



ISED LISTED
REGISTRATION NUMBER
4621A-2, 4621A-4

Test report No:
NIE: 56944RRF.007

Partial test report

USA FCC Part 15.247,15.407, 15.209

CANADA RSS-247, RSS-Gen

Radio Frequency Devices. Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz.

Unlicensed National Information Infrastructure (U-NII) Devices. General technical requirements.

Radiated emission limits; general requirements.

Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices.

General Requirements and Information for the Certification of Radio Apparatus.

Identification of item tested	27-inch iMac with Retina 5K display
Trademark	Apple
Model and /or type reference	A2115
Other identification of the product	FCC ID: BCGA2115 IC: 579C-A2115
Features	IEEE 802.11a/b/g/n/ac radio and Bluetooth radio
Applicant	Apple INC, One Apple Park Way, Cupertino, California 95014, USA
Test method requested, standard	USA FCC Part 15.407 10-1-17 Edition: Unlicensed National Information Infrastructure (U-NII) Devices. General technical requirements. Band U-NII-3 (5725 MHz – 5850 MHz). USA FCC Part 15.247 10-1-17 Edition: Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. USA FCC Part 15.209 10-1-17 Edition: Radiated emission limits; general requirements. CANADA RSS-247 Issue 2 (February 2017). CANADA RSS-Gen Issue 5 (April 2018). -Transmitter out of band radiated emissions with simultaneous transmissions. 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 v05 dated August 24, 2018. 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.
Summary	IN COMPLIANCE
Approved by (name / position & signature)	A. Llamas p.a. RF Lab. Manager
Date of issue	2019-03-06
Report template No	FDT08_21

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Competences and guarantees

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

DEKRA Testing and Certification is a laboratory with a measurement site in compliance with the requirements of RSS 212, Issue 1 (Provisional) and has been added to the list of filed sites of the Canadian Certification and Engineering Bureau. Reference File Number: ISED 4621A-2 and ISED 4621A-4.

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

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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 and the Accreditation Bodies.

Uncertainty

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

Data provided by the client

iMac desktop computer with IEEE 802.11 a/b/g/n/ac radio and Bluetooth radio.

DEKRA 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.

Sample S/01 is composed of the following elements:

Control N°	Description	Model	Serial N°	Date of reception
56944/06	iMac with Retina 5K display	A2115	C02WW002K1R4	2018-08-16

Auxiliary elements used with the sample S/01

Control N°	Description	Model	Serial N°	Date of reception
56943/03	Keyboard	A1243	---	2018-04-09
56943/05	Power Cable	---	---	2018-04-09
56943/07	Mouse	A1152	---	2018-04-09
56943/09	USB-C to VGA conversor	A1620	---	2018-04-09
56943/11	USB to thunderbolt	A1790	---	2018-04-09
56943/13	Earphones	---	---	2018-04-09

Sample S/02 is composed of the following elements:

Control N°	Description	Model	Serial N°	Date of reception
56944/05	iMac with Retina 5K display	A2115	C02WW01EKFGK	2018-08-16

Auxiliary elements used with the sample S/02

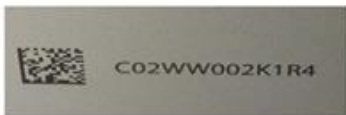
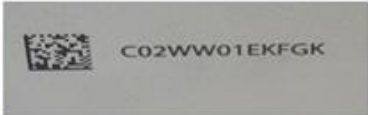
Control N°	Description	Model	Serial N°	Date of reception
56943/04	Keyboard	A1243	---	2018-04-09
56943/06	Power Cable	---	---	2018-04-09
56943/08	Mouse	A1152	---	2018-04-09
56943/10	USB-C to VGA conversor	A1620	---	2018-04-09
56943/12	USB to thunderbolt	A1790	---	2018-04-09
56943/14	Earphones	---	---	2018-04-09

Samples S/01 & S/02 were used for the Emission limitations radiated (Transmitter) indicated in Appendix A. Preliminary testing was performed on the two manufacturers' samples to determine the worst case.

Results in Appendix A shows the worst cases between both samples.

Test sample description

Ports..... :	Port name and description		Cable					
			Specified length [m]	Attached during test	Shielded			
				☐	☐			
				☐	☐			
				☐	☐			
				☐	☐			
				☐	☐			
Supplementary information to the ports..... :								
Rated power supply .. :	Voltage and Frequency		Reference poles					
			L1	L2	L3	N	PE	
	☒	AC: 120 / 60 Hz	☒	☐	☐	☒	☒	
	☐	AC:	☐	☐	☐	☐	☐	
	☐	DC:						
☐	DC:							
Rated Power								
Clock frequencies..... :								
Other parameters								
Software version		18A334						
Hardware version		EVT						
Dimensions in cm (W x H x D)		65cm wide, 51.65cm high, 20.3cm deep						
Mounting position	☒	Table top equipment						
	☐	Wall/Ceiling mounted equipment						
	☐	Floor standing equipment						
	☐	Hand-held equipment						
	☐	Other:						
Modules/parts..... :	Module/parts of test item		Type			Manufacturer		

Accessories (not part of the test item) :	Description	Type	Manufacturer
	Keyboard	A1243	Apple
	Power Cable	---	Apple
	Mouse	A1152	Apple
	USB-C to VGA converter	A1620	Apple
	USB to thunderbolt	A1790	Apple
	Earphones	---	Apple
Documents as provided by the applicant..... :	Description	File name	Issue date
Copy of marking plate:			
 			

Identification of the client

Apple INC
One Apple Park Way, Cupertino, California 95014, USA

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	2018-11-05
Date (finish)	2019-01-17

Document history

Report number	Date	Description
56944RRF.007	2019-03-06	First release

Environmental conditions

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

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 75 %
Shielding effectiveness	> 100 dB
Electric insulation	> 10 kΩ
Reference resistance to earth	< 1 Ω

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

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 75 %
Air pressure	Min. = 860 mbar Max. = 1060 mbar
Shielding effectiveness	> 100 dB
Electric insulation	> 10 kΩ
Reference resistance to earth	< 1 Ω
Normal site attenuation (NSA)	< ±4 dB at 10 m distance between item under test and receiver antenna, (30 MHz to 1000 MHz)
Field homogeneity	More than 75% of illuminated surface is between 0 and 6 dB (26 MHz to 1000 MHz).

In the chamber for conducted measurements, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 35 %
Air pressure	Min. = 860 mbar Max. = 1060 mbar
Shielding effectiveness	> 100 dB
Electric insulation	> 10 kΩ
Reference resistance to earth	< 1 Ω

Remarks and comments

The tests have been performed by the technical personnel: Ignacio Cabra, Jose Alberto Aranda, Francisco José Alcaide, Jaime Barranquero, Juan Carlos Fuentes, Miguel Angel Torres.

Used instrumentation:

Radiated Measurements

		Last Cal. date	Cal. due date
1.	Semianechoic Absorber Lined Chamber ETS FACT3 200STP	N.A.	N.A.
2.	Semianechoic Absorber Lined Chamber ETS FACT3 200STP	N.A.	N.A.
3.	Multi Device Controller EMCO 2090	N.A.	N.A.
4.	Positioning Controller INNCO CO3000	N.A.	N.A.
5.	BiconicalLog antenna ETS LINDGREN 3142E	2017/09	2020/09
6.	BiconicalLog antenna ETS LINDGREN 3142E	2018/07	2021/07
7.	Double-ridge Guide Horn antenna 1-18 GHz SCHWARZBECK BBHA 9120 D	2016/11	2019/11
8.	Double-ridge Guide Horn antenna 1-18 GHz SCHWARZBECK BBHA 9120 D	2018/06	2021/06
9.	Broadband Horn antenna 18-40 GHz SCHWARZBECK BBHA 9170	2017/04	2020/04
10.	Broadband Horn antenna 18-40 GHz SCHWARZBECK BBHA 9170	2018/07	2021/07
11.	EMI Test Receiver R&S ESR7	2018/10	2020/10
12.	EMI Test Receiver R&S ESR7	2018/10	2020/10
13.	Spectrum analyser Rohde & Schwarz FSV40	2018/02	2020/02
14.	Spectrum analyser Rohde & Schwarz FSV40	2017/07	2019/07
15.	RF pre-amplifier 30MHz-6 GHz Bonn Elektronik BLNA 0360-01N	2018/07	2019/07
16.	RF pre-amplifier 10MHz-6 GHz Bonn Elektronik BLNA 0160-01N	2017/09	2019/03
17.	RF pre-amplifier 1-18 GHz Bonn Elektronik BLMA 0118-1M	2018/03	2019/03
18.	RF pre-amplifier 1-18 GHz Bonn Elektronik BLMA 0118-3A	2018/03	2019/03
19.	RF pre-amplifier 18-40 GHz Bonn Elektronik BLMA 1840-1M	2018/03	2019/03
20.	RF pre-amplifier 18-40 GHz NARDA JS44-18004000-33-8P	2018/02	2019/02
21.	RF High Pass Filter 3-18 GHz WAINWRIGHT INSTRUMENTS WHK 3.0/18G-10SS	2017/04	2019/04
22.	RF High Pass Filter 3-18 GHz TEMSTRON ST-3GA2833-HS	2018/09	2019/09
23.	RF Low Pass Filter DC-1GHz WAINWRIGHT INSTRUMENTS WLK1000-6SS	2018/06	2020/06
24.	RF High Pass Filter 18-26.5 GHz MicroWave Circuits H18G26G1	2017/04	2019/04
25.	AC Power Supply Elgar CS-AC35(351SL)	2016/05	2019/05
26.	AC Power Supply California Instruments 5001iM-400	2018/11	2020/11

Testing verdicts

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

Summary

FCC PART 15 PARAGRAPH / RSS-247		
Requirement – Test case	Verdict	Remark
FCC 15.209 (a), FCC 15.247 Subclause (d), FCC 15.407 (b) / RSS-Gen 8.9, RSS-247 5.5, RSS-247 6.2.1.2, 6.2.2.2, 6.2.3.2 & 6.2.4.2 Emission limitations radiated (Transmitter)	P	
<u>Supplementary information and remarks:</u> (1) There are two manufacturers of the WiFi/Bluetooth radio modules, manufacturer 1 and manufacturer 2. (2) The WiFi/Bluetooth radio modules have the same mechanical outline (i.e. the same packaging dimension and pin layout), use the same antenna matching circuit, have an identical antenna structure and are built to conform to the same specification and to operate within the same tolerances. (3) Preliminary testing was performed on the two manufacturers' samples with different radio modules to determine the worst case. (4) The Equipment Under Test supports Simultaneous-Dual-Band (SDB) and Simultaneous-In-Band (CoTx) transmission.		

Appendix A: Test results.

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FCC 15.209 (a), FCC 15.247 Subclause (d), FCC 15.407 (b) / RSS-Gen 8.9, RSS-247 5.5, RSS-247 6.2.1.2, 6.2.2.2,
6.2.3.2 & 6.2.4.2 Emission limitations radiated (Transmitter)18

TEST CONDITIONS

Power supply (V):

Vnominal = 120 Vac

Type of power supply = AC voltage supply from the mains.

Type of antenna = Internal antenna.

Declared antenna gain:

Bluetooth EDR & Low Energy:

G = 6.56 dBi.

2.4GHz WLAN:

Declared Gain for antenna (maximum) at each port/core:

G_{CORE0} = 5.90 dBi

G_{CORE1} = 5.33 dBi

G_{CORE2} = 3.38 dBi

5GHz WLAN:

Declared Gain for antenna (maximum) at each port/core:

Frequency Band (MHz)	G _{CORE0}	G _{CORE1}	G _{CORE2}
5150-5250	3.08	3.19	4.15
5250-5350	3.48	2.55	3.91
5470-5725	3.17	1.88	4.56
5725-5850	2.68	0.42	4.42

Radios and channels tested:

	Bluetooth Low Energy Digital Transmission System (DTS)	
Data Rate:	1 Mbps	
Channel Spacing:	2 MHz	
Frequency Range:	2402 MHz to 2480 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	37	2402
	39	2480

	Bluetooth EDR (FHSS)	
Mode:	Basic Rate (GFSK - DH5)	
Channel Spacing:	1 MHz	
Frequency Range:	24102 MHz to 2480 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	0	2402
	78	2480

	WLAN (IEEE 802.11 n) / Digital Transmission System (DTS)	
Modes:	802.11n HT20: MCS0 (SISO or MIMO CDD)	
Channel Spacing:	20 MHz	
Frequency Range:	2412 MHz to 2472 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	1	2412
	13	2472

	WLAN (IEEE 802.11 n) / U-NII	
Mode:	802.11n HT20: MCS0 (SISO or MIMO CDD)	
Frequency Range:	5150 MHz to 5250 MHz	
Channel Spacing:	20 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Lowest: 36	5180
Frequency Range:	5250 MHz to 5350 MHz	
Channel Spacing:	20 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Lowest: 64	5320
Frequency Range:	5470 MHz to 5725 MHz	
Channel Spacing:	20 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Lowest: 100	5500
	Highest: 140	5700
Frequency Range:	5725 MHz to 5850 MHz	
Channel Spacing:	20 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Lowest: 149	5745
	Highest: 165	5825

The test set-up was made in accordance to the general provisions of FCC DTS Measurement 558074 D01 DTS Meas Guidance v05 dated 24/08/2018 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.

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

Transmission modes selected with each radio:

* Bluetooth Basic Rate: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in Basic Rate mode because its power is higher than EDR mode.

* Bluetooth LE: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in LE1M mode because its power is higher than LE2M mode.

* 2.4 GHz WLAN: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in 802.11n / HT20 / MCS0 / MIMO (CDD) or 802.11n / HT20 / MCS0 / SISO or 802.11b / 1 Mbps / SISO mode configuration as these modes were found to transmit higher EIRP than all the other 2.4 GHz WLAN modes.

* 5 GHz WLAN: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in 802.11n / HT20 / MCS0 / MIMO (CDD) or 802.11n / HT20 / MCS0 / SISO mode configuration as these modes were found to transmit higher EIRP than all the other 5 GHz WLAN modes.

Simultaneous transmission modes selected:

* 2.4GHz WLAN and 5 GHz WLAN co-location, with the EUT configured to simultaneously transmit two signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD) and 5GHz WLAN (WIFI aux mode) in 802.11n / HT20 / MCS0 / SISO.

* 2.4 GHz WLAN and Bluetooth Basic Rate co-location, with the EUT configured to simultaneously transmit two signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD) and the Bluetooth Basic Rate with DH5.

* 2.4 GHz WLAN and Bluetooth Low Energy co-location, with the EUT configured to simultaneously transmit two signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD) and the Bluetooth Low Energy transmitting in LE1M.

* 2.4 GHz WLAN, 5 GHz WLAN and Bluetooth Basic Rate co-location, with the EUT configured to simultaneously transmit three signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD), 5GHz WLAN (WIFI aux mode) in 802.11n / HT20 / MCS0 / SISO and the Bluetooth Basic Rate with DH5.

* 2.4 GHz WLAN, 5 GHz WLAN and Bluetooth Low Energy co-location, with the EUT configured to simultaneously transmit three signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD), 5GHz WLAN (WIFI aux mode) in 802.11n / HT20 / MCS0 / SISO and the Bluetooth Low Energy transmitting in LE1M.

* 5GHz WLAN and 2.4 GHz WLAN co-location, with the EUT configured to simultaneously transmit two signals at maximum output power, 5GHz WLAN (WIFI main mode) in 802.11n / HT20 / MSC0 / MIMO (CDD) and 2.4GHz WLAN (WIFI aux mode) in 802.11n / HT20 / MSC0 / SISO.

* 5 GHz WLAN and Bluetooth Basic Rate co-location, with the EUT configured to simultaneously transmit two signals at maximum output power, 5GHz WLAN (WIFI main mode) in 802.11n / HT20 / MSC0 / MIMO (CDD) and the Bluetooth Basic Rate with DH5.

* 5 GHz WLAN, 2.4 GHz WLAN and Bluetooth Basic Rate co-location, with the EUT configured to simultaneously transmit three signals at maximum output power, 5GHz WLAN (WIFI main mode) in 802.11n / HT20 / MSC0 / MIMO (CDD), 2.4GHz WLAN (WIFI aux mode) in 802.11n / HT20 / MSC0 / SISO and the Bluetooth Basic Rate with DH5.

* 5 GHz WLAN, 2.4 GHz WLAN and Bluetooth Low Energy co-location, with the EUT configured to simultaneously transmit three signals at maximum output power, 5GHz WLAN (WIFI main mode) in 802.11n / HT20 / MSC0 / MIMO (CDD), 2.4GHz WLAN (WIFI aux mode) in 802.11n / HT20 / MSC0 / SISO and the Bluetooth Low Energy transmitting in LE1M.

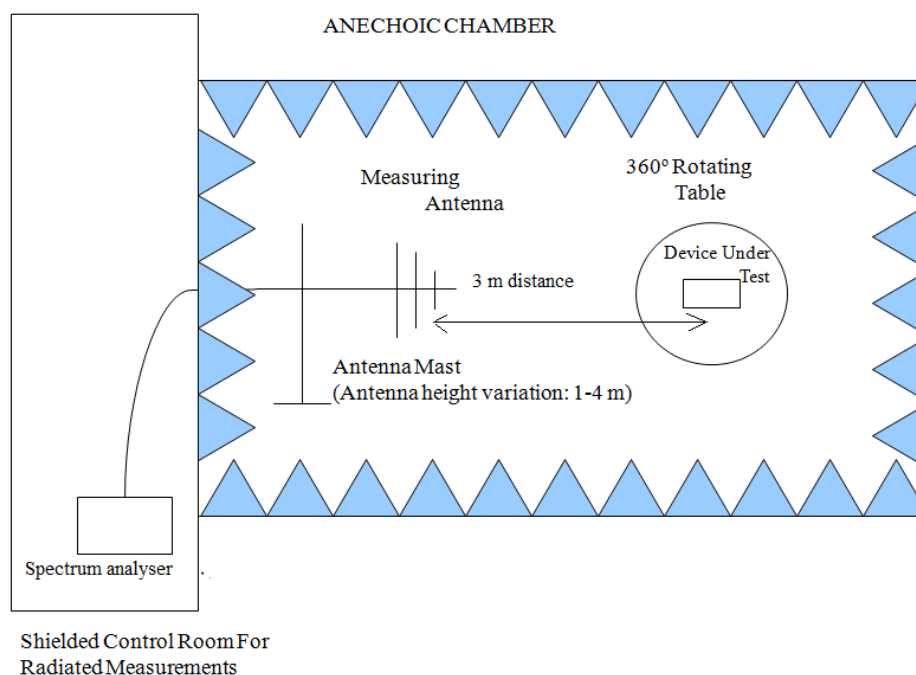
RADIATED MEASUREMENTS

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna is situated at a distance of 3 m. The EUT was placed at a height of 80 cm above the reference ground plane in the center of the chamber turntable to perform the measurements below 1GHz and The EUT was placed at a height of 1.5 meters above the test chamber floor in the center of the chamber turntable to perform the measurements above 1GHz. It was also rotated 360° and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

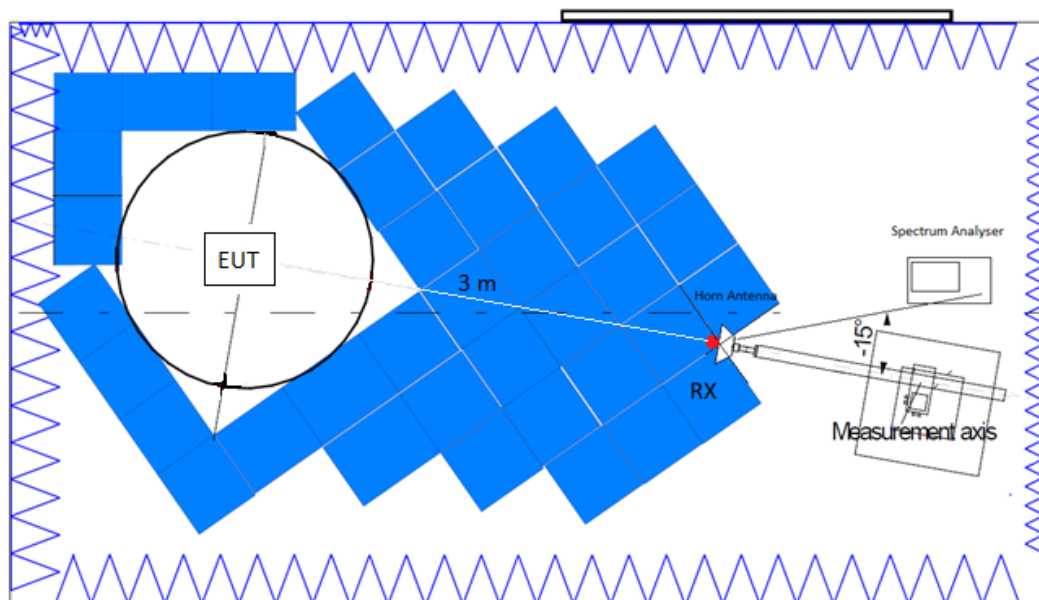
Measurements were made in both horizontal and vertical planes of polarization.

The final measured value, for the given emission, in the tables below incorporates the calibrated antenna factor, preamplifier gain (if used) and cable losses.

Radiated measurements setup $f < 1$ GHz



Radiated measurements setup $f > 1$ GHz



FCC 15.209 (a), FCC 15.247 Subclause (d), FCC 15.407 (b) / RSS-Gen 8.9, RSS-247 5.5, RSS-247 6.2.1.2, 6.2.2.2, 6.2.3.2 & 6.2.4.2 Emission limitations radiated (Transmitter)

SPECIFICATION

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §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
960 - 25000	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 360° 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:

2.4GHz WLAN and 5 GHz WLAN co-location, with the EUT configured to simultaneously transmit two signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD) and 5GHz WLAN (WIFI aux mode) in 802.11n / HT20 / MCS0 / SISO.

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and 802.11n HT20 – Core Aux (5180MHz).
- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz) and 802.11n HT20 – Core Aux (5320MHz)
- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and 802.11n HT20 – Core Aux (5500MHz)
- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and 802.11n HT20 – Core Aux (5825MHz)

Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and 802.11n HT20 – Core Aux (5180MHz)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

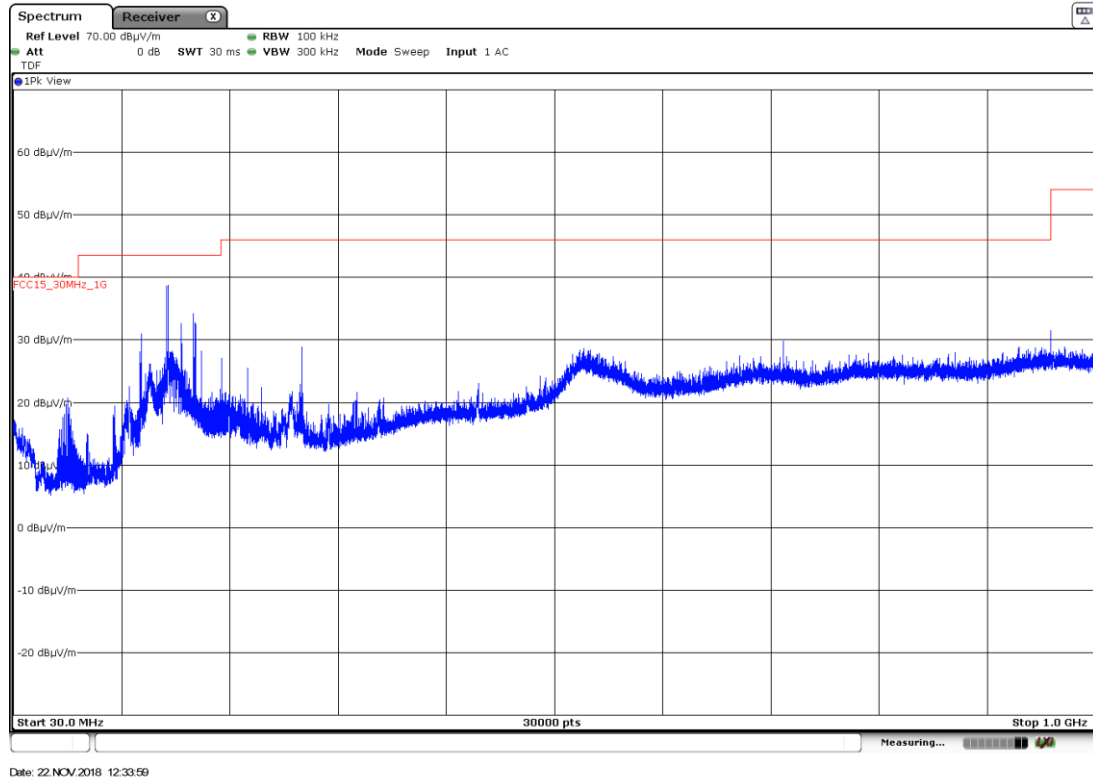
Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
78.840	Vertical	Quasi-Peak	28.1	40.0	11.9	± 3.88
144.832	Horizontal	Quasi-Peak	28.6	43.5	14.9	± 3.88
168.953	Horizontal	Quasi-Peak	36.0	43.5	7.5	± 3.88
180.431	Horizontal	Quasi-Peak	30.6	43.5	12.9	± 3.88
191.295	Horizontal	Quasi-Peak	31.4	43.5	12.1	± 3.88

Frequency range 1 GHz-40 GHz

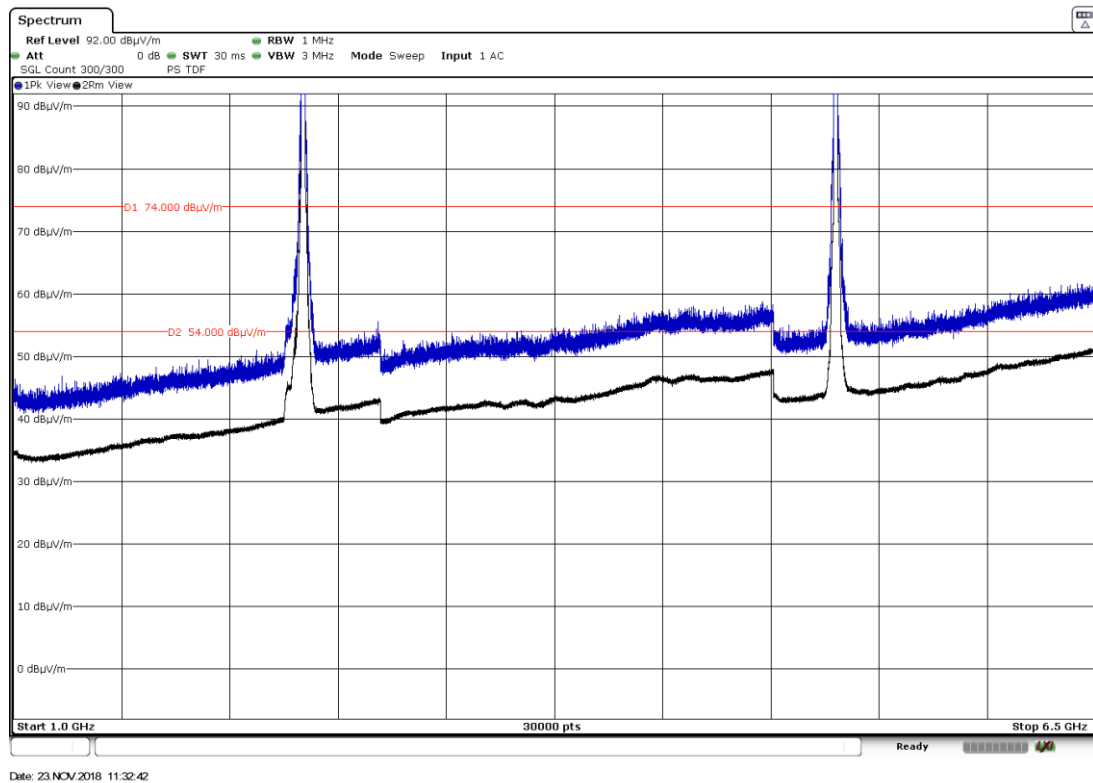
The emission at approximately 7415 MHz is the 3er harmonic of the 2.4GHz WLAN signal and was therefore not measured. No intermodulation products found.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

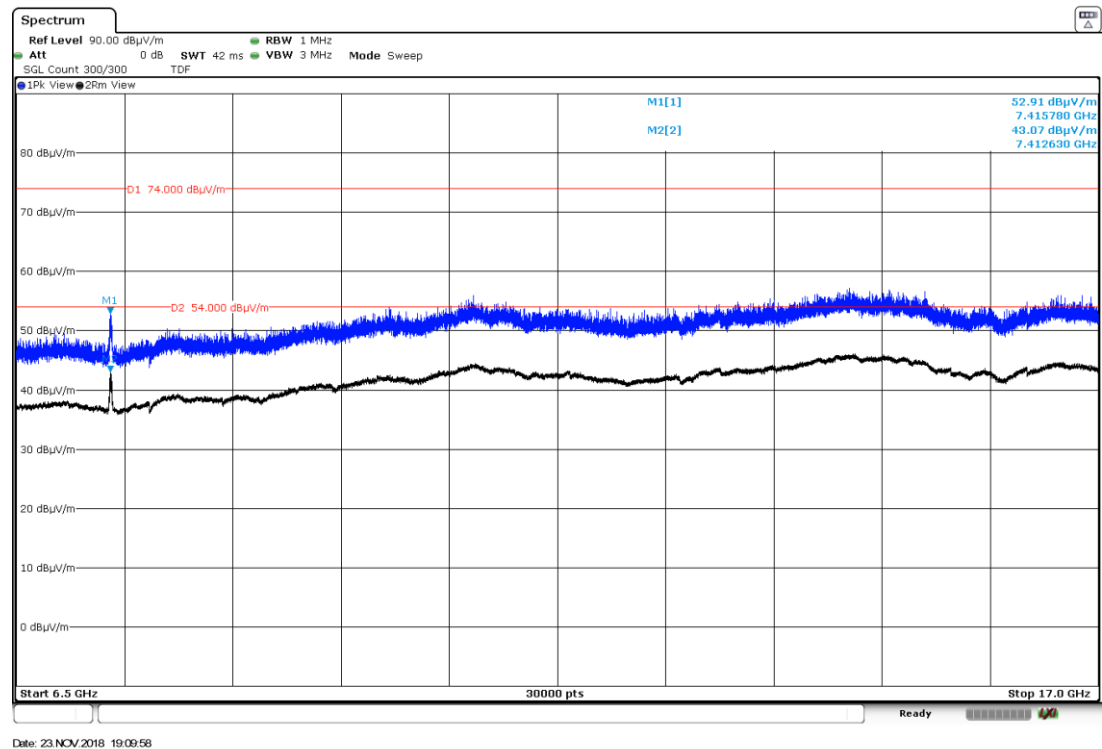


FREQUENCY RANGE 1 GHz to 6.5 GHz.

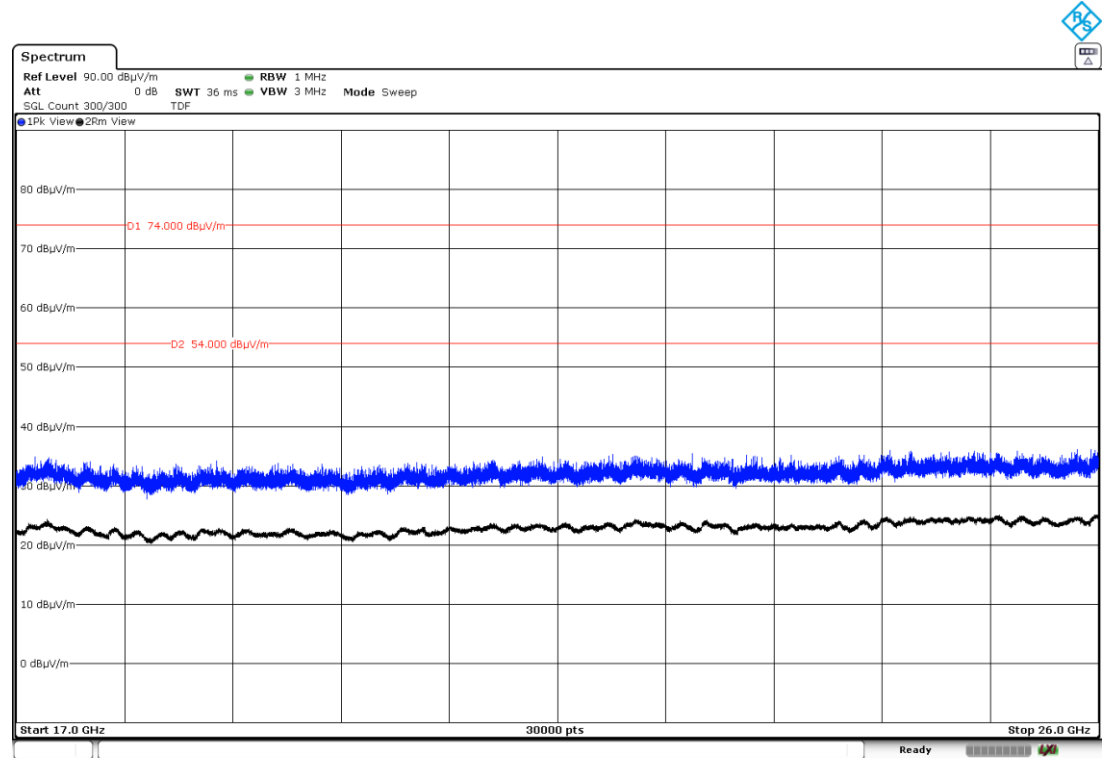


Note: The peaks shown in the plot above the limit are the carrier frequencies.

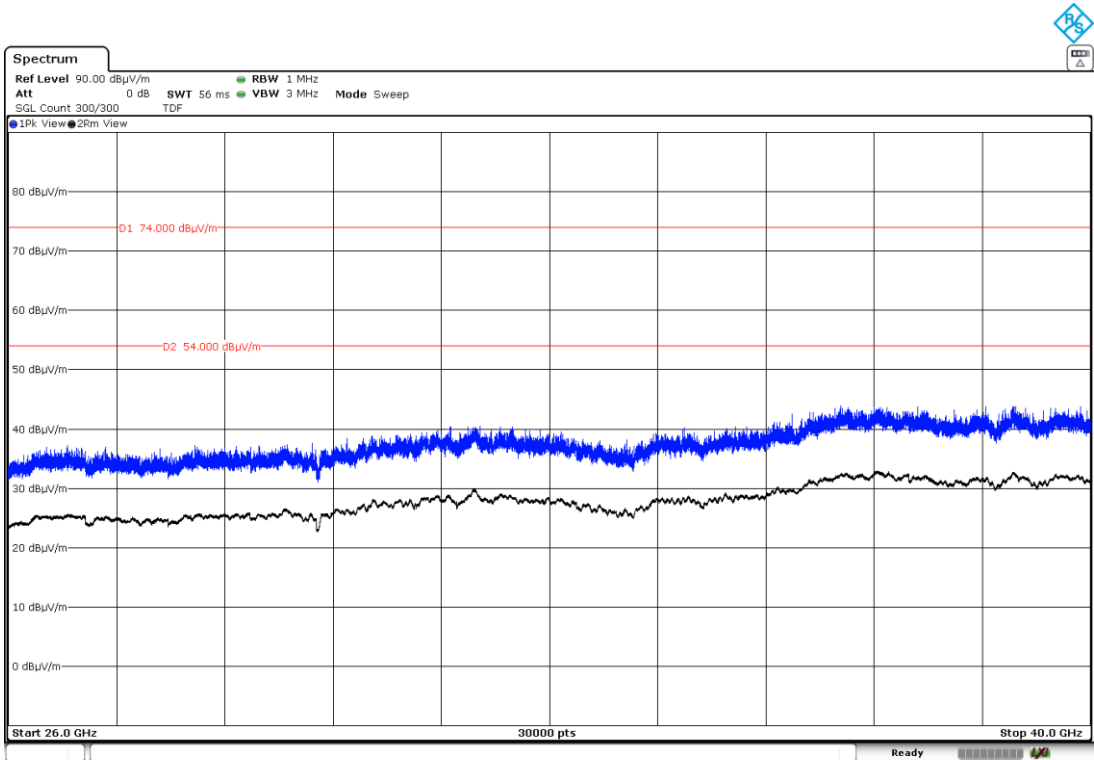
FREQUENCY RANGE 6.5 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



FREQUENCY RANGE 26 GHz to 40 GHz.



Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz) and 802.11n HT20 – Core Aux (5320MHz)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

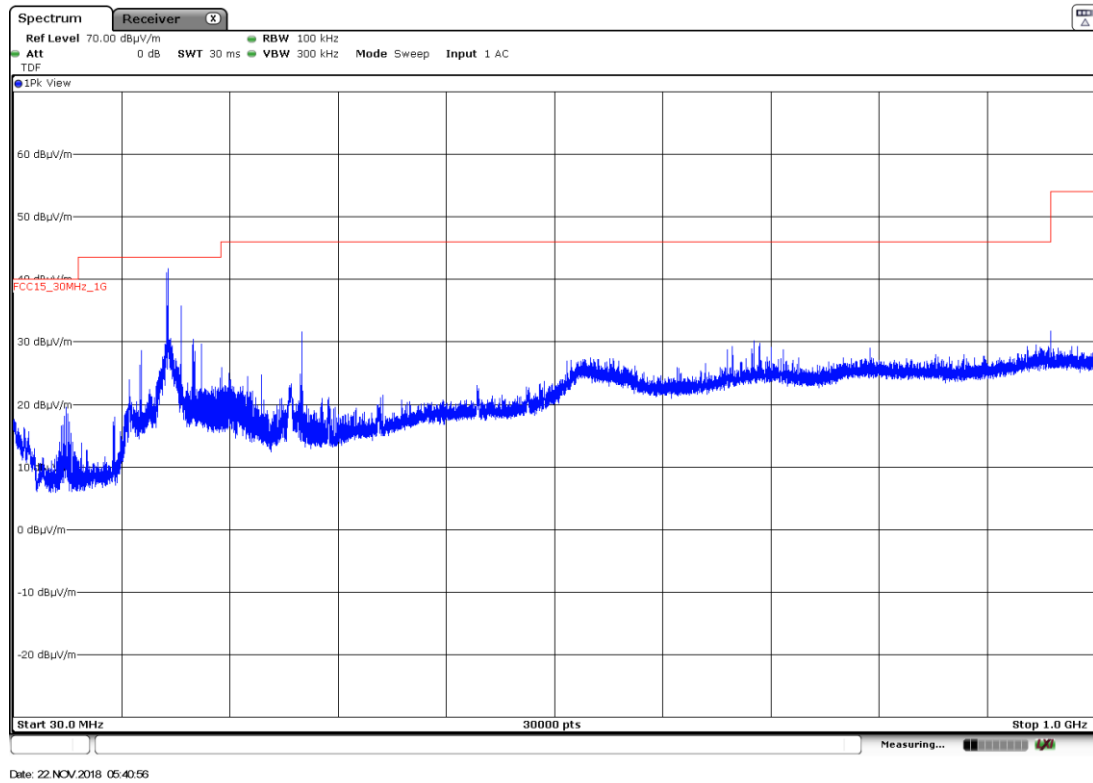
Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
39.783	Vertical	Quasi-Peak	27.7	40.0	12.3	± 3.88
77.311	Vertical	Quasi-Peak	26.4	40.0	13.6	± 3.88
168.726	Horizontal	Quasi-Peak	39.9	43.5	3.6	± 3.88
180.425	Horizontal	Quasi-Peak	32.4	43.5	11.1	± 3.88
288.671	Horizontal	Quasi-Peak	29.5	43.5	16.5	± 3.88

Frequency range 1 GHz-40 GHz

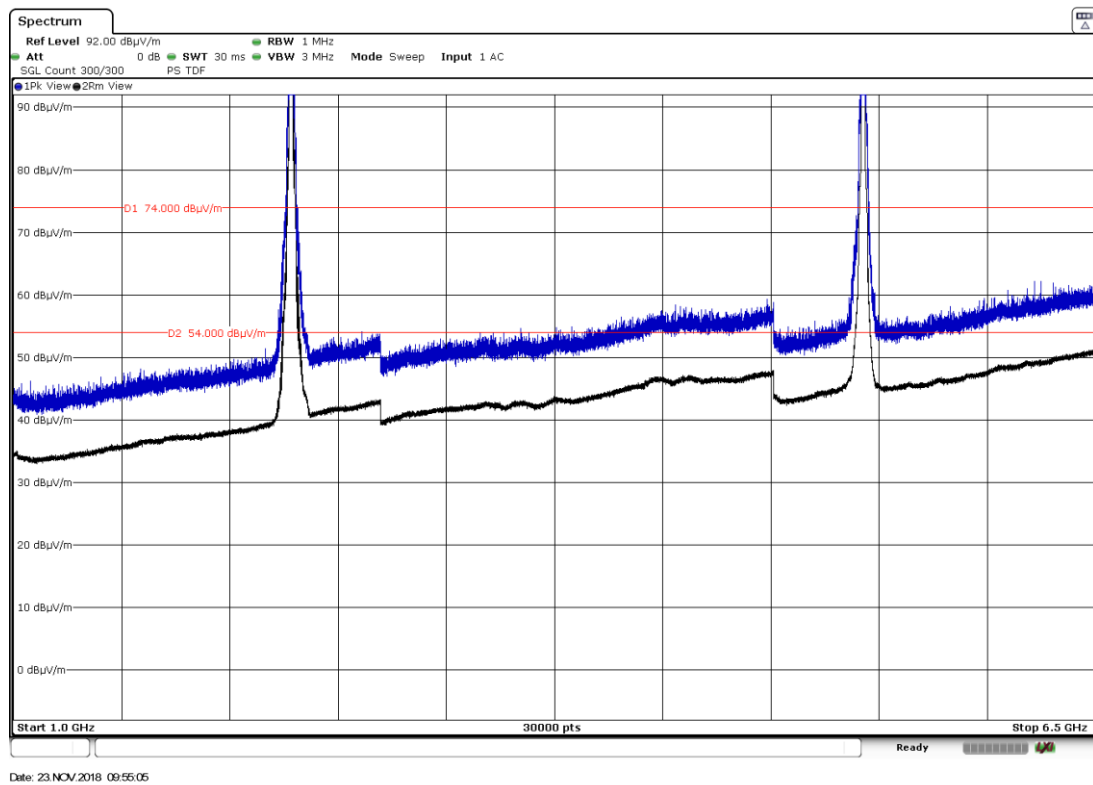
The emission at approximately 7436 MHz is the 3er harmonic of the 2.4GHz WLAN signal and was therefore not measured. No intermodulation products were found.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

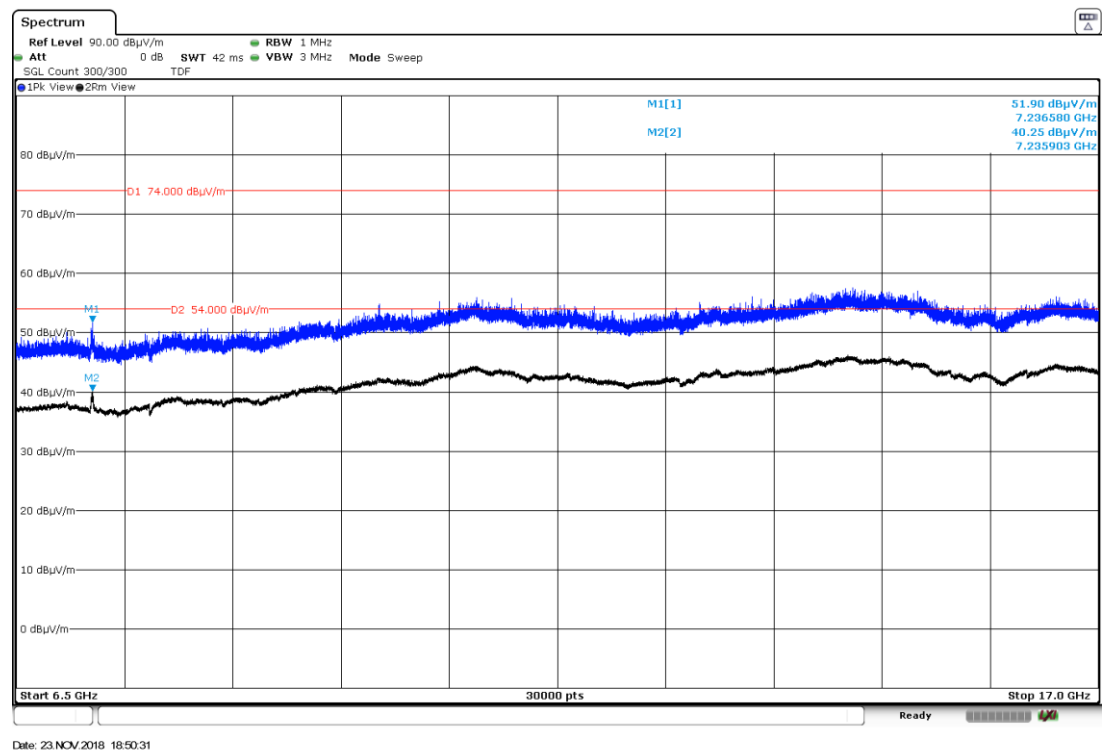


FREQUENCY RANGE 1 GHz to 6.5 GHz.

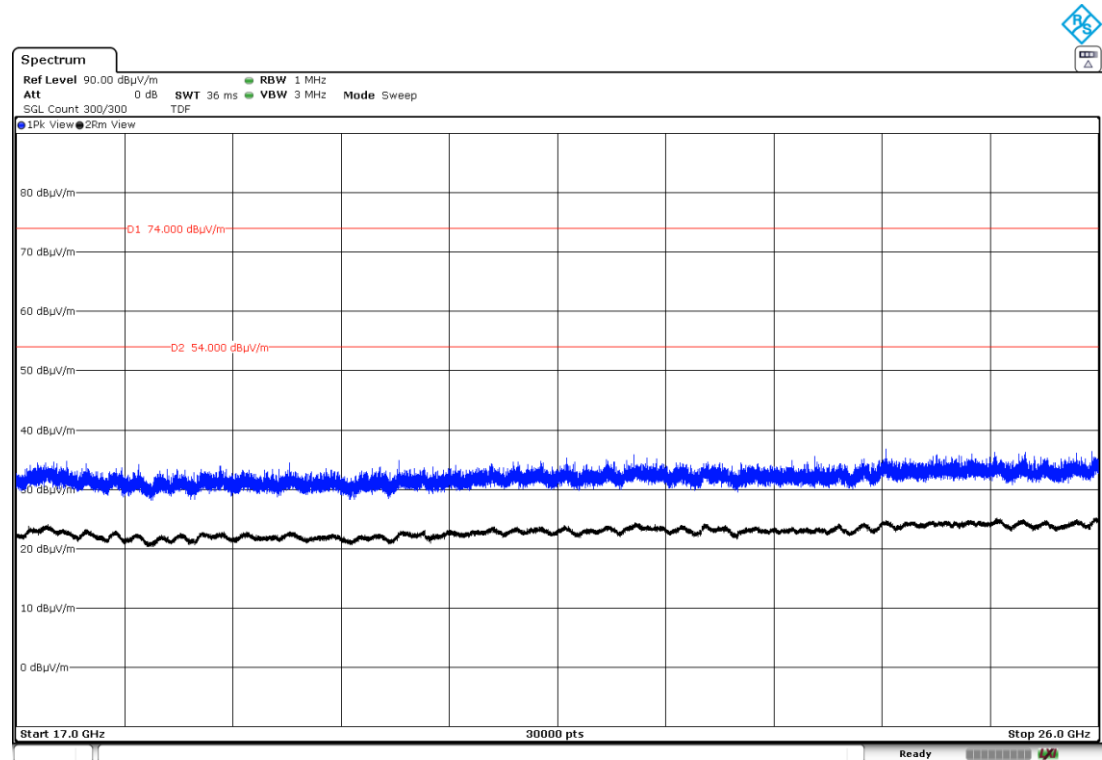


Note: The peaks shown in the plot above the limit are the carrier frequencies.

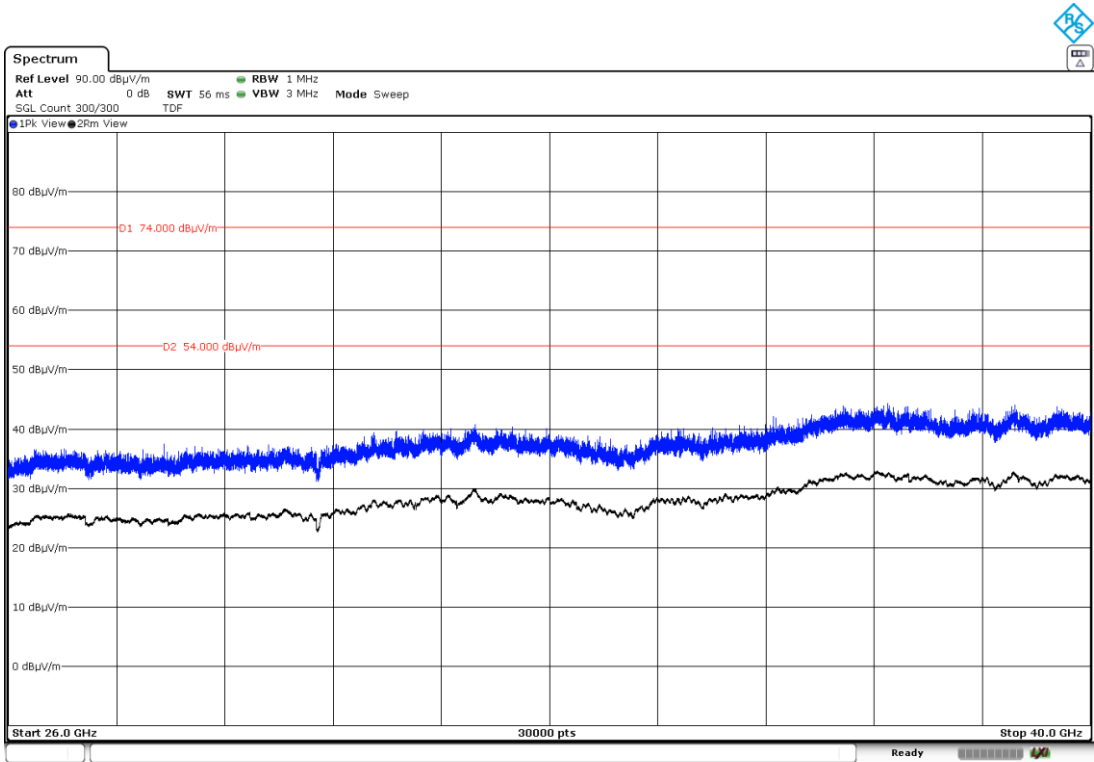
FREQUENCY RANGE 6.5 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



FREQUENCY RANGE 26 GHz to 40 GHz.



Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and 802.11n HT20 – Core Aux (5500MHz)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

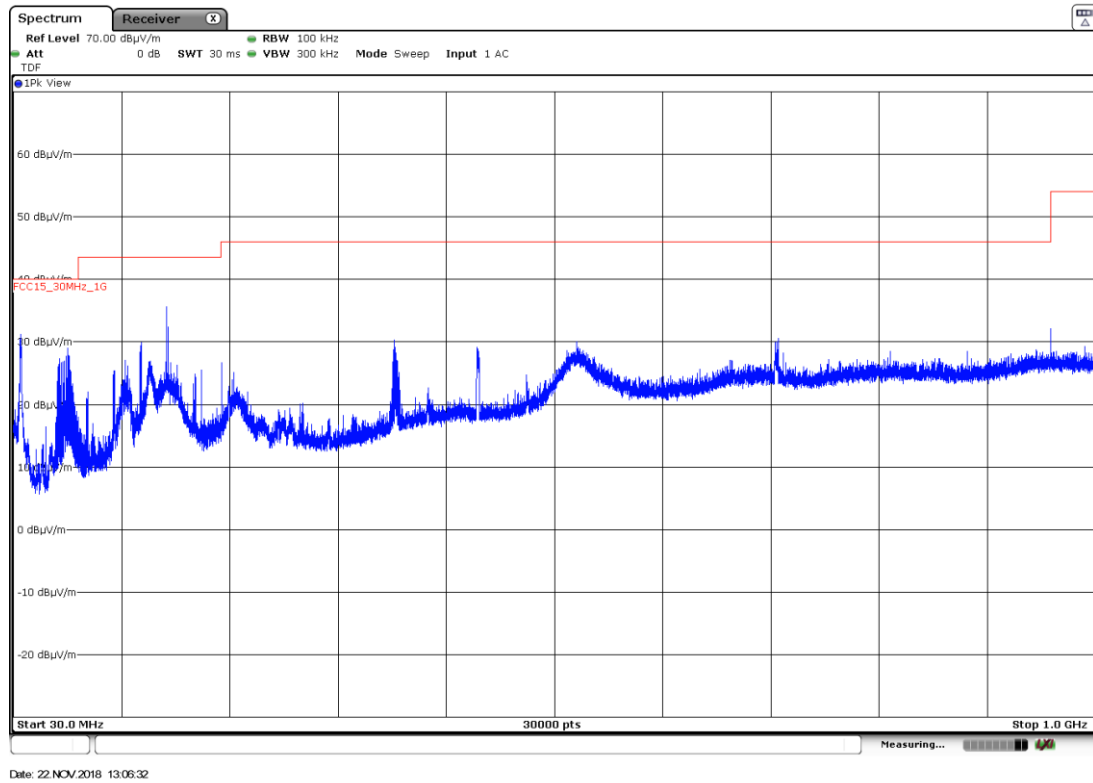
Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
36.192	Vertical	Quasi-Peak	22.7	40.0	17.3	± 3.88
144.864	Vertical	Quasi-Peak	28.5	43.5	15.0	± 3.88
167.433	Horizontal	Quasi-Peak	34.2	43.5	9.3	± 3.88
180.431	Horizontal	Quasi-Peak	30.2	43.5	13.3	± 3.88
191.295	Horizontal	Quasi-Peak	31.6	43.5	11.9	± 3.88

Frequency range 1 GHz-40 GHz

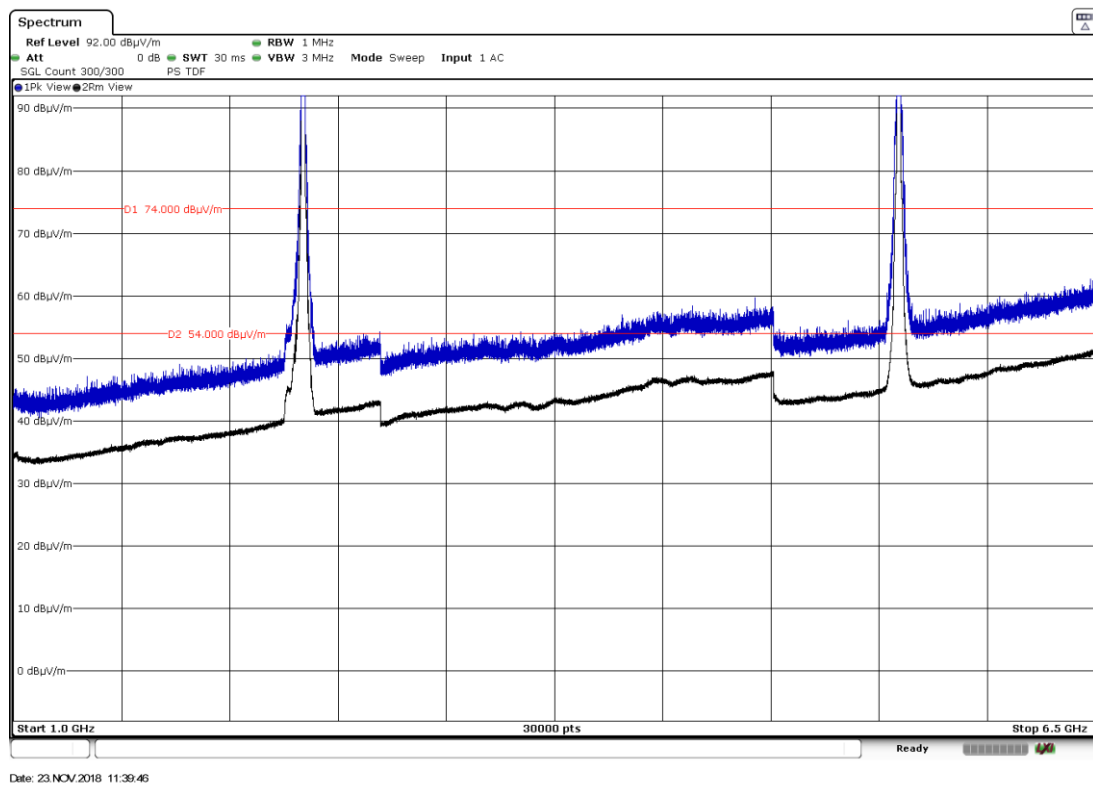
The emission at approximately 7415 MHz is the 3er harmonic of the 2.4GHz WLAN signal and was therefore not measured. No intermodulation products were found.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

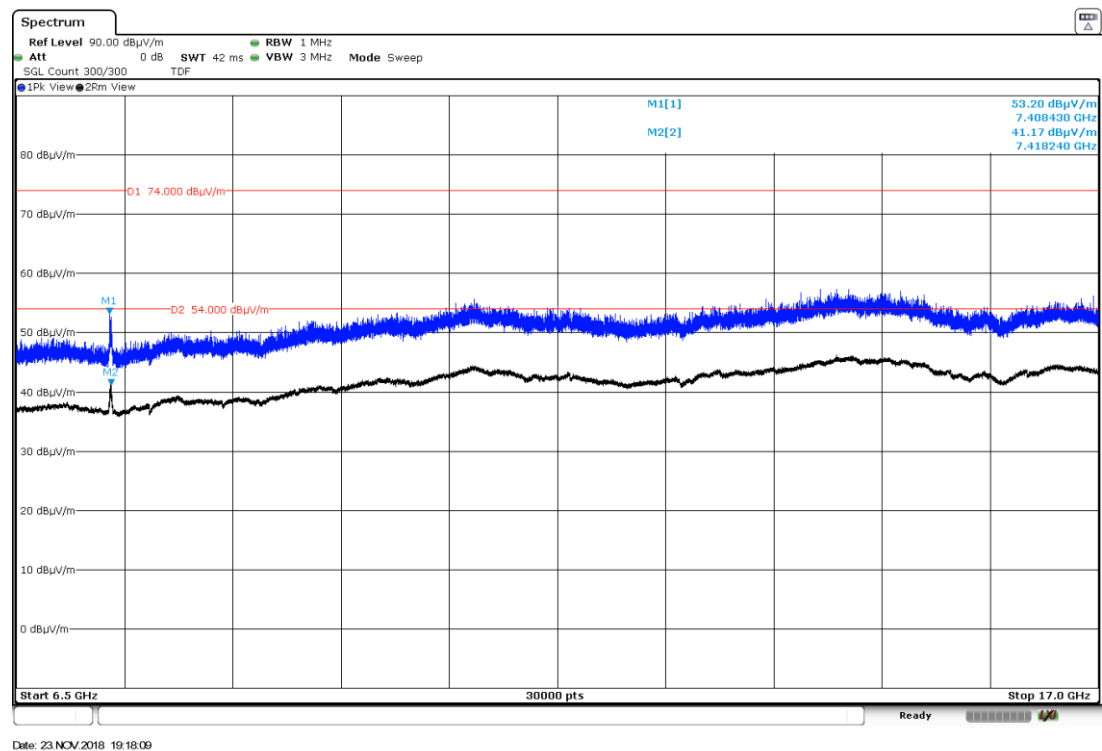


FREQUENCY RANGE 1 GHz to 6.5 GHz.

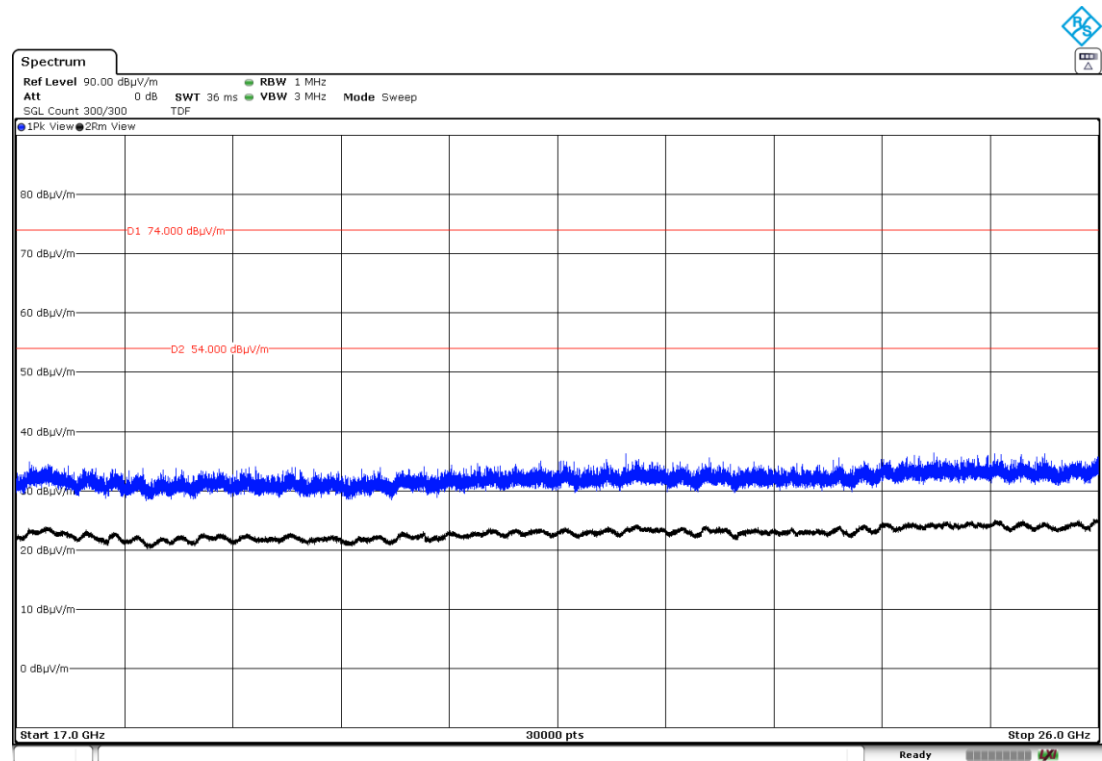


Note: The peaks shown in the plot above the limit are the carrier frequencies.

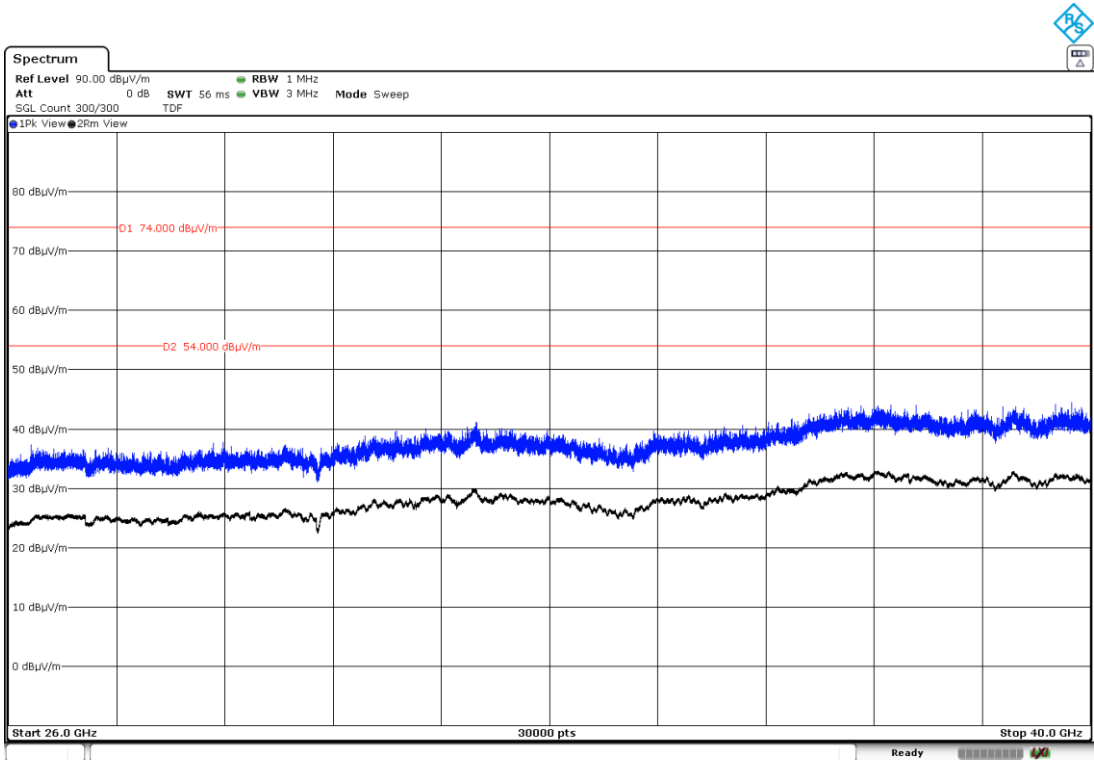
FREQUENCY RANGE 6.5 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



FREQUENCY RANGE 26 GHz to 40 GHz.



Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and 802.11n HT20 – Core Aux (5825MHz)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

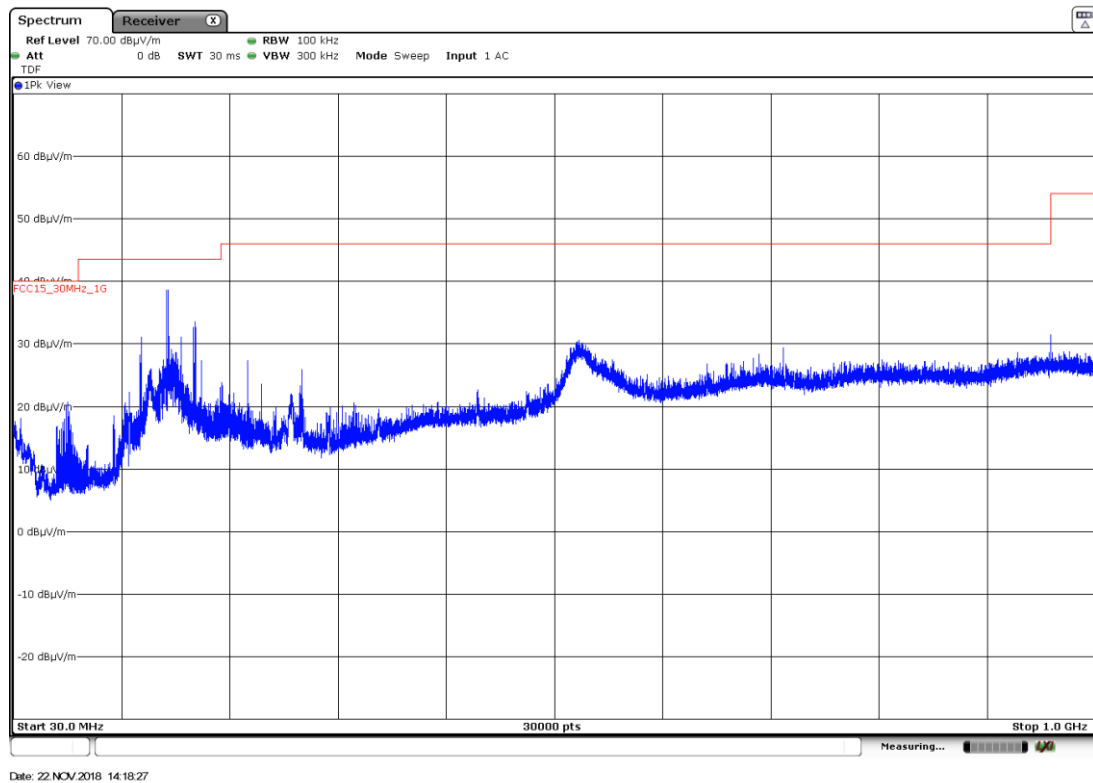
Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
36.321	Vertical	Quasi-Peak	23.8	40.0	16.2	± 3.88
144.832	Horizontal	Quasi-Peak	28.7	43.5	14.8	± 3.88
167.401	Horizontal	Quasi-Peak	37.0	43.5	6.5	± 3.88
180.431	Horizontal	Quasi-Peak	30.0	43.5	13.5	± 3.88
192.621	Horizontal	Quasi-Peak	28.9	43.5	14.6	± 3.88

Frequency range 1 GHz-40 GHz

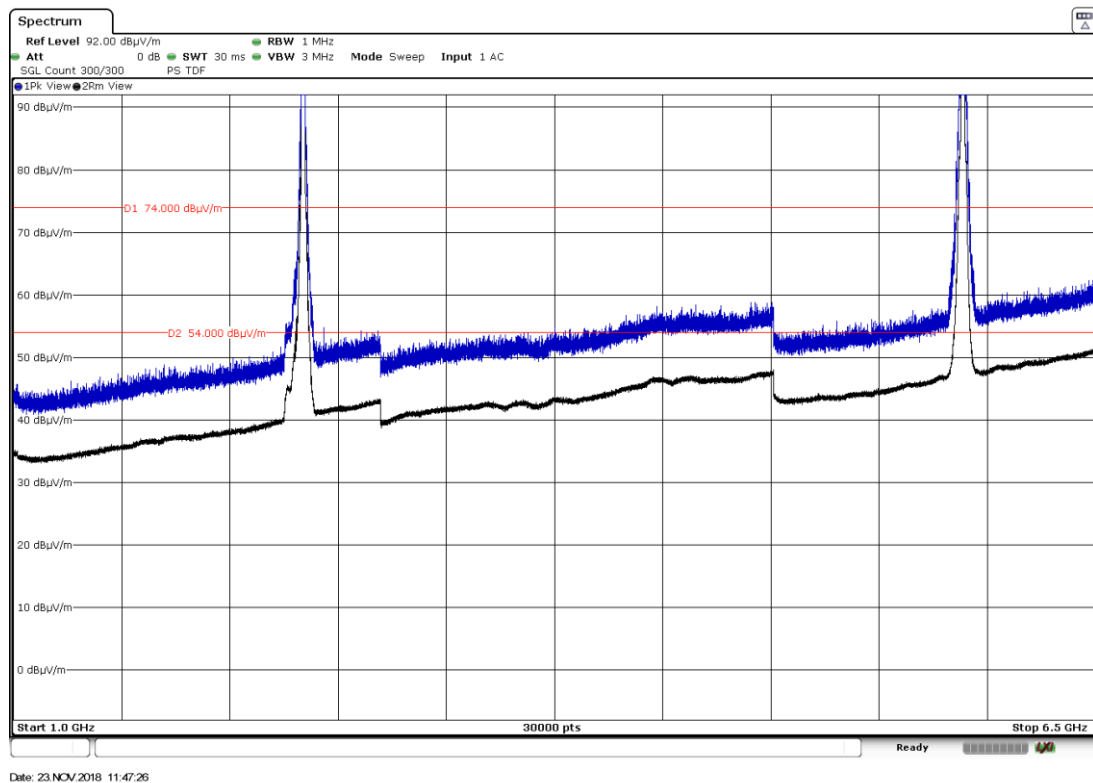
The emission at approximately 7415 MHz is the 3er harmonic of the 2.4GHz WLAN signal and was therefore not measured. No intermodulation products were found.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

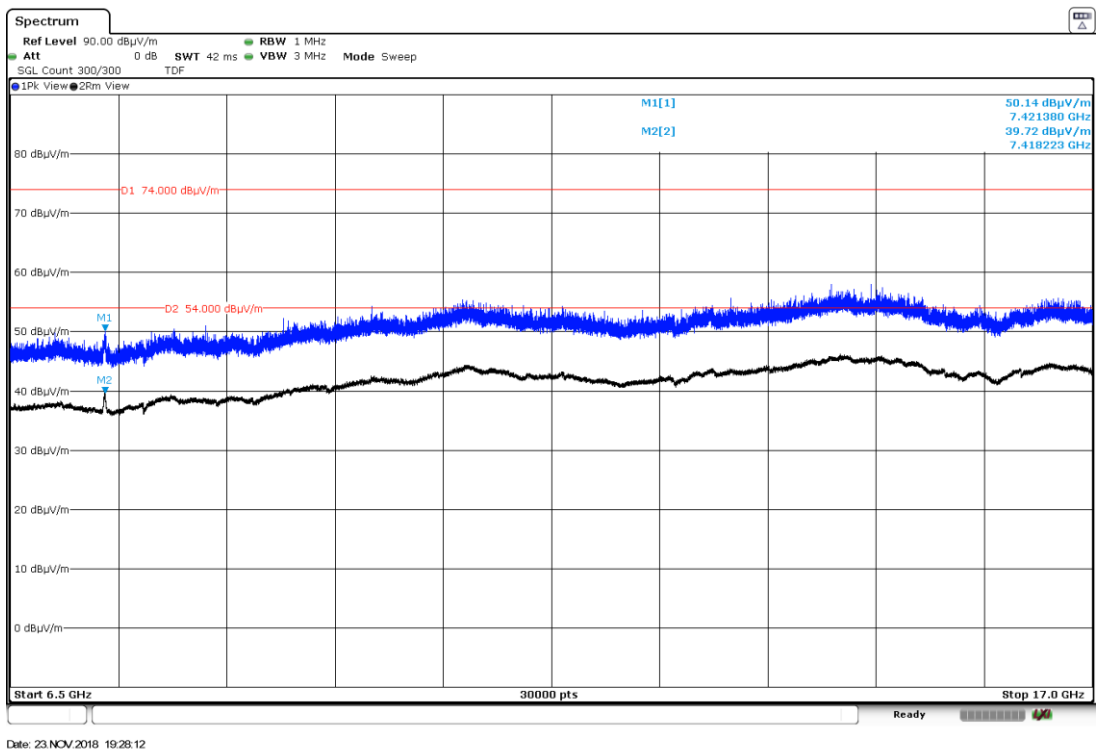


FREQUENCY RANGE 1 GHz to 6.5 GHz.

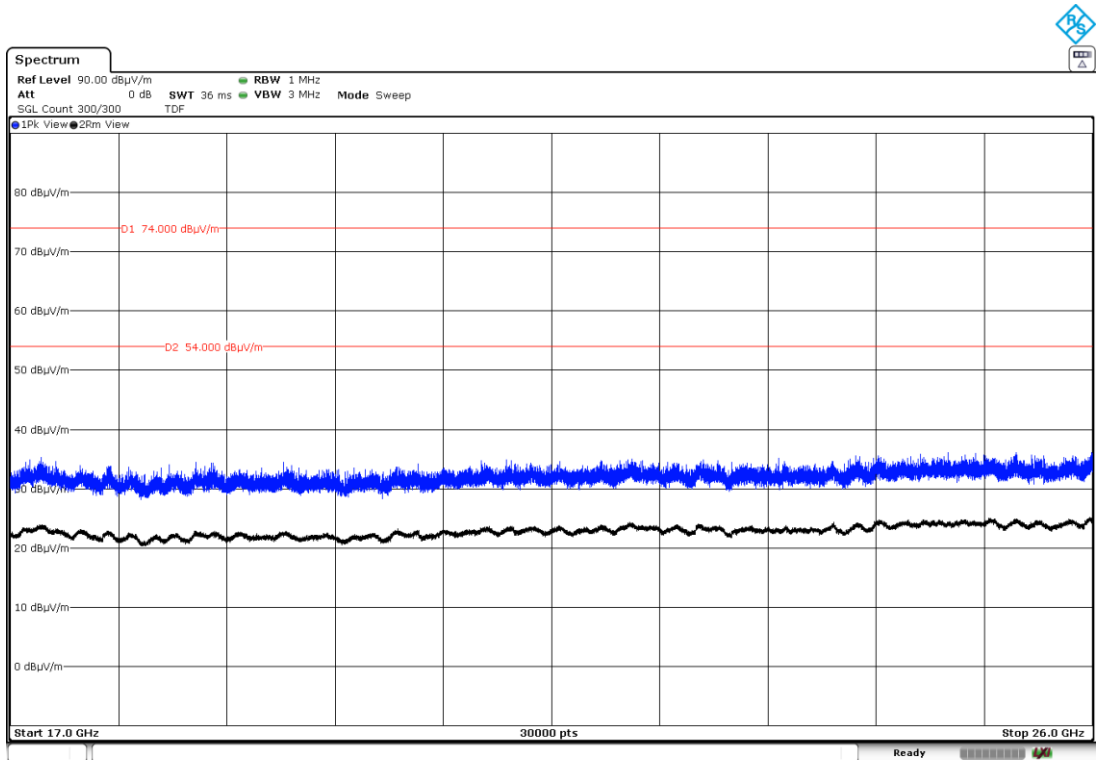


Note: The peaks shown in the plot above the limit are the carrier frequencies.

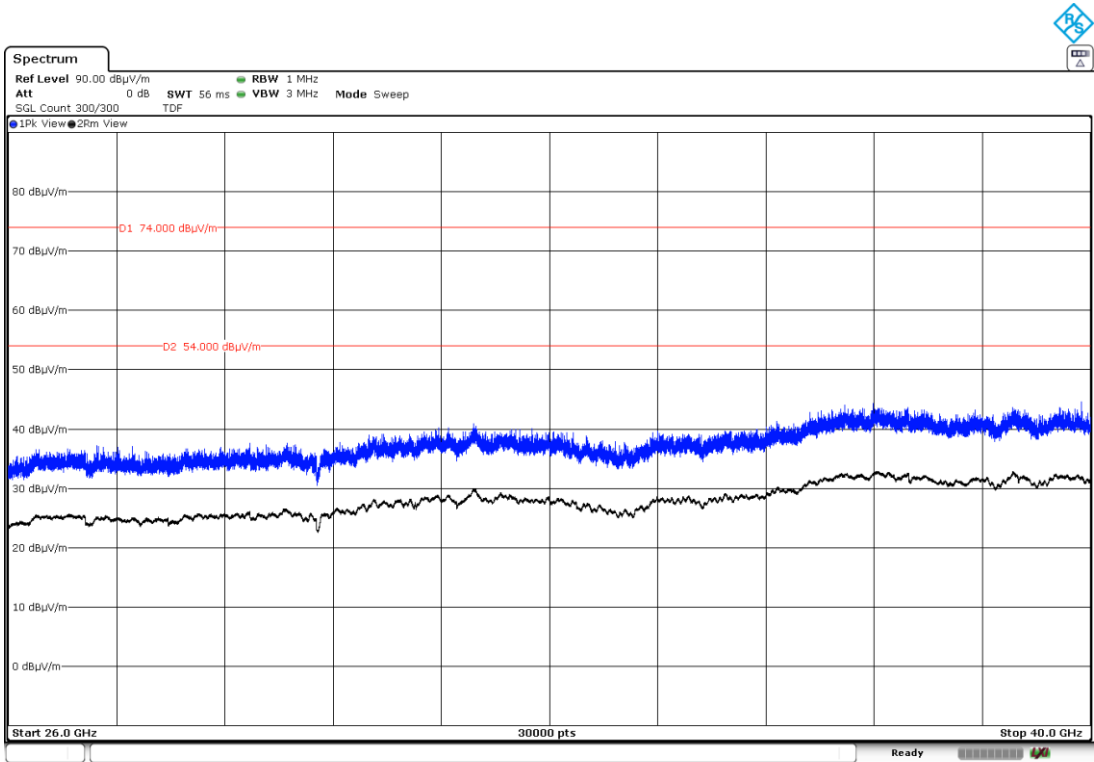
FREQUENCY RANGE 6.5 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



FREQUENCY RANGE 26 GHz to 40 GHz.



2.4 GHz WLAN and Bluetooth Basic Rate co-location, with the EUT configured to simultaneously transmit two signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD) or 2.4GHz WLAN (WIFI aux mode) in 802.11b / 1 Mbps / SISO or 2.4GHz WLAN (WIFI aux mode) in 802.11n / HT20 / SISO with the Bluetooth Basic Rate with DH5.

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz) and Bluetooth Basic Rate with DH5 (2480).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and Bluetooth Basic Rate with DH5 (2402).

Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz) and Bluetooth Basic Rate with DH5 (2480)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
120	Vertical	Quasi-Peak	33.7	43.5	9.8	± 3.88
143.991	Vertical	Quasi-Peak	33	43.5	10.5	± 3.88
240.021	Horizontal	Quasi-Peak	29.3	46	16.7	± 3.88
335.954	Horizontal	Quasi-Peak	30.8	46	16.4	± 3.88
383.905	Horizontal	Quasi-Peak	33.67	46	14.4	± 3.88

Frequency range 1 GHz-26 GHz

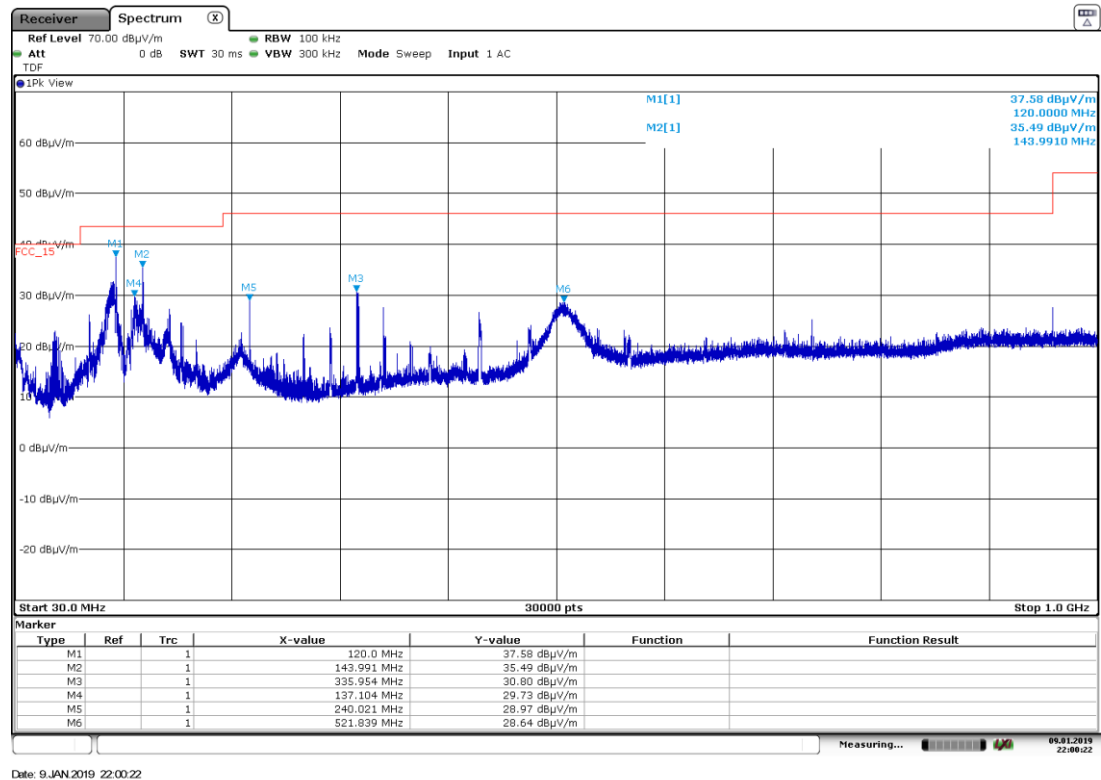
The results in the next table show the maximum measured levels in the 1-26 GHz frequency range.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
5383.42	Vertical	Peak	46.94	74	27.1	± 3.05
5384.20		Average	34.72	54	19.3	± 3.05

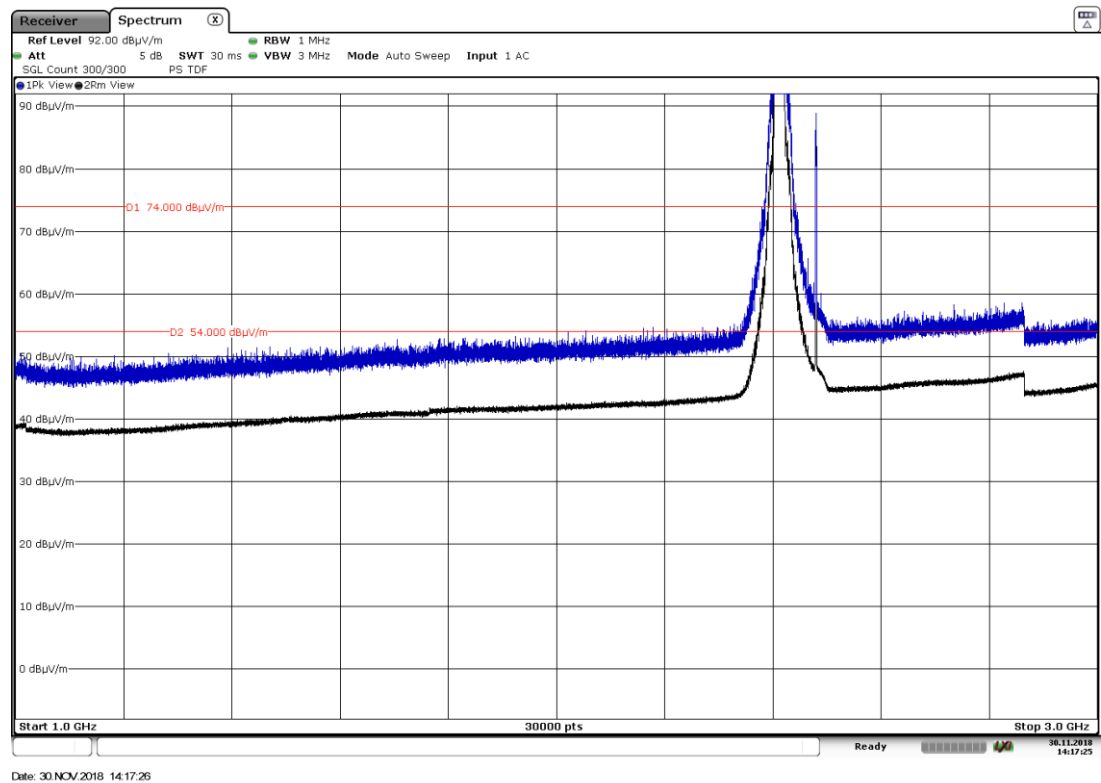
The emission at approximately 4822 MHz is the 2er harmonic of the 2.4GHz WLAN signal and was therefore not measured.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

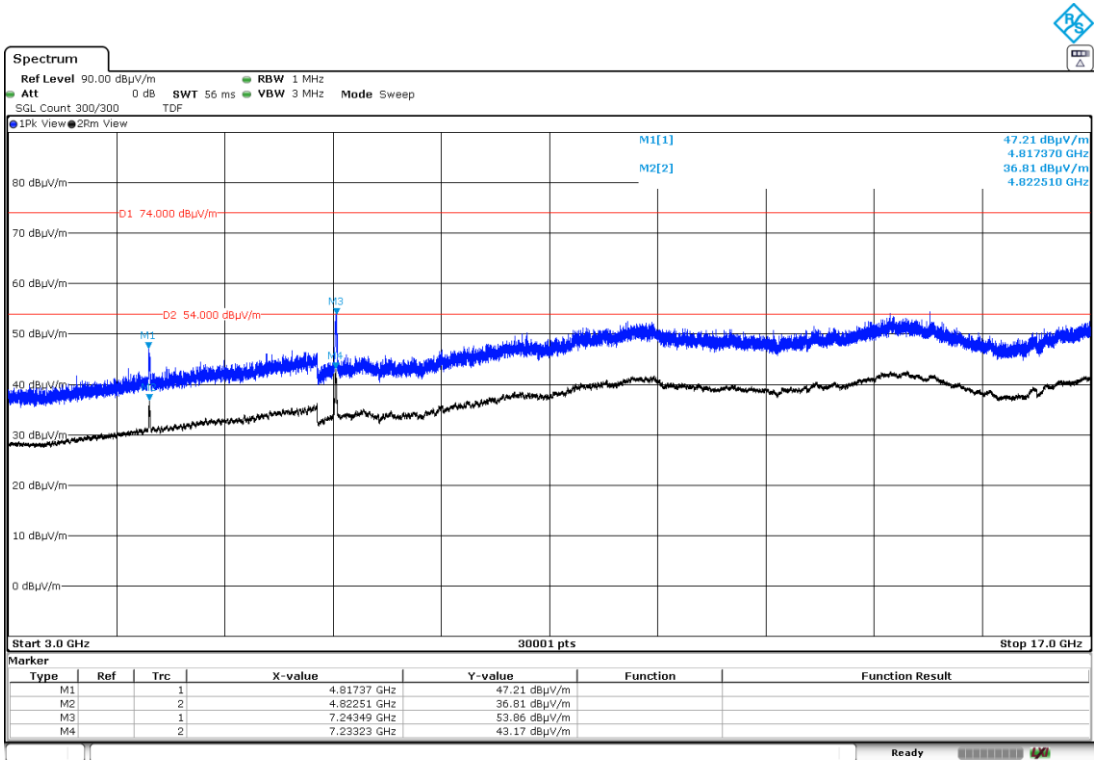


FREQUENCY RANGE 1 GHz to 3 GHz.

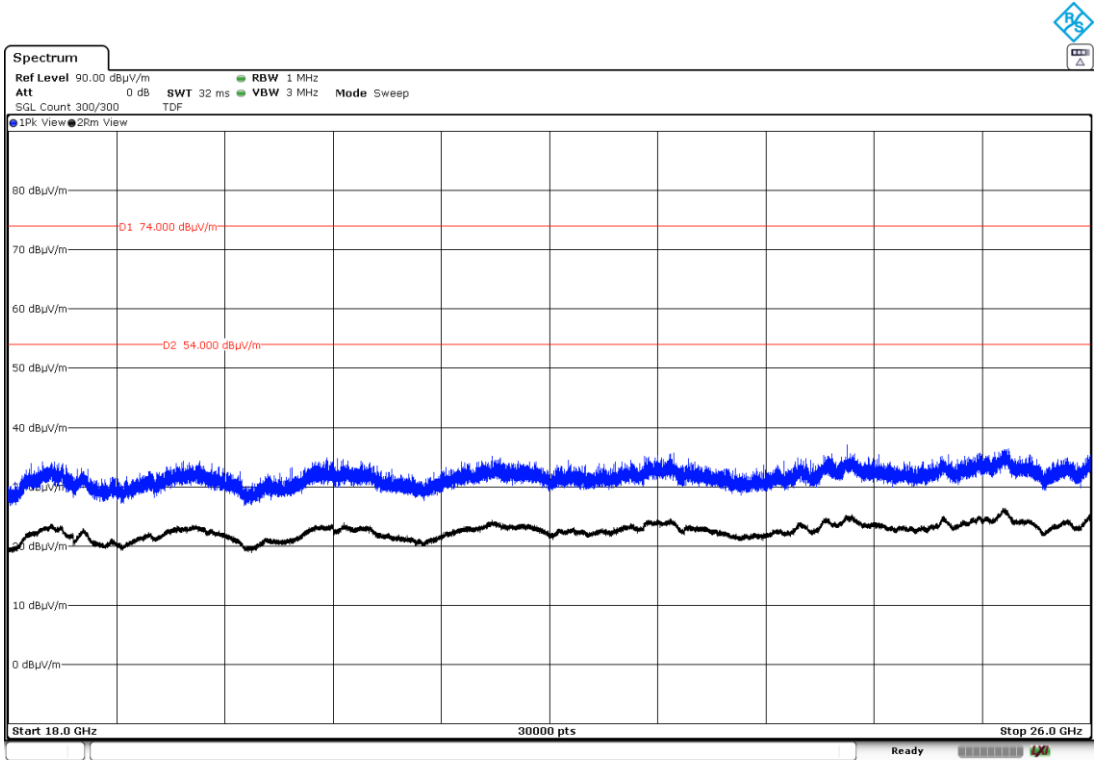


Note: The peaks shown in the plot above the limit are the carrier frequencies.

FREQUENCY RANGE 3 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and Bluetooth Basic Rate with DH5 (2402)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
167.045	Vertical	Quasi-Peak	29.4	43.5	14.1	± 3.88
198.441	Vertical	Quasi-Peak	25.1	43.5	18.4	± 3.88

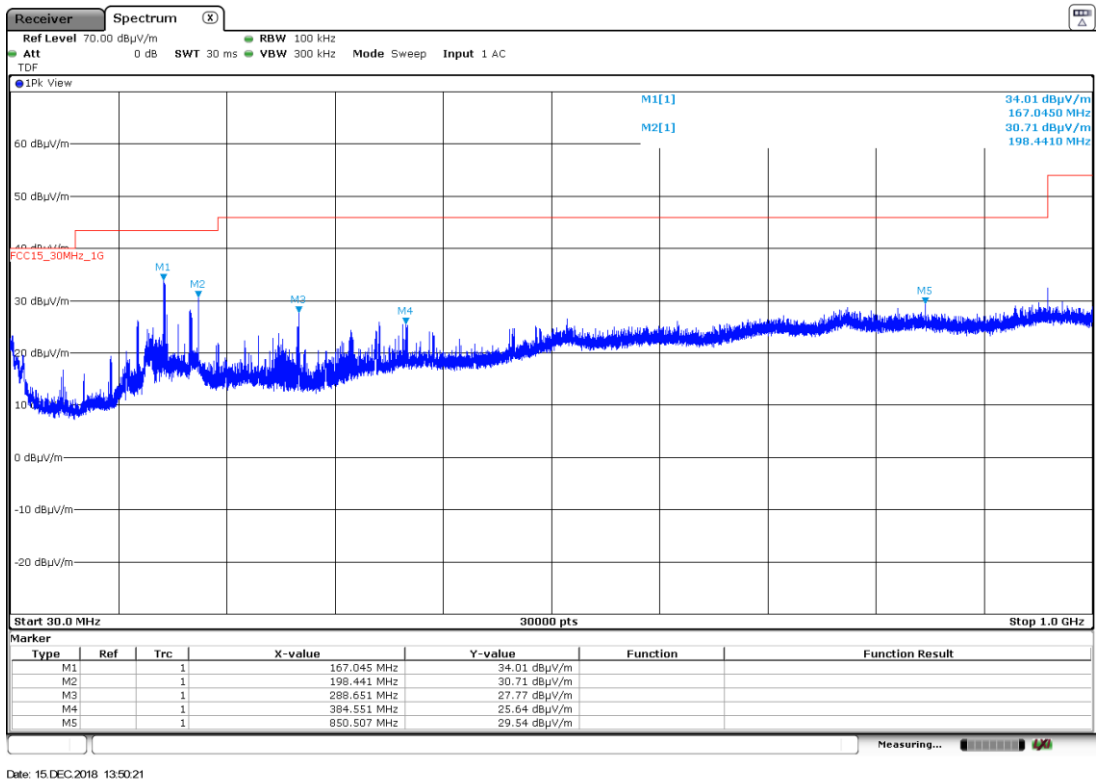
Frequency range 1 GHz-26 GHz

The results in the next table show the maximum measured levels in the 1-26 GHz frequency range.

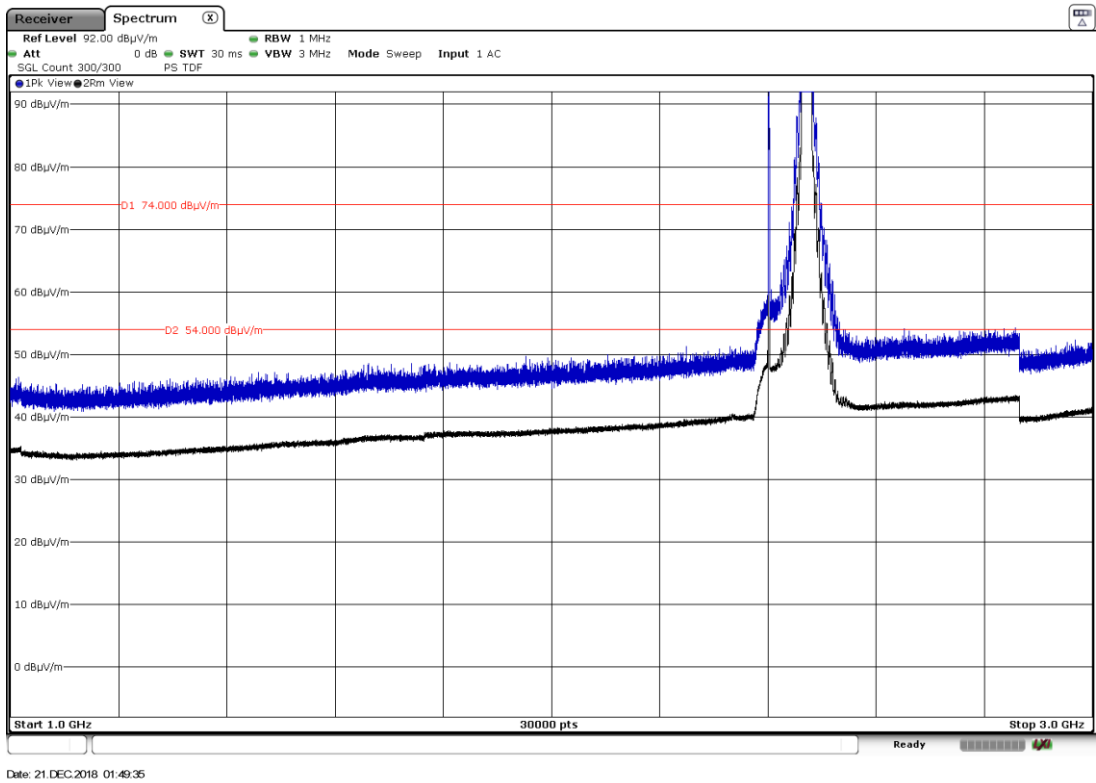
Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
5397.99	Horizontal	Peak	55.56	74	18.4	± 3.05
5392.83		Average	48.20	54	5.8	± 3.05

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

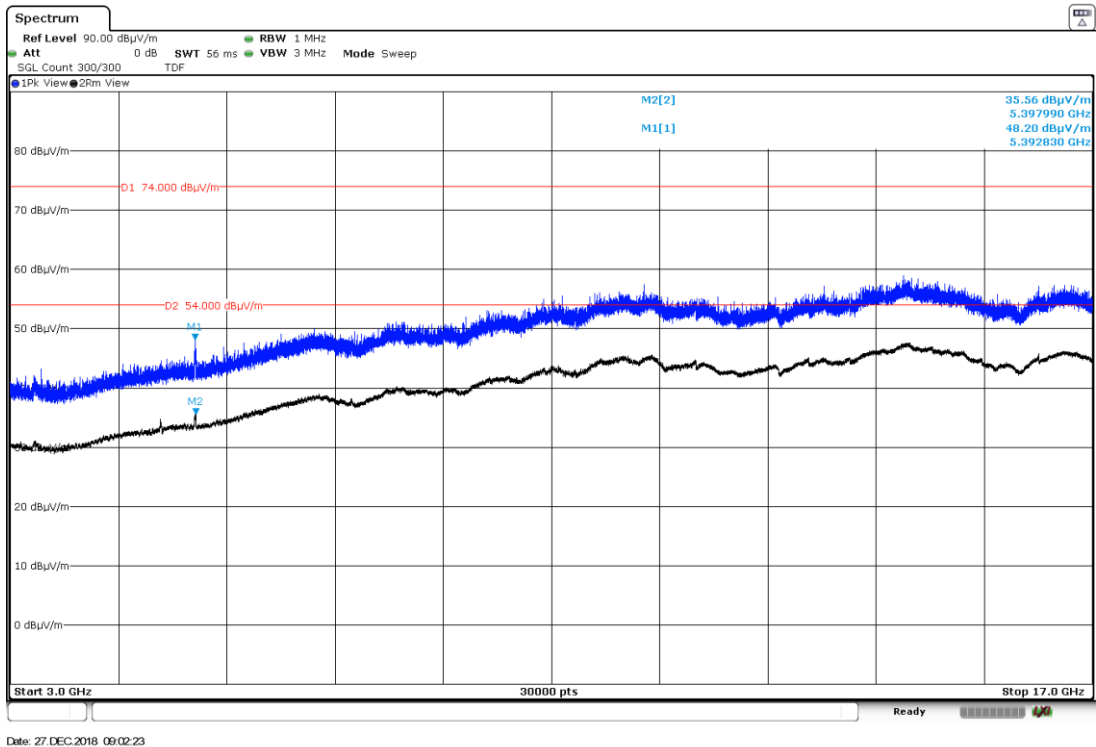


FREQUENCY RANGE 1 GHz to 3 GHz.

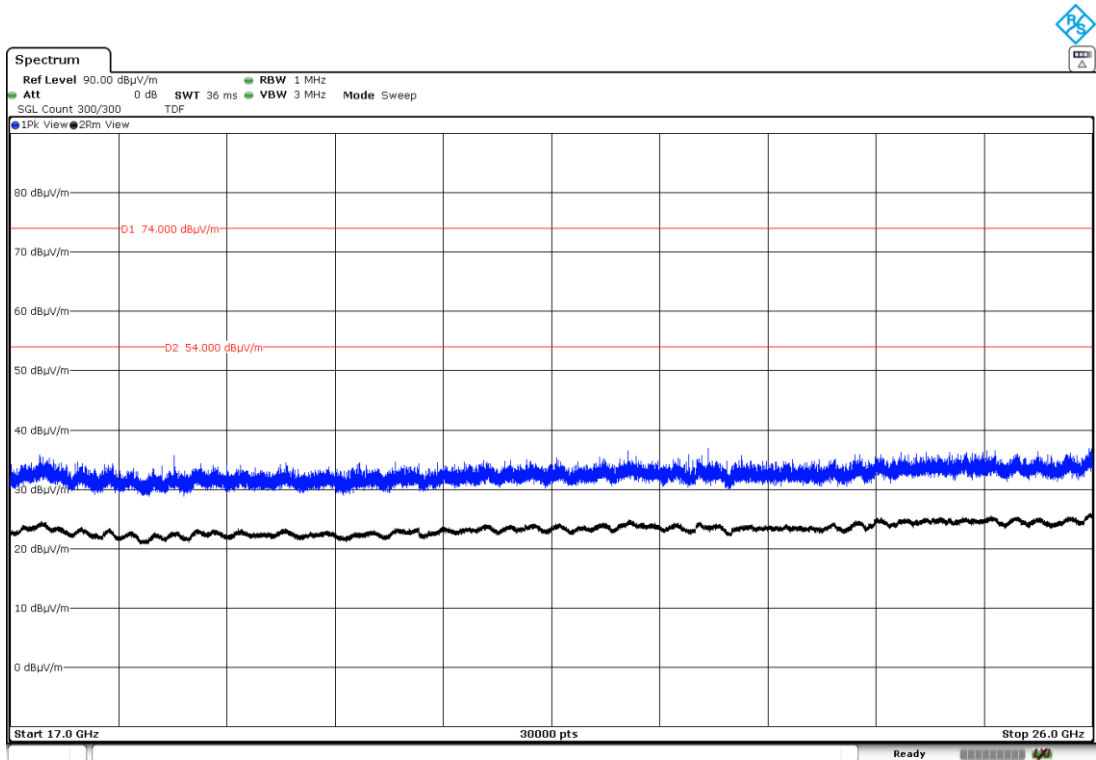


Note: The peaks shown in the plot above the limit are the carrier frequencies.

FREQUENCY RANGE 3 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



2.4 GHz WLAN and Bluetooth Low Energy co-location, with the EUT configured to simultaneously transmit two signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD) or 2.4GHz WLAN (WIFI aux mode) in 802.11b / 1 Mbps / SISO or 2.4GHz WLAN (WIFI aux mode) in 802.11n / HT20 / SISO with the Bluetooth Low Energy transmitting in LE1M.

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz) and Bluetooth Low Energy with BLE1M (2480).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and Bluetooth Low Energy with BLE1M (2402).

Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz) and Bluetooth Low Energy with BLE1M (2480)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

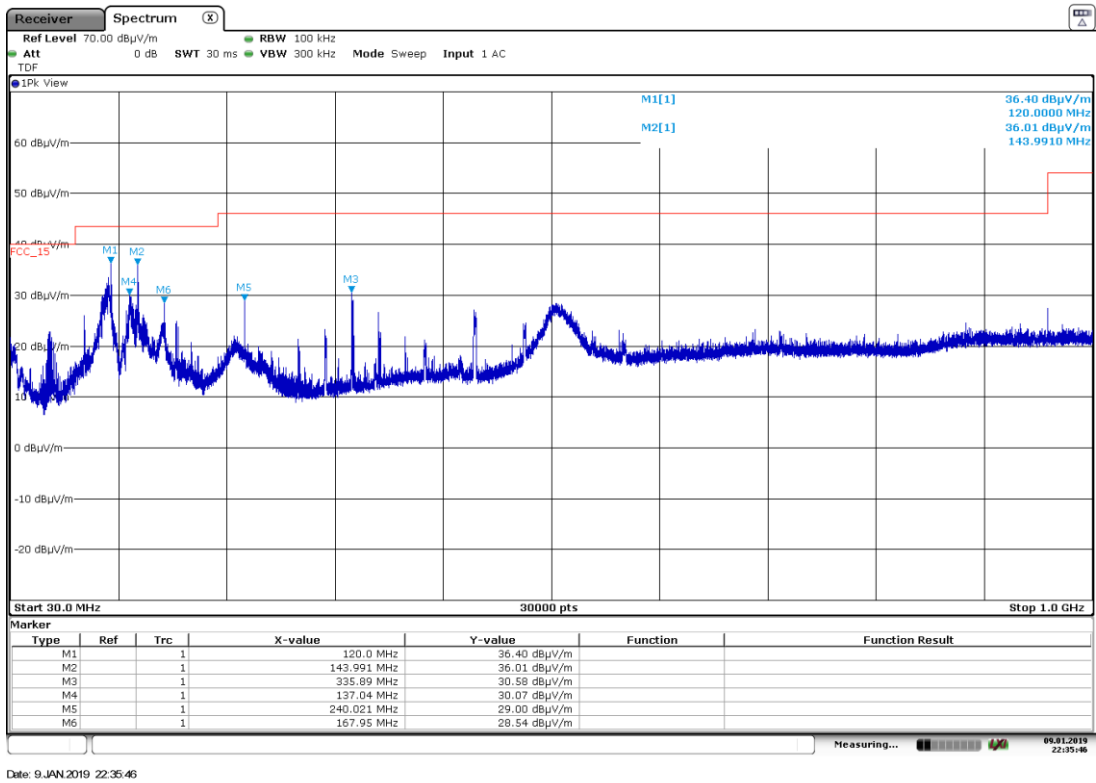
Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
120.000	Horizontal	Quasi-Peak	33.4	43.5	10.1	± 3.88
143.991	Horizontal	Quasi-Peak	33.3	43.5	10.2	± 3.88
167.950	Horizontal	Quasi-Peak	26.7	43.5	16.8	± 3.88
240.021	Horizontal	Quasi-Peak	29.7	46	16.3	± 3.88
335.890	Horizontal	Quasi-Peak	29.9	46	16.1	± 3.88

Frequency range 1 GHz-26 GHz

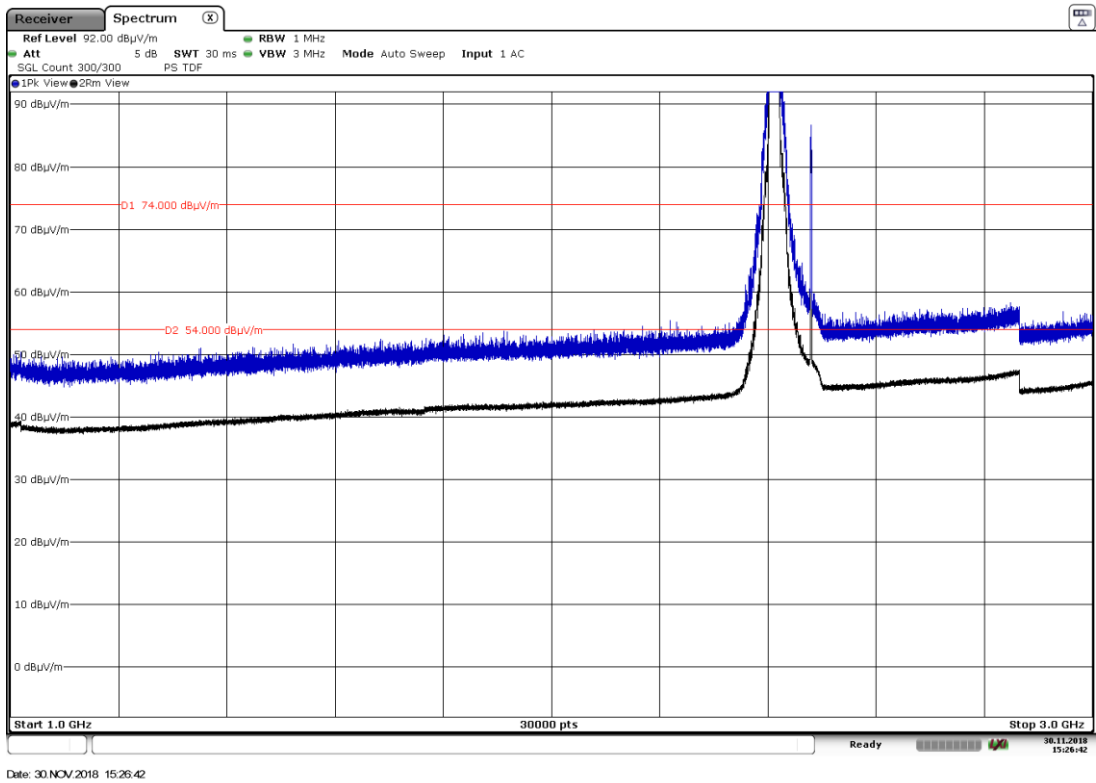
The emission at approximately 4824MHz and 7436 MHz are the second and the third harmonic of the 2.4GHz WLAN signal and was therefore not measured. No intermodulation products were found.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

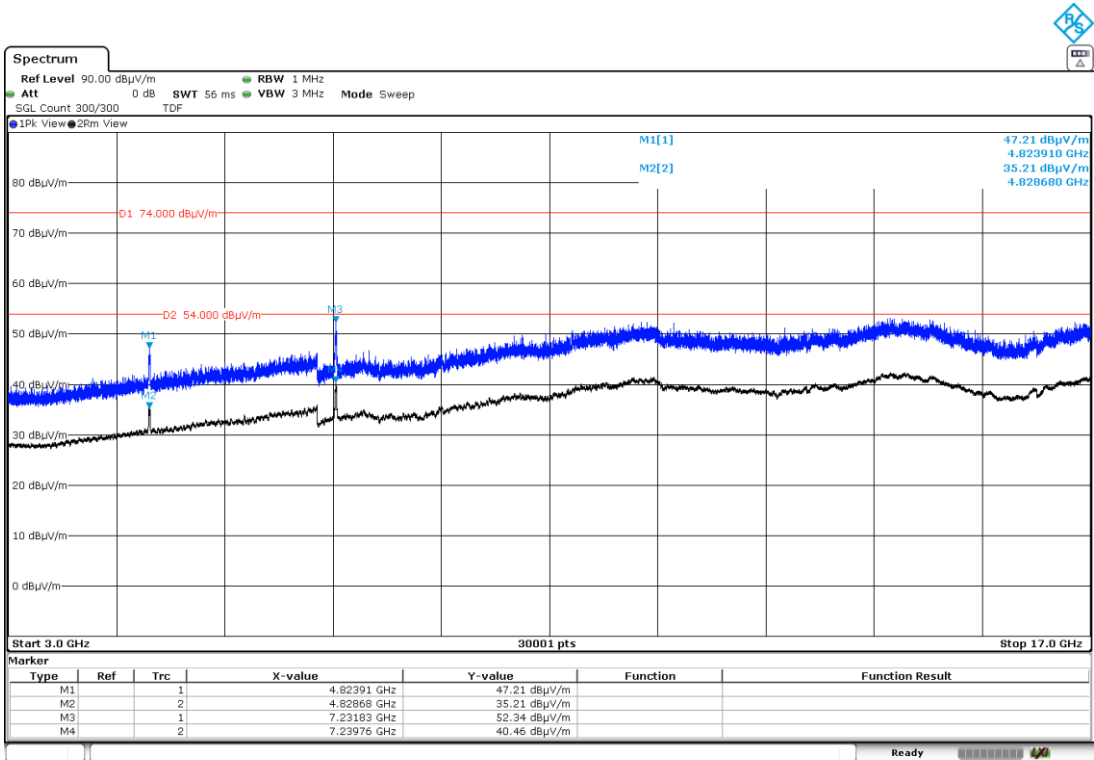


FREQUENCY RANGE 1 GHz to 3 GHz.

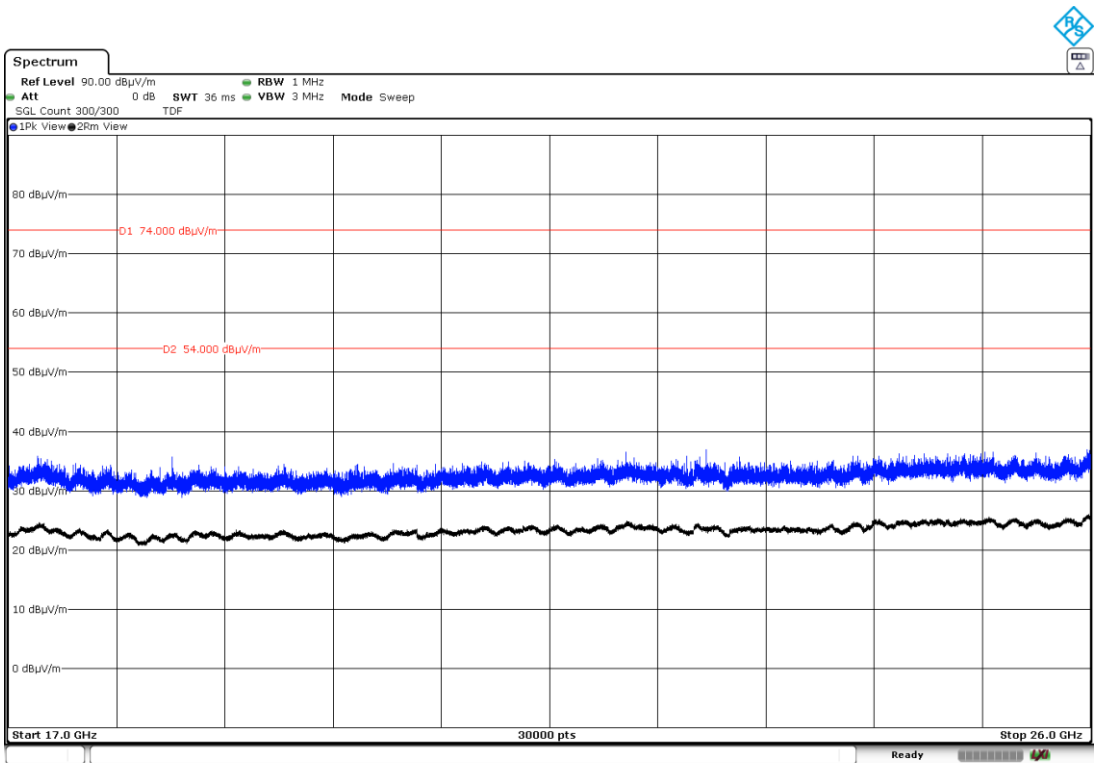


Note: The peaks shown in the plot above the limit are the carrier frequencies.

FREQUENCY RANGE 3 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz) and Bluetooth Low Energy with BLE1M (2402)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
168.274	Horizontal	Quasi-Peak	30.4	43.5	13.1	± 3.88

Frequency range 1 GHz-26 GHz

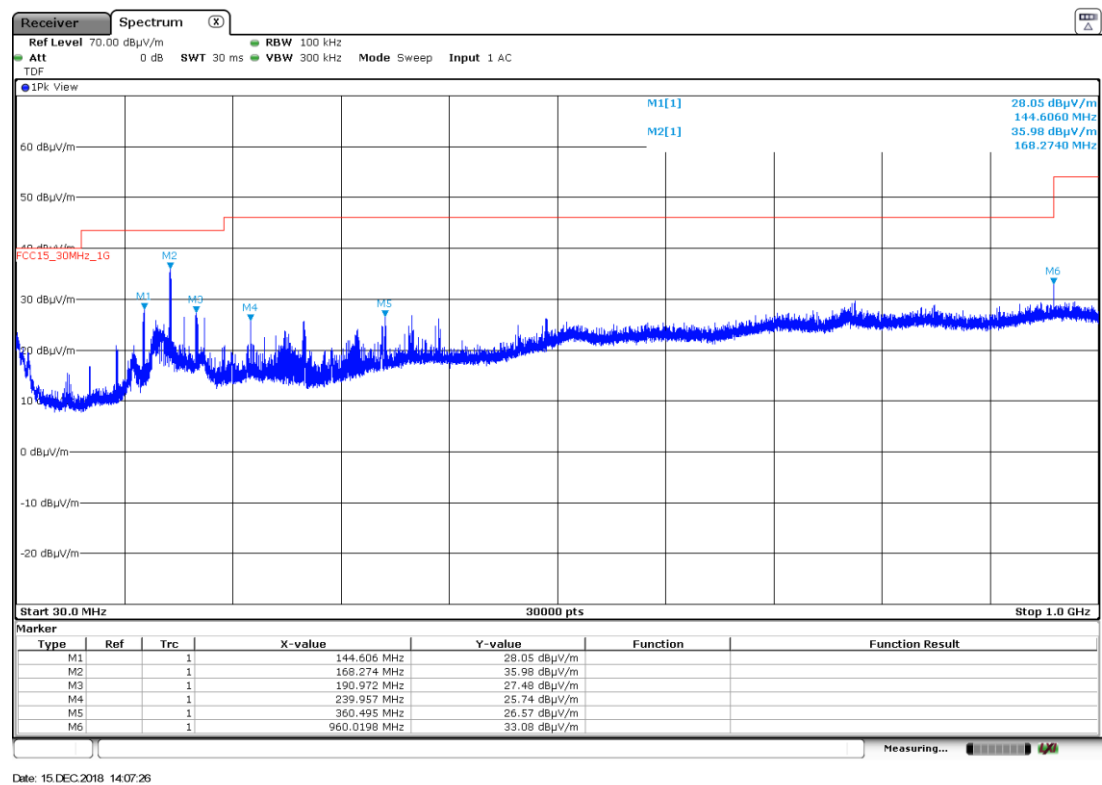
The results in the next tables show the maximum measured levels in the 1-26 GHz frequency range.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
5392.83	Vertical	Peak	48.11	74	25.89	± 3.05
5398.06		Average	35.69	54	18.31	± 3.05

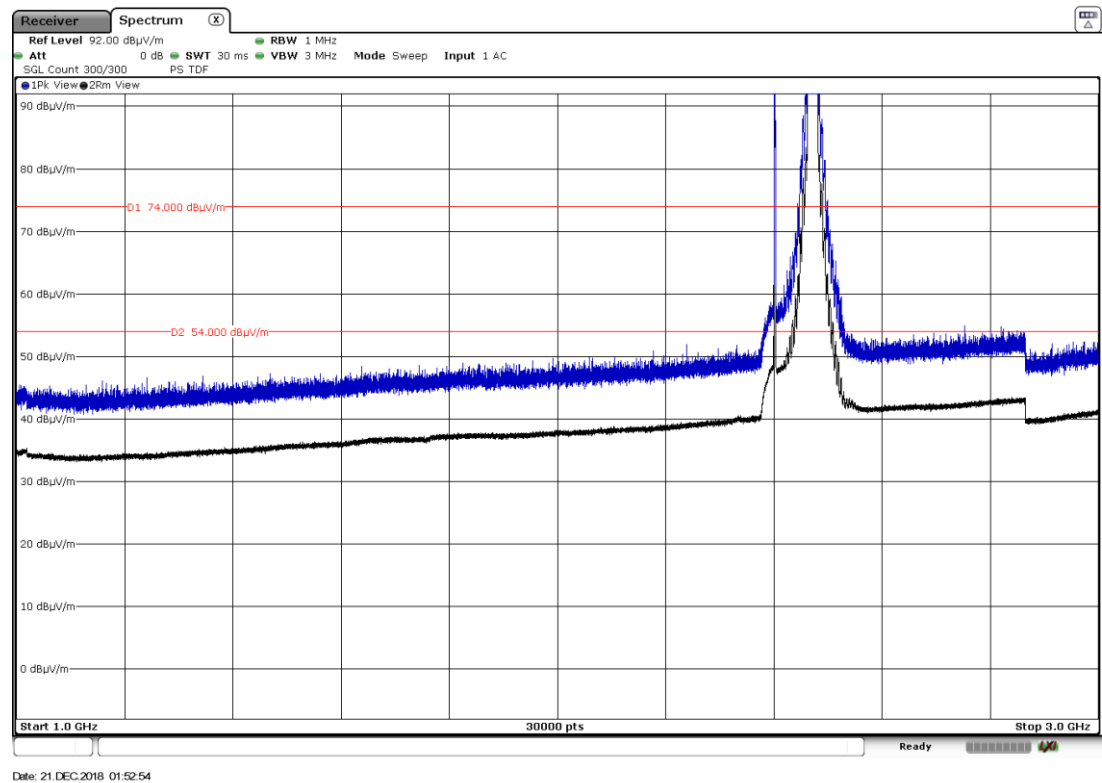
The emission at approximately 7416 MHz is the third harmonic of the 2.4GHz WLAN signal and was therefore not measured.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

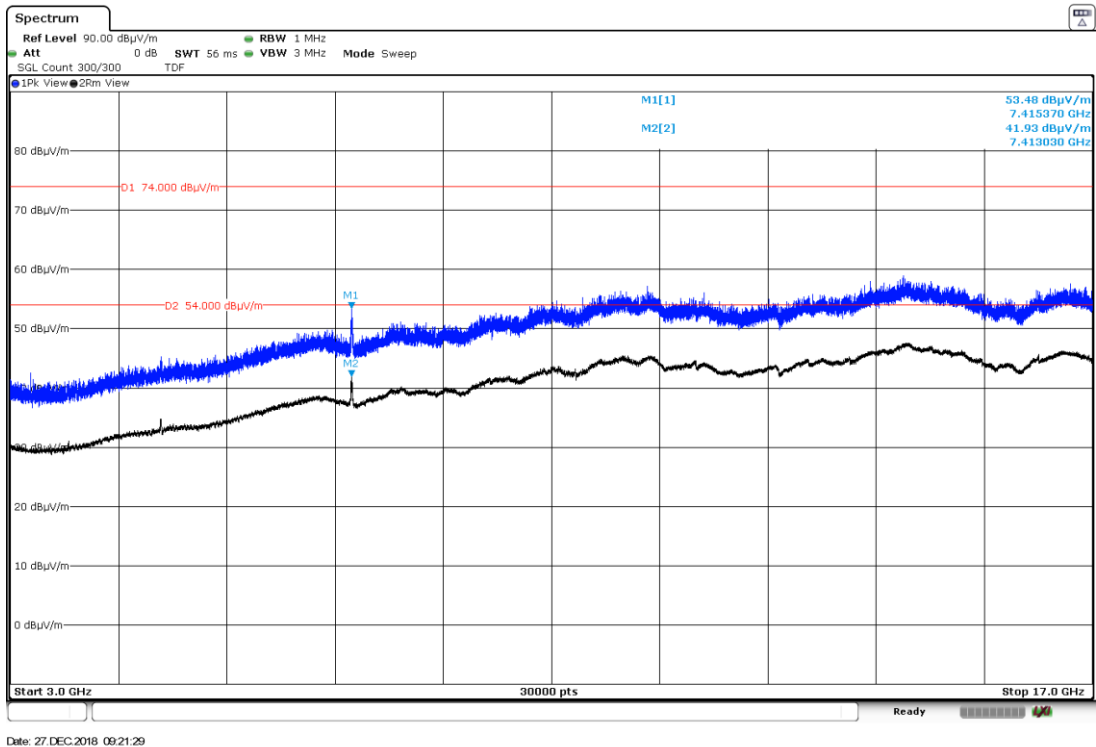


FREQUENCY RANGE 1 GHz to 3 GHz.

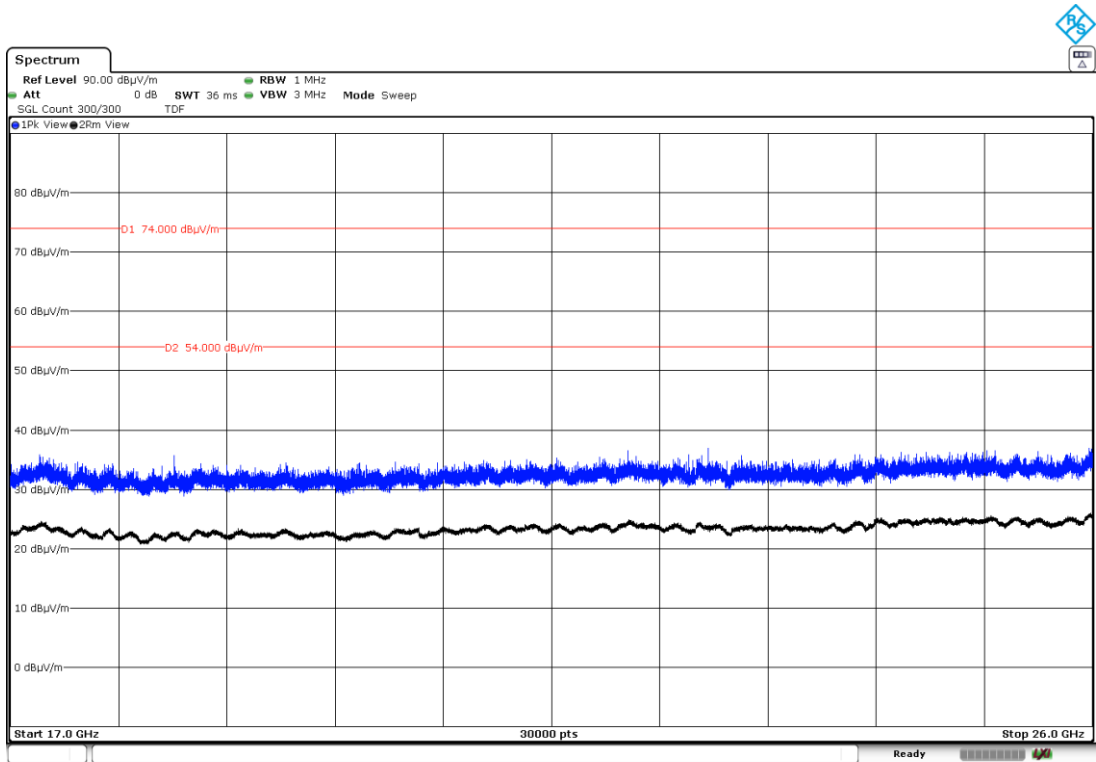


Note: The peaks shown in the plot above the limit are the carrier frequencies.

FREQUENCY RANGE 3 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



2.4 GHz WLAN, 5 GHz WLAN and Bluetooth Basic Rate co-location, with the EUT configured to simultaneously transmit three signals at maximum output power, 2.4GHz WLAN (WIFI main mode) in 802.11n / HT20 / MCS0 / MIMO (CDD), 5GHz WLAN (WIFI aux mode) in 802.11n / HT20 / MCS0 / SISO and the Bluetooth Basic Rate with DH5.

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz), 802.11n HT20 – 20MHz – SISO (5180MHz) and Bluetooth Basic Rate with DH5 (2480).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz), 802.11n HT20 – 20MHz – SISO (5320MHz) and Bluetooth Basic Rate with DH5 (2480).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz), 802.11n HT20 – 20MHz – SISO (5700MHz) and Bluetooth Basic Rate with DH5 (2480).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz), 802.11n HT20 – 20MHz – SISO (5825MHz) and Bluetooth Basic Rate with DH5 (2480).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz), 802.11n HT20 – 20MHz – SISO (5180MHz) and Bluetooth Basic Rate with DH5 (2402).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz), 802.11n HT20 – 20MHz – SISO (5500MHz) and Bluetooth Basic Rate with DH5 (2402).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz), 802.11n HT20 – 20MHz – SISO (5745MHz) and Bluetooth Basic Rate with DH5 (2402).

- Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2472MHz), 802.11n HT20 – 20MHz – SISO (5825MHz) and Bluetooth Basic Rate with DH5 (2402).

Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz), 802.11n HT20 – 20MHz – SISO (5180MHz) and Bluetooth Basic Rate with DH5 (2480)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
31.051	Horizontal	Quasi-Peak	17.90	40	22.1	± 3.88
144.800	Horizontal	Quasi-Peak	26.1	43.5	17.4	± 3.88
167.239	Horizontal	Quasi-Peak	33.4	43.5	10.1	± 3.88
191.166	Horizontal	Quasi-Peak	30.3	43.5	13.2	± 3.88
288.683	Horizontal	Quasi-Peak	27.5	46	18.5	± 3.88

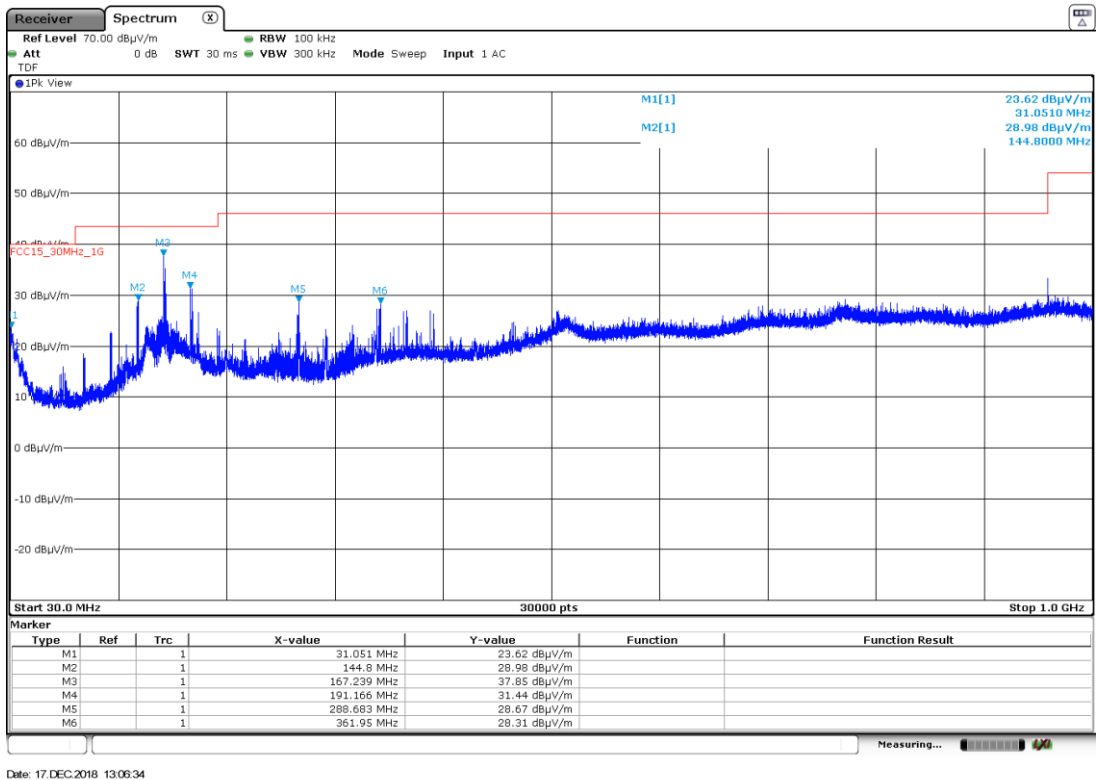
Frequency range 1 GHz-40 GHz

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
2545.967	Vertical	Peak	56.76	74	17.20	± 3.05
2545.226		Average	48.10	54	5.90	± 3.05

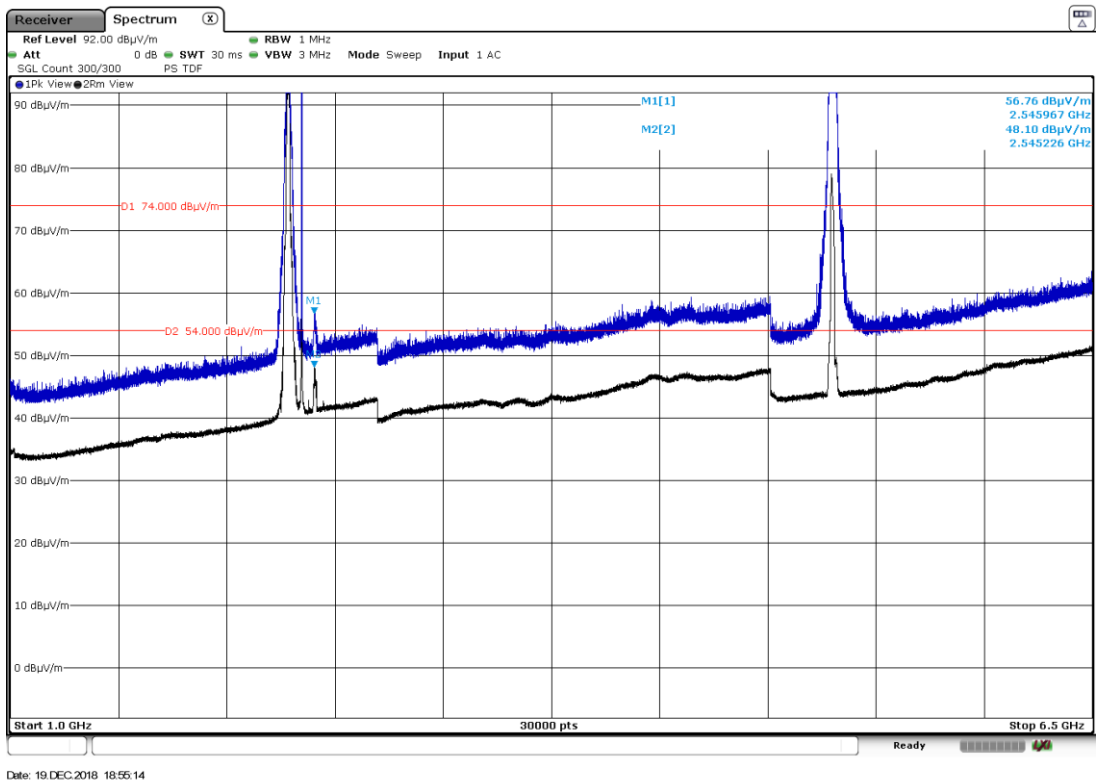
The emission at approximately 7236 MHz is the third harmonic of the 2.4GHz WLAN signal and was therefore not measured.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

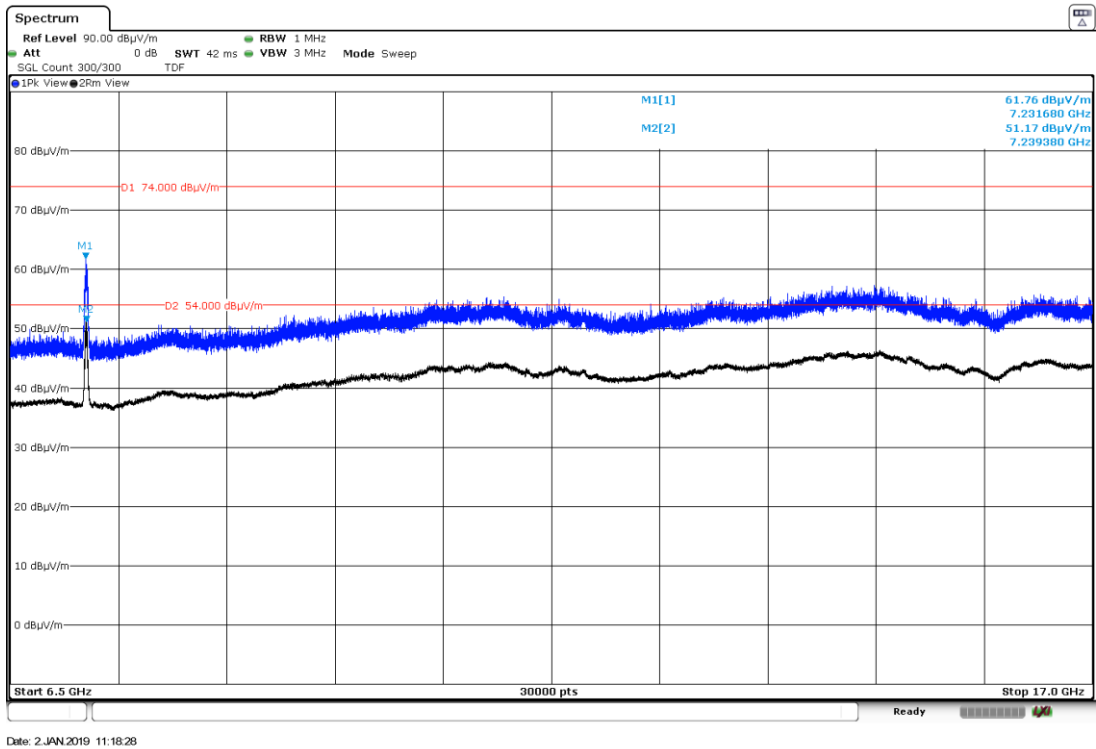


FREQUENCY RANGE 1 GHz to 6.5 GHz.

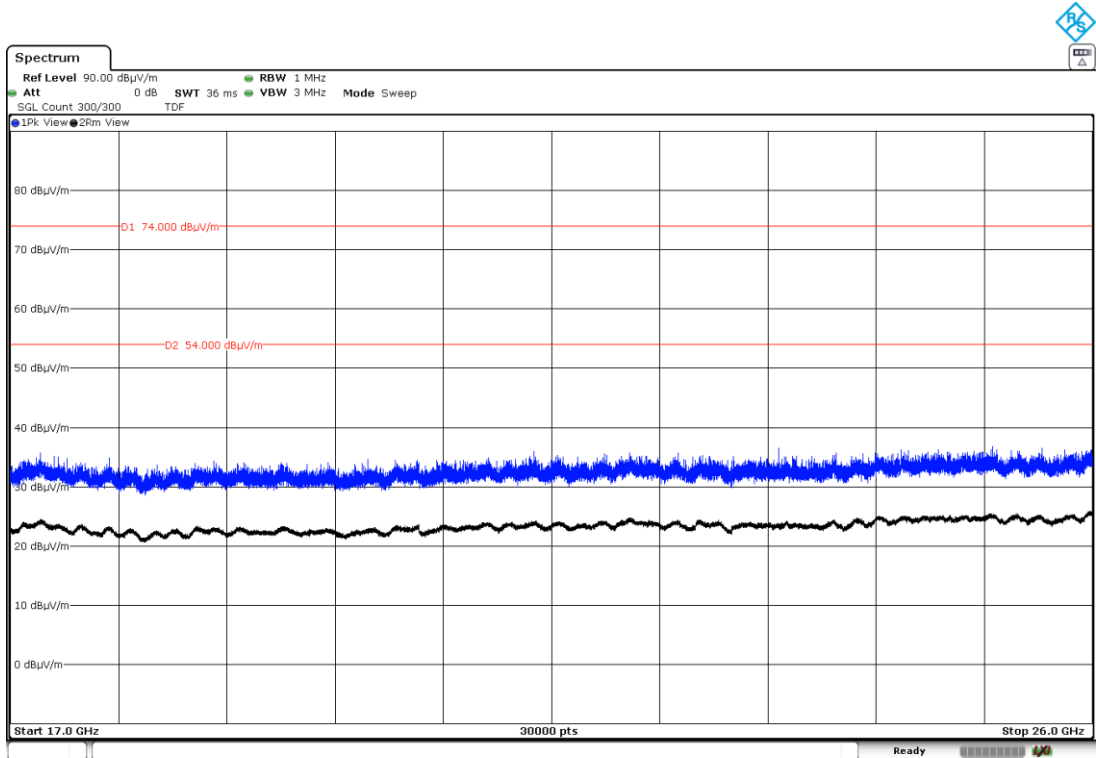


Note: The peaks shown in the plot above the limit are the carrier frequencies.

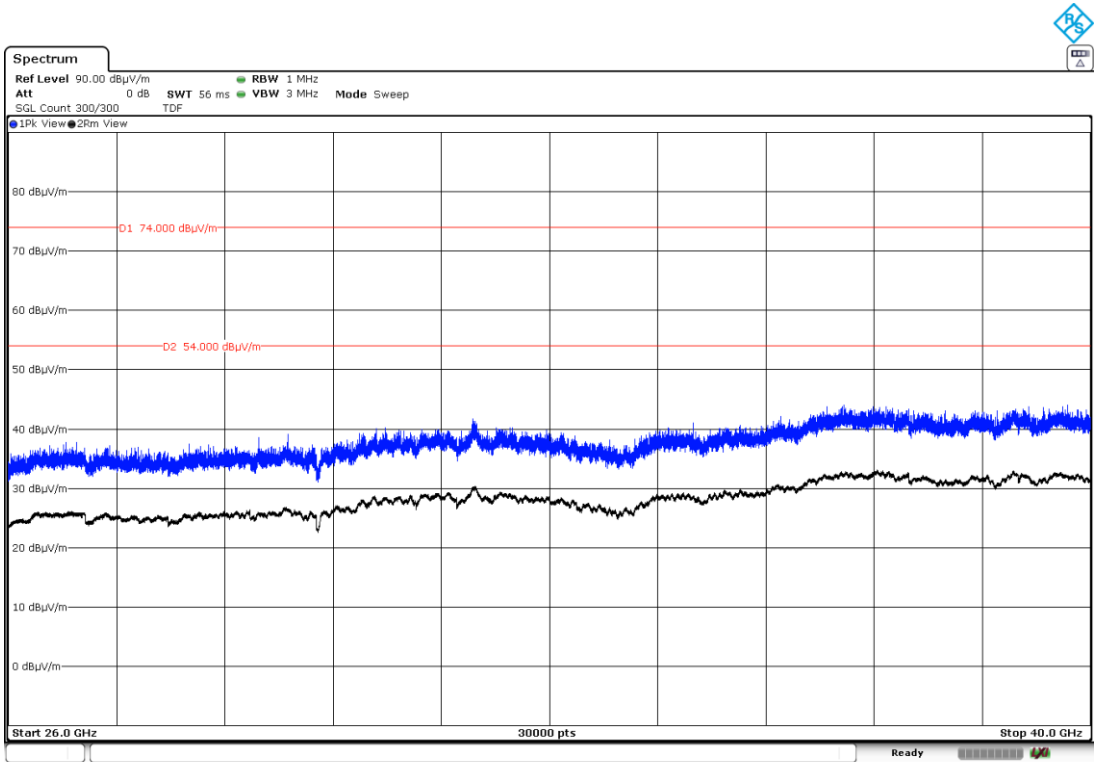
FREQUENCY RANGE 6.5 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



FREQUENCY RANGE 26 GHz to 40 GHz.



Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz), 802.11n HT20 – 20MHz – SISO (5320MHz) and Bluetooth Basic Rate with DH5 (2480)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
31.73	Horizontal	Quasi-Peak	18.0	40	22.0	± 3.88
144.80	Horizontal	Quasi-Peak	25.7	43.5	17.8	± 3.88
167.304	Horizontal	Quasi-Peak	35.2	43.5	8.3	± 3.88
191.198	Horizontal	Quasi-Peak	30.1	43.5	13.4	± 3.88
288.683	Horizontal	Quasi-Peak	27.2	46	18.8	± 3.88

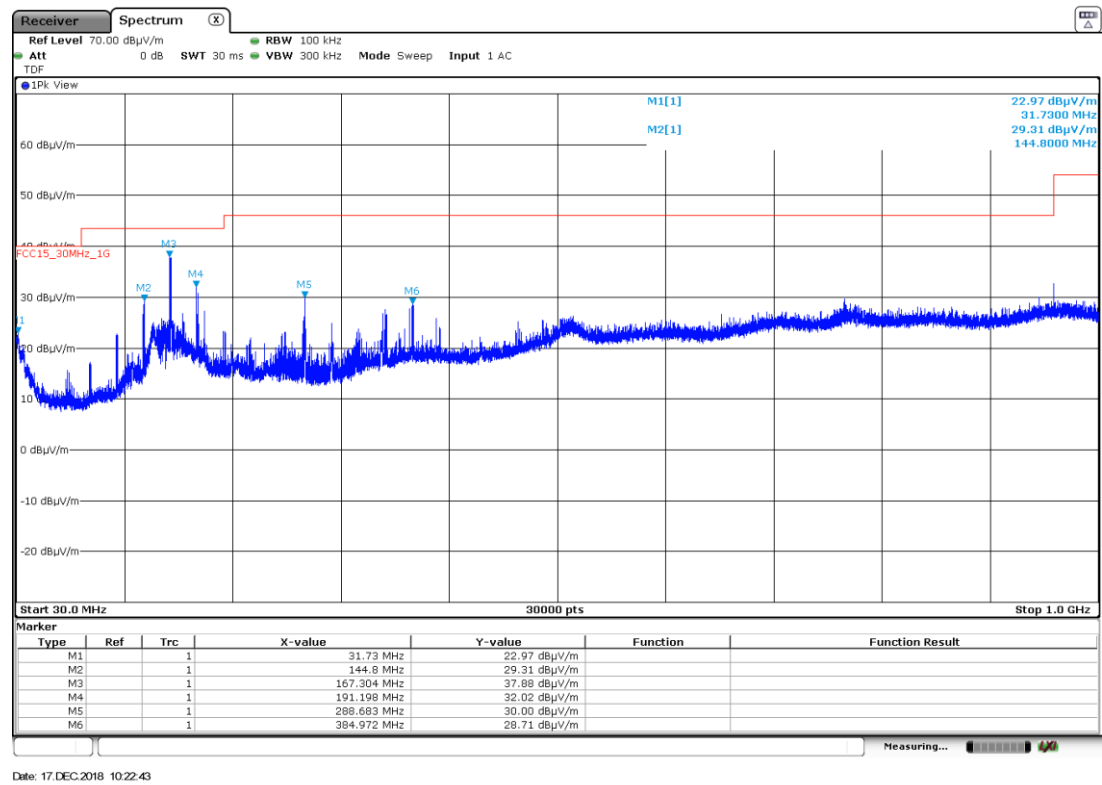
Frequency range 1 GHz-40 GHz

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
2544.134	Vertical	Peak	56.56	74	17.44	± 3.05
2549.649		Average	47.24	54	6.86	± 3.05

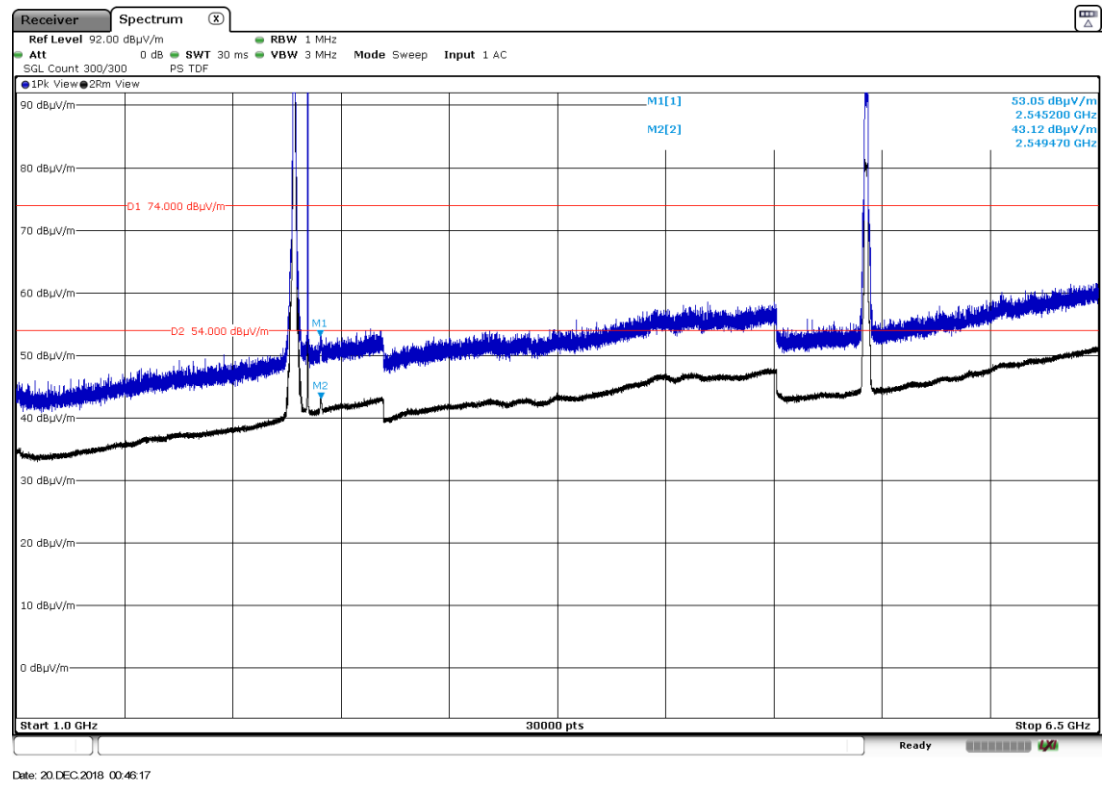
The emission at approximately 7236 MHz is the third harmonic of the 2.4GHz WLAN signal and was therefore not measured.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

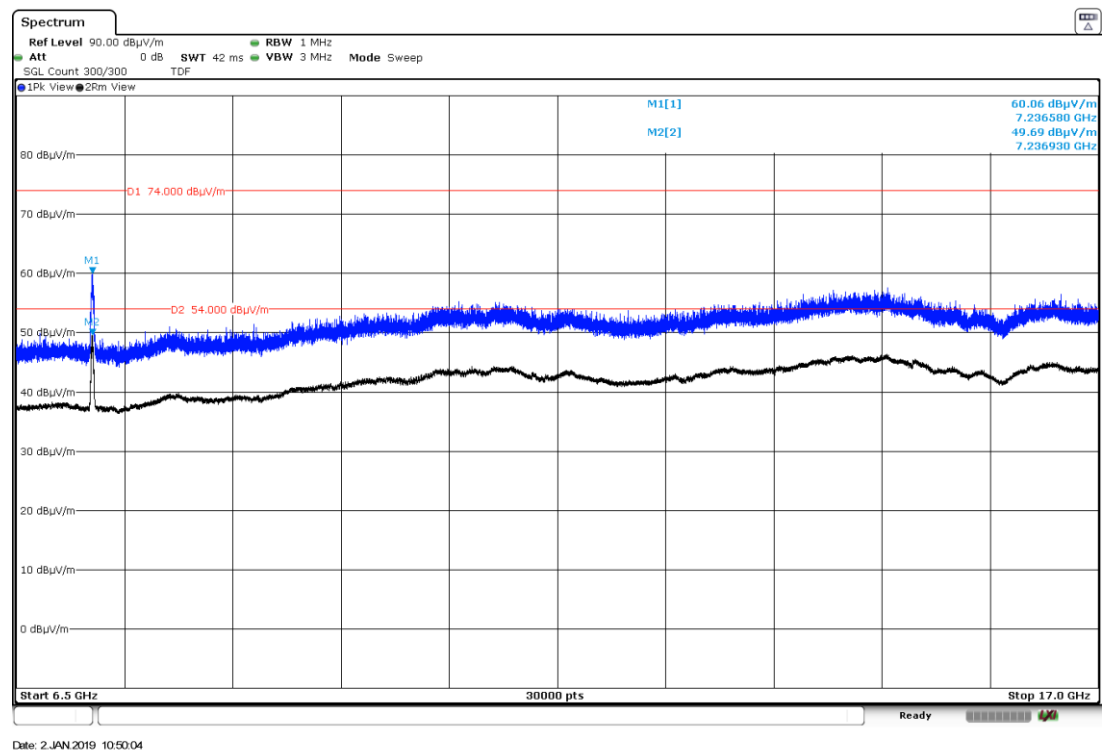


FREQUENCY RANGE 1 GHz to 6.5 GHz.

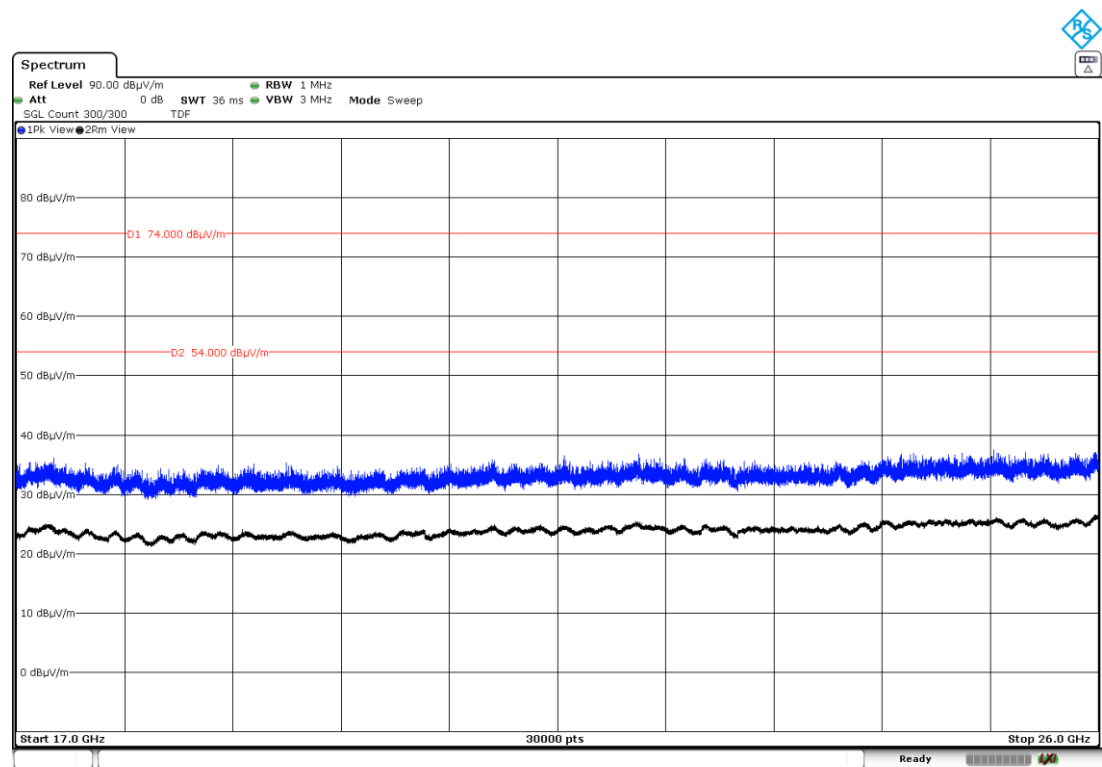


Note: The peak shown in the plot above the limit is the carrier frequencies.

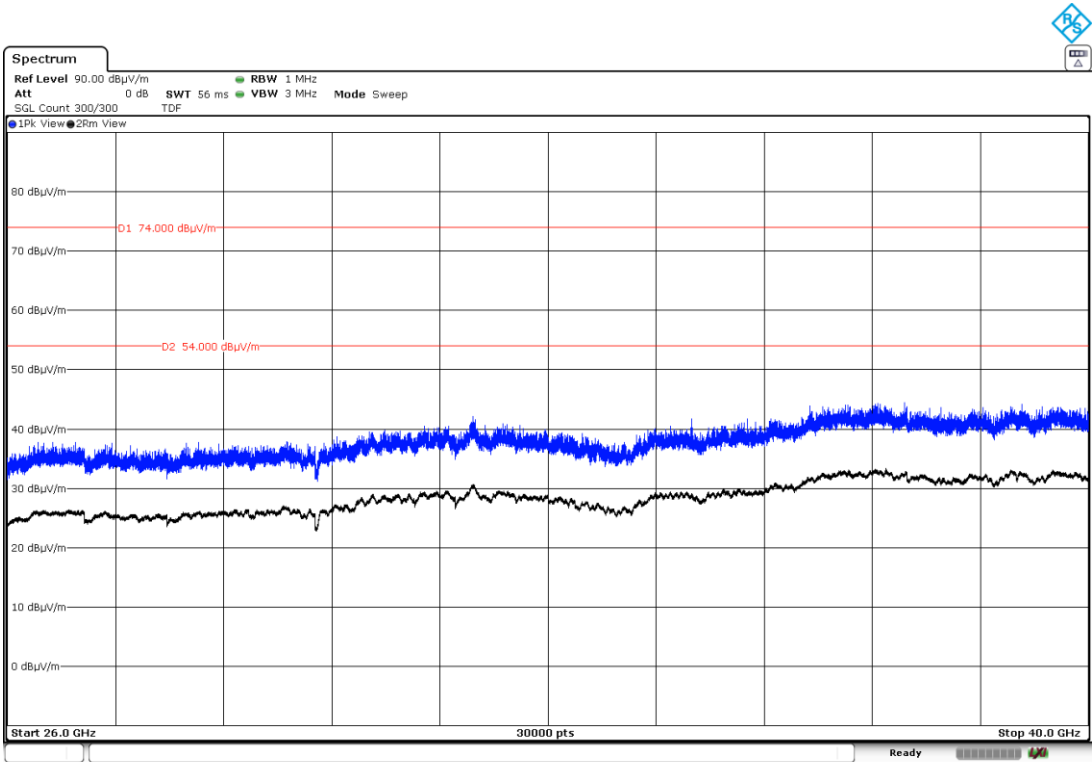
FREQUENCY RANGE 6.5 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



FREQUENCY RANGE 26 GHz to 40 GHz.



Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz), 802.11n HT20 – 20MHz – SISO (5700MHz) and Bluetooth Basic Rate with DH5 (2480)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
144.800	Horizontal	Quasi-Peak	25.60	43.5	17.9	± 3.88
168.920	Horizontal	Quasi-Peak	34.80	43.5	8.7	± 3.88
191.198	Horizontal	Quasi-Peak	30.10	43.5	13.4	± 3.88
288.683	Horizontal	Quasi-Peak	27.20	46	18.8	± 3.88
385.069	Horizontal	Quasi-Peak	24.60	46	21.4	± 3.88

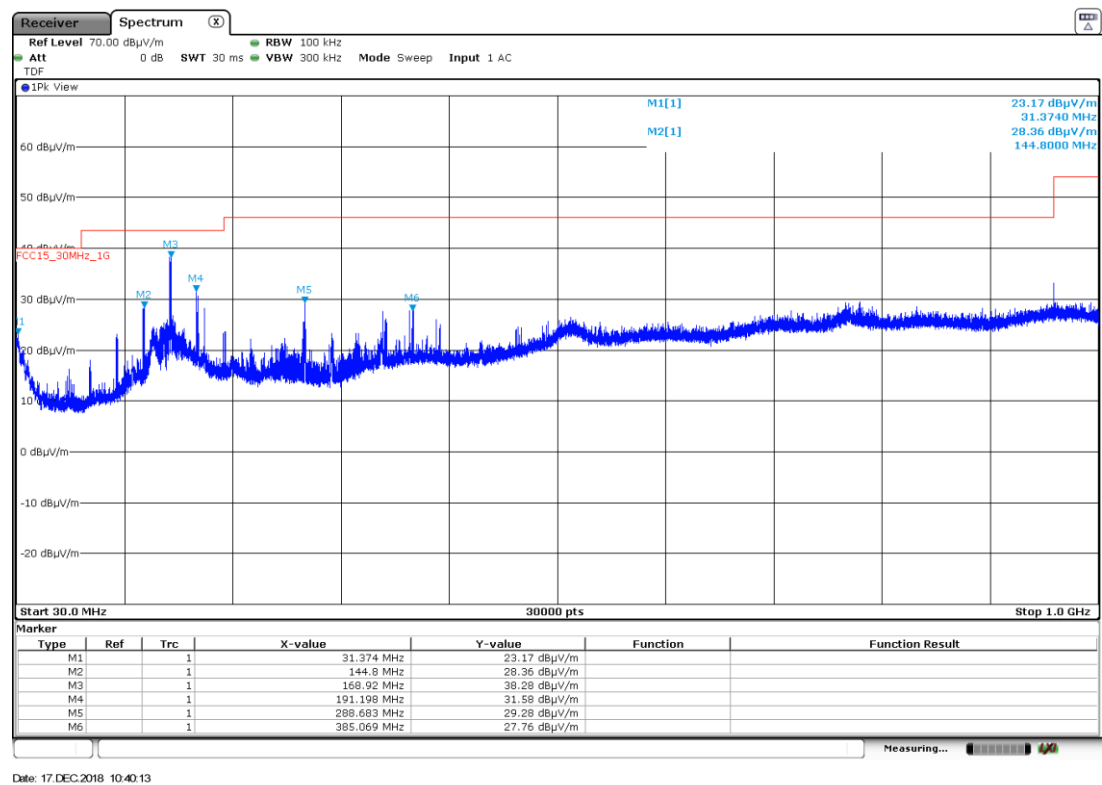
Frequency range 1 GHz-40 GHz

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
2545.203	Vertical	Peak	55.73	74	18.3	± 3.05
2544.891		Average	47.37	54	6.6	± 3.05

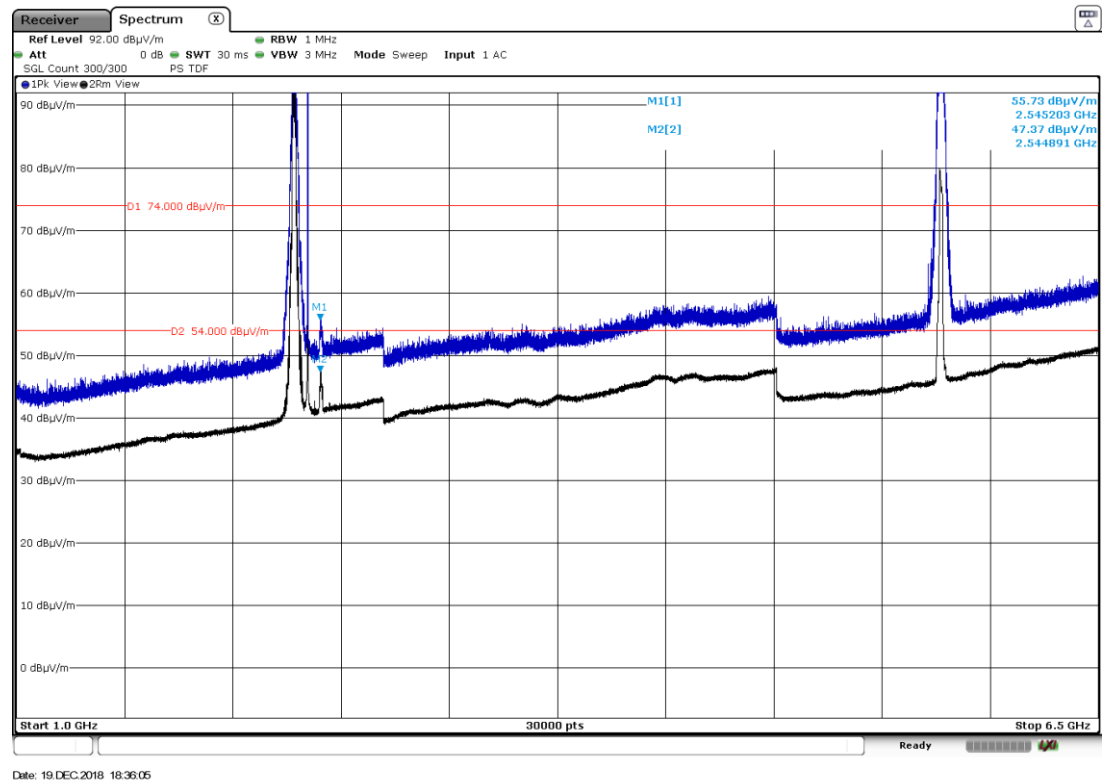
The emission at approximately 7236 MHz is the third harmonic of the 2.4GHz WLAN signal and was therefore not measured.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.

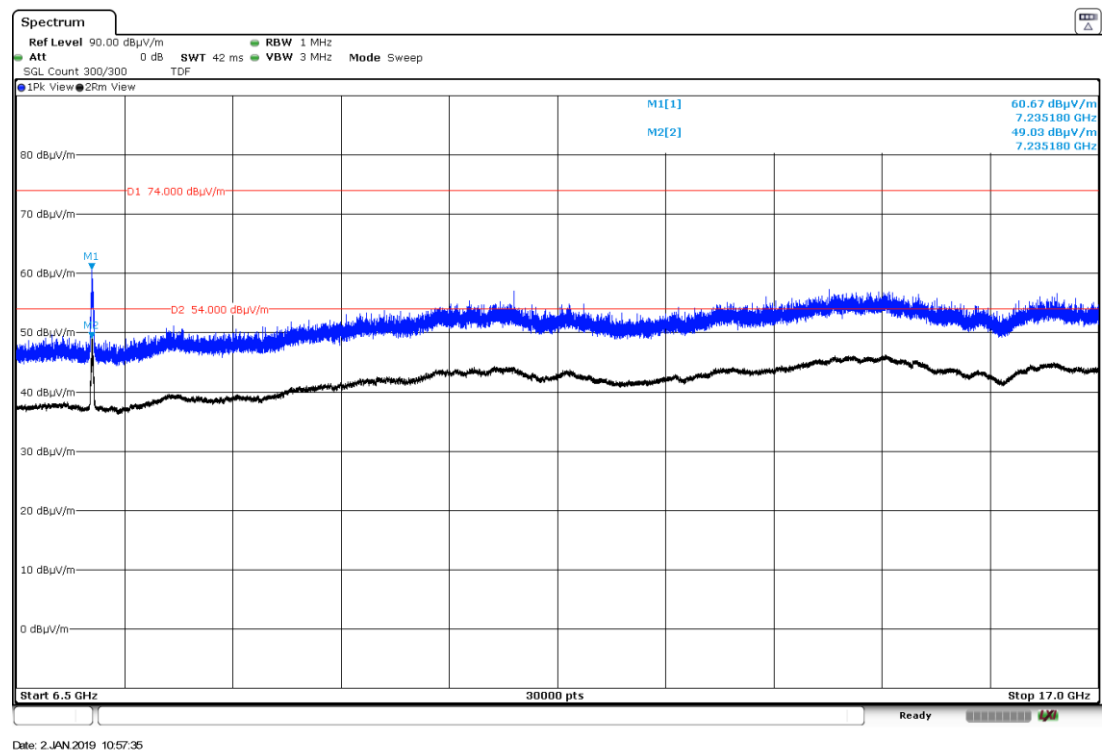


FREQUENCY RANGE 1 GHz to 6.5 GHz.

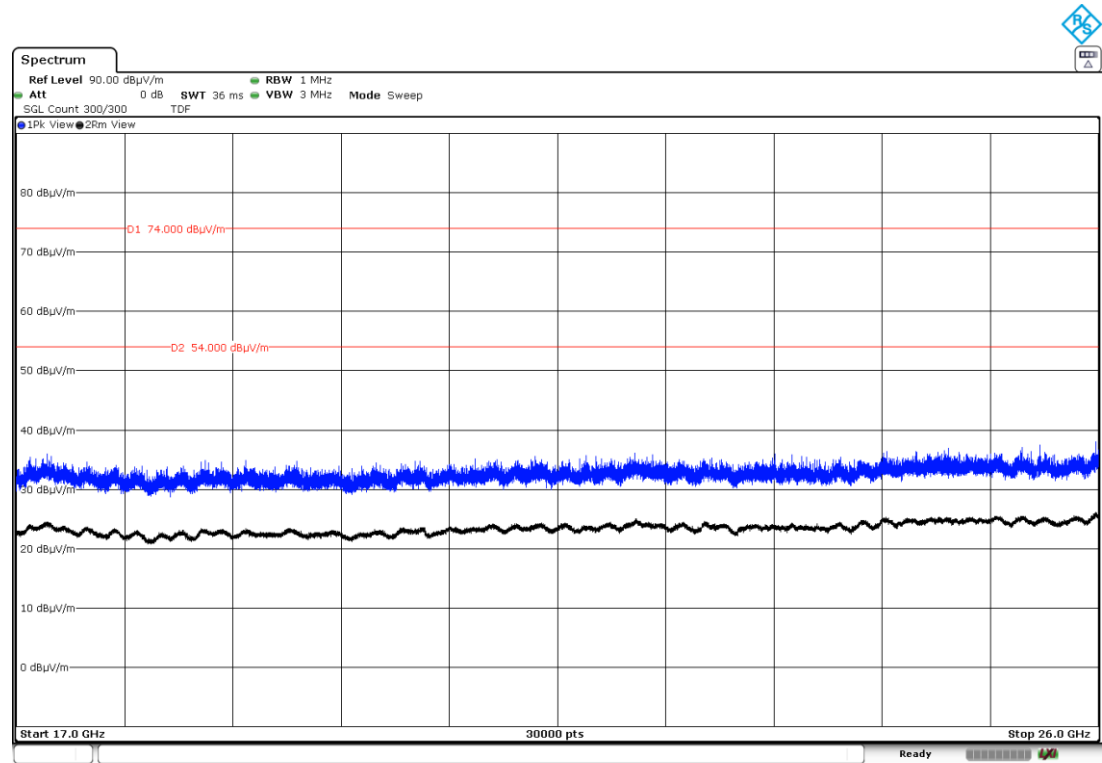


Note: The peaks shown in the plot above the limit are the carrier frequencies.

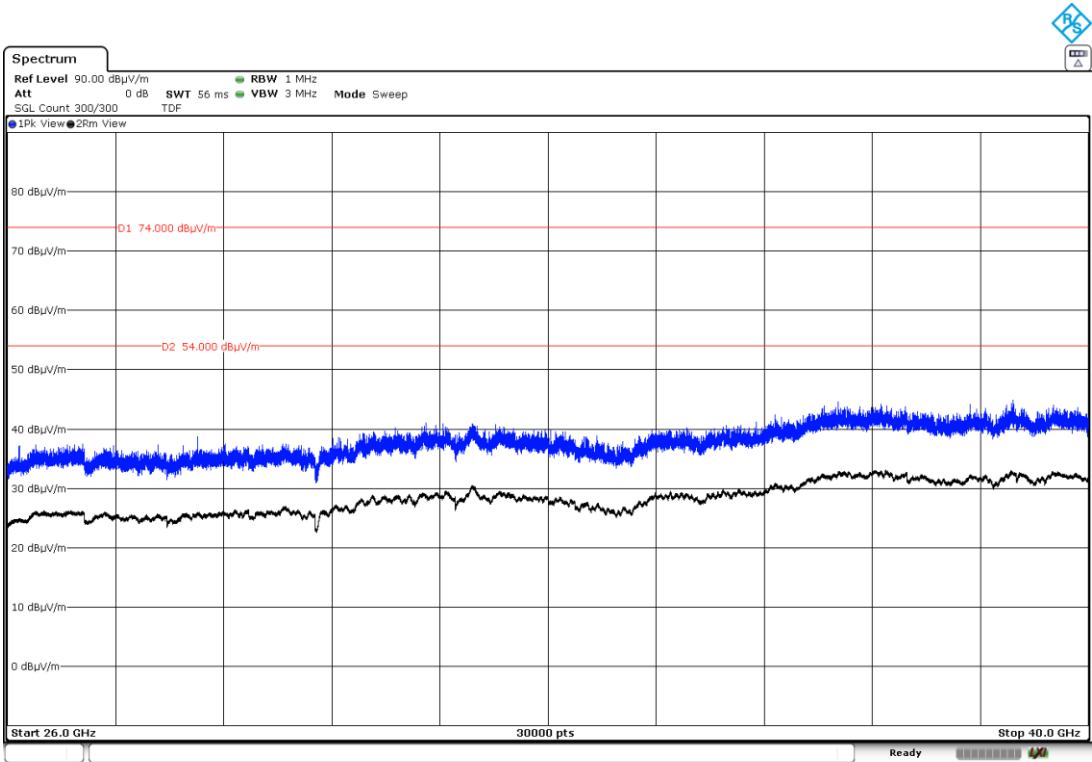
FREQUENCY RANGE 6.5 GHz to 17 GHz.



FREQUENCY RANGE 17 GHz to 26 GHz.



FREQUENCY RANGE 26 GHz to 40 GHz.



Mode: 802.11n HT20 – CDD – 20MHz – MIMO – CORE 0 & CORE 1 & CORE 2 (2412MHz), 802.11n HT20 – 20MHz – SISO (5825MHz) and Bluetooth Basic Rate with DH5 (2480)

Frequency range 30 MHz-1000 MHz.

Note: The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious levels operating (radiated) closest to limit.

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
144.800	Horizontal	Quasi-Peak	26.2	43.5	17.3	± 3.88
168.468	Horizontal	Quasi-Peak	34.7	43.5	8.8	± 3.88
191.263	Horizontal	Quasi-Peak	28.5	43.5	15.0	± 3.88
288.683	Horizontal	Quasi-Peak	27.3	46	18.7	± 3.88
360.916	Horizontal	Quasi-Peak	24.7	46	21.3	± 3.88

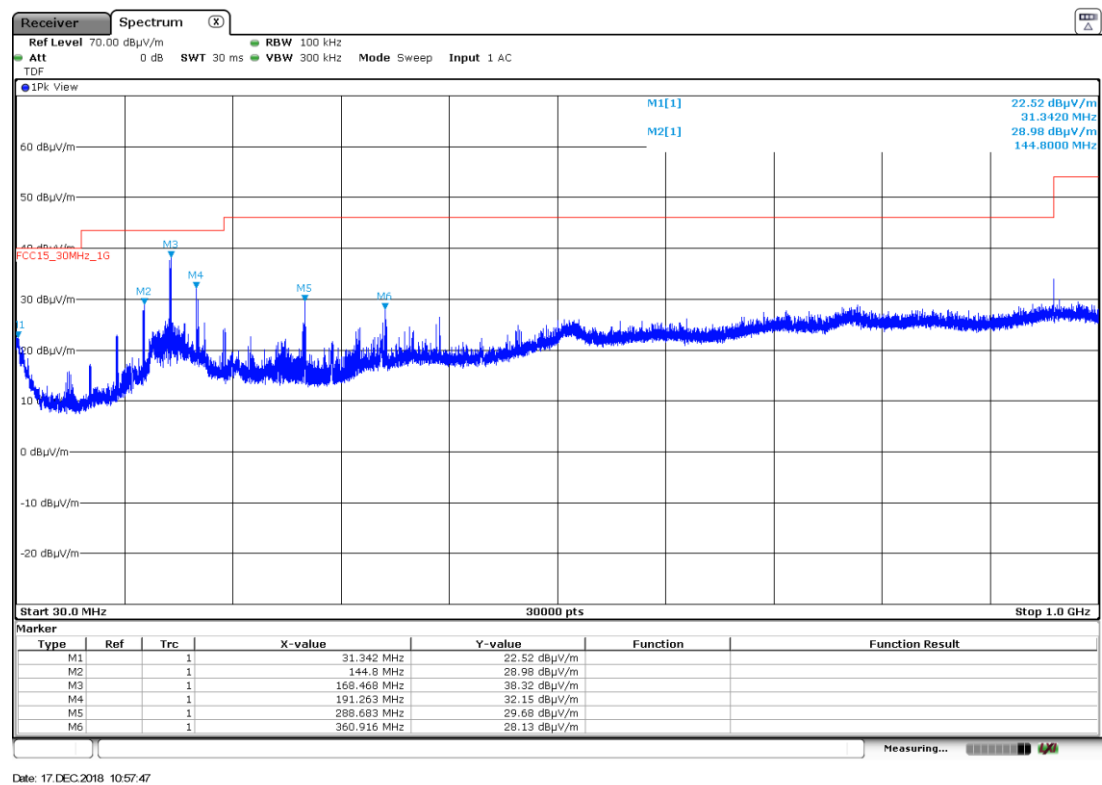
Frequency range 1 GHz-40 GHz

Spurious frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement Uncertainty (dB)
2549.838	Vertical	Peak	57.04	74	16.96	± 3.05
2544.887		Average	47.87	54	6.13	± 3.05

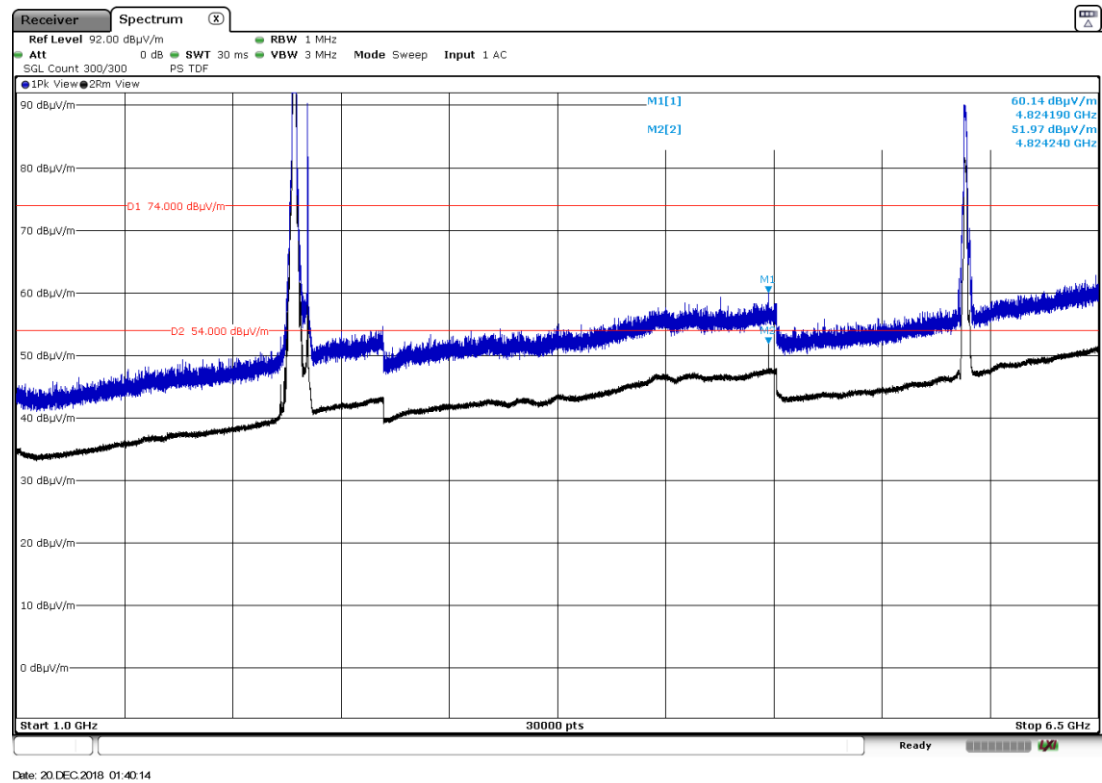
The emission at approximately 7236 MHz is the third harmonic of the 2.4GHz WLAN signal and was therefore not measured.

Verdict: PASS

FREQUENCY RANGE 30 MHz-1000 MHz.



FREQUENCY RANGE 1 GHz to 6.5 GHz.



Note: The peaks shown in the plot above the limits are the carrier frequencies.