

Prüfbericht-Nr.: Test Report No.:	18121106.f01	Auftrags-Nr.: Order No.:	3001653290	Seite 1 von 29 Page 1 of 29
Kunden-Referenz-Nr.: Client Reference No.:	4602437	Auftragsdatum: Order date:	December 13, 2018	
Auftraggeber: Client:	Intel Corporation SAS, Le Cargo B6 / 424 Rue de Goa, 06600 Antibes, France			
Prüfgegenstand: Test item:	Wireless Network Card			
Bezeichnung / Typ-Nr.: Identification / Type No.:	AX200NGW			
Auftrags-Inhalt: Order content:	Compliance with EMC Standards			
Prüfgrundlage: Test specification:	47 CFR PART 15 (10-1-17 EDITION), Subpart 15B ICES-003 (Issue 6, January 2016)			

Wareneingangsdatum: Date of receipt:	Dec. 18, 2018
Prüfmuster-Nr.: Test sample No.:	Engineering Sample
Prüfzeitraum: Testing period:	Jan 30, 2019 – Feb 13, 2019
Ort der Prüfung: Place of testing:	Leek
Prüflaboratorium: Testing laboratory:	TÜV Rheinland Nederland B.V. Leek Laboratory
Prüfergebnis*: Test result*:	Pass



Geprüft von / tested by:			Kontrolliert von / reviewed by:		
Feb 14, 2019 W. Brouwer Test Engineer-EMC Senior expert EMC			Feb 20, 2019 K.F. van der Molen,		
Datum Date	Name / Stellung Name / Position	Unterschrift Signature	Datum Date	Name / Stellung Name / Position	Unterschrift Signature
Sonstiges / Other:		None			
Zustand des Prüfgegenstandes bei Anlieferung: 2 Condition of the test item at delivery: 2			Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet					
Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. Test specification(s) F(ail) a.m. test specification(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the a.m. testsample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This report does not entitle to carry any test mark					

V04

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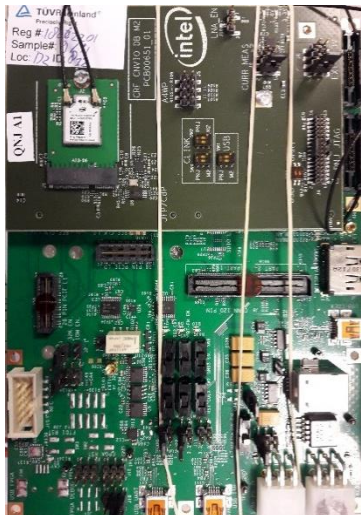
Liste der verwendeten Prüfmittel
List of used test equipment

Prüfmittel Nr. / ID-Nr. <i>Equipment No. / ID-No.</i>	Prüfmittel <i>Test equipment</i>	Nächste Kalibrierung <i>Next calibration</i>
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Verified List September, 2018				
Conducted emission				
A00726	Rohde & Schwarz	ESCS30	Measurement Receiver	1-11-2019
A01978	Rohde & Schwarz	ESH3-Z2	Impulse Limiter	27-6-2019
A00051	Rohde & Schwarz	ESH3-Z2	Impulse Limiter	16-11-2019
A01980	Rohde & Schwarz	ESCS 30	Test Receiver	28-6-2019
A00022	Emco	3725/2	LISN FCC 50 uH / 50 ohm	29-1-2020
A00354	Rohde & Schwarz	ESH2-Z5	LISN- artificial Network	27-6-2019
A00093	COMTES T	1415	Conducted Reference Source 9kHz-50MHz	4-6-2019
Radiated emission				
A00314	Rohde & Schwarz	ESCI	Measurement Receiver (9kHz-3GHz)	13-4-2019
A00337	R&S	FSV30	Signal Analyzer/Spectrum Analyzer	21-6-2019
A00077	Chase	CBL6111B	Biconilog	1-12-2019
A00235	Siepel	FCC	FCC Test Site Registration nr 786213	15-3-2020
A00313	Comtest		Site registration filing Industry Canada	20-11-2020
A00436	Siepel		S-AR	28-9-2020
A00447	Gigalink	APG0500	RF Cable S-AR	7-2-2019
A01982	Rohde & Schwarz	ESR7	EMI Test Receiver 7GHz	6-7-2019
A00008	Emco	3115	Guide ant. 1-18GHz	19-12-2020
A00009	Emco	3115	Guide ant. 1-18GHz	13-2-2019
A00011	Emco	3116	Guide ant. 18-40GHz	13-2-2019
A00012	Emco	3160-09	Gain horn 18-26.5GHz	13-2-2019
A00209	Emco	3160-09	Gain horn 18-26.5GHz	13-2-2019
A00210	Emco	3160-10	Gain horn 26.5-40GHz	13-2-2019
A00339	H&S	Sucotest 18/Sucoflex 102	Cable RF S-AR >1G setup	13-7-2019
A00340	H&S	Sucotest 18/Sucoflex 102	Cable RF	12-7-2019
A00341	H&S	Sucotest 18/Sucoflex 102	Cable RF	12-7-2019

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1	Produktdetails <i>Product details</i>	Wireless Communication Card AX200NGW
2	Maße / Gewicht <i>Dimensions / Weight</i>	<< 50 gr
3	Bedienelemente <i>Operating elements</i>	Built inside Extender, processed by laptop
4	Ausstattung / Zubehör <i>Equipment / Accessories</i>	Extender card CRF CNV10 DB M2 PCB00651_01
5	Verwendete Materialien <i>Used materials</i>	PCB/Components
6	Sonstiges <i>Other</i>	Tested in external Extender card
7	This report concerns:	EMC Verification
		

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Absatz				
Clause	Anforderungen – Prüfungen / Requirements - Tests			
1	47 CFR Part 15 (10-1-17 Edition) - 15.107(a) ICES-003 (Issue 6, January 2016) – Section 6.1 Table 2	AC Power Line Conducted Emissions	P ☒ F ☐ N/A ☐ N/T ☐	
2	47 CFR Part 15 (10-1-17 Edition) - 15.109 ICES-003 (Issue 6, January 2016) – Section 6.2.1 Table 5	Radiated unwanted emissions	P ☒ F ☐ N/A ☐ N/T ☐	

Zusammenfassung der Prüfergebnisse <i>Summary of test results</i>						
Index <i>Index</i>	Prüfung <i>Test</i>	Anwendbar <i>Applicable</i>	Prüfergebnis <i>Test result</i>	Paragraf <i>Paragraph</i>	Messungen unter Akkreditierung ausgeführt <i>under accreditation</i>	Kommentar <i>Remark</i>
Page 11	Radiated emission < 1000 MHz	Yes	Pass	3.1	Yes	
Page 15	Radiated emission > 1000 GHz	Yes	Pass	3.2	Yes	
Page 23	Conducted emission AC/DC port	Yes	Pass	3.3	Yes	

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Revisions Revisions			
Revision Revision	Datum Date	Anmerkung Remark	Verfasser Author
00	Feb 18, 2019	First Release	W. Brouwer

Note: Latest revision report will replace all previous reports

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CONDITIONS FOR TESTING

1 General test configuration.

Test item	Wireless Communication Card
Model	AX200NGW
Manufacturer	Intel Corporation SAS, Le Cargo B6 / 424 Rue de Goa, 06600 Antibes, France
Voltage input rating	Powered by extension board around 2-5 V DC
Current input rating	n.a.
Test software	Intel ProSet
Driver version	20.115.0.4
Auxiliary Equipment	See drawing in 1.1
Remarks	EUT tested in external extension board

List of used cables					
Number	Function	From	To	Length	Remarks
1	AC	Mains	Laptop	<3	

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1.1 Tested system auxiliary details.

Details and an overview of the system and all of its components, as it has been tested, may be found below.

Test item (EUT1) : Wireless Communication Card
Manufacturer : Intel Corporation SAS
Brand mark : Intel
Model : AX200NGW
Serial number : Engineering Sample
Remark : Tested in Extender board

Test item (AUX1) : Extender Main and Card board
Manufacturer : Intel Corporation SAS
Brand mark : Intel
Model : CRF CNVIO DB M2
Serial number : PCB00651_01
Remark : Used to have a functional EUT outside a PC or laptop

Test item (AUX2) : Laptop
Manufacturer : Dell
Brand mark : Dell
Model : E5470
Serial number : ---
Remark : Used as Host for AUX 1

Test item (AUX3) : Mobile Phone
Manufacturer : Samsung
Brand mark : Samsung
Model : Galaxy J7 (2016)
Serial number : ---
Remark : Used for BT communication

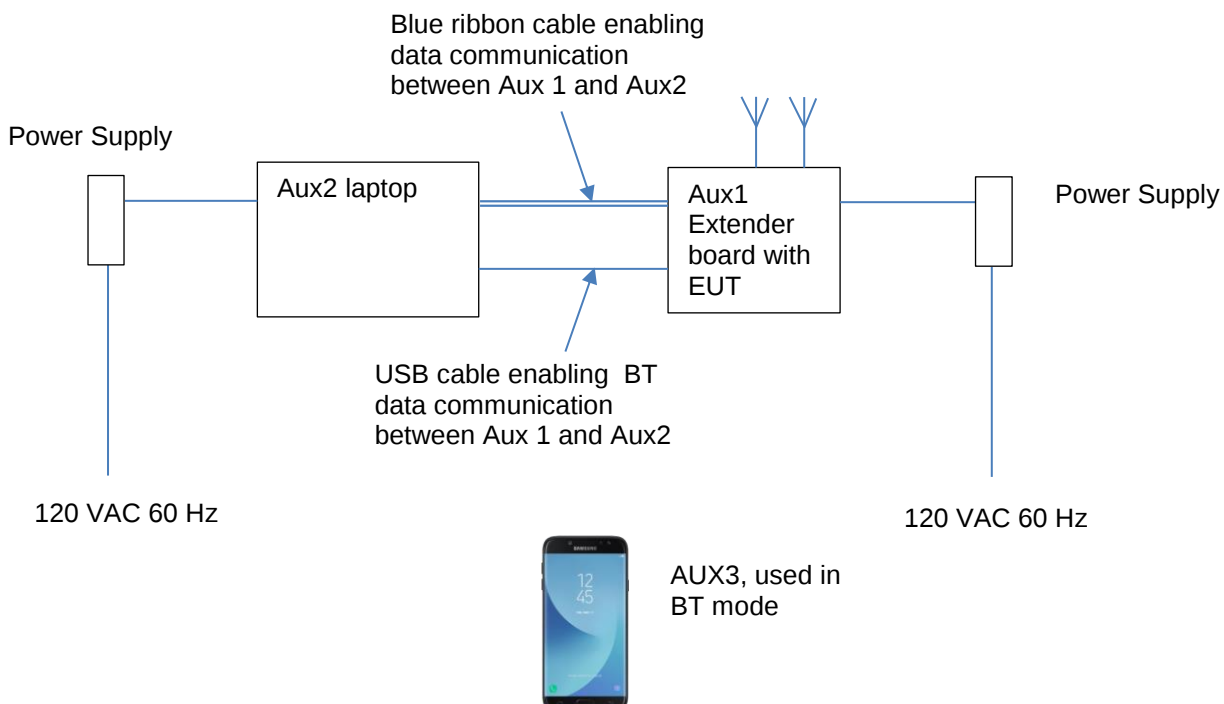


Figure 1. Total set-up used during testing

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1.2 Test methodology.

The test methodology used is based on the requirements of 47 CFR Part 15 (10-1-17 Edition), sections 15.31, 15.107 and 15.109 and ICES-003 Issue 6 (January 2016) Sections 6.1 and 6.2. The EUT was tested in horizontal position only and is regarded as Table Top equipment.

The test methods, which have been used, are based on ANSI C63.4-2014.

Radiated emission tests were performed at a measurement distance of 3 meters.

The receivers are switching automatically to the right bandwidth in accordance with CISPR 16. This is implemented in the receiver. The antenna factors are programmed in the test receiver. The receiver automatically calculates the appropriate correction factor for the utilized antenna and also the appropriate antenna factor for the cable loss. The total correction is automatically added to the measured value.

1.3 Test facility.

The Federal Communications Commission and Industry Canada has reviewed the technical characteristics of the test facilities at TÜV Rheinland Nederland B.V., located at Eiberkamp 10, 9351 VT Leek, The Netherlands, and has found these test facilities to be in compliance with the requirements of 47 CFR Part 15, section 2.948.

The description of the test facilities has been filed at the Office of the Federal Communications Commission under registration number 786213. The facility has been added to the list of laboratories performing these test services for the public on a fee basis.

The description of the test facilities has been filed to Industry Canada under registration number 2932G-2. The facility has been added to the list of laboratories performing these test services for the public on a fee basis.

1.4 Test conditions.

Normal test conditions:

Temperature (*)	: +15°C to +35°C
Relative humidity(*)	: 20 % to 75 %
Supply voltage	: 120 Vac / 60 Hz

**When it was impracticable to carry out the tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests are stated separately.*

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2 System test configuration.

2.1 Justification.

The system was configured for testing in a typical situation as a customer would normally use it. The test sample was configured by the applicant to enable continuous transmit. A normal 2.4 and/or 5 GHz Internet Link has been built-up to enable communication

The justification and manipulation of cables and equipment in order to simulate a worst-case behavior of the test setup has been carried out as prescribed in ANSI C63.4-2014.

2.2 EUT mode of operation.

The unintentional radiator tests have been performed with a complete functioning EUT.

2.3 Special accessories.

No special accessories are used and/or needed to achieve compliance.

2.4 Equipment modifications.

No modifications have been made to the equipment.

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3 Test results Emission according to FCC CRF47 Part 15B

3.1 Enclosure Radiated Emission 30-1000 MHz

3.1.1 Definition

Result of the measurements concerning radiated electromagnetic fields (electric component) emitted by the total set-up of the EUT.

3.1.2 Basic standard

The test is performed according to FCC CRF 47 Part 15B § 15.109

3.1.3 Limit

FCC 15.109(a) and IC ICES-003 section 6.2

Except for Class A digital devices, the field strength of radiated emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength ($\mu\text{V}/\text{meter}$)	Field strength (dB $\mu\text{V}/\text{m}$)	Measurement distance (meters)
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Table of Applicable Limits

3.1.4 Test procedures

ANSI C63.4-2014.

Before final measurements of radiated emissions were performed, the EUT was scanned to determine its emission spectrum profile. The physical arrangement of the test system, the associated cabling and the EUT orientation (X, Y, Z) were varied in order to ensure that maximum emission amplitudes were attained.

The spectrum was examined from 30MHz to 25 GHz, the fifth harmonic of the implemented WLAN module. Final radiated emission measurements were made at 3 m distance.

At each frequency where a spurious emission was found, the EUT was rotated 360° and the antenna was raised and lowered from 1 to 4 m in order to determine the emission's maximum level. Measurements were taken using both horizontal and vertical antenna polarizations.

The highest emission amplitudes relative to the appropriate limit were recorded in this report. Field strength values of radiated emissions at frequencies not listed in the tables are more than 20 dB below the applicable limit.

3.1.5 Test deviation

There is no deviation with the original standard

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3.1.6 Test results

Test conditions			
Ambient temperature (°C)	22.0	Relative humidity (%)	38.0
Air pressure (hPa)	950-1050	Test location	Leek
Applied Standard(s)	47 CFR Part 15 (10-1-17 Edition), ICES-003, January 2016)		
Test engineer	W. Brouwer	Test result	Pass
Test date	Feb 8, 2019 - Feb 13, 2019	Signature: 	

3.1.6.1 Test results 2.4 GHz WiFi Mode

Results and limits						
Frequency (MHz)	Result (dBμV/m)	Antenna polarization	Limit (dBμV/m)	Margin	Height (cm)	Angle (deg)
108.78	28.4	Vertical	43.5	15.1	100.1	267.7
182.11	26.3	Horizontal	43.5	17.2	99.7	242.4
561.60	44.7	Vertical	46.0	1.3	100.1	130.7
569.92	45.7	Vertical	46.0	0.3	99.7	133.0
578.24	45.7	Vertical	46.0	0.3	99.6	135.3
586.56	45.0	Vertical	46.0	1.0	99.7	141.1
603.20	41.4	Vertical	46.0	4.6	99.7	128.5

Table 1 Results Enclosure Radiated Emission 30.0 – 1000 MHz

3.1.6.2 Test results 5 GHz WiFi Mode and BT Mode

Results and limits						
Frequency (MHz)	Result (dBμV/m)	Antenna polarization	Limit (dBμV/m)	Margin	Height (cm)	Angle (deg)
36.03	29.6	Vertical	40.0	10.4	99.7	254.6
182.55	28.8	Vertical	43.5	14.7	99.7	359.8
408.00	43.6	Vertical	46.0	2.4	99.9	163.8
561.60	45.8	Vertical	46.0	0.2	99.6	138.7
569.92	45.6	Vertical	46.0	0.4	99.7	140.1
578.24	45.9	Vertical	46.0	0.1	99.7	144.5
586.56	45.9	Vertical	46.0	0.1	100.1	146.6

Table 2 Results Enclosure Radiated Emission 30.0 – 1000 MHz

Used Equipment

A01982	A00029	A00235	A00313	A00447	A00466				
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Notes:

- Field strength values of radiated emissions at frequencies not listed in the table above are more than 25 dB below the applicable limit.
- Measurement uncertainty is 5.1 dB.
- The EUT was tested in horizontal orientation only-it's normal operation orientation, the measuring antenna was varied in horizontal and vertical orientations and also around its axis and height. The reported value is the worst case found at the reported frequency.
- A selection of Photos and Graphical Displays is provided on the next pages.

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3.1.6.3 Photograph test setup

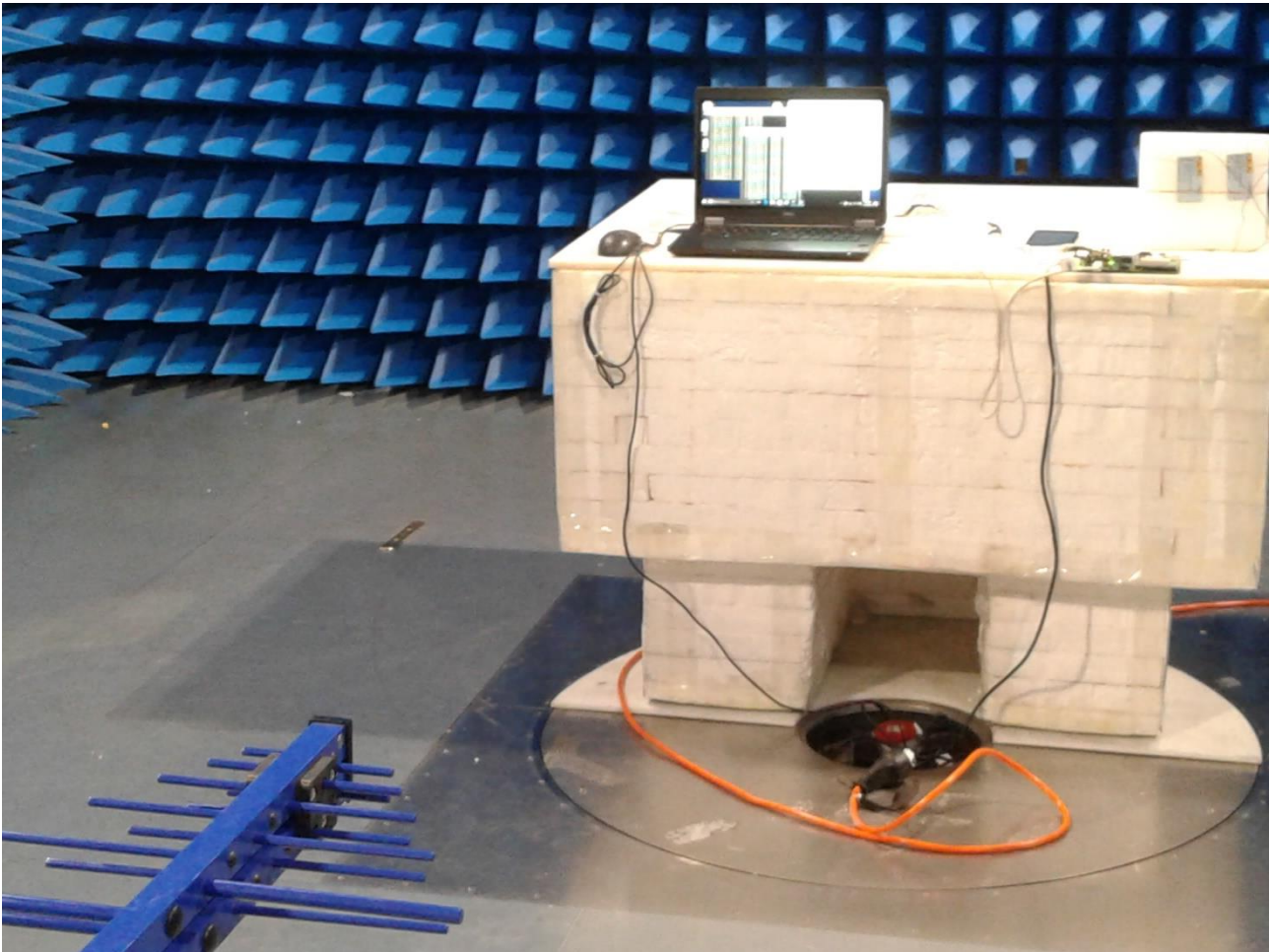
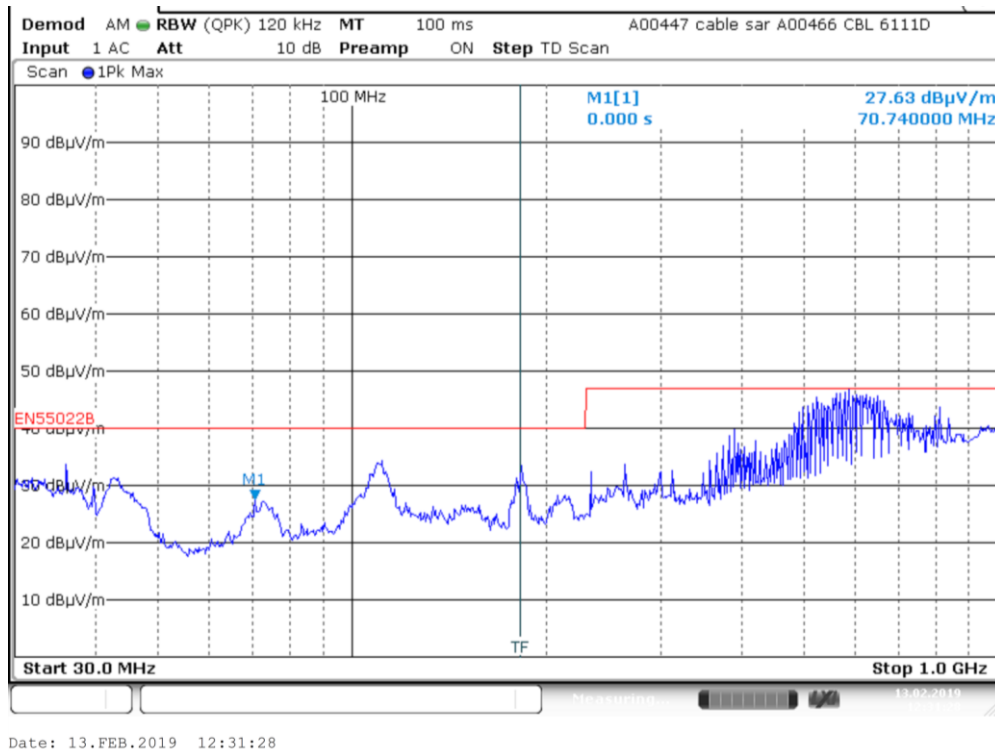


Photo 1 Photograph test setup radiated emissions 30-1000 MHz

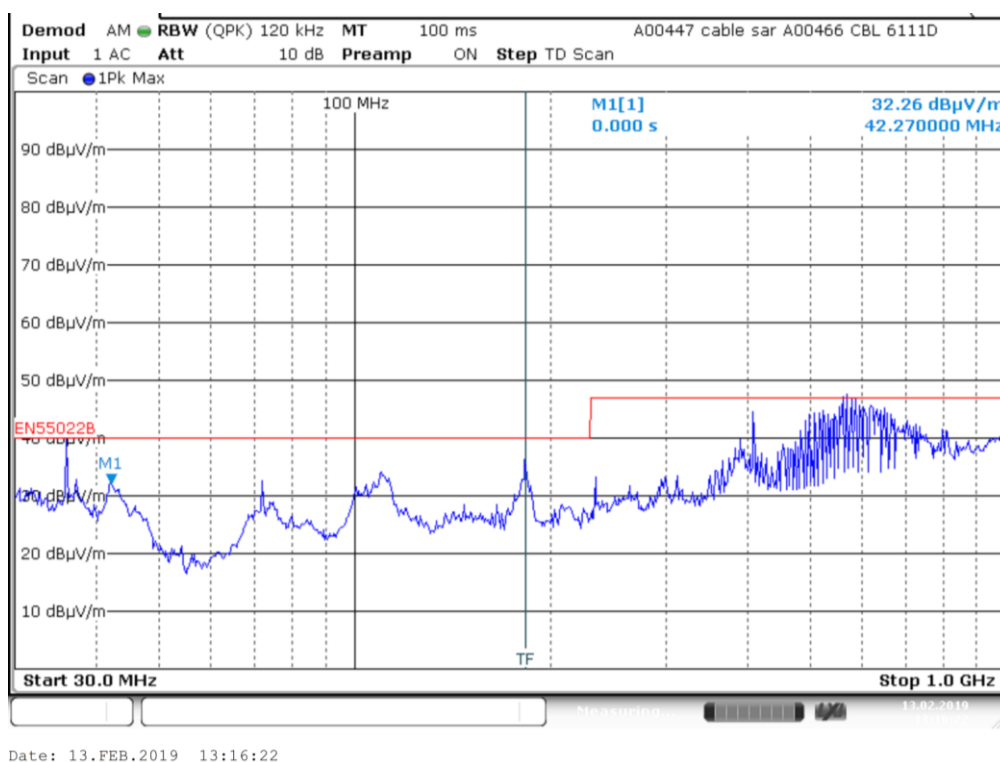
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3.1.6.4 Spectrum plot



Plot 1: Pre-scan plot with peak detector. Radiated emissions from 30 MHz to 1000 MHz, 2.4GHz mode.



Plot 2: Pre-scan plot with peak detector. Radiated emissions from 30 MHz to 1000 MHz, 5GHz and BT mode.

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3.2 Enclosure Radiated emission 1GHz – 30GHz

3.2.1 2.4 GHz WiFi Mode

Results and limits 2.4 GHz mode						
Frequency (GHz)	Peak Results			Average Results		
	Horizontal (dB μ V/m)	Vertical (dB μ V/m)	Limit (dB μ V/m)	Horizontal (dB μ V/m)	Vertical (dB μ V/m)	Limit (dB μ V/m)
1.60	41.9	46.3	74.0	27.0	27.1	54.0
2.13	44.8	49.1	74.0	30.6	31.2	54.0
4.85	55.6	55.4	74.0	42.7	42.7	54.0
5.82	61.7	61.8	74.0	48.1	48.1	54.0
6.51	53.1	53.0	74.0	39.5	39.4	54.0
7.98	52.1	51.9	74.0	39.2	38.8	54.0
11.48	60.1	59.6	74.0	47.9	47.6	54.0
13.75	56.0	56.9	74.0	43.9	44.4	54.0
17.70	66.2	66.8	74.0	53.6	53.8	54.0
20.08	52.3	51.7	74.0	41.4	41.3	54.0
20.74	52.2	52.3	74.0	42.2	42.2	54.0
29.23	52.7	51.7	74.0	42.8	42.8	54.0

Table 3 Results Enclosure Radiated Emission 1 GHz – 30 GHz, 2.4GHz mode

3.2.2 5 GHz WiFi Mode and BT Mode

Results and limits 5 GHz and BT mode						
Frequency (GHz)	Peak Results			Average Results		
	Horizontal (dB μ V/m)	Vertical (dB μ V/m)	Limit (dB μ V/m)	Horizontal (dB μ V/m)	Vertical (dB μ V/m)	Limit (dB μ V/m)
1.06	38.4	39.9	74.0	25.0	25.0	54.0
1.42	41.4	43.8	74.0	25.7	25.9	54.0
2.12	44.3	49.7	74.0	30.5	31.5	54.0
4.83	56.7	56.8	74.0	43.0	43.0	54.0
5.82	62.0	63.2	74.0	48.3	48.3	54.0
6.51	52.9	52.7	74.0	40.1	40.3	54.0
7.94	51.3	51.3	74.0	39.2	39.2	54.0
11.48	60.2	59.5	74.0	47.8	47.6	54.0
13.81	55.8	56.3	74.0	44.1	44.2	54.0
17.82	66.7	65.5	74.0	53.6	53.8	54.0
20.72	53.5	53.2	74.0	45.0	42.9	54.0
29.33	52.3	52.8	74.0	42.1	42.1	54.0

Table 4 Results Enclosure Radiated Emission 1 GHz – 30 GHz, 5 GHz and BT mode

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Notes:

Field strength values of radiated emissions at frequencies not listed in the table above are more than 25 dB below the applicable limit.

1. Measurement uncertainty is +/- 5.13 dB
2. The reported field strength values are the worst case values at the indicated frequency. The receiving antenna was varied in horizontal and vertical orientations and also in height (between 1m and 2m).
3. A Peak and Average detector was used with a resolution bandwidth of 1MHz.

Used Equipment

A01982	A00337	A00338	A00235	A00313	A00447	A00008			
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Photograph test setup 1- 6 GHz

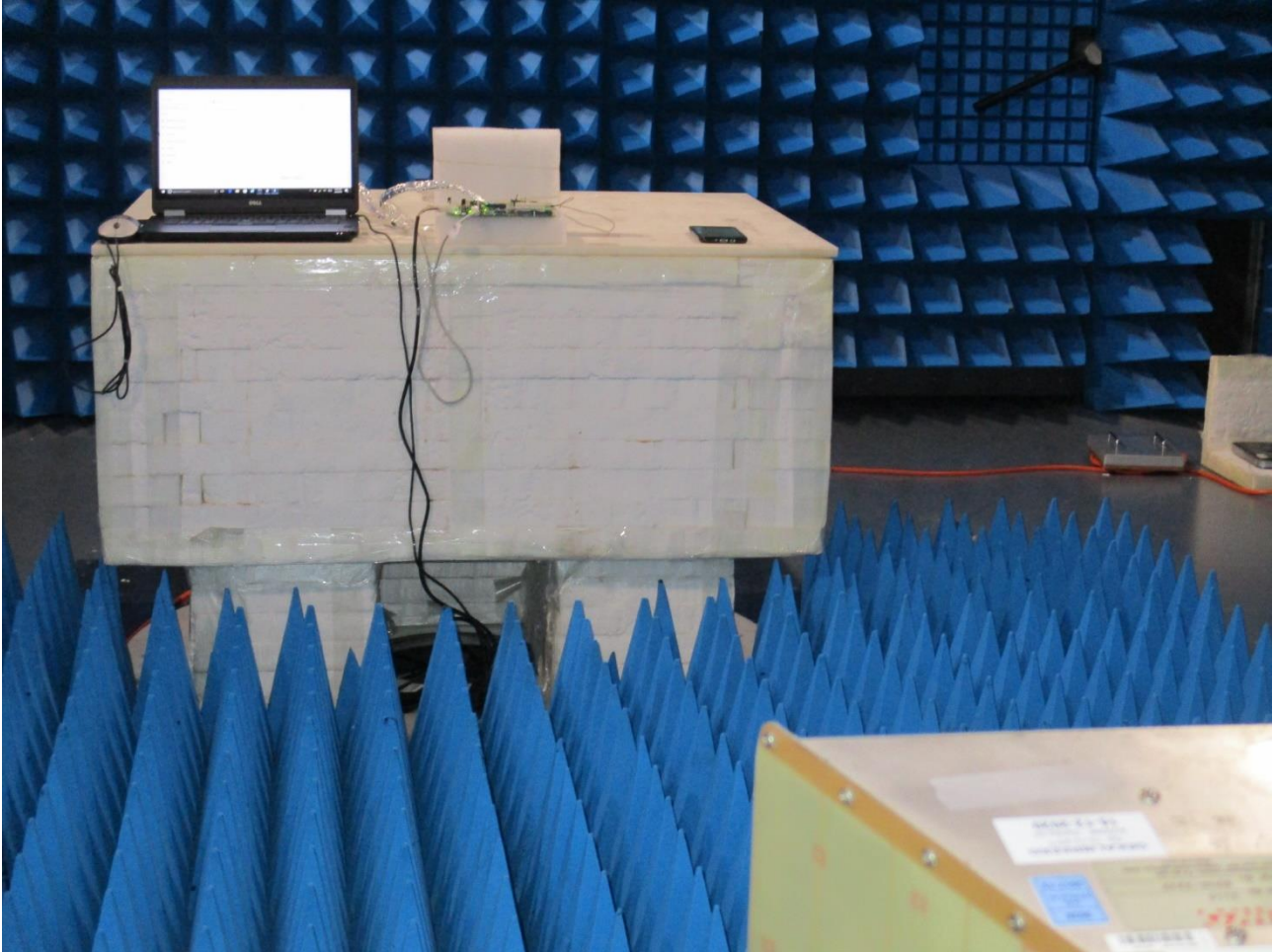


Photo 2: Photograph radiated emissions 1 – 6 GHz

3.2.3 test setup 6-18 GHz

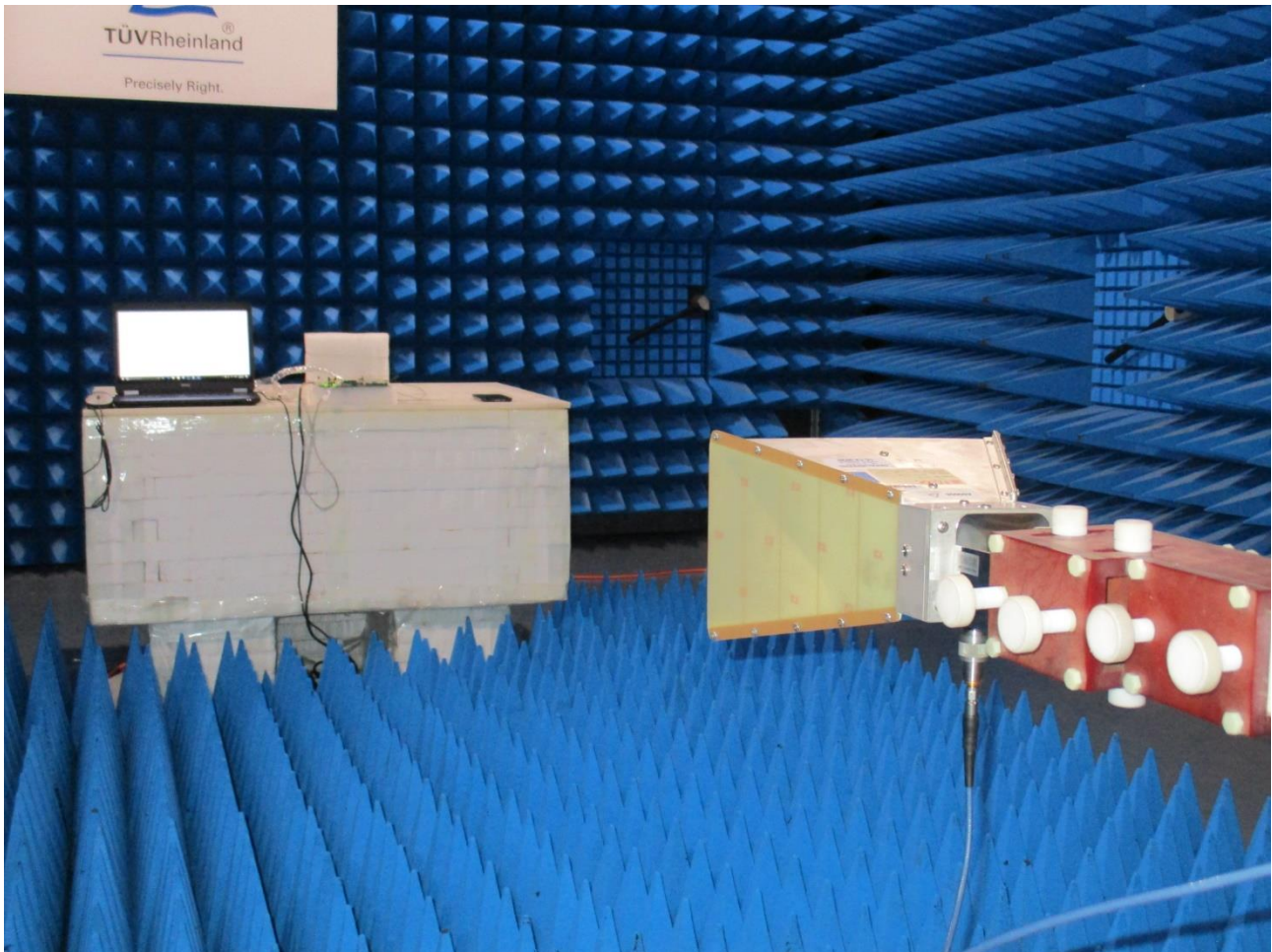


Photo 3: Photograph radiated emissions 6 – 18 GHz

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3.2.4 test setup 18-30 GHz

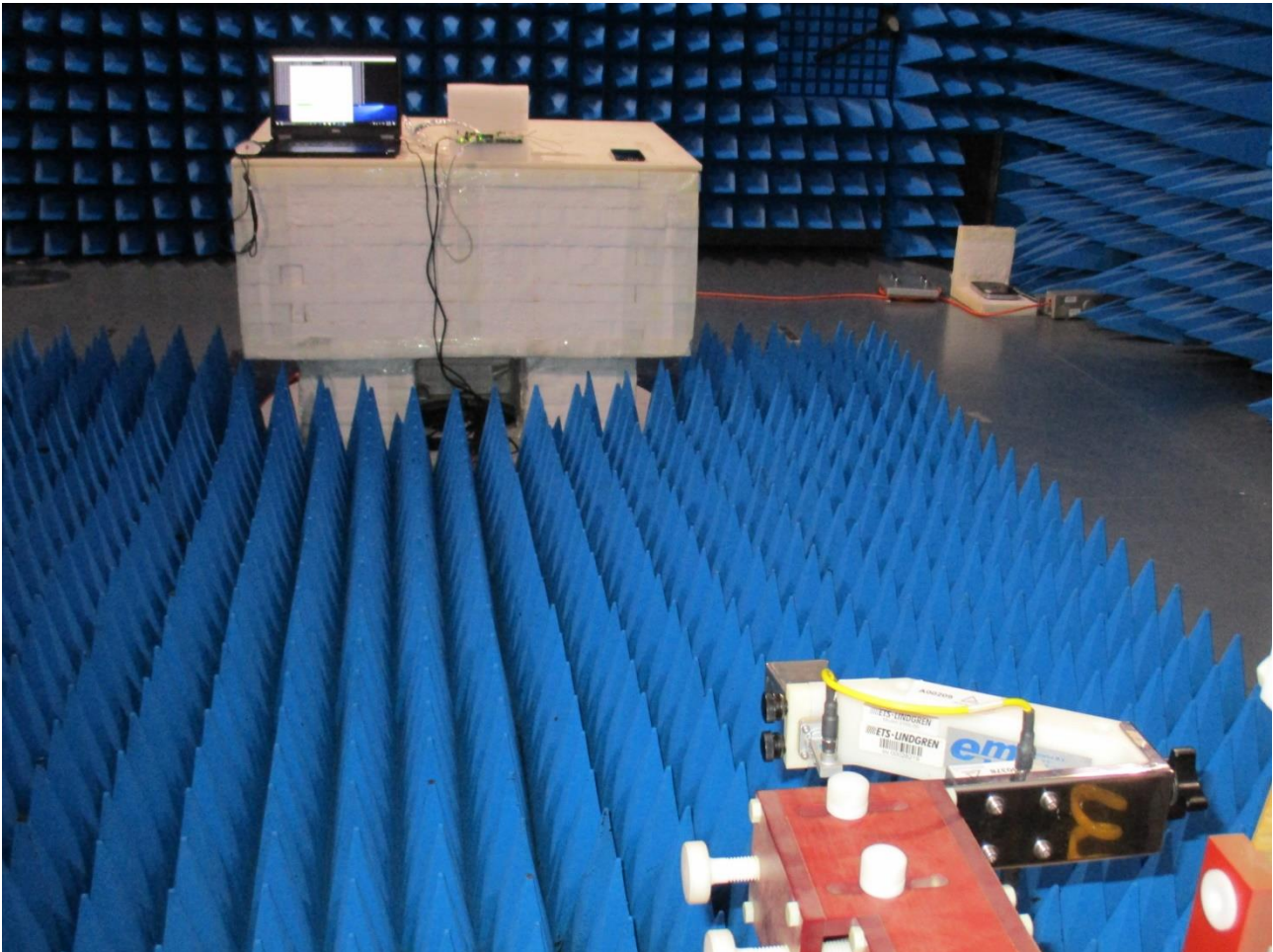
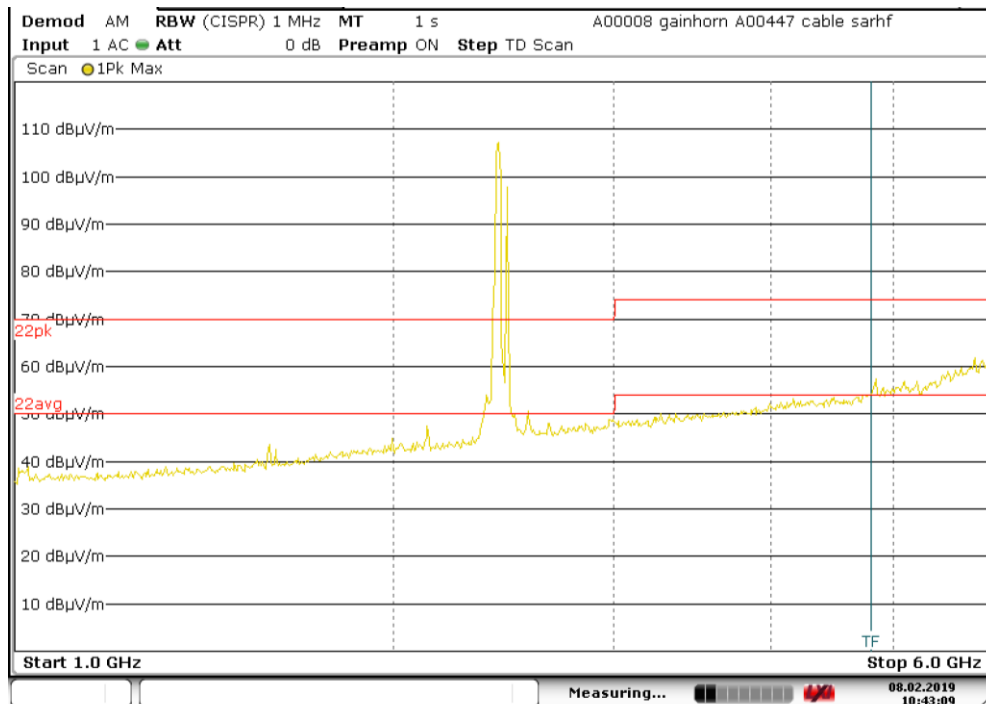


Photo 4: Photograph radiated emissions 18 – 30 GHz

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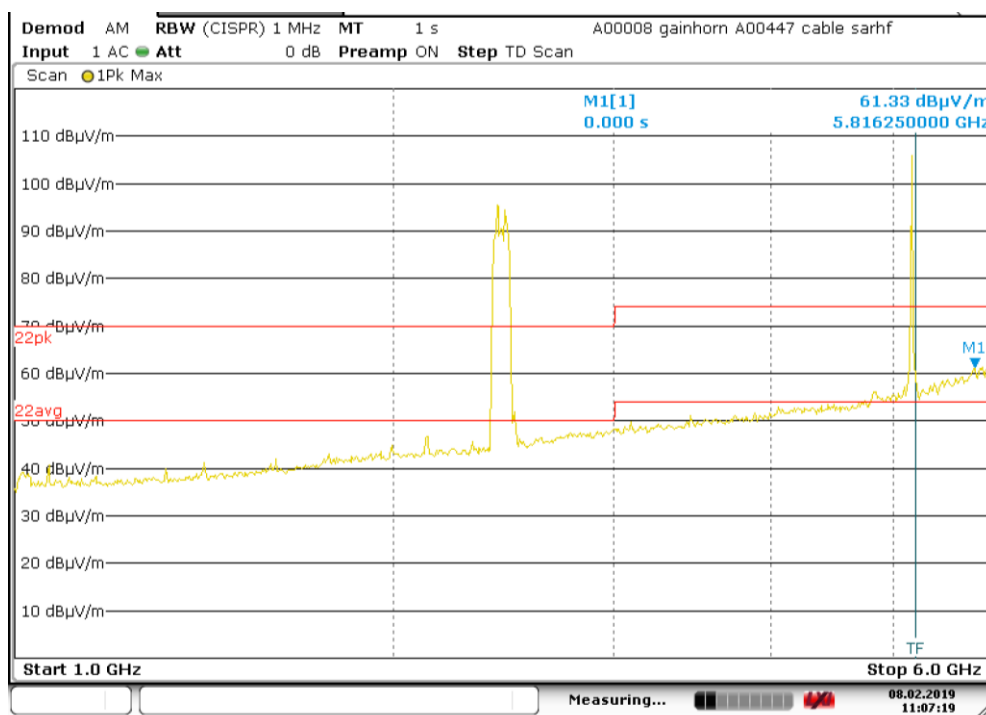
3.2.5 Spectrum plot 2.4 GHz WiFi Mode



Date: 8.FEB.2019 10:43:09

Plot 3: Pre-scan plot with peak detector. Radiated emissions from 1 GHz – 6 GHz, 2.4 GHz mode

3.2.6 Spectrum plot 5 GHz WiFi Mode and BT Mode, 1 – 6 GHz



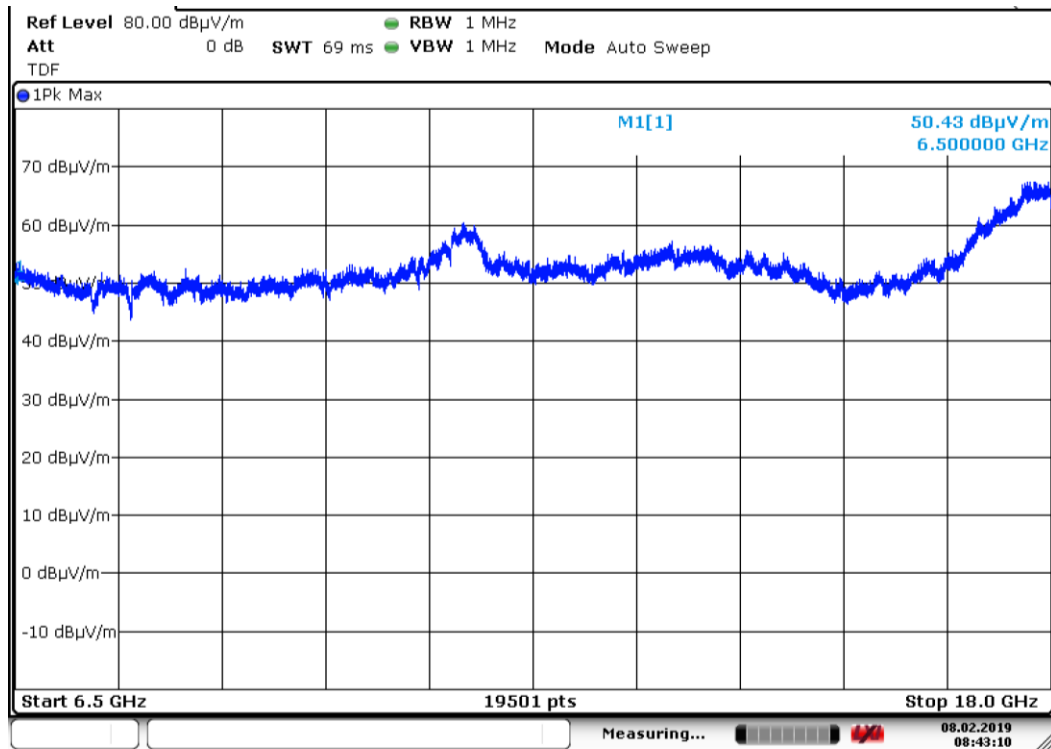
Date: 8.FEB.2019 11:07:19

Plot 4: Pre-scan plot with peak detector. Radiated emissions from 1 GHz – 6 GHz, 5 GHz and BT mode

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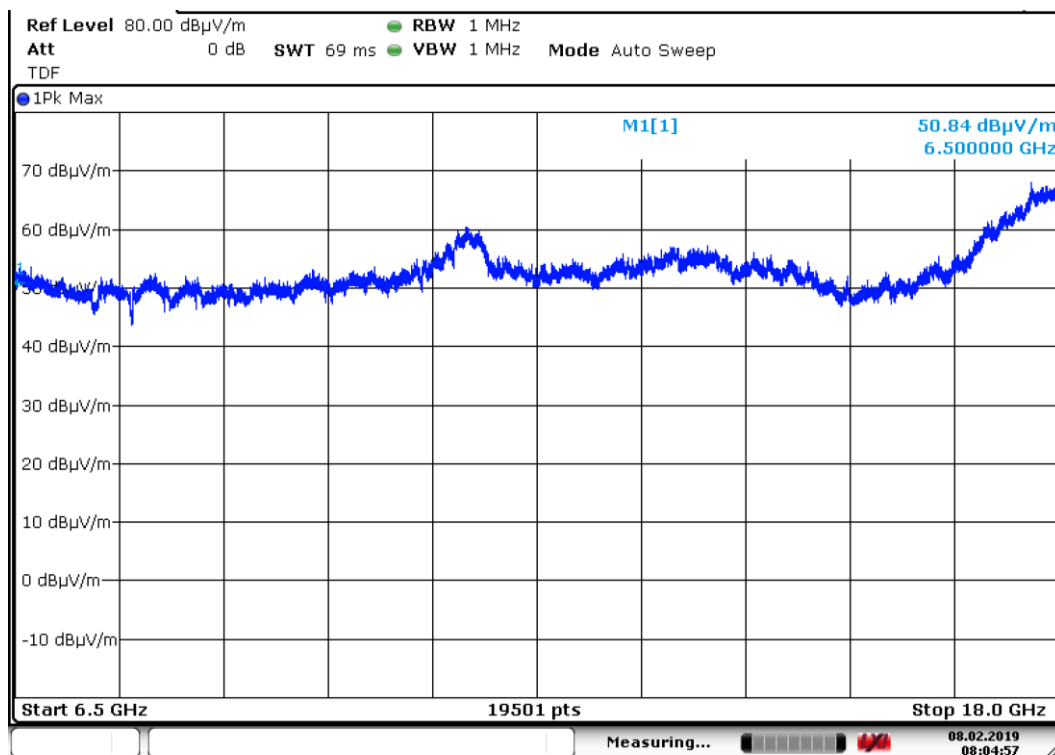
3.2.7 Spectrum plot 2.4 GHz WiFi Mode, 6 – 18 GHz



Date: 8.FEB.2019 08:43:09

Plot 5: Pre-scan plot with peak detector. Radiated emissions from 6 GHz – 18 GHz, 2.4 GHz WIFI mode

3.2.8 Spectrum plot 5 GHz WiFi Mode and BT Mode, 6 – 18 GHz



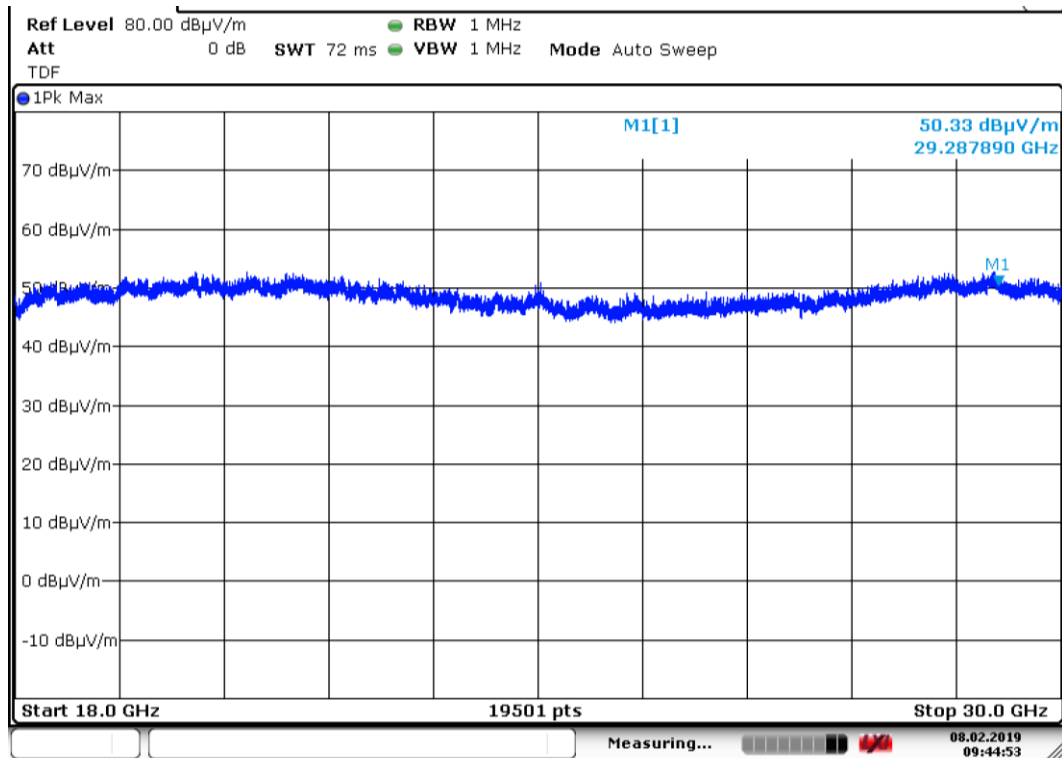
Date: 8.FEB.2019 08:04:57

Plot 6: Pre-scan plot with peak detector. Radiated emissions from 6 GHz – 18 GHz, 5 GHz WIFI and BT mode

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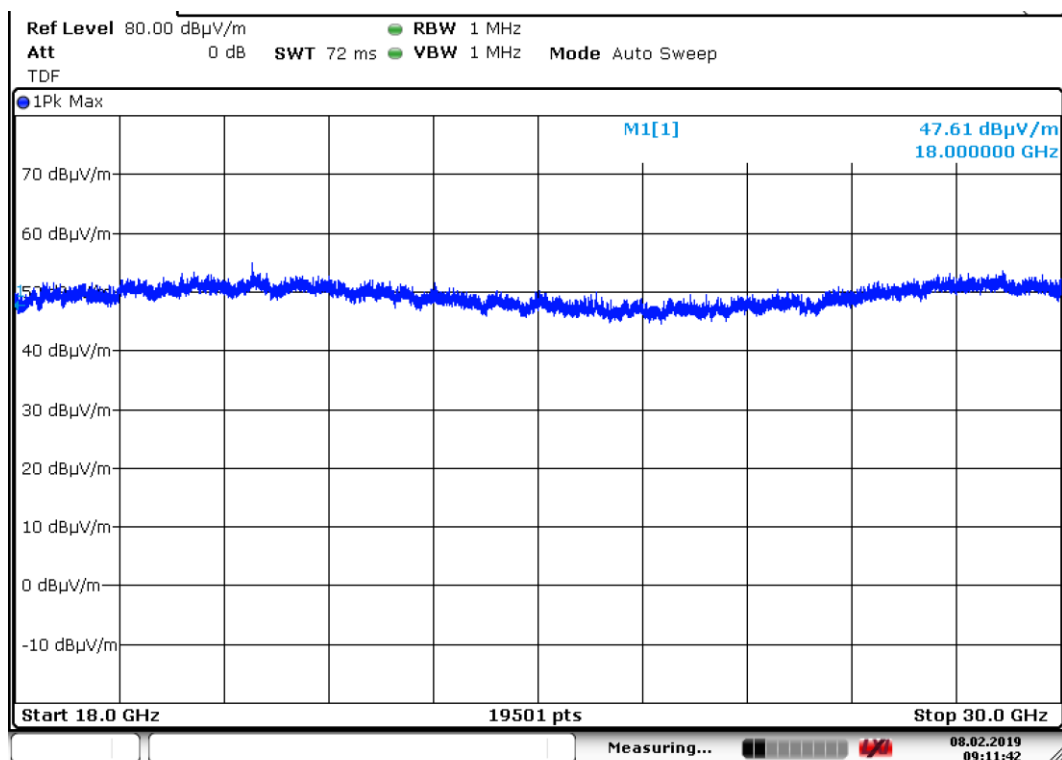
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3.2.9 Spectrum plot 2.4 GHz WiFi Mode , 18 – 30 GHz



Date: 8.FEB.2019 09:44:52
Plot 7: Pre-scan plot with peak detector. Radiated emissions from 18 GHz - 30 GHz, 2.4 GHz WIFI mode

3.2.10 Spectrum plot 5 GHz WiFi Mode and BT Mode, 18 – 30 GHz



Date: 8.FEB.2019 09:11:42
Plot 8: Pre-scan plot with peak detector. Radiated emissions from 18 GHz – 30 GHz, 5 GHz WIFI and BT mode

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3.3 AC Mains Conducted Emission 0.15-30 MHz

3.3.1 Definition

Result of the measurements concerning the disturbance voltage level at the power input port emitted by the total set-up of the EUT.

3.3.2 Basic standard

The test is performed according to FCC CRF 47 Part 15B § 15.107

3.3.3 Limit

Frequency (MHz)	Limit Quasi-peak(dBμV)	Limit Average(dBμV)
0.15 - 0.50	66.0 – 56.0	56.0 – 46.0
0.50 - 5.0	56.0	46.0
5.0 – 30.0	60.0	50.0

3.3.4 Test procedures

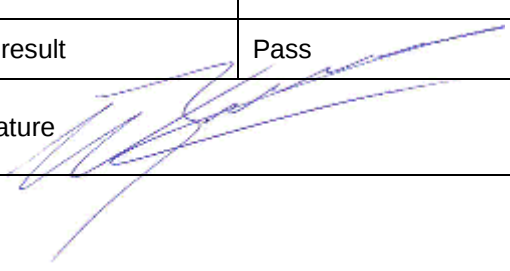
Requirements: 15.107 (a) Except for Class A digital devices, for equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the band edges.

Test procedure according to ANSI C63.4-2014: Each phase and neutral of the AC power line were measured with respect to ground. Measurements were performed using a 50 μH / 50 Ω LISN. The frequency range from 150kHz to 30MHz was searched. The six highest EUT emissions relative to the limit were noted. The EUT is regarded as floor standing equipment and no isolating plane was used since the EUT is already provided with isolating material (of max 12mm height) underneath. The EUT was positioned at least 40cm from a vertical ground reference plane and at least 80cm from the LISN.

3.3.5 Test deviation

There is no deviation with the original standard

3.3.6 Test results

Test conditions			
Ambient temperature (°C)	21.7	Relative humidity (%)	30.5
Air pressure (hPa)	950-1050	Test location	Leek
Applied Standard(s)	47 CFR Part 15 (10-1-17 Edition), ICES-003, January 2016)		
Test engineer	W. Brouwer	Test result	Pass
Test date	Feb 1, 2019	Signature	

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3.3.6.1 Results 2.4 GHz WiFi Mode

Results and limits Neutral						
Frequency (MHz)	Quasi peak detector			Average detector		
	Result	Limit	Margin	Result	Limit	Margin
0.17	42.5	65.0	22.4	26.9	55.0	28.0
0.25	35.8	61.7	25.9	25.4	51.7	26.3
0.52	30.1	56.0	25.9	19.9	46.0	26.1
2.91	25.1	56.0	30.9	19.0	46.0	27.0
21.90	26.5	60.0	33.5	17.1	50.0	32.9
26.36	21.8	60.0	38.2	9.5	50.0	40.5

Table 5 Results Conducted Emission 0.15 - 30 MHz

Results and limits L1						
Frequency (MHz)	Quasi peak detector			Average detector		
	Result	Limit	Margin	Result	Limit	Margin
0.17	40.0	65.0	25.0	24.1	55.0	30.8
0.25	35.2	61.7	26.5	22.6	51.7	29.1
0.52	30.1	56.0	25.9	20.4	46.0	25.6
2.91	28.5	56.0	27.5	22.5	46.0	23.5
21.90	20.2	60.0	39.8	11.9	50.0	38.1
26.36	15.5	60.0	44.5	8.3	50.0	41.7

Table 6 Results Conducted Emission 0.15 - 30 MHz

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3.3.6.2 Results 5 GHz WiFi Mode and BT Mode

Results and limits Neutral						
Frequency (MHz)	Quasi peak detector			Average detector		
	Result	Limit	Margin	Result	Limit	Margin
0.16	40.9	65.6	24.7	26.5	55.6	29.1
0.19	37.4	64.0	26.7	26.2	54.0	27.8
2.66	26.2	56.0	29.8	19.3	46.0	26.7
3.17	29.0	56.0	27.0	24.0	46.0	22.0
3.55	29.3	56.0	26.7	24.4	46.0	21.6
3.98	28.7	56.0	27.3	22.8	46.0	23.2

Table 7 Results Conducted Emission 0.15 - 30 MHz

Results and limits L1						
Frequency (MHz)	Quasi peak detector			Average detector		
	Result	Limit	Margin	Result	Limit	Margin
0.16	44.2	65.6	21.4	24.3	55.6	31.3
0.19	36.8	64.0	27.3	21.3	54.0	32.7
2.66	30.6	56.0	25.4	23.9	46.0	22.2
3.17	32.2	56.0	23.8	27.2	46.0	18.8
3.55	32.8	56.0	23.2	27.6	46.0	18.4
3.98	30.9	56.0	25.1	25.5	46.0	20.5

Table 8 Results Conducted Emission 0.15 - 30 MHz

The results of the AC power line conducted emission tests, carried out in accordance with 47 CFR Part 15 section 15.107 and ICES-003 Section 6.1, at the 120 Volts AC mains connection terminals of Aux2 of the system, are depicted in Table 5 -8. Maximum values were recorded. The system is tested as in whole, so with all equipment as shown in Figure 1 in place and functioning. Being the worst case situation.

Notes:

1. Measurement uncertainty is $\pm 3.2\text{dB}$
2. The resolution bandwidth used was 9 kHz.
3. The six highest values relative to the applicable limits were noted.
4. Photo and Graphical Display is provided on the next page.

Used Equipment

A00726	A01978	A00022	A00354	A00093					
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3.3.6.3 Photograph test setup

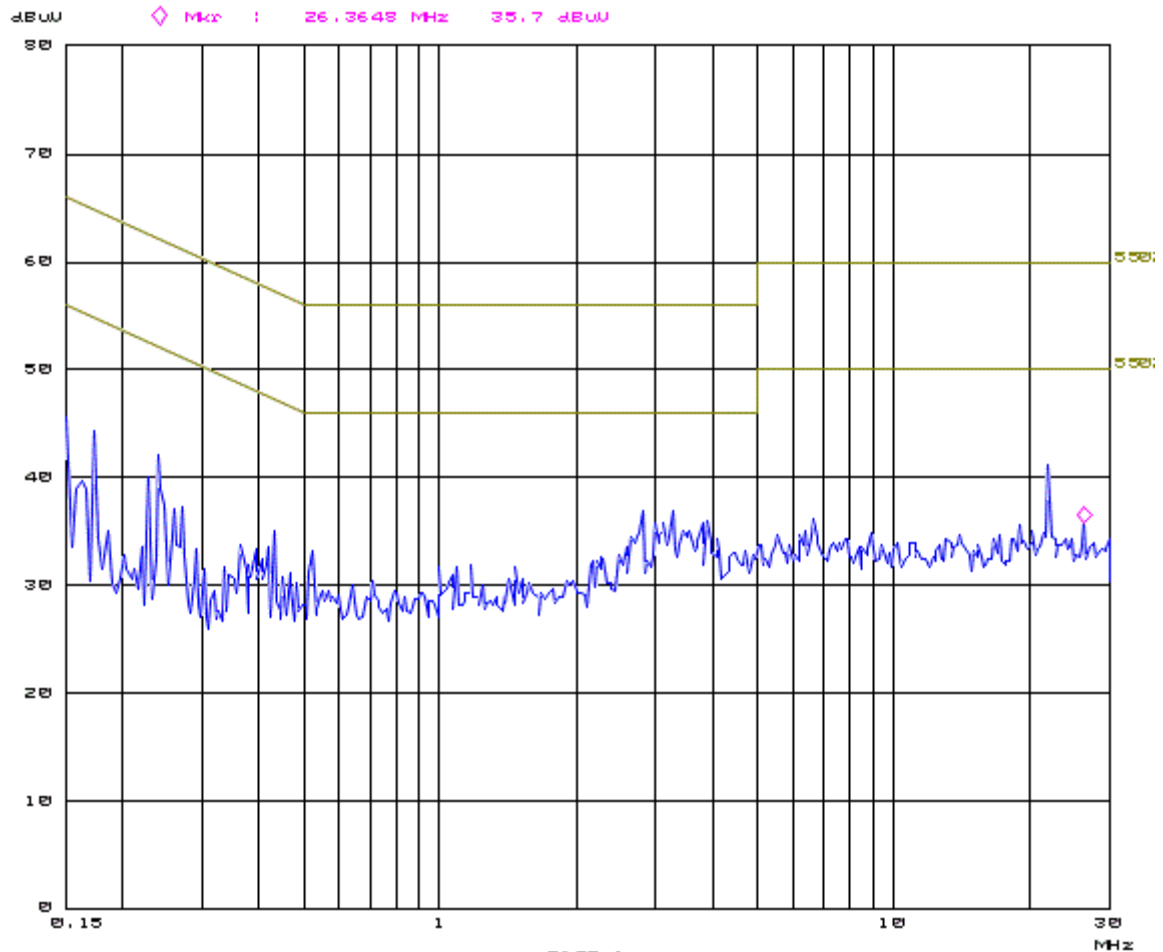


Photo 5: Photograph conducted emissions 0.15-30 MHz

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3.3.6.4 Spectrum plot 2.4 GHz Mode

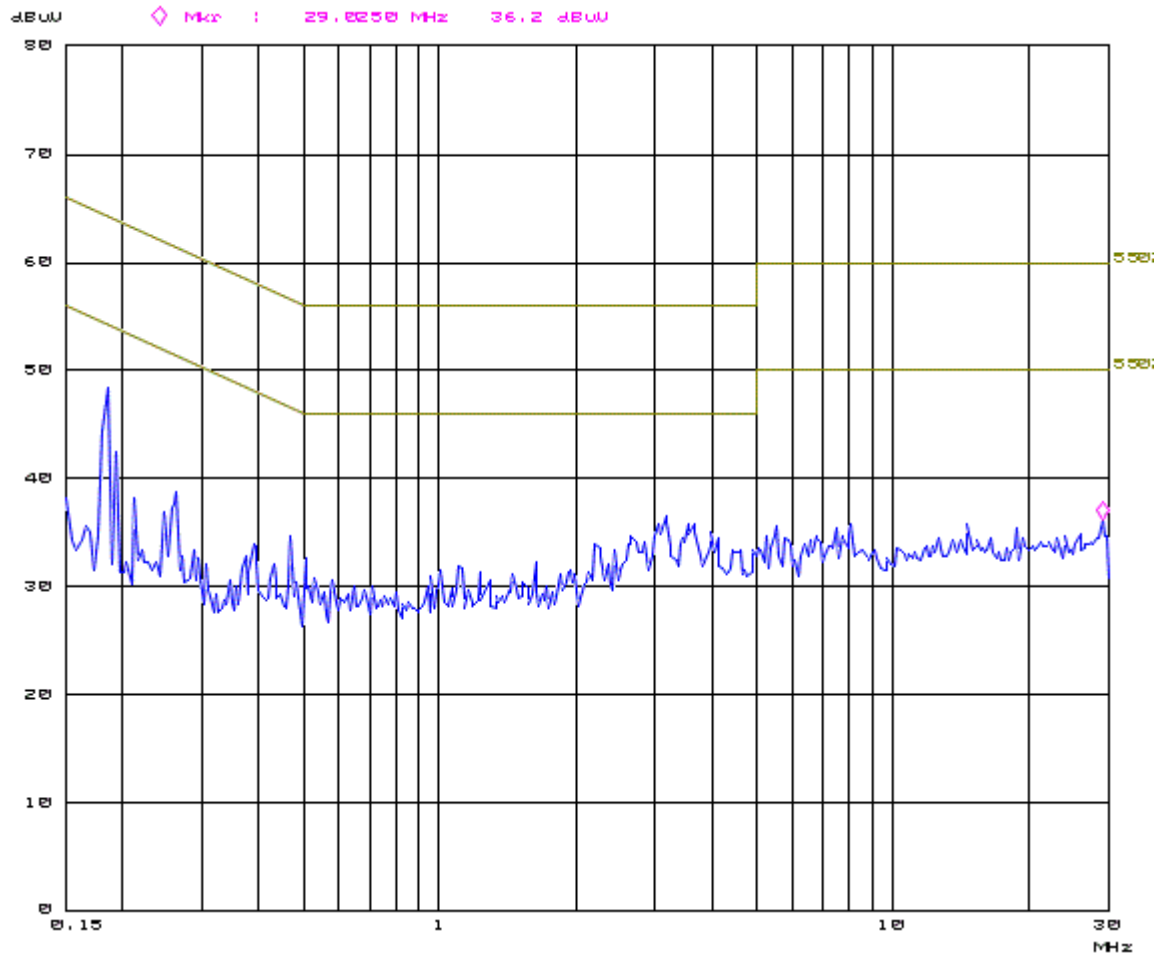


Plot 9: Pre-scan plot with peak detector. Conducted emissions from 0.15 - 30 MHz, 2.4 GHz WIFI mode

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3.3.6.5 Spectrum plot 5 GHz Mode and BT Mode



Plot 10: Pre-scan plot with peak detector. Conducted emissions from 0.15 - 30 MHz, 5 GHz WIFI and BT mode

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