Test report for

47 CFR Part 15 Subpart B

ICES-Gen, ICES-003

The RvA is signatory to ILAC - MRA

Product name : Flux System box

Applicant : Sensys Gatso Netherlands B.V.

Test report No. : P000537565 001 v1.00

Laboratory information

Accreditation

Kiwa Nederland B.V. complies with the accreditation criteria for test laboratories as laid down in ISO/IEC 17025:2017. The accreditation covers the quality system of the laboratory as well as the specific activities as described in the authorized annex bearing the accreditation number L015 and is granted by the Dutch Council For Accreditation (RvA: Raad voor Accreditatie).

Kiwa Nederland B.V. is designated by the FCC as an Accredited Test Firm for compliance testing of equipment subject to Certification under Parts 15 & 18. The Designation number is: NL0001.

Kiwa Nederland B.V. is a Wireless Device Testing laboratory recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements.
The Industry Canada company number for Kiwa Nederland B.V. is: 4173A. The CABID is NL0001.

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Documentation

The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 10 years at Kiwa Nederland B.V.

Testing Location

Test Site	Kiwa Nederland B.V.
Test Site location	Wilmersdorf 50 7327 AC Apeldoorn The Netherlands Tel. +31 88998 3393
Test Site FCC	NL0001
CABID	NL0001

Revision History

Version	Date	Remarks	By
v0.50	11-12-2025	First draft	AB
v1.00	26-01-2026	First release	RvB

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Summary of Test results

FCC	ISED*	Description	Section in report	Verdict
15.109 (a)	ICES-003 Table 2	Radiated spurious emissions < 1GHz	3.1	Pass
15.109 (a)	ICES-003 Table 4	Radiated spurious emissions > 1GHz	3.1	Pass

Decision rule: Pass/Fail decisions are based on measurement results without taking into account measurement uncertainty.

*Note: ICES-003 and ICES-Gen are not part of the Kiwa Netherlands L015 accreditation scope. Measurement results according ICES-003 and ICES-Gen are excluded from the accreditation scope.

1 General Description

1.1 Applicant

Client name:	Sensys Gatso Netherlands B.V.
Address:	Claes Tillyweg 2
Zip code:	2031CW
Telephone:	+31(0)23 5255050
E-mail:	s.rijnsaardt@sensysgatso.com
Contact name:	Sander Rijnsaardt

1.2 Manufacturer

Manufacturer name:	Sensys Gatso Netherlands B.V.
Address:	Claes Tillyweg 2
Zip code:	2031CW
Telephone:	+31(0)23 5255050
E-mail:	s.rijnsaardt@sensysgatso.com
Contact name:	Sander Rijnsaardt

1.3 Tested Equipment Under Test (EUT)

Product name:	Flux Systembox
Brand name:	Sensys Gatso Netherlands B.V.
FCC ID:	Not applicable
IC:	Not applicable
Contains FCC ID:	
Contains IC:	
Product description:	The system is used for speed enforcement of traffic
Variant model(s):	-
Batch and/or serial No.	S/N: 202504000321
Software version:	-
Hardware version:	-
Date of receipt:	04-12-2025
Tests started:	04-12-2025
Testing ended:	04-12-2025

Auxiliary items

AUX1

Product name:	Laptop outside the chamber.
Remarks:	Connects to EUT Ethernet port

AUX2

Product name:	12V battery 80Ah
Brand name:	Sensys Gatso
Product type:	Sensys Gatso - Flux
Model(s):	Flux Energy box 1
Batch and/or serial No.	-
Remarks:	Connects to EUT DC input

1.4 Product specifications of Equipment under test

Computer	ASrock	AS500
Radar	Sensys Gatso Group AB	TD1
Flash	Sensys Gatso Netherlands B.V.	
Camera (Still image)	Allied Vision	
Camera (Video)	Allied Vision	
Internal Power supply	Sensys Gatso Netherlands B.V.	Power PCB PCB24806P2
External supply	Sensys Gatso Netherlands B.V.	12V battery 80Ah

Disclaimer: above info is declared by the applicant

The EUT is considered as a Class A battery powered device.

1.5 Environmental conditions

Test date	04-12-2025
Ambient temperature	21.2 °C
Humidity	45.6 %

1.6 Measurement standards

- ANSI C63.4:2014

1.7 Applicable standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart B
- ICES-003 Issue 7
- ICES-Gen Issue 2

*Note: ICES-003 and ICES-Gen are not part of the Kiwa Netherlands L015 accreditation scope. Measurement results according ICES-003 and ICES-Gen are excluded from the accreditation scope.

1.8 Observation and remarks

Table top tested.

1.9 Conclusions

The sample of the product showed **NO NON-COMPLIANCES** to the specifications stated in paragraph 1.8 of this report.

The results of the test as stated in this report, are exclusively applicable to the product items as identified in this report. Kiwa Nederland B.V. accepts no responsibility for any properties of product items in this test report, which are not supported by the tests as specified in paragraph 1.8 *"Applicable standards".*

All tests are performed by:

Name : Johan Strydom

Review of test methods and report by:

Name : ing. R. van Barneveld

The above conclusions have been verified by the following signatory:

Date :26-1-2025

Name : ing. R. van Barneveld

Function : Test Engineer

Signature :

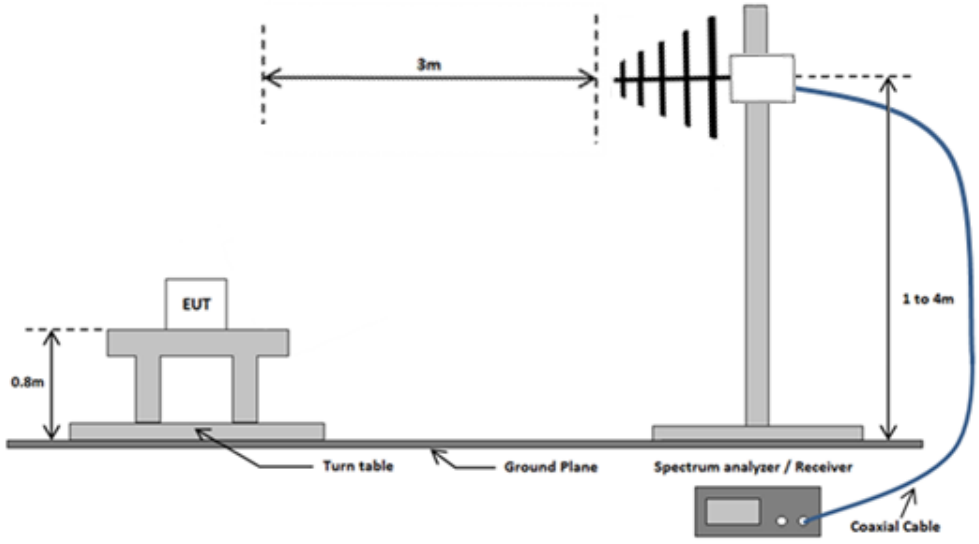
2 Test configuration of the Equipment Under Test

2.1 Test mode

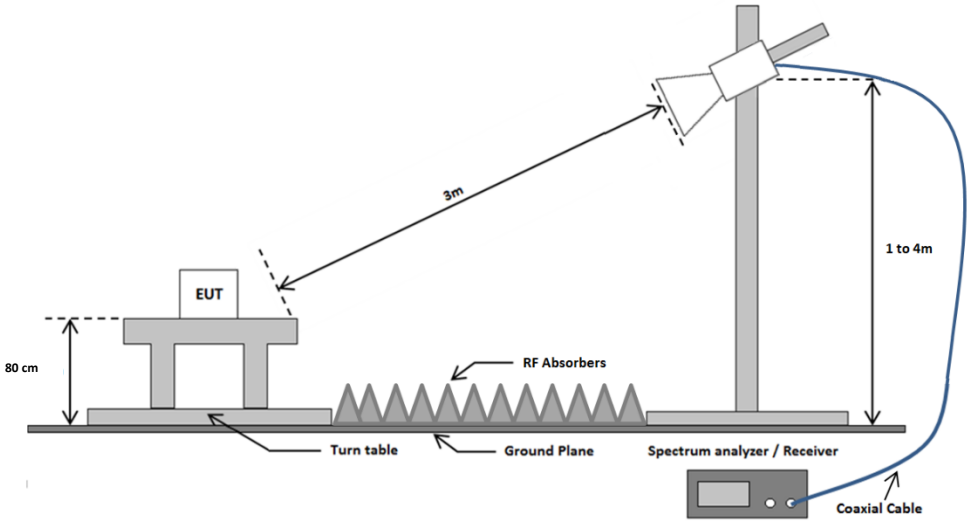
System is online in state enforcement.

2.2 Test setups

2.2.1 Radiated emissions test setup 30 MHz - 1 GHz



2.2.2 Radiated emissions test setup above 1 GHz



2.3 Test methodology

The test methodology used is based on the requirements of 47 CFR Part 15, sections 15.31, 15.107 and 15.109, ICES-003 and ICES-Gen. The test methods, which have been used, are based on ANSI C63.4-2014.

2.4 Equipment modifications

No modifications have been made to the equipment.

2.5 Equipment used in the test configuration

Description	Manufacturer	Model	ID	Cal. Done date	Cal. due date	Used at Par.
EMI Receiver	Rohde & Schwarz	ESR7	114870	01-2025	01-2026	3.1
Spectrum Analyzer	Rohde & Schwarz	FSV3044	114923	11-2025	11-2027	3.1
Biconical antenna + 6dB attenuator	Schwarzbeck + HP	VHA9103 + 8491A	114436	07-2024	07-2027	3.1
Logperiodic antenna	Schwarzbeck	VULP 9118B	115028	11-2024	11-2027	3.1
Horn antenna	EMCO	3115	114607	01-2025	01-2028	3.1
Preamplifier 1-18 GHz	µComp Nordic	MCNA-40-0010800-25-10P	114771	10-2025	10-2026	3.1
Semi-Anechoic Chamber	ETS Lindgren	SAR	114624	03-2023	03-2026	3.1
Test software	Raditeq	Radimation Version 2024.2.1	--	--	--	3.1

2.6 Sample calculations

All formulas for data conversions and conversion factors are reported in chapter 4 of this test report.

3 Test results

3.1 Radiated spurious emissions

3.1.1 Limit

The field strength of radiated emissions from a class A device, as determined at a distance of 10 meters, shall not exceed the following:
On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a CISPR quasi-peak detector function and related measurement bandwidths, unless otherwise specified.
Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function.
When average radiated emission measurements are specified in this part, there is also a limit on the peak level of the emissions. Unless otherwise specified, the limit on peak emissions is 20 dB above the average limit.
The product under test shall comply with both the average and the peak limits.

ICES-003 Issue 7 section 3.2.2
The quasi-peak limits for the electric component of the radiated field strength emitted from ITE or digital apparatus, within 30 MHz to 1 GHz, for a measurement distance of 3m are presented in table below.
At and above 1 GHz, except for outdoor units of home satellite receiving systems, the ITE or digital apparatus shall comply with the limits specified in table below up to the frequency F_M, which shall be determined. The product under test shall comply with both the average and the peak limits.

FCC 15.109(B)

Frequency (MHz)	Field strength (µV/meter)	Field strength (dBµV/m)	Measurement distance (meters)
30-88	90	39.1	10
88-216	150	43.5	10
216-960	210	46.4	10
Above 960	300	49.5	10

ICES-003 tables 2, 4

Frequency (MHz)	Field strength (µV/meter)	Field strength (dBµV/m)	Measurement distance (meters)
30-88	100	40.0	10
88-216	150	43.5	10
216-230	210	46.4	10
230 -960	224	47.0	10
Above 960	300	49.5	10

3.1.2 Measurement instruments

The measurement instruments are listed in chapter 2.5 of this report.

3.1.3 Test setup

The test setup is as shown in chapter 2.2.1 and 2.2.2 of this report.

3.1.4 Test procedure

30 MHz to 26.5 GHz: According to ANSI C63.4-2014, section 8.3

30 MHz to 1 GHz: IRN 441 – Method 1
1 GHz to 18 GHz: IRN 441 – Method 2

In case of handheld and/or body-worn equipment, the EUT's orientation (X, Y, Z) was varied in order to ensure that maximum emission amplitudes were attained. In all other cases the associated cabling and the EUT orientation was varied for maximum emissions.

The spectrum was examined from 30MHz to the highest measurement frequency according to the table below. Final radiated emission measurements were made at 3m distance.

Highest internal frequency (F_X) [i]	Highest measurement frequency (F_M)
$F_X \leq 108$ MHz	1 GHz
108 MHz < $F_X \leq 500$ MHz	2 GHz
500 MHz < $F_X \leq 1$ GHz	5 GHz
$F_X > 1$ GHz	5 x F_X up to a maximum of 40 GHz
i. F_X is the highest fundamental frequency generated and/or used in the ITE or digital apparatus under test.	

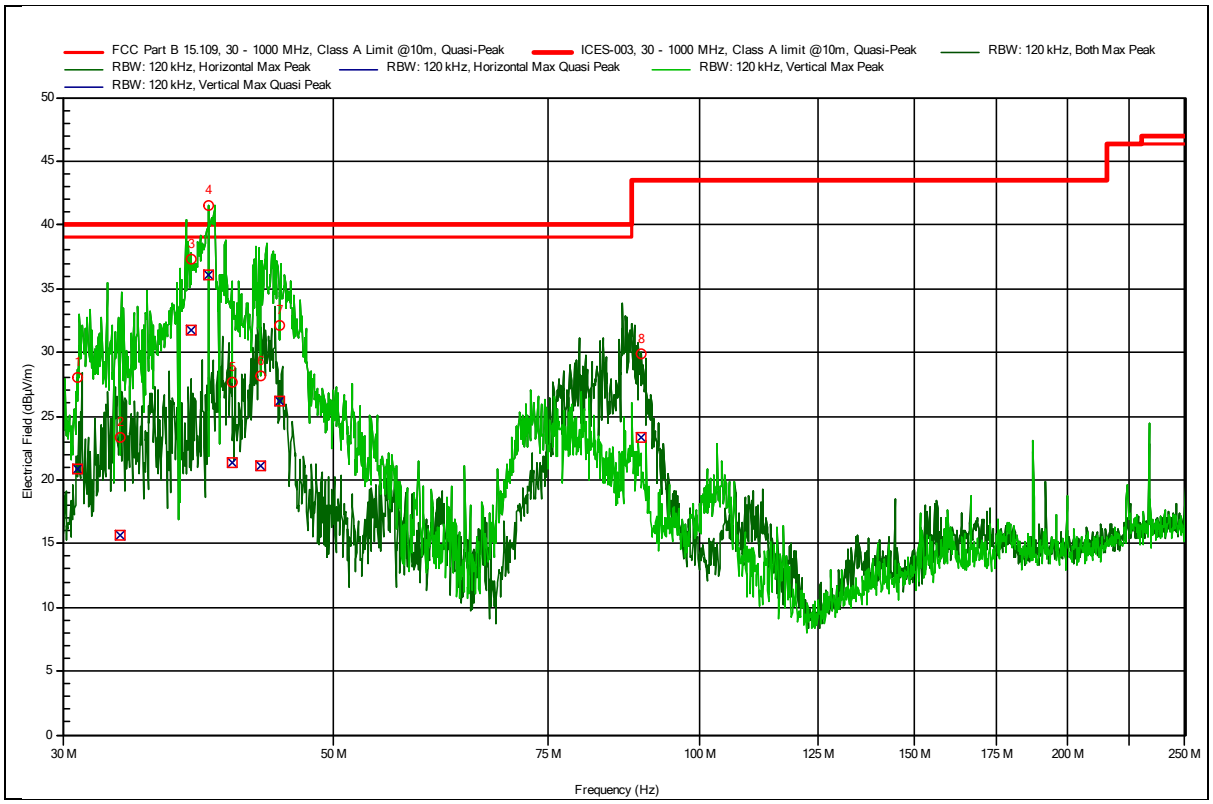
The 6 highest emission amplitudes relative to the appropriate limit were recorded in this report. Field strength values of radiated emissions at frequencies not listed in the tables are more than 20 dB below the applicable limit.

3.1.5 Measurement Uncertainty

Frequency range	Polarization	Uncertainty
30 – 200 MHz	Horizontal	±4.5 dB
	Vertical	±5.4 dB
200 -1000 MHz	Horizontal	±3.6 dB
	Vertical	±4.6 dB
1 – 18 GHz	Horizontal	±5.7 dB
	Vertical	±5.7 dB
18 – 26.5 GHz	Horizontal	±4.9 dB
	Vertical	±4.9 dB

3.1.6 Plots and test results of the Radiated Spurious Emissions Measurement

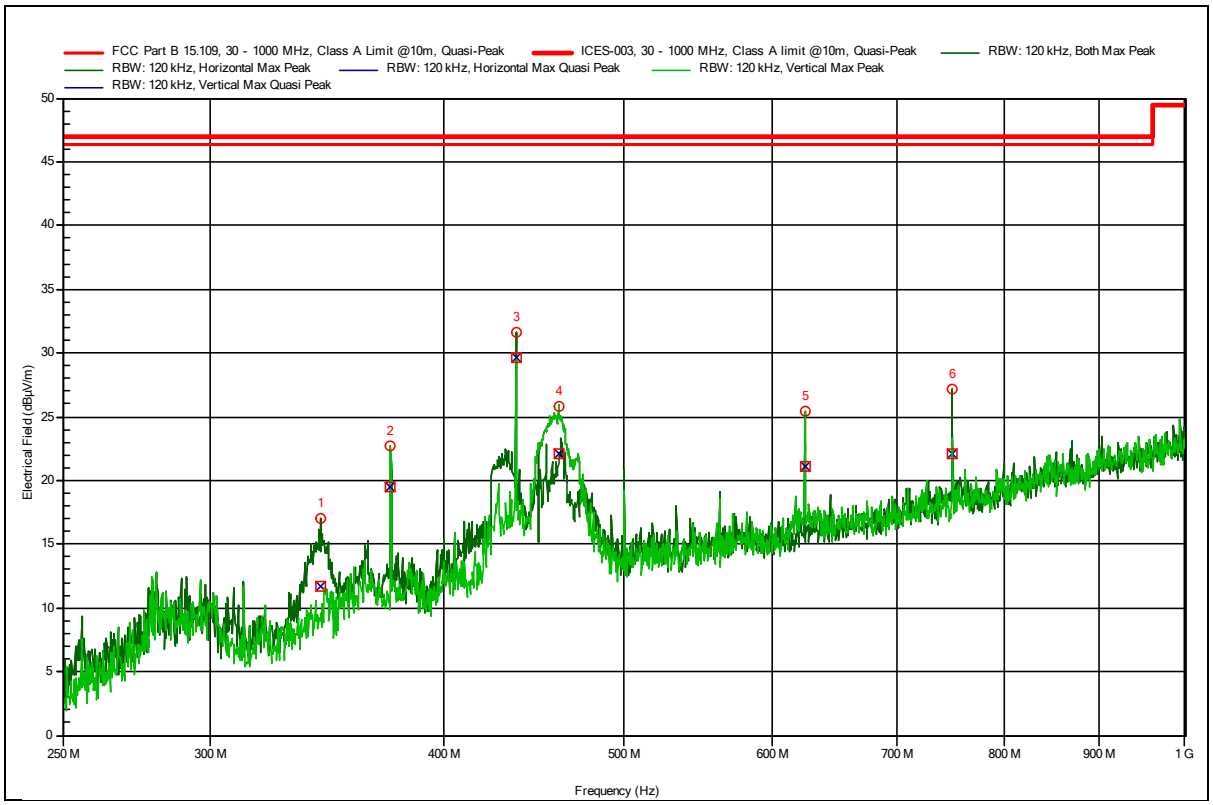
Plot 1: radiated emissions of the EUT, Antenna horizontal + vertical, in the range 30 – 250 MHz
(pre-scan peak values shown)



Test results in the range 30 – 250 MHz

Peak Number	Frequency (MHz)	Quasi-Peak (dBµV/m)	Quasi-Peak Limit (dBµV/m)	Angle (degrees)	Height (m)	Polarization	Status
3	38,291	31,7	39,1	1	1	Vertical	Pass
4	39,55	36	39,1	32	1	Vertical	Pass
1	30,905	20,9	39,1	219	4	Vertical	Pass
2	33,402	15,7	39,1	219	3,75	Vertical	Pass
5	41,358	21,4	39,1	219	3,75	Vertical	Pass
6	43,568	21,2	39,1	219	3,75	Vertical	Pass
7	45,183	26,2	39,1	219	3,75	Vertical	Pass
8	89,548	23,4	43,5	219	2,25	Horizontal	Pass

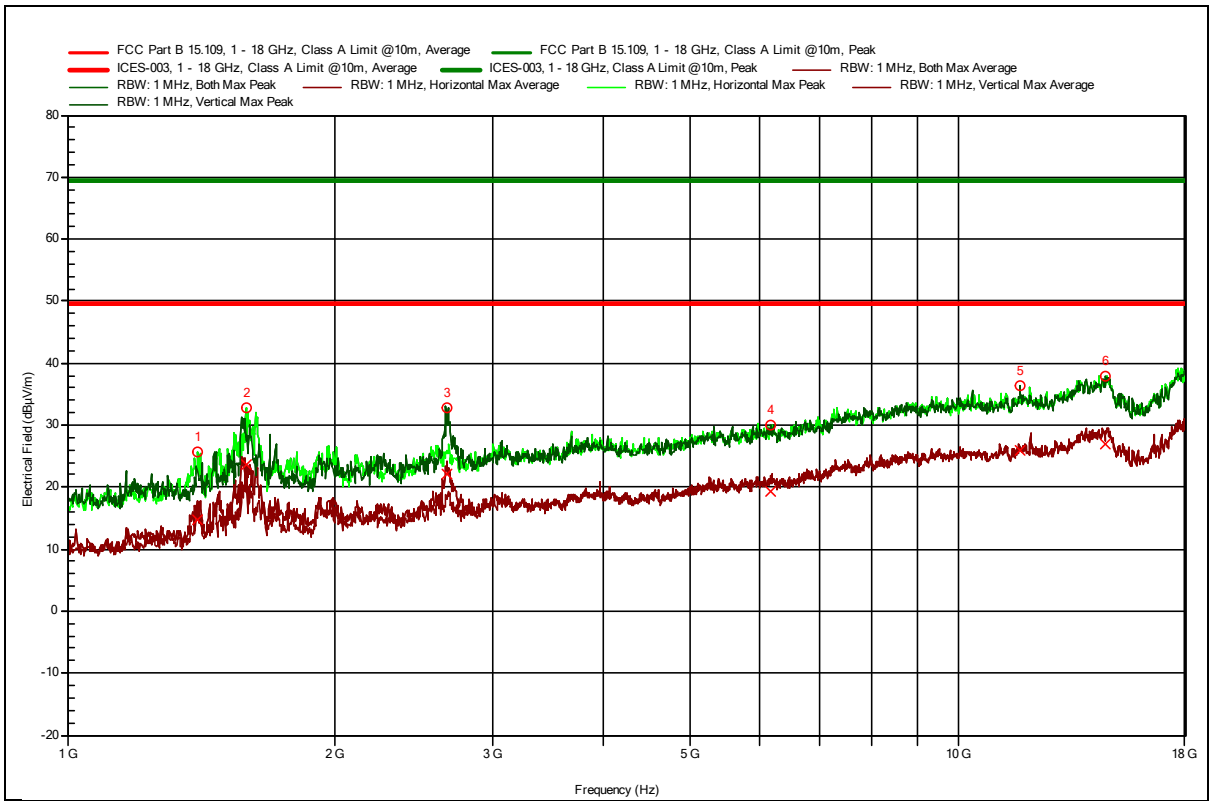
Plot 2: radiated emissions of the EUT, Antenna horizontal + vertical, in the range 250-1000 MHz
(pre-scan peak values shown)



Test results in the range 250-1000 MHz

Peak Number	Frequency (MHz)	Quasi-Peak (dBµV/m)	Quasi-Peak Limit (dBµV/m)	Angle (degrees)	Height (m)	Polarization	Status
5	625,071	21,1	46,4	62	2	Vertical	Pass
3	437,551	29,7	46,4	138	1	Horizontal	Pass
1	343,623	11,6	46,4	200	1	Horizontal	Pass
4	461,358	22	46,4	251	1	Vertical	Pass
6	750,089	22,1	46,4	263	3	Horizontal	Pass
2	375,033	19,5	46,4	357	2,25	Vertical	Pass

Plot 3: radiated emissions of the EUT, Antenna horizontal + vertical, in the range 1-18 GHz
(peak and average values shown)



Test results in the range 1-18 GHz

Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Average (dBµV/m)	Average Limit (dBµV/m)	Angle (degrees)	Height (m)	Polarization	Status
1	1399,5	25,8	69,5	14,8	49,5	281	1,5	Horizontal	Pass
2	1586,5	32,7	69,5	23,7	49,5	219	1,5	Horizontal	Pass
3	2674,5	32,7	69,5	22,2	49,5	287	2	Vertical	Pass
4	6168	30,1	69,5	19,4	49,5	330	2,5	Vertical	Pass
5	11737,625	36,3	69,5	26	49,5	192	2	Vertical	Pass
6	14659,5	37,9	69,5	27,1	49,5	108	4	Vertical	Pass

4 Sample calculations

All formulas for data conversions and conversion factors are reported in this chapter.

Field Strength Measurement:

$$E\left(dB\left(\frac{\mu V}{m}\right)\right) = U(dB\mu V) + AF\left(\frac{dB}{m}\right) + Corr.(dB)$$

Where:
E = Electric field strength
U = Measuring receiver voltage
AF = Antenna factor
Corr. = sum of single correction factors of used cable and amplifier (if applicable).
Linear interpolation will be used for frequencies in between the values in the table.
Tables shows an extract of the values.

Frequency (MHz)	AF (dB/m) ID: 114435 VHA 9103	Cable loss (dB) Id: 114928	Attenuator (dB) ID:114525 Hewlett Packet	Corr. (dB)
30	20.5	1.1	6	7.1
100	10.4	2.5	6	8.5
150	15.5	3.1	6	9.1
200	16.8	3.6	6	9.6
250	18.1	4.2	6	10.2

Frequency (MHz)	AF (dB/m) ID: 114385 Vulp 9118B	Cable loss (dB) Id: 114928	Corr. (dB)
250	11.7	4.2	4.2
300	12.8	4.9	4.9
350	14.1	5.8	5.8
400	15.5	6.6	6.6
450	17	7.1	7.1
500	17.5	7.5	7.5
550	18.3	7.6	7.6
600	19.2	7.8	7.8
650	20.1	7.8	7.8
700	20.5	8.1	8.1
750	21	8.6	8.6
800	21.4	8.9	8.9
850	21.8	9.4	9.4
900	22.6	9.7	9.7
950	23	10	10
1000	23.2	10.4	10.4

Frequency (MHz)	AF (dB/m) 114607 Emco 3115 SN: 9412-4377	Gain (dB) 114690 µComp Nordic MCNA-40-0010800-25-10P	Cable loss (dB) 114691	Corr. (dB)
1000	23.6	45.1	2.7	-43
2000	27.1	44.7	3.9	-41.4
3000	30.5	44.2	4.8	-40
4000	32.7	43.5	5.6	-38.6
5000	33.2	43.1	6.3	-37.5
6000	34.6	43.0	6.9	-36.7
7000	35.2	42.9	7.3	-36.5
8000	37.0	43.3	8.2	-36.1
9000	38.1	43.3	8.5	-35.4
10000	38.2	43.0	9.0	-34.8
11000	38.3	42.9	9.5	-34.2
12000	39.1	42.6	9.9	-33.6
13000	39.2	43.6	10.6	-33.8
14000	41.1	44.3	10.8	-34.6
15000	40.2	44.4	11.4	-34
16000	37.5	44.3	11.6	-33.5
17000	41.1	44.5	12.0	-33.1
18000	44.0	44.9	12.3	-33.5

5 Photograph test setup

5.1 Photograph test setup Radiated Emissions

Photo 1 Photograph test setup radiated emissions 30-250 MHz, report section 3.1

Photo 2 Photograph test setup radiated emissions 250-1000 MHz, report section 3.1

Photo 3 Photograph test setup radiated emissions 1-18 GHz, report section 3.1

<<END OF REPORT>>