



**TEST REPORT CONCERNING THE COMPLIANCE OF  
AN ARTICLE SURVEILLANCE (EAS) SYSTEM AND  
METAL DETECTION SYSTEM, BRAND NEDAP,  
MODEL ID Gate Region 2 WITH:**

**47 CFR PART 15 (10-1-12 EDITION) and THE  
REQUIREMENTS OF INDUSTRY CANADA:  
RSS-GEN (ISSUE 3, DECEMBER 2010) AND  
RSS-210 (ISSUE 8, DECEMBER 2010).**

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June 11, 2013**

FCC listed : 90828  
Industry Canada : 2932G-2  
R&TTE, LVD, EMC Notified Body : 1856

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## MEASUREMENT/TECHNICAL REPORT

**N.V. Nederlandsche Apparatenfabriek "Nedap"**  
**Brand: Nedap**  
**Model: !D Gate Region 2**  
**FCC ID: CGDSTOREIDG**  
**IC: 1444A-STOREIDG**

This report concerns: Original grant/certification ~~Class 2 change~~ Verification

Equipment type: Anti-Pilferage Device, operating on 7.520-8.756 MHz and 125 kHz

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The data taken for this test and report herein was done in accordance with 47 CFR Part 15 (10-1-12 edition), RSS-GEN, RSS-210 and the measurement procedures of ANSI C63.4-2009. TÜV Rheinland EPS B.V. at Leek, The Netherlands, certifies that the data is accurate and contains a true representation of the emission profile of the Equipment Under Test (EUT) on the date of the test as noted in the test report. I have reviewed the test report and find it to be an accurate description of the test(s) performed and the EUT so tested.

Date: June 11, 2013

Signature:



O. Hoekstra  
Senior Engineer Telecom TÜV Rheinland EPS B.V.

## Summary

The device under test does:

- fulfill the general approval requirements as identified in this test report
- not fulfill the general approval requirements as identified in this test report

## Description of test item



Test item : Article Surveillance System (EAS) and Metal Detection System.  
Manufacturer : N.V. Nederlandsche Apparatenfabriek "Nedap"  
Brand : Nedap  
Model : !D Gate Region 2  
Serial number(s) : D415 002 and D415 001  
Revision : n.a.

## Applicant information

Applicant's representative : Mr. J. Hulshof  
Company : N.V. Nederlandsche Apparatenfabriek "Nedap"  
Address : Parallelweg 2  
Postal code : 7141 DC  
City : Groenlo  
Country : The Netherlands  
Telephone number : +31 544 471 162  
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E-mail : Jacques.Hulshof@Nedap.com

## Test(s) performed

Location : Leek  
Test(s) started : April 25, 2013  
Test(s) completed : June 04, 2013  
Purpose of test(s) : Original grant/certification FCC and IC  
Test specification(s) : 47 CFR Part 15 (10-1-12 Edition) and RSS-GEN (ISSUE 3, DECEMBER 2010) AND RSS-210 (ISSUE 8, DECEMBER 2010).

Test engineer(s) : R. van der Meer   
Report written by : R. van der Meer   
Report date : June 11, 2013

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The test results relate only to the item(s) tested.

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## 1 General information.

### 1.1 Product description.

#### 1.1.1 Introduction.

The system is an EAS (Electronic Article Surveillance) system for detection of 8.2MHz EAS labels, hard tags or disposable paper tags, used at the entry of shops, libraries etc. The system operates in the frequency range: 7.520 MHz up to 8.756 MHz with a sweep frequency of 600Hz across 1236 kHz. It is also provided with a metal detection system operating on the frequency 125 kHz and a RFID Reader operating in the range 902.75-927.25 MHz (supported in a separate report).

The content of this report and measurement results have not been changed other than the way of presenting the data.

### 1.2 Related submittal(s) and/or Grant(s).

#### 1.2.1 General.

This test report supports the original grant/certification in equipment authorization files under FCC ID: CGD-STOREIDG and IC:1444A-STOREIDG

### 1.3 Tested system details.

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

EUT1	:	Transmitter
Manufacturer	:	N.V. Nederlandsche Apparatenfabriek "Nedap"
Brand	:	Nedap
Model (Type)	:	!D Gate Region 2
Article number	:	95631158
Serial number	:	D415 002
Voltage input rating	:	From NCC-MK2
Voltage output rating	:	n.a.
Current input rating	:	n.a.
Remarks	:	Internal module inside antenna

EUT2	:	Receiver
Manufacturer	:	N.V. Nederlandsche Apparatenfabriek "Nedap"
Brand	:	Nedap
Model (Type)	:	!D Gate Region 2
Part no.	:	95631158
Serial number	:	D415 001
Voltage input rating	:	From NCC-MK2
Voltage output rating	:	n.a.
Current input rating	:	n.a.
Remarks	:	Internal module inside antenna

AUX1	:	NCC-MK2
Manufacturer	:	N.V. Nederlandsche Apparatenfabriek "Nedap"
Brand	:	Nedap
Model (Type)	:	XQMK2
Part no.	:	9203508
Serial number	:	CN16010
Voltage input rating	:	100 – 240Vac
Voltage output rating	:	n.a.
Current input rating	:	2A
Remarks	:	--



Test item (AUX 2)	:	Power Inserter
Manufacturer	:	Power-Win Technology Corp.
Brand	:	Power-Win Technology Corp.
Model	:	PW-085C-1Y560IPOE
Nedap Art. Nr.	:	9651772
Serial number	:	PW73658385
Voltage input rating	:	100-240Vac 50-60 Hz
Voltage output rating	:	56Vdc
Remark	:	--

1.3.1 Description of input and output ports.

Number	Terminal	From	To	Remarks
1	Mains	Mains	AUX1	--
2	Antenna coax cable	AUX1	EUT1	Shielded cable
3	Antenna coax cable	EUT1 transmitter	EUT2 receiver	Shielded cable
4	Power over Ethernet	AUX2	AUX1	Shielded cable
5	Ethernet	Ethernet connector	AUX2	Shielded cable

Operation mode 1: System "Passive", not detecting a label and metal.

Operation mode 2: System "Active", detecting a label and metal

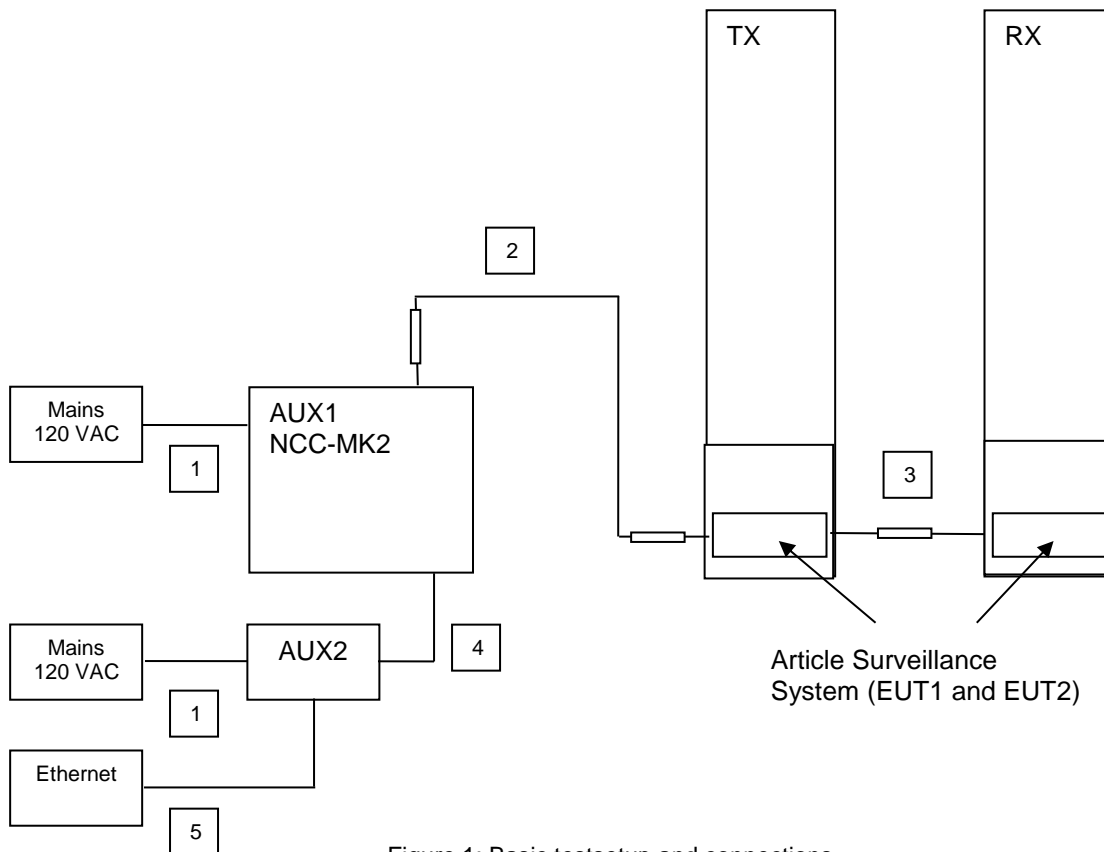


Figure 1: Basic testsetup and connections

#### 1.4 Test results summary

The EUT was tested in accordance with the specifications given in the table below.

Test Standard		Description	Page	Pass / Fail
47 CFR Part 15 (10-1-12 Edition)	RSS-210 Issue 8, December 2010			
15.207(a)	RSS-Gen(7.2.4)	Conducted emissions	18 - 20	Pass
15.209	RSS-Gen(4.9 and 7.2.5) and RSS-210(2.5)	Radiated emissions	12 – 15	Pass
15.205 and 15.223	RSS-Gen(7.2.2)	Radiated emissions in restricted bands	16 - 17	Pass
15.215(c)	RSS-Gen(4.6.1)	Occupied bandwidth	21 - 25	Pass

Table : testspecifications

Testmethods: ANSI C63:2009 and RSS-Gen Issue 3, December 2010



## 1.5 Test methodology.

The test methodology used is based on the requirements of 47 CFR Part 15 (10-1-12 Edition), sections 15.31, 15.205, 15.207, 15.209 and 15.223, RSS-GEN (ISSUE 3, DECEMBER 2010) RSS-210 (ISSUE 8, DECEMBER 2010).

The test methods, which have been used, are based on ANSI C63.4: 2009.

Radiated emission tests above 30 MHz were performed at a measurement distance of 3 meters.

Radiated emission tests below 30 MHz were performed at a measurement distance of 3 meters.

To calculate the field strength level from these results to the appropriate distance at which the limit is specified, the appropriate extrapolation factor is used.

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.

## 1.6 Test facility.

The Federal Communications Commission and Industry Canada has reviewed the technical characteristics of the test facilities at TÜV Rheinland EPS 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 90828. 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.

## 1.7 Test conditions.

Normal test conditions:

Temperature (*)	: +15°C to +35°C
Relative humidity(*)	: 20 % to 75 %
Supply voltage	: 120VAC/60Hz to the AC/DC Power Supply
Air pressure	: 950 – 1050 hPa

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.

## 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 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: 2009.

### 2.2 EUT mode of operation.

The EUT has been tested in both passive, i.e. the EUT is ready to detect a tag and active mode i.e. the EUT is reading a tag. To assess the behavior of the EUT while reading the tag, the EUT is tested with a tag presented such that it continuously reads the tag. The intentional radiator tests have been performed with a complete functioning EUT and interconnections.

### 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 in order to achieve compliance.

### 2.5 Product Labelling

The product labeling information is available in the technical documentation package.

### 2.6 Block diagram of the EUT.

The block diagram is available in the technical documentation package.

### 2.7 Schematics of the EUT.

The schematics are available in the technical documentation package.

### 2.8 Part list of the EUT.

The part list is available in the technical documentation package.

### 3 No operation in restricted bands

The sweeping frequency is 600 Hz over 1236 kHz. (This is 1.34  $\mu$ sec per kHz). 5 kHz is the largest band that is mentioned in the table of restricted bands of operation.  $5/1236=0.4$  %. So the fundamental emission is outside of the bands listed in Section 15.205 (a) 99.6 % of the time the device is actively transmitting, without compensation for duty cycle. This is within the limit of Section 15.205 (d) (1)

## 4 Radiated emission data.

### 4.1 Radiated field strength measurements (30 MHz – 1 GHz, E-field),

Freq. [MHz]	Antenna Orientation	Level QP [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Result Pass/Fail
177.90	Vertical	37.4	43.5	Pass
209.22	Vertical	37.9	43.5	Pass
237.06	Vertical	35.0	46.0	Pass
499.80	Vertical	37.4	46.0	Pass
816.48	Vertical	42.9	46.0	Pass
832.14	Vertical	43.3	46.0	Pass

Table 1 Radiated emissions of the EUT, normal mode (sweeping).

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15 section 15.209 are depicted in Table 1. The system is tested as in whole, being the worst case situation. So with all equipment as shown in Figure1 in place and functioning.


#### Notes:

1. Field strength values of radiated emissions at frequencies not listed in the table above are more than 20 dB below the applicable limit.
2. Measurement uncertainty is  $\pm 5.0$ dB
3. 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 4m).
4. A Quasi-peak detector was used with a resolution bandwidth of 120 kHz.
5. The EUT was tested in both passive mode (i.e. without a tag in its proximity) and in activated mode (i.e. with a tag in its proximity). Maximum values have been noted.

Used test equipment and ancillaries:

99608	99699	99847	99861	99858	99580			

Test engineer

Signature : 

Name : Richard van der Meer  
 Date : April 25, 2013

#### 4.2 Radiated field strength measurements (frequency range of 0.009-30 MHz, H-field), Peak and Average values.

Frequency (kHz)	Measurement results	Detector	Antenna factor	Cable loss	Extrapolation factor	Measurement results (calculated)	Limits
	dB $\mu$ V/m @3m					dB $\mu$ V/m@30m	dB $\mu$ V/m@30m
7532.00	62.6	Pk	19.5	1	40	43.1	60
8616.00	64.4	Pk	19.5	1	40	44.5	60

Note: Sweep stopped at lowest and highest frequency

Table 2a Radiated emissions of the EUT, 8 MHz transmitter, sweep stopped at lowest frequency, Peak values

Frequency (kHz)	Measurement results Peak	Detector	Correction factor	Measurement results (calculated Average)	Limits
	dB $\mu$ V/m @30m			dB	dB $\mu$ V/m@30m
7532.00	43.1	Pk	-24.15	18.95	40.0
8616.00	44.5	Pk	-24.15	20.35	40.0

Table 2b Radiated emissions of the EUT 8 MHz transmitter, Average calculated values

Frequency (kHz)	Measurement results	Detector	Antenna factor	Cable loss	Extrapolation factor	Measurement results (calculated)	Limits
	dB $\mu$ V/m @3m					dB $\mu$ V/m@30m (unless otherwise noted)	dB $\mu$ V/m@30m (unless otherwise noted)
125.0	62.5	Pk	20.1	1	80	3.5 Pk @300m	25.67 Av @300m
250.0	17.3	Pk	20.1	1	80	-41.7 Pk @300m	19.65 Av @300m
375.0	14.0	Pk	20.1	1	80	-45.0 Pk @300m	16.12 Av @300m
500.0	9.0	Qp	20.0	1	40	-10.0	33.62

Table 2c Radiated emissions of the EUT, the 125 kHz transmitter, Peak and Quasi Peak values  
 Peak values are already within Average limits.

See page 14 for notes.

#### 4.3 Radiated field strength measurements (frequency range of 0.009-30 MHz, H-field), Quasi Peak-Sweep stopped.

Frequency (MHz)	Measurement results	Detector	Antenna factor	Cable loss	Extrapolation factor	Measurement results (calculated)	Limits
	dBμV @3m					dBμV/m@30m	dBμV/m@30m
15.048 (l)	27.2	Qp	19.7	1	40	7.9	29.5
17.232 (h)	33.5	Qp	19.7	1	40	14.2	29.5
18.912 (h)	33.0	Qp	20.0	1	40	14.0	29.5
19.122 (l)	29.4	Qp	19.4	1	40	9.8	29.5

Note: Sweep stopped at lowest(l) and highest(h) frequency

Table 2d Radiated emissions of the EUT, Quasi-Peak values

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15 section 15.223 and 15.35 and RSS-Gen(4.9 and 7.2.5) and RSS-210(2.5) with the EUT operating in continuous transmit mode, are depicted in Table 2a, 2b,2c and 2d.


#### Notes:

1. Calculated measurement results are obtained by using the 40dB/decade extrapolation factor, antenna factor and cable loss. i.e at 8616 kHz:  $64.4 \text{ dB}\mu\text{V} + 19.5\text{dB} + 1\text{dB} - 40\text{dB} = 44.5 \text{ dB}\mu\text{V}/\text{m}$ .
2. A resolution bandwidth of 9kHz was used during testing
3. Field strength values of radiated emissions at frequencies not listed in Table 2a,2c and 2d are more than 20 dB below the applicable limit
4. The loop antenna was varied in horizontal and vertical orientations and also around its axis. The reported value is the worst case found at the reported frequency.
5. The EUT was tested in passive mode (i.e. without a tag in its proximity). Maximum values have been noted.
6. Measurement uncertainty is  $\pm 5.0\text{dB}$
7. Correction factor is the Duty Cycle of the EUT, see section 7.

Used test equipment and ancillaries:

15453	99699	99861	99847	99855				

#### Test engineer

Signature :   
 Name : R. van der Meer  
 Date : May 16, 2013.

#### 4.4 Radiated field strength measurements (frequency range of 0.009-30 MHz, H-field), Normal mode (sweeping).

Frequency (MHz)	Measurement results	Detector	Antenna factor	Cable loss	Extrapolation factor	Measurement results (calculated)	Limits
	dBμV @3m					dBμV/m@30m	dBμV/m@30m
7.5 <sup>7</sup>	50.7	Pk	19.6	1	40	31.3	40.0 Av – 60.0 Pk
8.701 <sup>7</sup>	54.9	Pk	19.6	1	40	35.5	40.0 Av – 60.0 Pk
11.225	13.8	Qp	19.7	1	40	-5.5	29.5
14.654	12.1	Qp	19.7	1	40	-7.2	29.5
15.014	11.0	Qp	19.7	1	40	-8.3	29.5
19.085	6.0	Qp	20.0	1	40	-13.0	29.5

Table 2e Radiated emissions of the EUT, Quasi-Peak values

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15 section 15.223 and 15.35 and RSS-Gen(4.9 and 7.2.5) and RSS-210(2.5) with the EUT operating in continuous normal transmit mode (sweeping), are depicted in Table 2e.

**Notes:**

1. Calculated measurement results are obtained by using the 40dB/decade extrapolation factor, antenna factor and cable loss. i.e at 8.701 kHz: 54.9 dBμV + 19.6dB + 1dB - 40dB= 35.5 dBμV/m.
2. A resolution bandwidth of 9kHz was used during testing
3. Field strength values of radiated emissions at frequencies not listed in Table 2e are more than 20 dB below the applicable limit
4. The loop antenna was varied in horizontal and vertical orientations and also around its axis. The reported value is the worst case found at the reported frequency.
5. The EUT was tested in active mode (i.e. with a tag in its proximity) and in passive mode (i.e. without a tag in its proximity). Maximum values have been noted.
6. Measurement uncertainty is ±5.0dB
7. Peak value already within Av limits, therefor Av value not determined.

Used test equipment and ancillaries:

15453	99699	99861	99847	99855				

Test engineer

Signature :  
 Name : R. van der Meer  
 Date : April 25, 2013.



#### 4.5 Radiated Emission of the transmitter in restricted bands, 9kHz - 1GHz, Horizontal and Vertical Antenna Orientations.

Freq. [MHz]	Level [dB $\mu$ V/m]	Detector/ Bandwidth (kHz)	Limit [dB $\mu$ V/m]	Result
16.4200	18.4	Qp / 9	29.5	Pass
16.6950	18.9	Qp / 9	29.5	Pass
25.6000	20.2	Qp / 9	29.5	Pass

Table 3a Radiated emissions of the EUT in restricted bands below 30 MHz.

**Notes:**

1. Field strength values of radiated emissions at frequencies not listed in Table 3a are more than 20 dB below the applicable limit
2. The loop antenna was varied in horizontal and vertical orientations and also around its axis. The reported value is the worst case found at the reported frequency.
3. The EUT was tested in active mode (i.e. with a tag in its proximity) and in passive mode (i.e. without a tag in its proximity). Maximum values have been noted.
4. Measurement uncertainty is  $\pm 5.0$ dB

Used test equipment and ancillaries:

15453	99699	99861	99847	99855				
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Test engineer

Signature :  
 Name : R. van der Meer  
 Date : June 03, 2013.





Freq. [MHz]	Antenna Orientation	Level [dB $\mu$ V/m]	Detector/ Bandwidth (kHz)	Limit [dB $\mu$ V/m]	Result
38.000	Horizontal	31.5	Qp / 120	40.0	Pass
125.00	Horizontal	29.8	Qp / 120	43.5	Pass
266.75	Vertical	31.6	Qp / 120	46.0	Pass
400.40	Vertical	36.9	Qp / 120	46.0	Pass

Table 3b Radiated emissions of the EUT in restricted bands 30 MHz to 1 GHz.

**Notes:**

1. Field strength values of radiated emissions at frequencies not listed in Table 3b above are more than 20 dB below the applicable limit.
2. Measurement uncertainty is  $\pm 5.0$ dB.
3. The EUT was tested as shown in figure 1, the measuring antenna was varied in horizontal and vertical orientations and also around it's axis and height. The reported values were the worst case found at the reported frequencies.
4. Tested with EUT in normal operation mode-sweeping, it's intended use, as described in section 2.2, worst case values noted.

Used test equipment and ancillaries:

15453	99699	99861	99847	99855				

Test engineer

Signature :  
 Name : R. van der Meer  
 Date : June 03, 2013.



## 5 Conducted emission data.

### 5.1 Conducted emission data of the EUT.

Frequency (MHz)	Measurement results Neutral dB $\mu$ V Qp	Measurement results Neutral dB $\mu$ V Av	Measurement results L1 dB $\mu$ V Qp	Measurement results L1 dB $\mu$ V Av	Limits dB $\mu$ V Qp	Limits dB $\mu$ V Av	Pass/Fail
0.15000	30.1	*note 4	20.0	*note 4	66.0	56.0	Pass
0.15240	30.0	*note 4	30.2	*note 4	65.9	55.9	Pass
0.19033	25.4	*note 4	26.0	*note 4	64.0	54.0	Pass
0.31132	27.0	*note 4	27.5	*note 4	60.0	50.0	Pass
14.97154	28.2	*note 4	29.2	*note 4	60.0	50.0	Pass
29.78154	37.5	*note 4	38.1	*note 4	60.0	50.0	Pass

Table 4 Conducted emission measurements.

The results of the conducted emission tests in the range of 150 kHz up to 30 MHz, carried out in accordance with 47 CFR Part 15 section 15.207 and RSS-Gen(7.2.4), at the 120 Volts AC mains connection terminals of the AC/DC power supply which was connected to the EUT, are depicted in Table 4. Maximum values recorded. The system is tested as in whole, so with all equipment as shown in Figure1 in place and functioning. Being the worst case situation.

#### Notes:

1. Measurement uncertainty is  $\pm 3.5$ dB
2. The resolution bandwidth used was 9 kHz.
3. Values of conducted emissions at frequencies not listed in Table 4 are more than 20 dB below the applicable limit.
4. Qp values already within Av limits, therefor Av not tested.
5. The EUT was tested successively in both normal mode (i.e. without a tag in its proximity) and in activated mode (i.e. with a tag in its proximity).
6. Tested also with usb port connected to a laptop computer.
7. The antenna was replaced by a 50 Ohm load as per KDB 174176.

Used test equipment and ancillaries:

12512	13313	99161	15667	99852	99855	

Test engineer

Signature : 

Name : R. van der Meer  
 Date : May 16, 2013



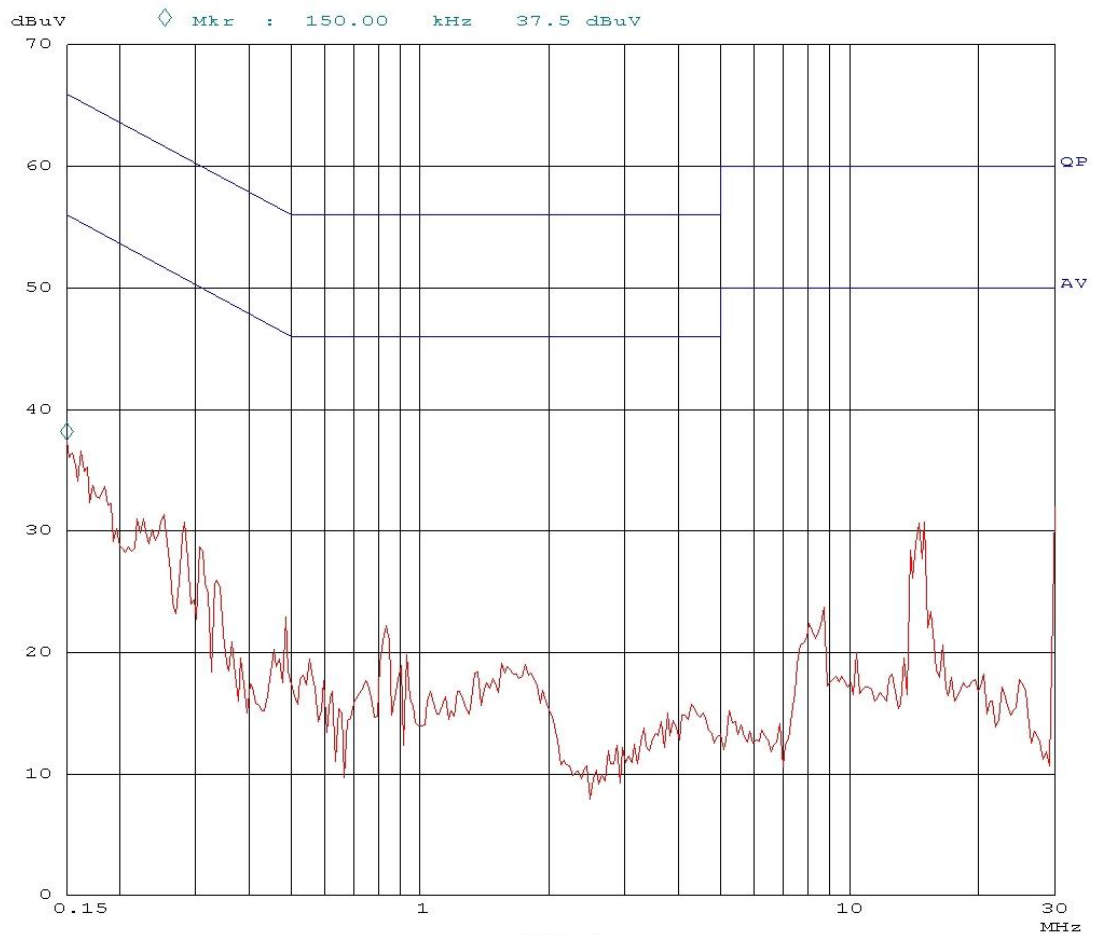


16. May 13 10:59

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Scan Settings (1 Range)
|----- Frequencies -----|----- Receiver Settings -----|
  Start      Stop      Step      IF BW  Detector  M-Time  Atten  Preamp
  150k       30M          1.6%     9k     PK        20ms  AUTO  LN   OFF

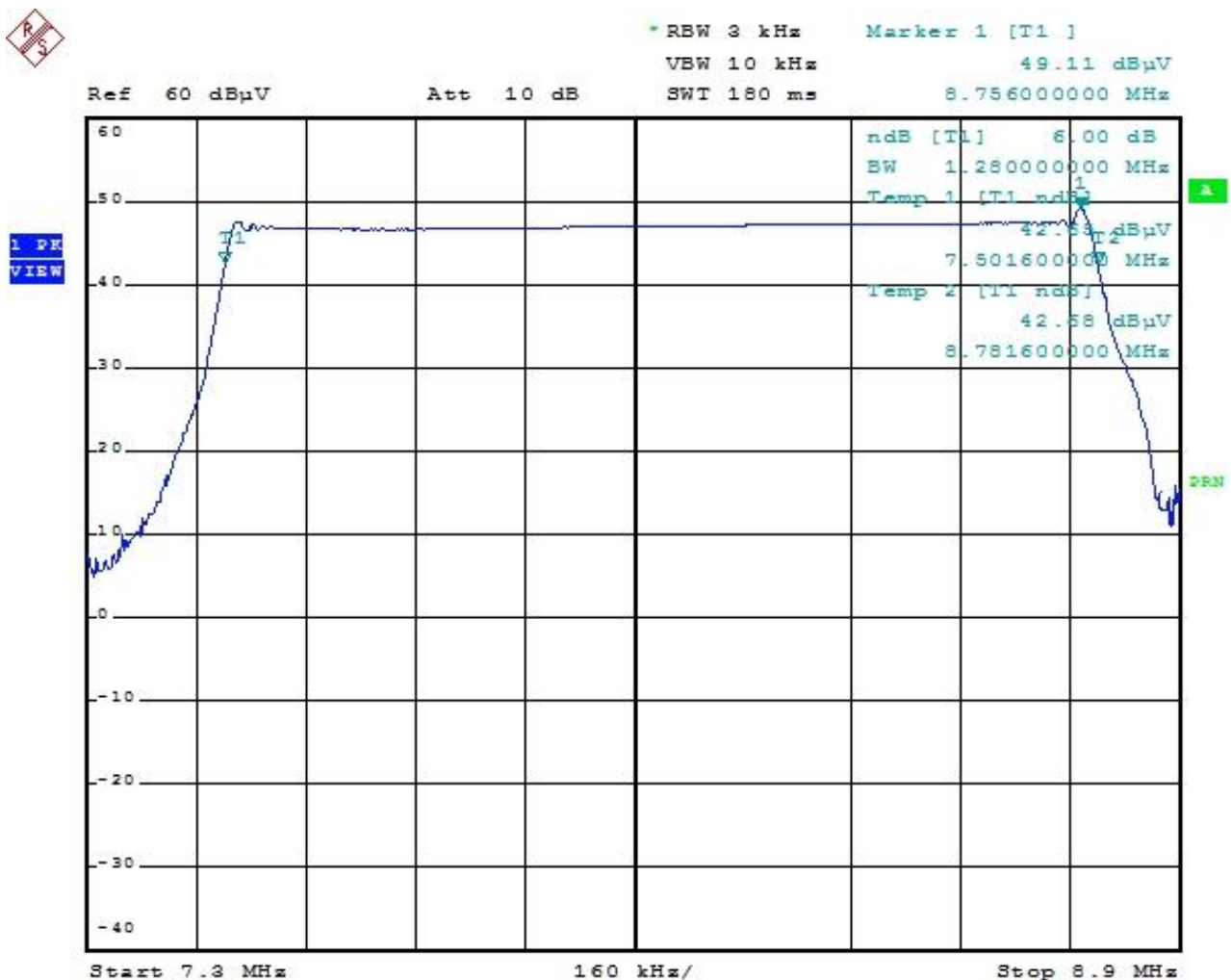
Final Measurement: x QP
                   Meas Time: 1 s
                   Subranges: 25
                   Acc Margin: 6dB
  
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Plot of the Conducted power line emissions of the EUT on L2

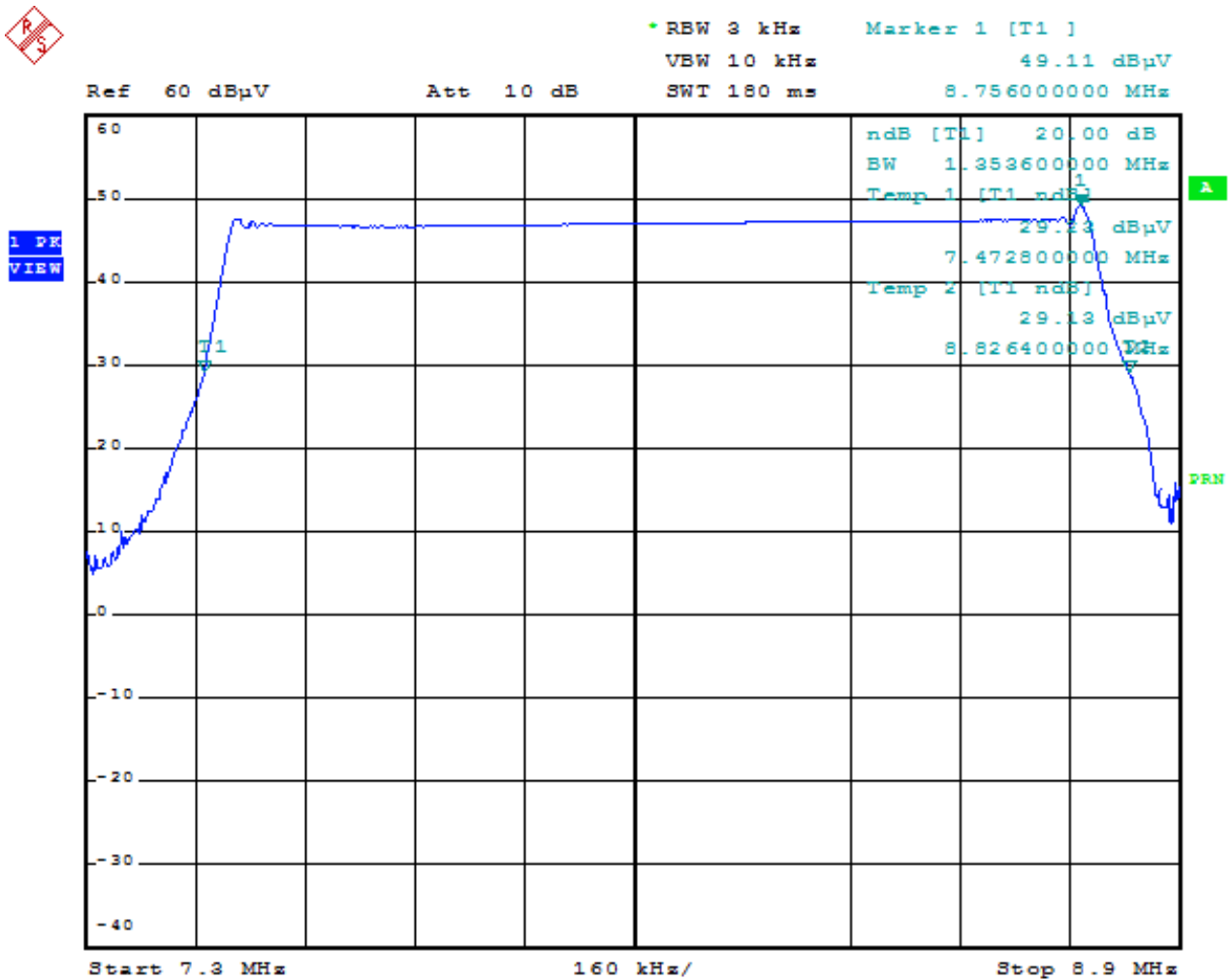
## 6 Bandwidth of the emission

The plot below shows compliance with the 47 CFR Part 15 section 15.223(a), this section requires the 6 dB emission bandwidth is more than 10% of the center frequency in order to allow a field strength of emissions of maximum 40 dB $\mu$ V/m (equal to 100  $\mu$ V/m). The center frequency of the EUT is stated at 8.2 MHz, therefore the 6dB bandwidth must be larger than 820 kHz. Plot 1 below, shows a 6dB bandwidth of: 1280 kHz as measured on a spectrum analyzer.

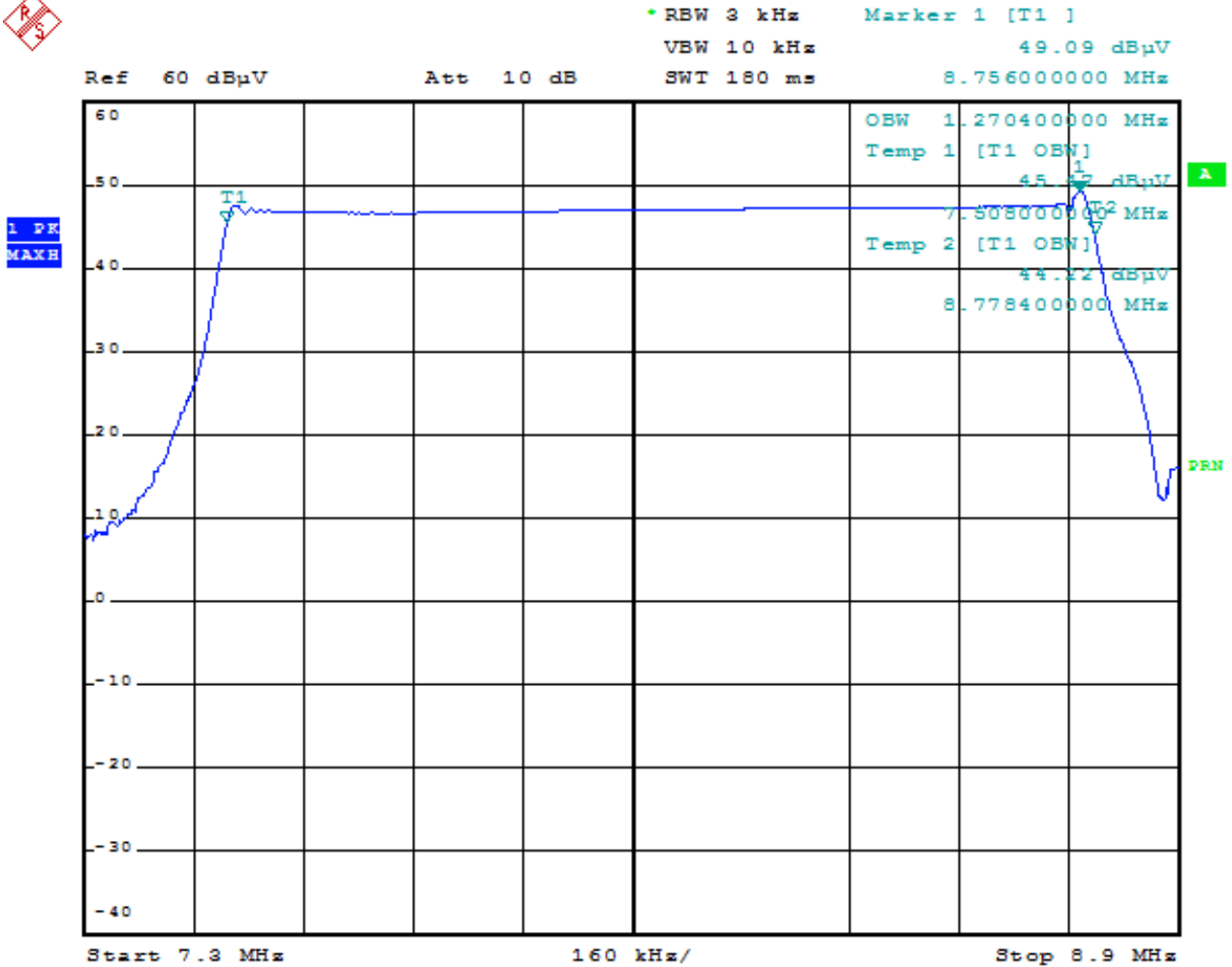


Plot 1: 6 dB bandwidth is 1280 kHz

The plot below shows compliance with the 47 CFR Part 15 section 15.215(c), this section requires the 20 dB emission bandwidth of the 8.2 MHz signal is within the frequencyband designated in section 15.223

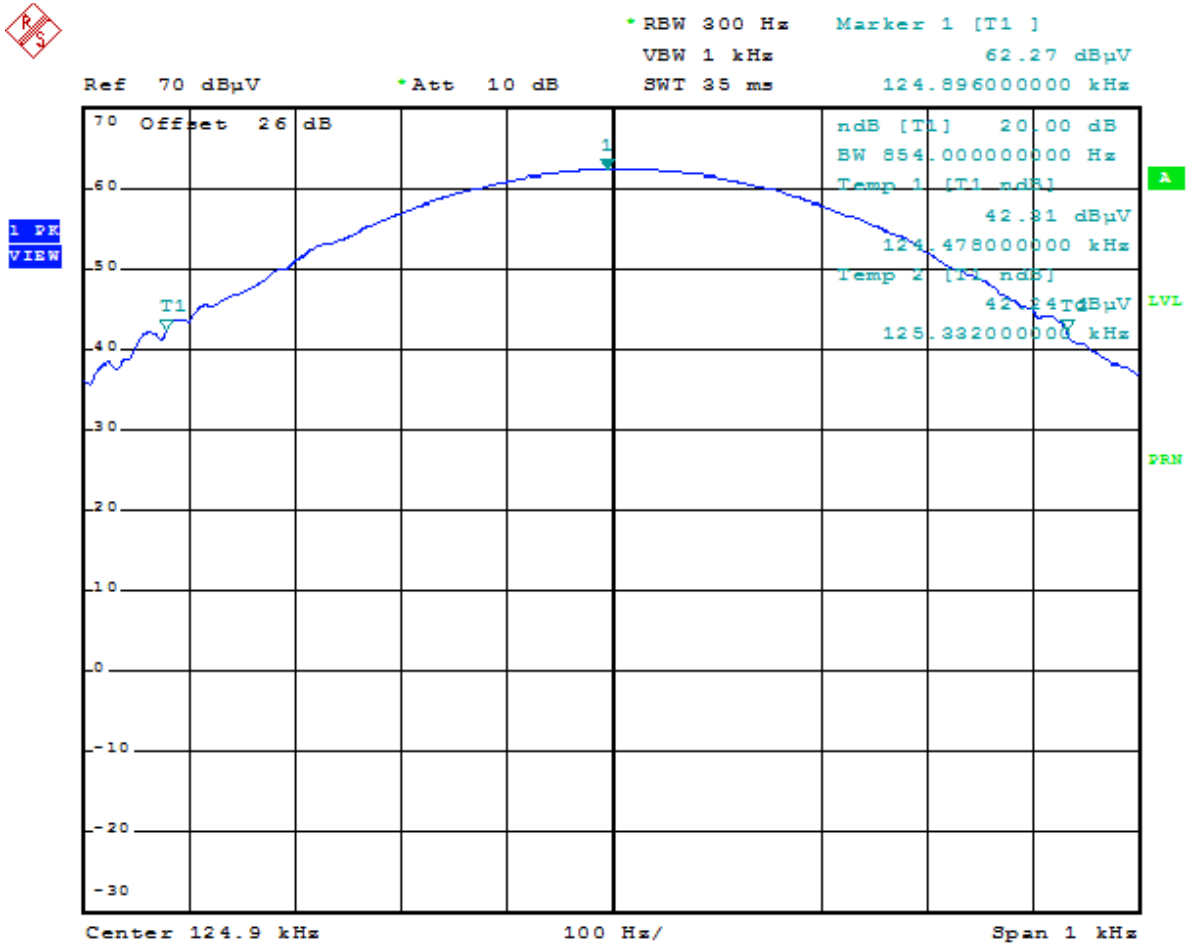


Plot 2a: Occupied bandwidth is 1353.6 kHz as measured on a spectrum analyzer



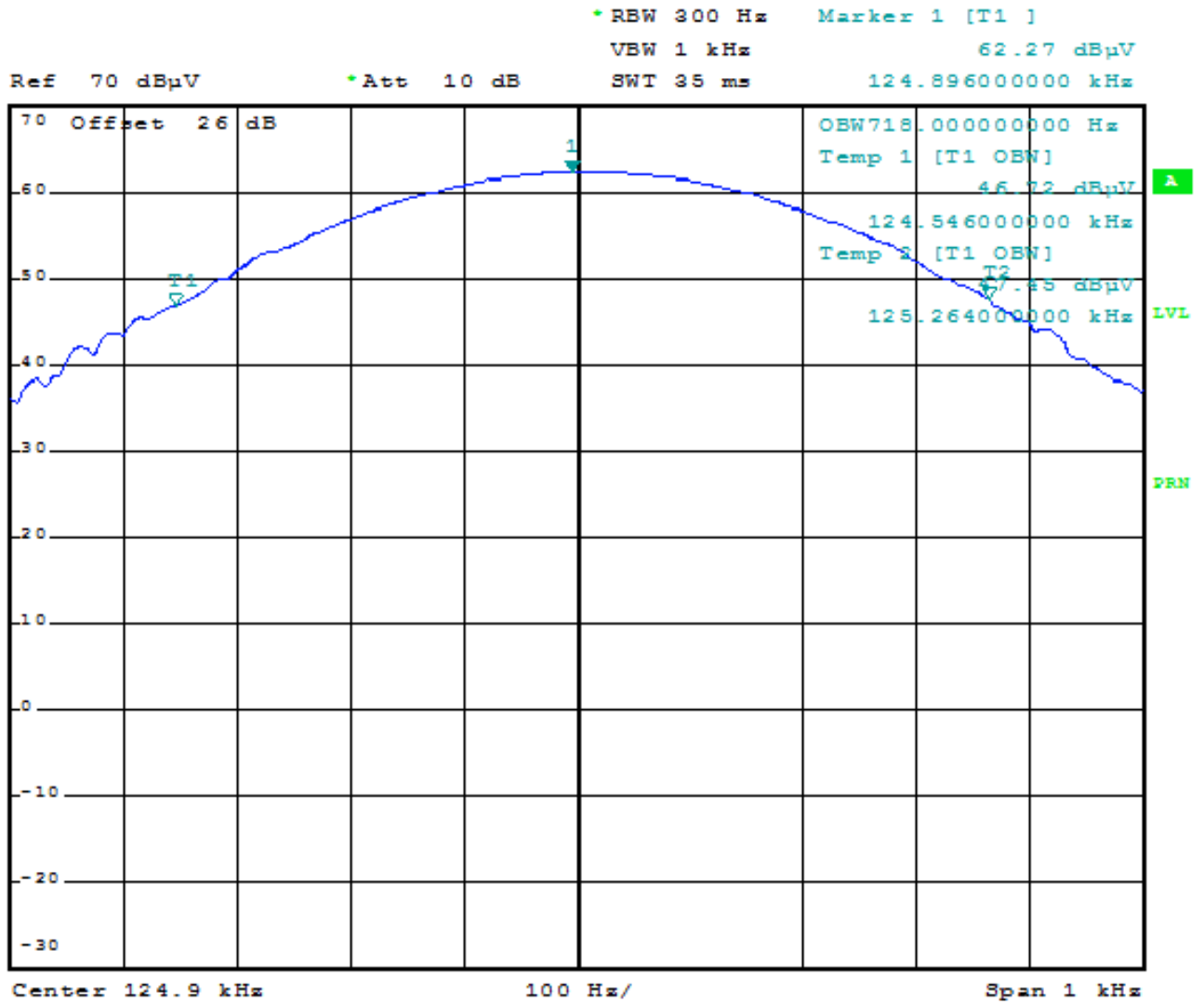
Plot 2b: 99% bandwidth is 1270.4 kHz as measured on a spectrum analyzer

The plot below shows the 20 dB emission bandwidth of the 125 kHz signal as measured on a spectrum analyzer.



Plot 3a: Occupied bandwidth is 854 Hz





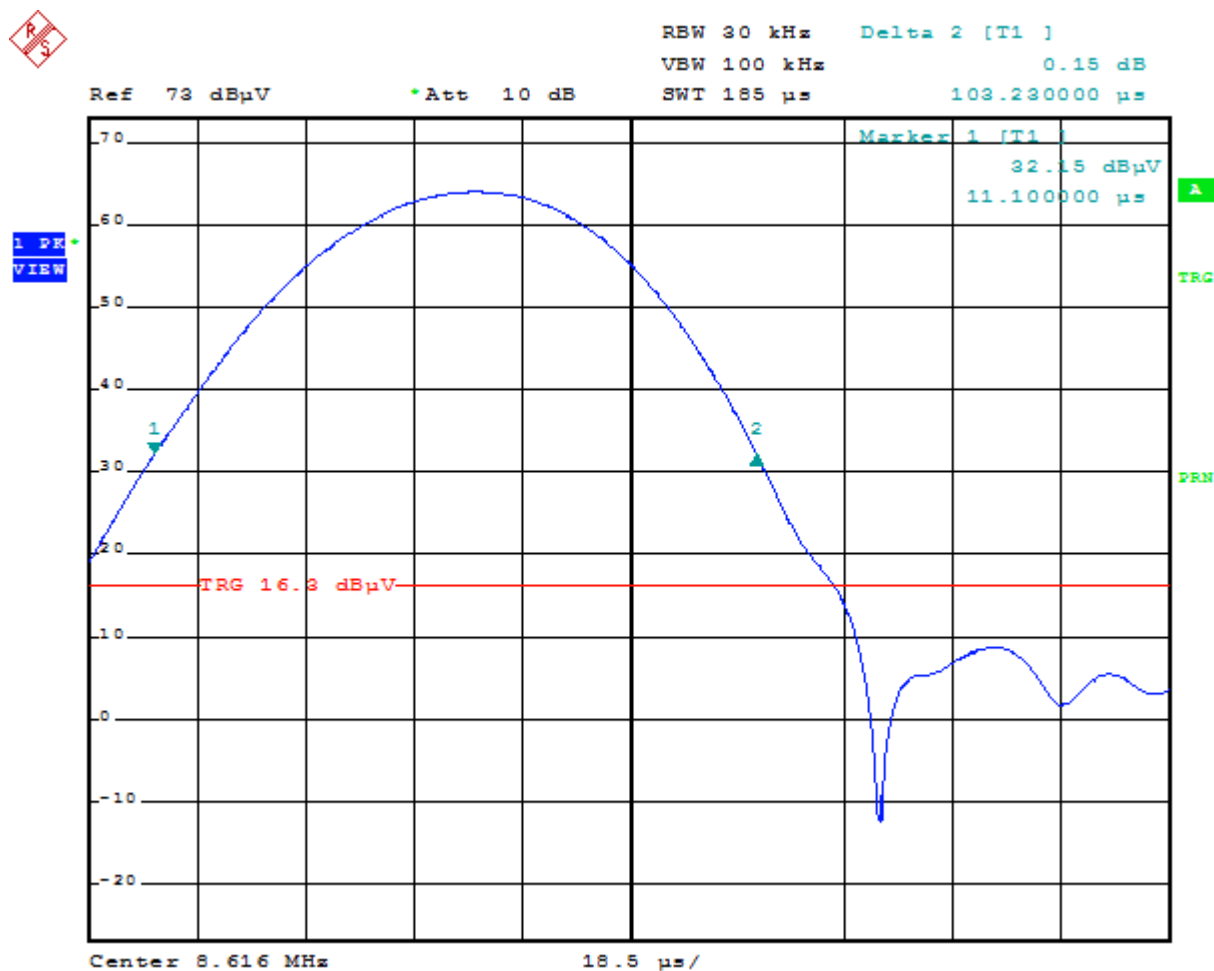
Plot 3b: 99% bandwidth is 718 Hz

## 7 Duty Cycle correction

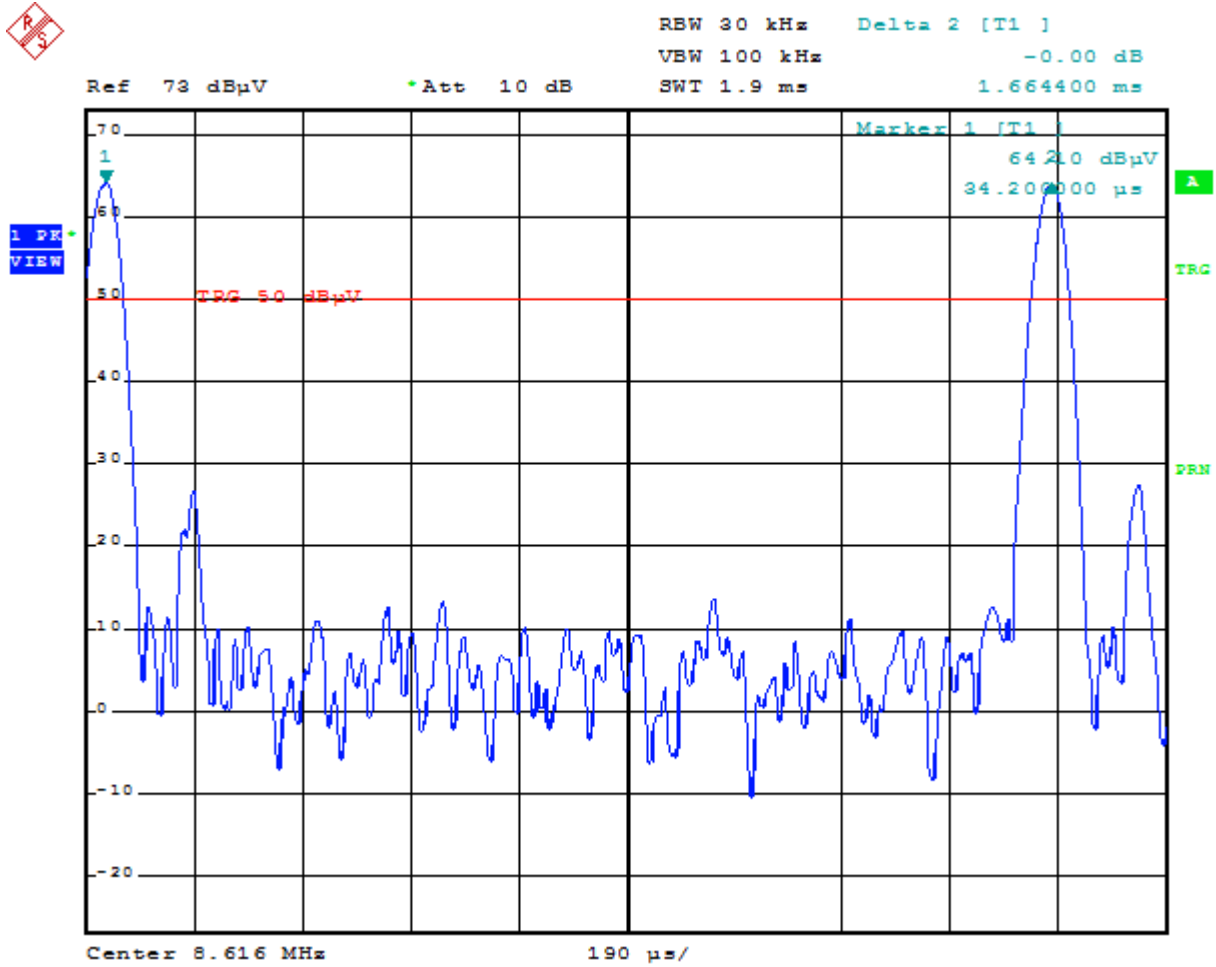
Plot 4a and 4b below show the RF On/Off characteristics of the EUT's emissions. From these characteristics a correction factor is calculated that is required to derive Average values from the measured peak values of the emissions.

Duty cycle correction factor (Cf) = 20 Log (RF On time / Repetition rate)

Cf = 20 Log (103.23 us / 1664.40 us) = -24.15 dB



Plot 4a RF On Time



Plot 4b repetition Rate

## 8 List of utilized test equipment.

Inventory number	Description	Brand	Model	Last cal.	Next cal.
12512	LISN	EMCO	3625/2	01/2012	01/2014
13313	Pulse limiter	R&S	ESH3-Z2	01/2013	01/2014
15633	Biconilog Test antenna	Chase	CBL 6111B	01-2013	01-2014
99161	Variac 250V 6A	RFT	LTS006	NA	NA
99538	Spectrum Analyzer	R&S	FSP	12/2012	12/2013
99580	Semi Anechoic Room	Siepel	FCC listed: 90828 IC: 2932G-2	12-2011	12-2014
99608	Antenna mast controller	EMCS	DOC202	NA	NA
99609	Antenna mast	EMCS	AP-4702C	NA	NA
99848	Shielded room for Conducted emissions	--	--	NA	NA
99847/ 99852/ 99855	Temperature-Humiditymeter	Extech	SD500	02-2013	02-2014
99858	RF Cable S-AR	Gigalink	APG0500	01/2013	01/2014
99699	Measuring receiver	R&S	ESCI	03-2013	03-2014

NA= Not Applicable