antennas.

Maximum Declared Antenna Gain:

SISO Antenna 0:	+1.30 dBi
SISO Antenna 1:	+2.20 dBi
MIMO Antenna 0 + Antenna 1:	+4.77 dBi

WiFi 5GHz

Type of Antennas:	Monopoles (printed on PCB). 2 antennas.

Maximum Declared Antenna Gain Chain 0:	+3.1 dBi
Maximum Declared Antenna Gain Chain 1:	+5.0 dBi

DECT 1925 MHz:

Type of Antenna:	IFA/PIFA (printed on PCB). 2 antennas
Maximum Declared Antenna Gain:	Ant 1: 0.1 dBi max. Ant 2: 1.5 dBi max.

SRD 915 MHz:

Type of Antenna:	IFA/PIFA (printed on PCB). 3 antennas (independent).
Maximum Declared Antenna Gain:	Ant1: -1.6 dBi ; Ant2: -0.3 dBi ; Ant3: -2.7 dBi

TEST FREQUENCIES (*):

	Cellular	
Mode:	2G GPRS PCL 5 Slot 1	
Frequency Range:	850	
Transmit Channel:	Channel	Channel Frequency (MHz)
	Channel 128	850

	Cellular	
Mode:	2G GPRS PCL 0 Slot 1	
Frequency Range:	1900	
Transmit Channel:	Channel	Channel Frequency (MHz)
	Channel 512	1900

	Cellular	
Mode:	LTE Band 7 15MHz 16QAM RB 1 Offset 0	
Frequency Range:	2500 - 2570 MHz	
Transmit Channel:	Channel	Channel Frequency (MHz)
	Channel 20825	2507.5

	DECT 1925 MHz	
Mode:	DECT (Emission designator: DCX81)	
Frequency Range:	1920 MHz to 1930 MHz	
Transmit Channel:	Channel	Channel Frequency (MHz)
	High	1928.448

	SRD 915 MHz	
Mode:	2GFSK	
Frequency Range:	915.5-927.5 MHz	
Transmit Channel:	Channel	Channel Frequency (MHz)
	Single	925.5

	WiFi 2.4 GHz	
Mode:	802.11g Mode 6mbit/s (Antenna 1)	
Frequency Range:	2400 – 2483.5	
Transmit Channel:	Channel	Channel Frequency (MHz)
	1	2412

	WiFi 5 GHz	
Mode:	HT20 mode OFDM MCS0 (Antenna 0)	
Frequency Range:	5150 – 5250 MHz	
Transmit Channel:	Channel	Channel Frequency (MHz)
	36	5180

The test set-up was made in accordance to the general provisions of FCC DTS Measurement 558074 D01 DTS Meas Guidance v05r02 dated April 2, 2019.

The EUT was tested in the following operating mode:

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.

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

Selected Transmission Modes 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 WiFi 2.4 GHz 2412 MHz / 802.11 g mode 6 Mbit/s.

* WLAN 5 GHz: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in WiFi 5 GHz 5180 MHz / HT20 mode OFDM MCS0.

* Cellular: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in GPRS 850 MHz, 1900MHz and LTE Band 7

* DECT 1925 MHz: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in DECT 1928.448 MHz / DECT mode configuration as this mode is the only one supported.

* SRD 915 MHz: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in SRD 925.5 MHz / 2GFSK mode configuration as this mode was found as the worst-case for spurious emissions than all the other SRD 915 MHz modes.

TESTED SIMULTANEOUS TRANSMISSION MODES:

*** Simultaneous Transmission mode 1** configured to simultaneously transmit the following signals at maximum output power:

WLAN 2.4GHz / WLAN 5GHz / Celular 850 MHz / DECT 1925 MHz /SRD

*** Simultaneous Transmission mode 2** configured to simultaneously transmit the following signals at maximum output power:

WLAN 2.4GHz / WLAN 5GHz / Celular 1900 MHz / DECT 1925 MHz /SRD

*** Simultaneous Transmission mode 3** configured to simultaneously transmit the following signals at maximum output power:

WLAN 2.4GHz / WLAN 5GHz / LTE B7 / DECT 1925 MHz /SRD

*** Simultaneous Transmission mode 4** configured to simultaneously transmit the following signals at maximum output power:

WLAN 2.4GHz / WLAN 5GHz / DECT 1925 MHz /SRD ISM1

Simultaneous Transmission Radiated Spurious Emissions

SPECIFICATION:

SRD, WLAN
The field strength of harmonics from intentional radiators shall comply with the following:

Fundamental frequency (MHz)	Field strength of harmonics (µV/m)	Field strength of harmonics (dBµV/m)	Measurement distance (m)
902 - 928	500	54	3
2400 - 2483.5	500	54	3
5725 - 5875	500	54	3
24000 - 24250	2500	67.96	3

Emissions radiated outside of the specific frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of fundamental or to the general radiated emission limits specified in section 15.209:

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
960 - 25000	500	54	3

Cellular.

FCC §2.1053 and §22.917 (a).

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

In the spectrum below 1 GHz, instrumentation should employ a reference bandwidth of 100 kHz or greater. In the spectrum above 1 GHz, instrumentation should employ a reference bandwidth of 1 MHz.
At Po transmitting power, the specified minimum attenuation becomes 43+10 log (Po), and the level in dBm relative to Po becomes:

$$Po\ (dBm) – [43 + 10 \log (Po\ in\ mW) - 30] = -13\ dBm$$

FCC §24.238:

The power of emissions shall be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. P in watts.

FCC §27.53 (m) (4):

(m) For BRS and EBS stations, the power of any emissions outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) measured in watts in accordance with the standards below. If a licensee has multiple contiguous channels, out-of-band emissions shall be measured from the upper and lower edges of the contiguous channels.

(4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between

2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Whichever is the lesser attenuation.
METHOD:

The measurement was performed with the EUT inside an anechoic chamber.

The spectrum was scanned from 30 MHz o 40GHz.

The EUT was placed on a non-conductive stand at a 3 meter distance from the measuring antenna.

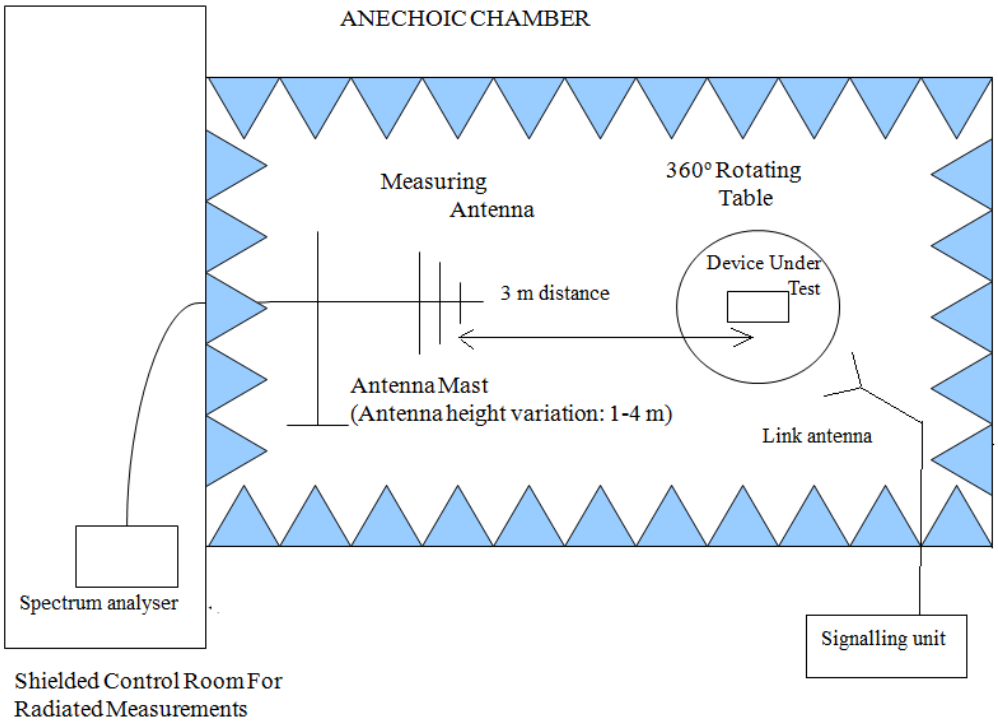
Detected emissions were maximized at each frequency by rotating the EUT and adjusting the measuring antenna height and polarization. The maximum meter reading was recorded.

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.

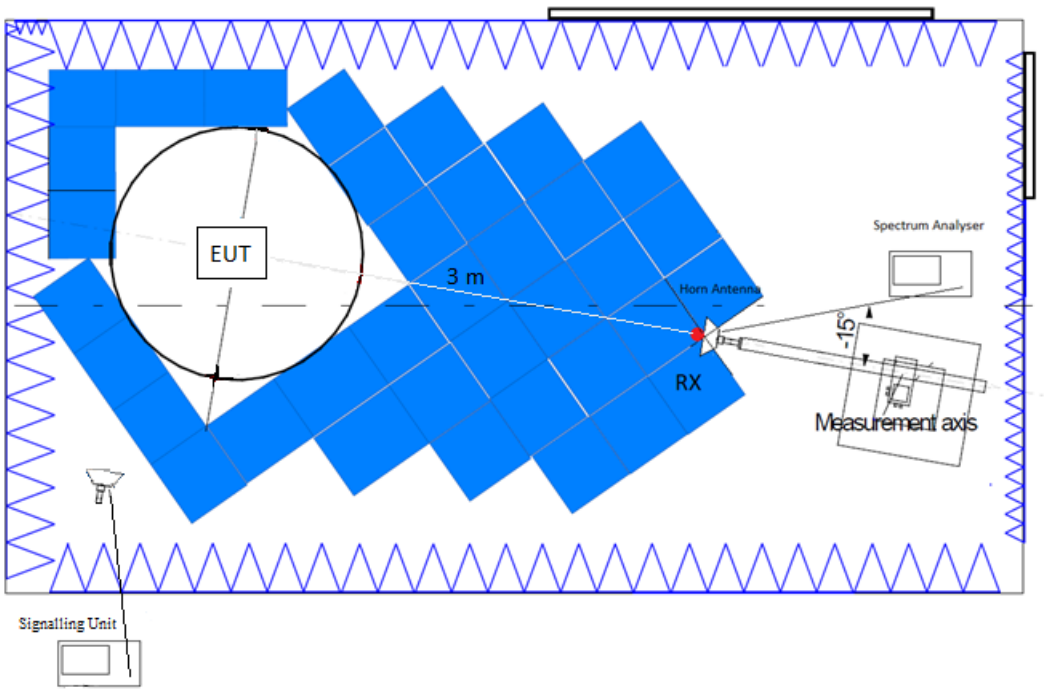
These measurements have been performed in order to check the impact of the Simultaneous Transmission of all radio interfaces (that can be transmitting simultaneously).

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

TEST SETUP:
Radiated measurements below 1 GHz.



Radiated measurements between 1 GHz and 10 GHz.



RESULTS:

- *** Simultaneous Transmission mode 1:**

A preliminary scan determined as the worst case the configuration:

2G GPRS:	GPRS 850 MHz - PCL 5 Slot 1.Channel 128
WLAN 2.4GHz:	802.11 g - Channel 1 (2412 MHz)
WLAN 5 GHz:	HT20 MCS 0 - Channel 36 (5180 MHz)
SRD:	2GFSK Channel 5 (925 MHz).
DECT:	DCX81 Channel HIGH (1928.448 MHz).

Frequency range 30 MHz - 40 GHz:

Spurious frequencies at less than 20 dB below the limit:

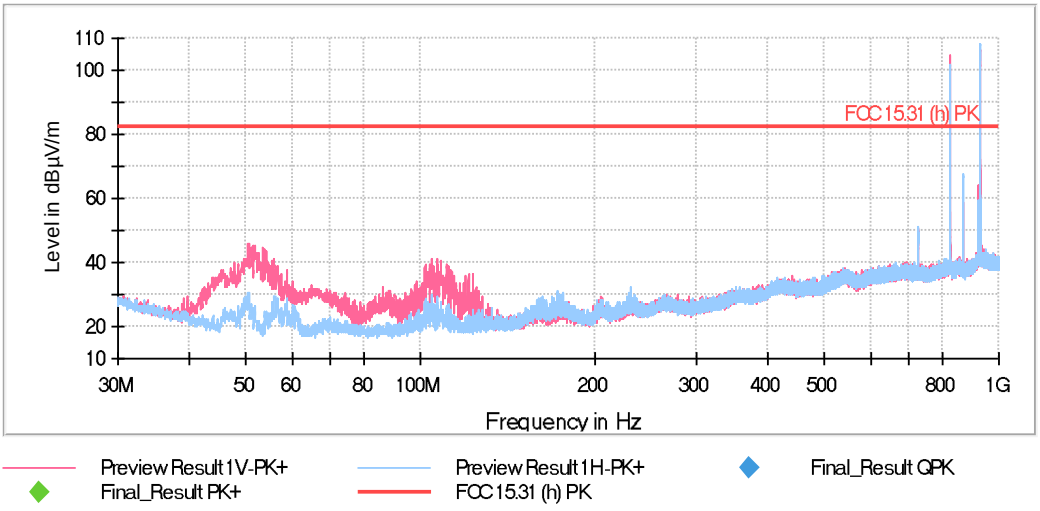
Spurious frequency (MHz)	E.I.R.P (dBµV/m)	Polarization	Detector
869.1409	67.38	V	Peak
1026.738	79.24	H	Peak
1128.892	63.13	V	Peak

Verdict: PASS

Analyzer Setting:

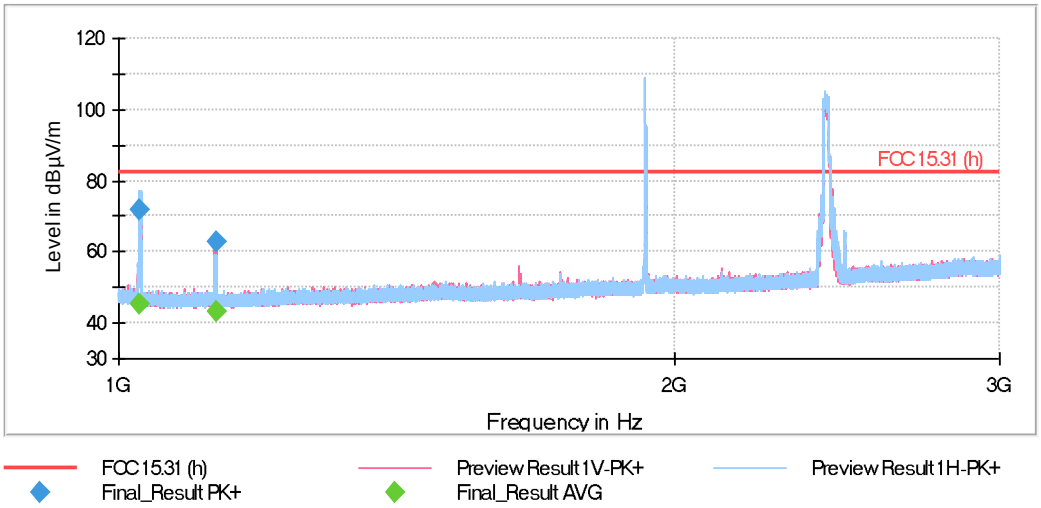
Subrange	**Step Size**	**Detectors**	**Bandwidth**	**Sweep Time**	**Preamp**
Receiver: [ESW 44]					
30 MHz - 1 GHz	30,312 kHz	PK+	100 kHz	1 s	0 dB
1 GHz - 3 GHz	30,769 kHz	PK+	1 MHz	1 s	0 dB
3 GHz - 17 GHz	140 kHz	PK+	1 MHz	1 s	30 dB
17 GHz - 40 GHz	766 kHz	PK+	1 MHz	1 s	0 dB

FREQUENCY RANGE 30 – 1000 MHz:



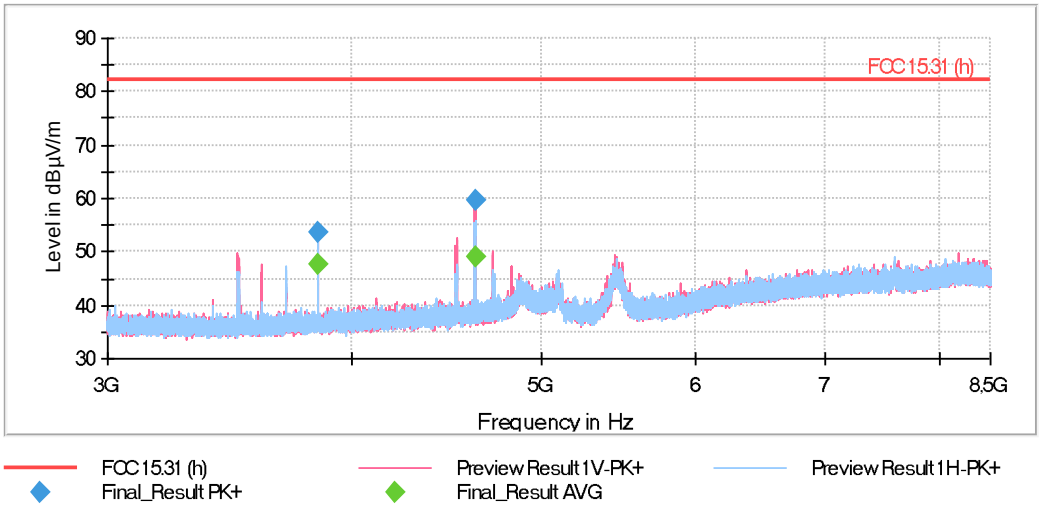
The peaks above the limit are the carrier frequency GPRS 850 MHz and SRD.

FREQUENCY RANGE 1 - 3 GHz:



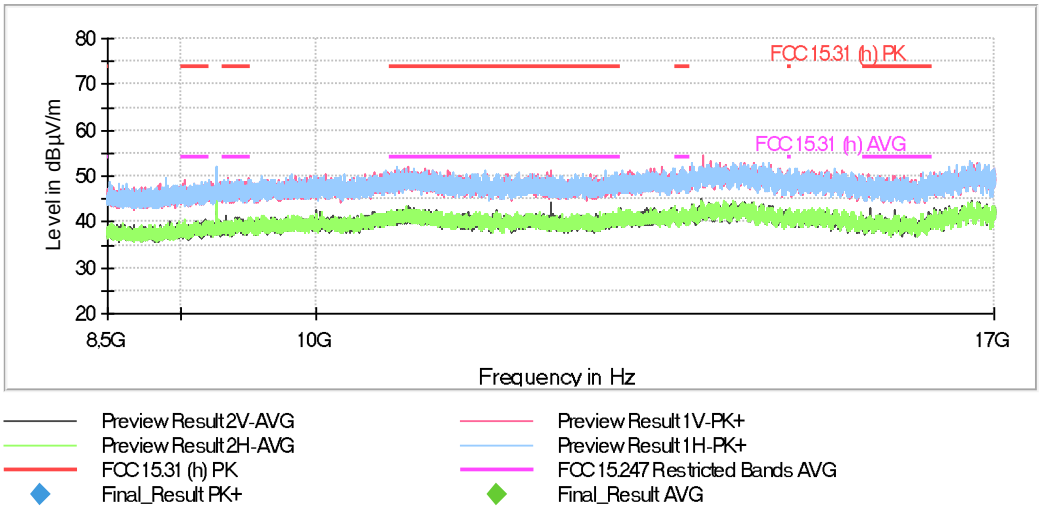
The peaks above the limit are the carrier frequency DECT and WLAN 2.4GHz

FREQUENCY RANGE 3 GHz – 8.5 GHz:

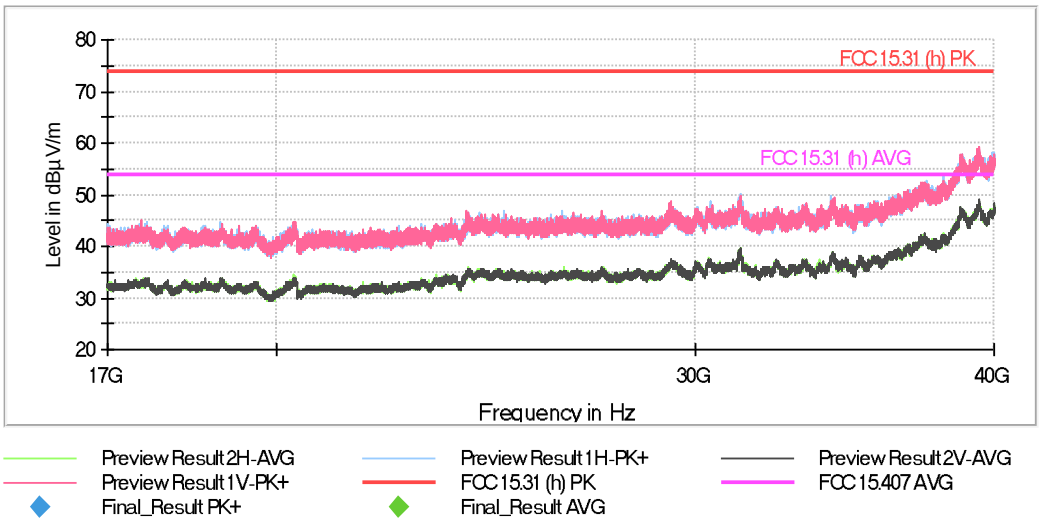


The WLAN 5GHz was filtered using a Notch filter.

FREQUENCY RANGE 8.5 GHz – 17 GHz:



FREQUENCY RANGE 17 GHz – 40 GHz:



- *** Simultaneous Transmission mode 2:**

A preliminary scan determined as the worst case the configuration:

2G GPRS:	GPRS 1900 MHz - PCL 0 Slot 1.Channel 512
WLAN 2.4GHz:	802.11 g - Channel 1 (2412 MHz)
WLAN 5 GHz:	HT20 MCS 0 - Channel 36 (5180 MHz)
SRD:	2GFSK Channel 5 (925 MHz).
DECT:	DCX81 Channel HIGH (1928.448 MHz).

Frequency range 30 MHz - 40 GHz:

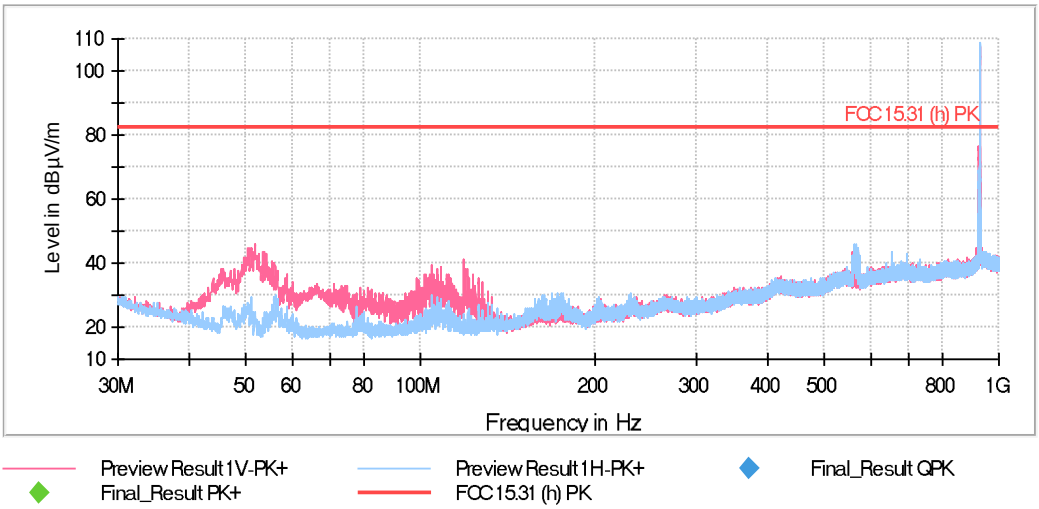
No spurious frequencies at less than 20 dB below the limit:

Verdict: PASS

Analyzer Setting:

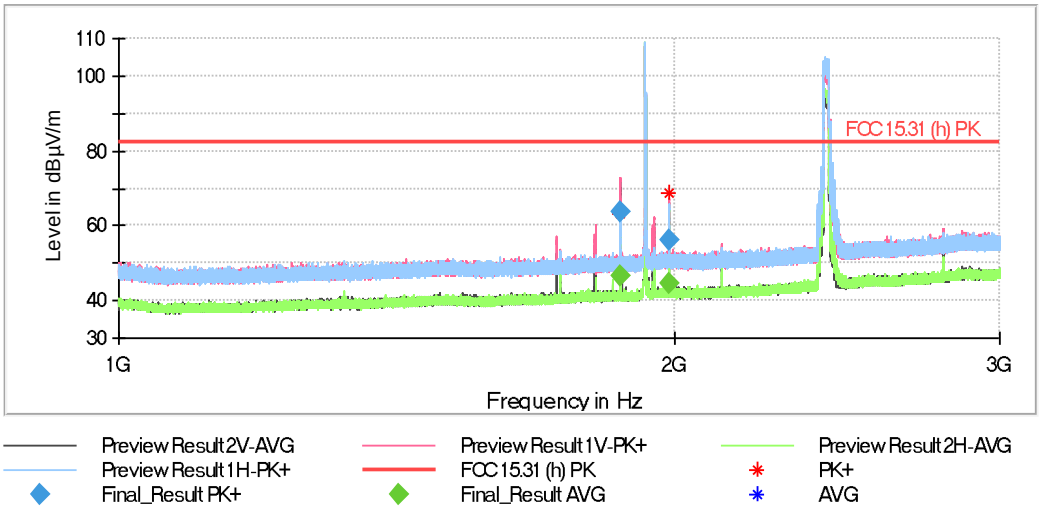
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44]					
30 MHz - 1 GHz	30,312 kHz	PK+	100 kHz	1 s	0 dB
1 GHz - 3 GHz	30,769 kHz	PK+	1 MHz	1 s	0 dB
3 GHz - 17 GHz	140 kHz	PK+	1 MHz	1 s	30 dB
17 GHz - 40 GHz	766 kHz	PK+	1 MHz	1 s	0 dB

FREQUENCY RANGE 30 – 1000 MHz:



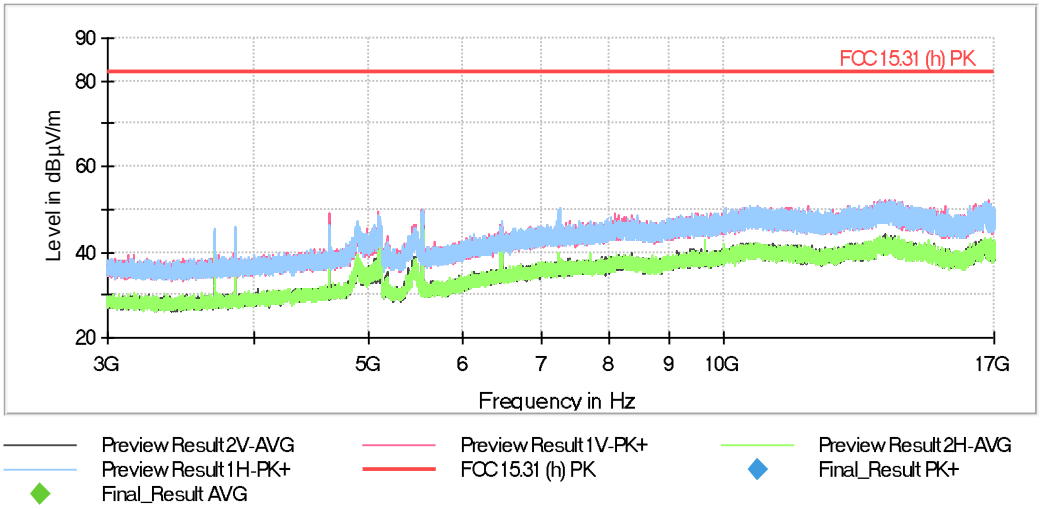
The peak above the limit is the carrier frequency SRD.

FREQUENCY RANGE 1 - 3 GHz:



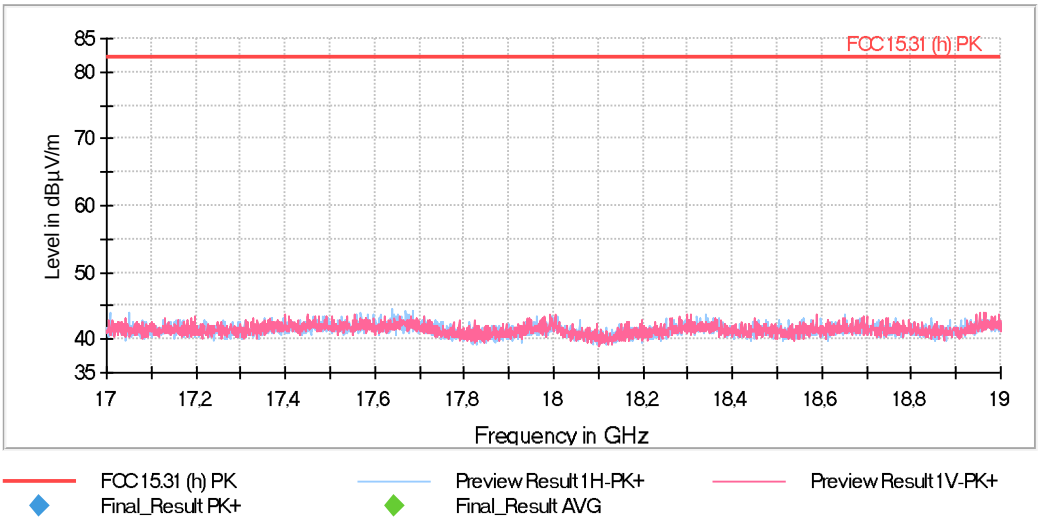
The peaks above the limit are the carrier frequency DECT, GPRS and WLAN 2.4GHz

FREQUENCY RANGE 3 GHz – 17 GHz:

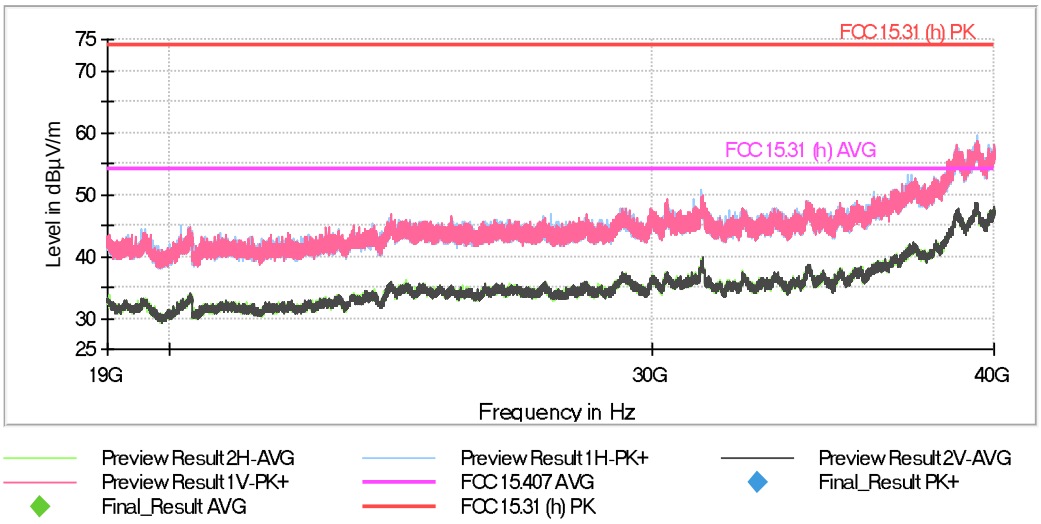


The WLAN 5GHz was filtered using a Notch filter

FREQUENCY RANGE 17 GHz – 19 GHz:



FREQUENCY RANGE 19 GHz – 40 GHz:



- *** Simultaneous Transmission mode 3:**

A preliminary scan determined as the worst case the configuration:

LTE:	Band 7 LTE - 15MHz 16QAM RB 1 Offset 0/ Channel 20825
WLAN 2.4GHz:	802.11 g - Channel 1 (2412 MHz)
WLAN 5 GHz:	HT20 MCS 0 - Channel 36 (5180 MHz)
SRD:	2GFSK Channel 5 (925 MHz).
DECT:	DCX81 Channel HIGH (1928.448 MHz).

Frequency range 30 MHz - 40 GHz:

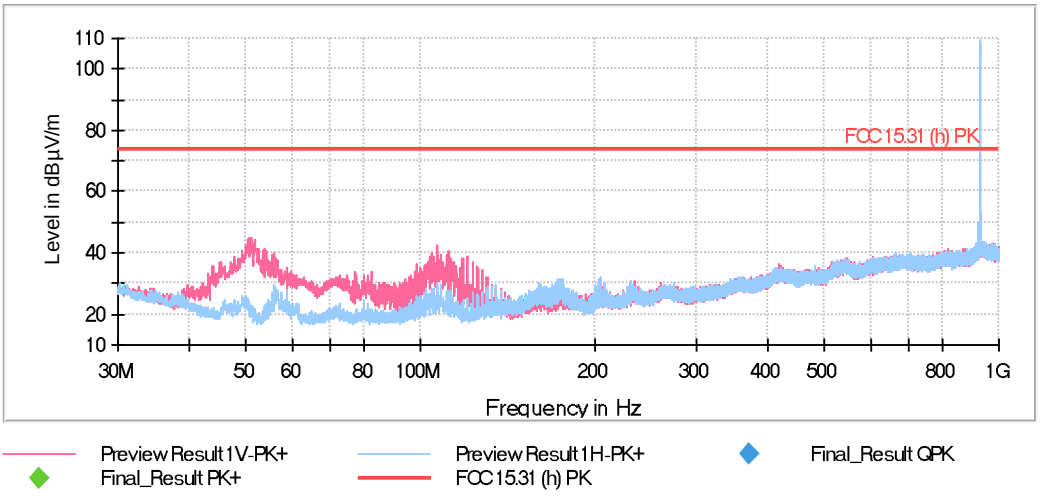
No spurious frequencies at less than 20 dB below the limit:

Verdict: PASS

Analyzer Setting:

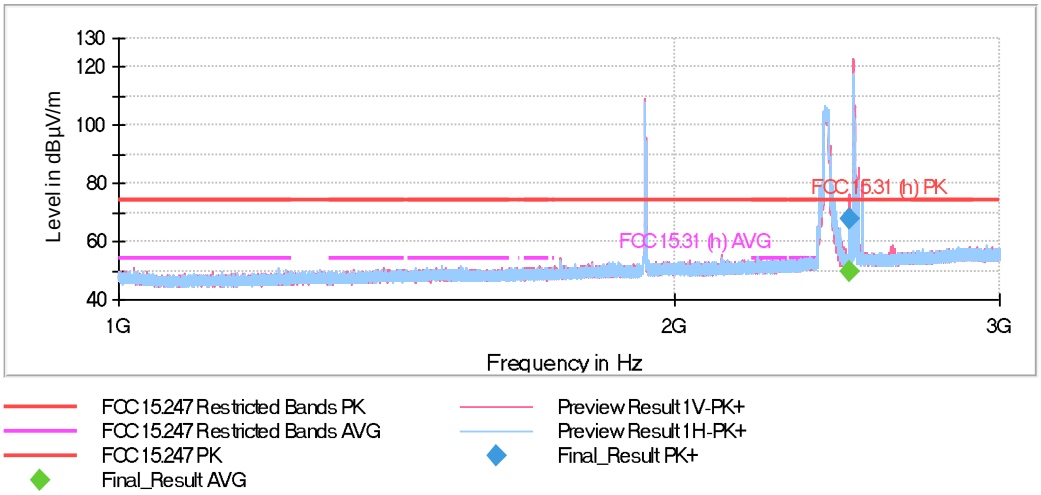
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44]					
30 MHz - 1 GHz	30,312 kHz	PK+	100 kHz	1 s	0 dB
1 GHz - 3 GHz	30,769 kHz	PK+	1 MHz	1 s	0 dB
3 GHz - 17 GHz	140 kHz	PK+	1 MHz	1 s	30 dB
17 GHz - 40 GHz	766 kHz	PK+	1 MHz	1 s	0 dB

FREQUENCY RANGE 30 – 1000 MHz:



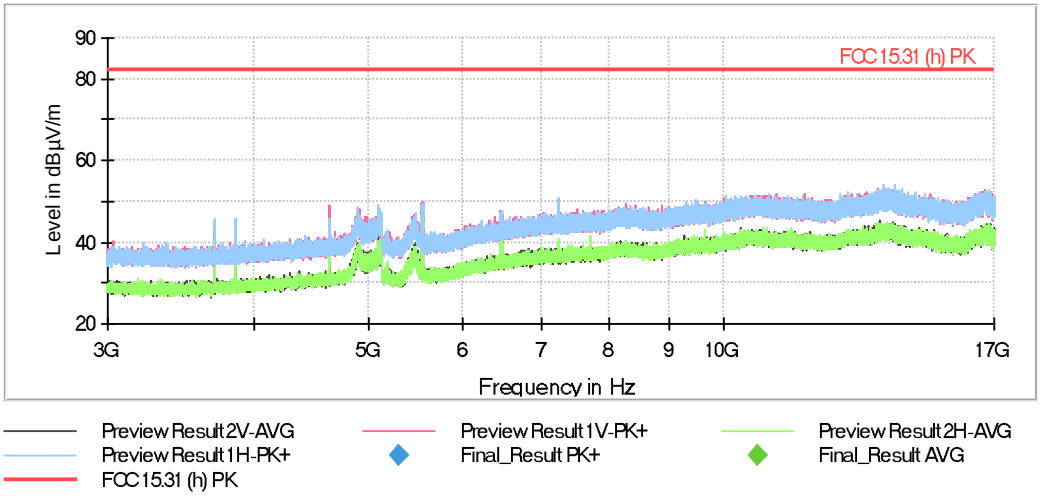
The peak above the limit is the carrier frequency SRD.

FREQUENCY RANGE 1 - 3 GHz:



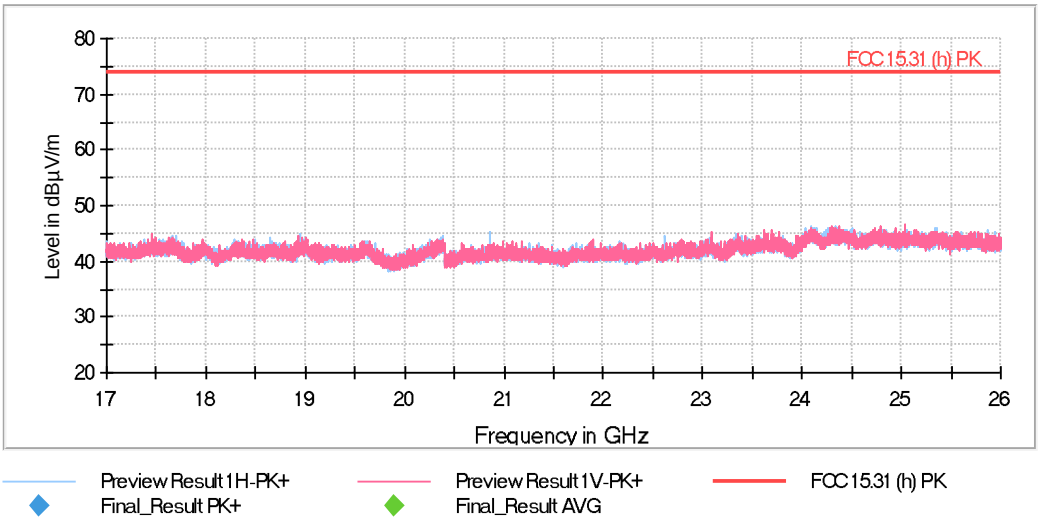
The peaks above the limit are the carrier frequency DECT, WLAN 2.4 and LTE

FREQUENCY RANGE 3 GHz – 17 GHz:

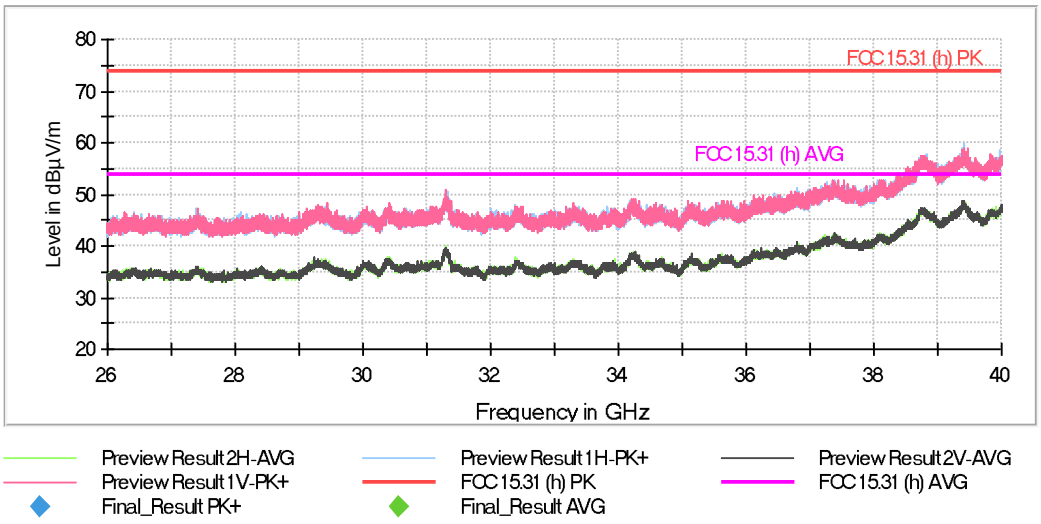


The WLAN 5GHz was filtered using a Notch filter

FREQUENCY RANGE 17 GHz – 26 GHz:



FREQUENCY RANGE 26 GHz – 40 GHz:



- *** Simultaneous Transmission mode 4:**

A preliminary scan determined as the worst case the configuration:

WLAN 2.4GHz:	802.11 g - Channel 1 (2412 MHz)
WLAN 5 GHz:	HT20 MCS 0 - Channel 36 (5180 MHz)
SRD:	2GFSK Channel 5 (925 MHz).
DECT:	DCX81 Channel HIGH (1928.448 MHz).

Frequency range 30 MHz - 40 GHz:

Spurious frequencies at less than 20 dB below the limit:

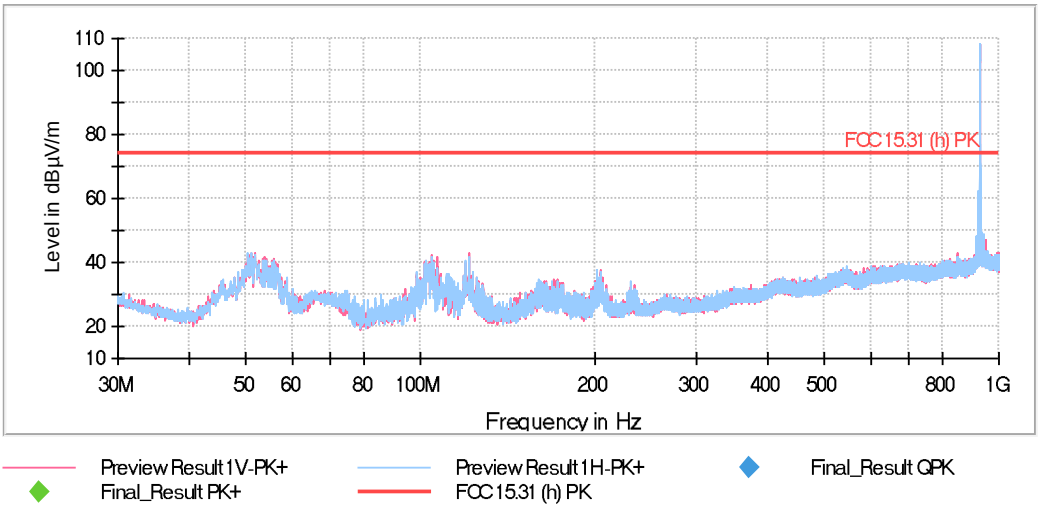
Spurious frequency (MHz)	E.I.R.P (dBµV/m)	Polarization	Detector
3845.04	56.73	V	Peak
4628.62	59.94	V	Peak

Verdict: PASS

Analyzer Setting:

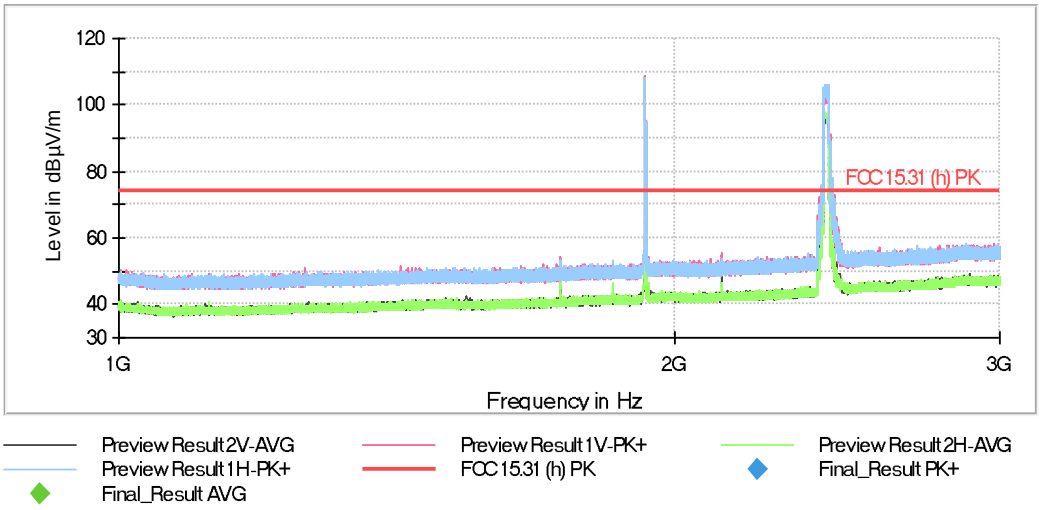
Subrange	**Step Size**	**Detectors**	**Bandwidth**	**Sweep Time**	**Preamp**
Receiver: [ESW 44]					
30 MHz - 1 GHz	30,312 kHz	PK+	100 kHz	1 s	0 dB
1 GHz - 3 GHz	30,769 kHz	PK+	1 MHz	1 s	0 dB
3 GHz - 17 GHz	140 kHz	PK+	1 MHz	1 s	30 dB
17 GHz - 40 GHz	766 kHz	PK+	1 MHz	1 s	0 dB

FREQUENCY RANGE 30 – 1000 MHz:



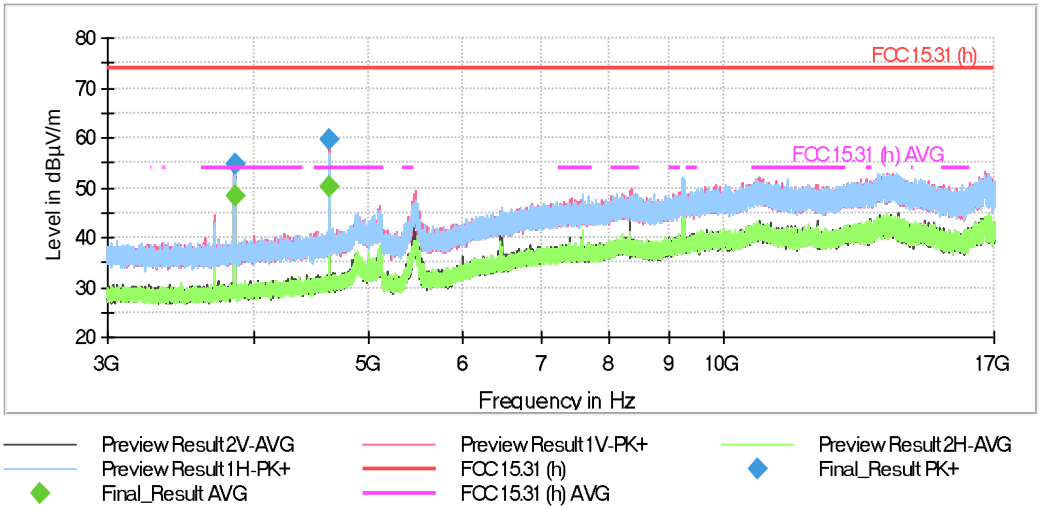
The peak above the limit is the carrier frequency SRD.

FREQUENCY RANGE 1 - 3 GHz:



The peaks above the limit are the carrier frequency DECT and WLAN 2.4

FREQUENCY RANGE 3 GHz – 17 GHz:



The WLAN 5GHz was filtered using a Notch filter

FREQUENCY RANGE 17 GHz – 40 GHz: