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25 August 2010

Prüfbericht / Test Report

Nr. / No. 69575-01059-6 (Edition 1)

Applicant: SKIDATA AG
Type of equipment: Tag Reader
Type designation: AC-MOBILEREADER
Order No.:
Test standards: FCC Code of Federal Regulations,
CFR 47, Part 15,
Sections 15.205, 15.225

Industry Canada Radio Standards Specifications
RSS-210 Issue 7, Sections 2.2, 2.6, A2.6 (Category I Equipment)



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1 Description of the Equipment Under Test (EUT)

General data of EUT	
Type designation ¹ :	AC-MOBILEREADER
Parts ² :	
Serial number(s):	094900003
Manufacturer:	SKIDATA AG
Type of equipment:	Tag Reader
Version:	series version
FCC ID:	QSS-TRM
Additional parts/accessories:	

Technical data of EUT	
Application frequency range:	13.553 MHz - 13.567 MHz
Frequency range:	
Operating frequency:	13.560 MHz
Type of modulation:	Amplitude modulation
Pulse train:	---
Pulse width:	---
Number of RF-channels:	1
Channel spacing:	---
Designation of emissions ³ :	
Type of antenna:	Inductive loop
Size/length of antenna:	0.0012 m ²
Connection of antenna:	<input type="checkbox"/> detachable <input checked="" type="checkbox"/> not detachable
Type of power supply:	Battery supply
Specifications for power supply:	nominal voltage: 3.65 V minimum voltage: 3.10 V maximum voltage: 3.65 V

¹ Type designation of the system if EUT consists of more than one part.

² Type designations of the parts of the system, if applicable.

³ Also known as "Class of Emission".

2 Administrative Data

Application details	
Applicant (full address):	SKIDATA AG Untersbergstraße 40 A-5083 Gröding Austria
Contact person:	Mr. Christoph Sonderegger
Order number:	
Receipt of EUT:	03 February 2010 22 June 2010 (with active Bluetooth)
Date(s) of test:	February 2010 June 2010 (radiated emissions up to 25 GHz)
Note(s):	RFID as well as Bluetooth were active during testing (simultaneous transmission)

Report details	
Report number:	69575-01059-6
Edition:	1
Issue date:	25 August 2010



3 Identification of the Test Laboratory

Details of the Test Laboratory	
Company name:	TÜV SÜD SENTON GmbH
Address:	Aeussere Fruehlingstrasse 45 D-94315 Straubing Germany
Laboratory accreditation:	DAR-Registration No. DAT-PL-171/94-03
FCC test site registration number	90926
Industry Canada test site registration:	3050A-1
Contact person:	Mr. Johann Roidt
	Phone: +49 9421 5522-0 Fax: +49 9421 5522-99

4 Summary

Summary of test results

The tested sample complies with the requirements set forth in the

Code of Federal Regulations CFR 47, Part 15, Sections 15.205 and 15.225

of the Federal Communication Commission (FCC) and the

Radio Standards Specifications

RSS-210 Issue 7, Sections 2.2, 2.6, A2.6 (Category I Equipment)

of Industry Canada (IC).

Personnel involved in this report

Laboratory Manager:



Mr. Johann Roidt

Responsible for testing:



Mr. Thomas Eberl

Responsible for test report:

Mr. Thomas Eberl

5 Operation Mode and Configuration of EUT

Operation Mode(s)
Reading Tag continuously

Configuration(s) of EUT
EUT is a stand alone device.

List of ports and cables				
Port	Description	Classification ⁴	Cable type	Cable length
1	USB	signal/control port	Shielded	2 m

List of devices connected to EUT				
Item	Description	Type Designation	Serial no. or ID	Manufacturer
1	No devices connected			

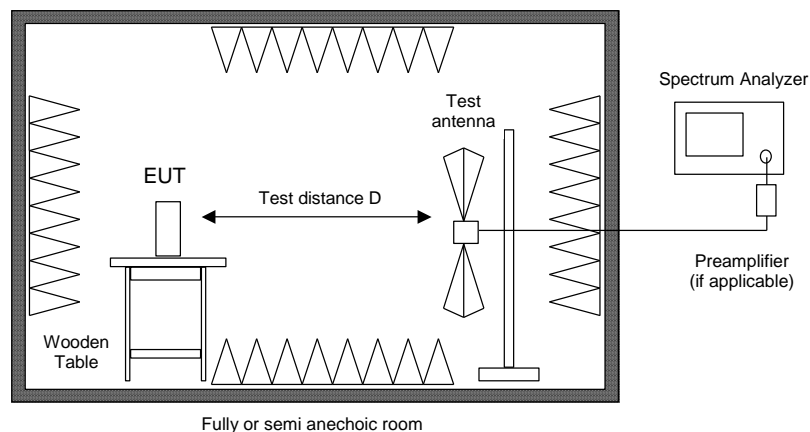
List of support devices				
Item	Description	Type Designation	Serial no. or ID	Manufacturer
1	No support devices used			

⁴ Ports shall be classified as ac power, dc power or signal/control port

6 Measurement Procedures

6.1 Radiated Emission in Fully or Semi Anechoic Room

Measurement Procedure:	
Rules and specifications:	CFR 47 Part 15, sections 15.205(b) and 15.225(d) IC RSS-210 Issue 7, sections 2.2(b)(c), 2.6 and A2.6
Guide:	ANSI C63.4
<p>Radiated emission in fully or semi anechoic room is measured in the frequency range from 30 MHz to the maximum frequency as specified in CFR 47 Part 15 section 15.33.</p> <p>Measurements are made in both the horizontal and vertical planes of polarization in a fully anechoic room using a spectrum analyzer with the detector function set to peak and resolution as well as video bandwidth set to 100 kHz (below 1 GHz) or 1 MHz (above 1 GHz).</p> <p>Testing up to 1 GHz is performed with a linear polarized logarithmic periodic antenna combined with a 4:1 broadband dipole ("Trilog broadband antenna"). For testing above 1 GHz horn antennas are used.</p> <p>All tests below 8.2 GHz are performed at a test distance D of 3 meters. For higher frequencies the test distance may be reduced (e.g. to 1 meter) due to the sensitivity of the measuring instrument(s) and the test results are calculated according to CFR 47 Part 15 section 15.31(f)(1) using an extrapolation factor of 20 dB/decade. If required, preamplifiers are used for the whole frequency range. Special care is taken to avoid overload, using appropriate attenuators and filters, if necessary.</p> <p>If the radiated emission limits are expressed in terms of the average value of the emission there also is a peak limit corresponding to 20 dB above the maximum permitted average limit. Additionally, if pulsed operation is employed, the average field strength is determined by averaging over one complete pulse train, including blanking intervals, as specified in CFR 47 Part 15 section 15.35(c). If the pulse train exceeds 0.1 second that 0.1 second interval during which the value of the emission is at its maximum is selected for calculation. The pulse train correction is added to the peak value of the emission to get the average value.</p> <p>Hand-held or body-worn devices are rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission relative to the limit and therefore shall be used for final testing.</p> <p>During testing the EUT is rotated all around to find the maximum levels of emissions. Equipment and cables are placed and moved within the range of position likely to find their maximum emissions.</p> <p>For final testing below 1 GHz a semi anechoic room is used (equal to an open field test-site) and the plots recorded in the fully anechoic room are indicated as prescans.</p>	



Test instruments used:

Used	Type	Model	Serial No. or ID	Manufacturer
<input checked="" type="checkbox"/>	Spectrum Analyzer	FSP 30	100063	Rohde & Schwarz
<input type="checkbox"/>	Spectrum analyzer	R 3271	05050023	Advantest
<input type="checkbox"/>	EMI test receiver	ESMI	839379/013 839587/006	Rohde & Schwarz
<input checked="" type="checkbox"/>	EMI test receiver	ESU8	100232	Rohde & Schwarz
<input checked="" type="checkbox"/>	Preamplifier	CPA9231A	3393	Schaffner
<input type="checkbox"/>	Preamplifier	R14601		Advantest
<input type="checkbox"/>	Preamplifier 1-8 GHz	AFS3-00100800-32-LN	847743	Miteq
<input type="checkbox"/>	Preamplifier 0.5-8 GHz	AMF-4D-005080-25-13P	860149	Miteq
<input type="checkbox"/>	Preamplifier 8-18 GHz	ACO/180-3530	32641	CTT
<input type="checkbox"/>	External Mixer	WM782A	845881/005	Tektronix
<input type="checkbox"/>	Harmonic Mixer	FS-Z30	843389/007	Rohde & Schwarz
	Accessories			
<input checked="" type="checkbox"/>	Trilog broadband antenna	VULB 9163	9163-188	Schwarzbeck
<input checked="" type="checkbox"/>	Trilog broadband antenna	VULB 9163	9163-214	Schwarzbeck
<input type="checkbox"/>	Horn antenna	3115	9508-4553	EMCO
<input type="checkbox"/>	Horn antenna	3160-03	9112-1003	EMCO
<input type="checkbox"/>	Horn antenna	3160-04	9112-1001	EMCO
<input type="checkbox"/>	Horn antenna	3160-05	9112-1001	EMCO
<input type="checkbox"/>	Horn antenna	3160-06	9112-1001	EMCO
<input type="checkbox"/>	Horn antenna	3160-07	9112-1008	EMCO
<input type="checkbox"/>	Horn antenna	3160-08	9112-1002	EMCO
<input type="checkbox"/>	Horn antenna	3160-09	9403-1025	EMCO
<input type="checkbox"/>	Horn antenna	3160-10	399185	EMCO
<input checked="" type="checkbox"/>	Fully anechoic room	No. 2	1452	Albatross Projects
<input type="checkbox"/>	Semi-anechoic room	No. 3	1453	Siemens
<input checked="" type="checkbox"/>	Semi-anechoic room	No. 8	2057	Albatross Projects



7 Photographs Taken During Testing

Test setup for radiated emission measurement (fully anechoic room)



**Test setup for radiated emission measurement
(fully anechoic room) - continued -**



8 Test Results

FCC CFR 47 Parts 2 and 15			
Section(s)	Test	Page	Result
2.1046(a)	Conducted output power	---	Not applicable
2.202(a)	Occupied bandwidth	---	Recorded
15.215(c)	Bandwidth of the emission	---	Not applicable
2.201, 2.202	Class of emission	---	Not applicable
15.35(c)	Pulse train measurement for pulsed operation	---	Not applicable
15.205(a) 15.205(d)(7)	Restricted bands of operation	---	Not applicable
15.207	Conducted AC powerline emission 150 kHz to 30 MHz	---	Not applicable
15.225(a)-(d)	Spectrum Mask	---	Not applicable
15.205(b) 15.215(b) 15.225(a)(d)	Radiated emission 9 kHz to 30 MHz	---	Not applicable
15.205(b) 15.225(d)	Radiated emission 30 MHz to 25 GHz	14	Test passed
15.225(e)	Carrier frequency stability	---	Not applicable

IC RSS-210 Issue 7			
Section(s)	Test	Page	Result
2.2(a)	Restricted bands and unwanted emission frequencies	--- ⁵	Not applicable
A2.6	Spectrum Mask	---	Not applicable
2.2(b)(c), 2.6 A2.6	Unwanted emissions 9 kHz to 30 MHz	---	Not applicable
2.2(b)(c), 2.6 A2.6	Unwanted emissions 30 MHz to 25 GHz	14	Test passed
A2.6	Carrier frequency stability	---	Not applicable

⁵ See "Spectrum Mask" and "Unwanted emissions".

8.1 Radiated Emission Measurement 30 MHz to 25 GHz

Rules and specifications:	CFR 47 Part 15, sections 15.205(b), 15.225(d) and 15.247 IC RSS-210 Issue 7, sections 2.2(b)(c), 2.6, A2.6 and A8		
Guide:	ANSI C63.4		
Limit:	Frequency of Emission (MHz)	Field Strength ($\mu\text{V}/\text{m}$)	Field Strength ($\text{dB}\mu\text{V}/\text{m}$)
	30 - 88	100	40.0
	88 - 216	150	43.5
	216 - 960	200	46.0
	Above 960	500	54.0
	Additionally, the level of any unwanted emissions shall not exceed the level of the fundamental emission.		
Measurement procedures:	Radiated Emission in Fully or Semi Anechoic Room (6.1))		

Comment:	
Date of test:	04 February 2010 24 June 2010, 25 June 2010
Test site:	Frequencies ≤ 1 GHz: Open field test site Frequencies > 1 GHz: Fully anechoic room, cabin no. 2
Test distance:	Frequencies ≤ 8.2 GHz: 3 meters Frequencies > 8.2 GHz: 1 meters

Test Result:	Test passed
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Frequency (MHz)	Antenna Polarization	Detector	Receiver Reading (dBµV)	Correction Factor (dB/m)	Pulse Train Correction (dB)	Final Value (dBµV/m)	Limit (dBµV/m)	Margin (dB)
40.680	vertical	Quasi-Peak	3.8	14.4		18.2	40.0	21.8
43.440	horizontal	Quasi-Peak	-3.7	14.5		10.8	40.0	29.2
67.800	vertical	Quasi-Peak	2.4	10.9		13.3	40.0	26.7
88.230	vertical	Quasi-Peak	-3.5	11.3		7.8	43.5	35.7
149.150	vertical	Quasi-Peak	4.6	9.7		14.3	43.5	29.2
203.400	vertical	Quasi-Peak	2.4	12.4		14.8	43.5	28.7
339.000	vertical	Quasi-Peak	2.6	15.9		18.5	46.0	27.5
493.770	vertical	Quasi-Peak	12.6	18.5		31.1	46.0	14.9
583.110	vertical	Quasi-Peak	9.2	20.4		29.6	46.0	16.4
905.280	horizontal	Quasi-Peak	-1.3	24.5		23.2	46.0	22.8
1064.000	horizontal	Peak	10.8	28.0		38.8	54.0	15.2
1140.000	vertical	Peak	16.1	28.3		44.4	54.0	9.6
1368.000	horizontal	Peak	9.2	29.2		38.3	54.0	15.7
1624.000	horizontal	Peak	8.5	30.3		38.8	54.0	15.2
2420.000	vertical	Peak	45.3	33.4		78.8		
2432.000	horizontal	Peak	46.8	33.5		80.3		
2436.000	vertical	Peak	55.5	33.5		89.0		
2452.000	horizontal	Peak	46.6	33.5		80.1		
2472.000	horizontal	Peak	30.9	33.6		64.5		
2480.000	vertical	Peak	51.5	33.6		85.1		
4825.200	vertical	Peak	9.7	41.0		50.7	54.0	3.3
4882.400	horizontal	Peak	7.9	41.2		49.1	54.0	4.9

Sample calculation of final values:

$$\text{Final Value (dBµV/m)} = \text{Reading Value (dBµV)} + \text{Correction Factor (dB/m)} + \text{Pulse Train Correction (dB)}$$

9 Referenced Regulations

All tests were performed with reference to the following regulations and standards:

<input checked="" type="checkbox"/>	CFR 47 Part 2	Code of Federal Regulations Part 2 (Frequency allocation and radio treaty matters; General rules and regulations) of the Federal Communication Commission (FCC)	October 1, 2008
<input checked="" type="checkbox"/>	CFR 47 Part 15	Code of Federal Regulations Part 15 (Radio Frequency Devices) of the Federal Communication Commission (FCC)	October 1, 2008
<input checked="" type="checkbox"/>	ANSI C63.4	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	December 11, 2003 (published on January 30, 2004)
<input checked="" type="checkbox"/>	RSS-Gen	Radio Standards Specification RSS-Gen Issue 2 containing General Requirements and Information for the Certification of Radiocommunication Equipment, published by Industry Canada	June 2007
<input checked="" type="checkbox"/>	RSS-210	Radio Standards Specification RSS-210 Issue 7 for Low Power Licence-Exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment, published by Industry Canada	June 2007
<input type="checkbox"/>	RSS-310	Radio Standards Specification RSS-310 Issue 2 for Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category II Equipment, published by Industry Canada	June 2007
<input checked="" type="checkbox"/>	RSS-102	Radio Standards Specification RSS-102 Issue 3: Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) , published by Industry Canada	June 2009
<input type="checkbox"/>	ICES-003	Interference-Causing Equipment Standard ICES-003 Issue 4 for Digital Apparatus, published by Industry Canada	February 7, 2004
<input checked="" type="checkbox"/>	CISPR 22	Third Edition of the International Special Committee on Radio Interference (CISPR), Pub. 22, "Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement"	1997
<input type="checkbox"/>	CAN/CSA-CEI/IEC CISPR 22	Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment	2002



TRC-43 Notes Regarding Designation of Emission (Including Necessary Bandwidth and Classification), Class of Station and Nature of Service, published by Industry Canada October 9, 1982



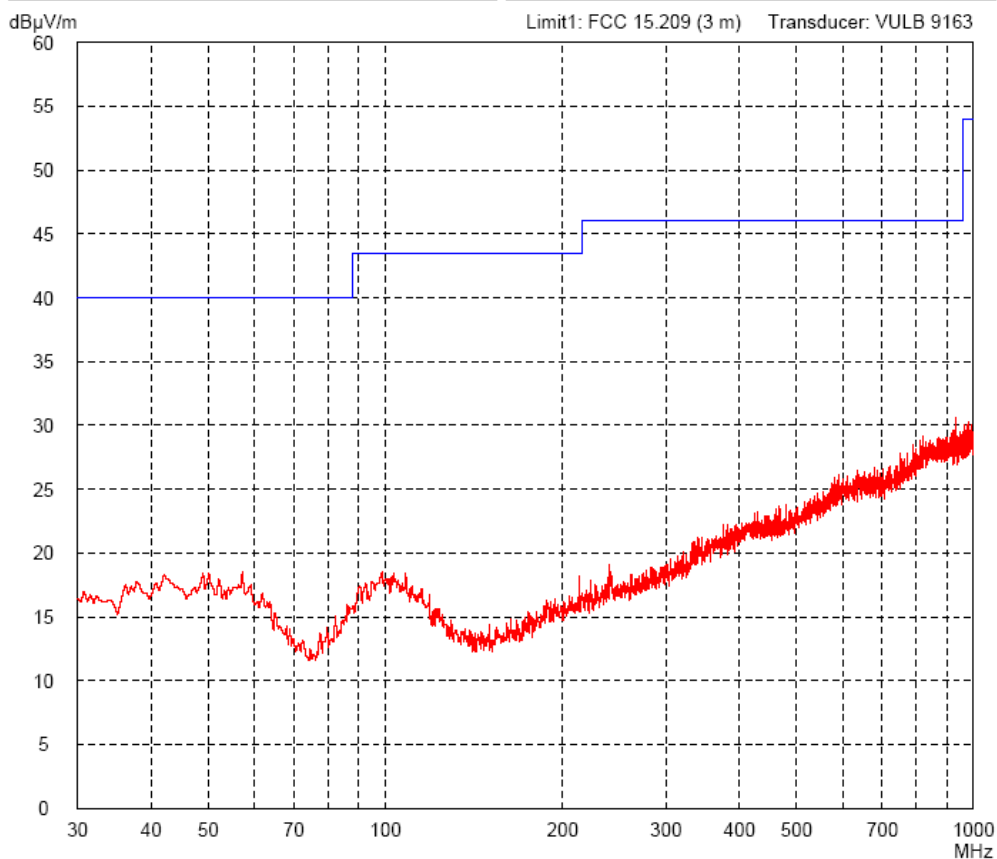
10 Revision History

Revision History			
<i>Edition</i>	<i>Date</i>	<i>Issued by</i>	<i>Modifications</i>
1	25.08.2010	Christa Jäger (jr)	First Edition Test report issued referring to report no. 69575-01059-3 (Edition 3) Radiated measurements > 30 MHz only



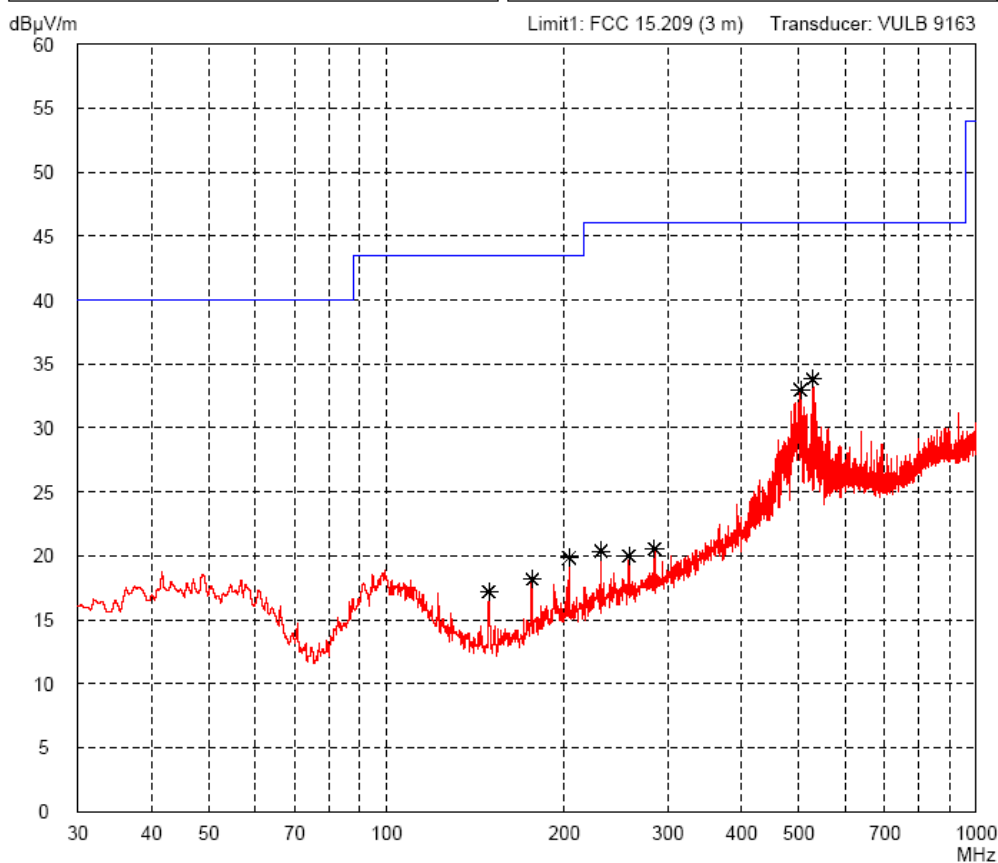
11 Charts taken during testing

Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)	
Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - EUT in vertical position (1)
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 02/04/2010	Operator: T. Eberl
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: 10 dB Margin 50 Subranges

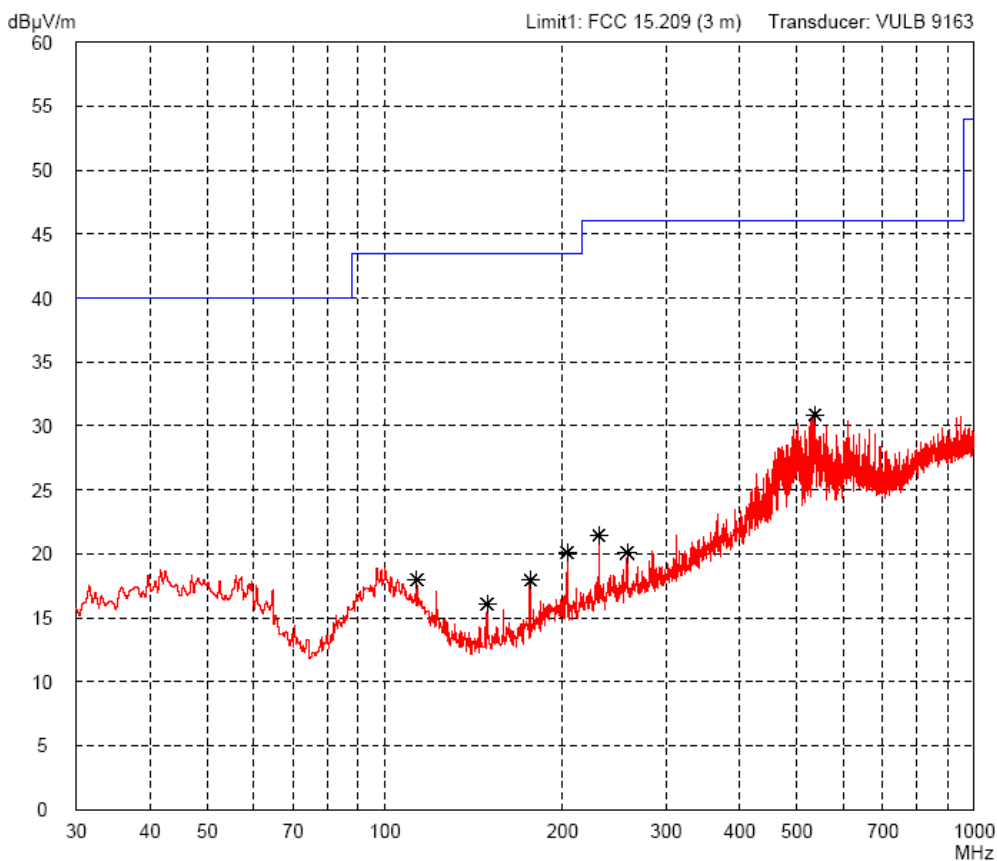


**Radiated Emission Test 30 MHz - 1 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

<p>Model: AC-MOBILEREADER</p> <p>Serial no.: 09400003</p> <p>Applicant: SKIDATA AG</p> <p>Test site: Fully anechoic room, cabin no. 2</p> <p>Tested on: Test distance 3 metres Vertical Polarization</p> <p>Date of test: 02/04/2010 Operator: T. Eberl</p> <p>Test performed: automatically File name: default.emi</p>	<p>Comment:</p> <ul style="list-style-type: none"> - TX mode - Test mode #2 - EUT in vertical position (1)
<p>Detector: Peak</p>	<p>List of values: Selected by hand</p>

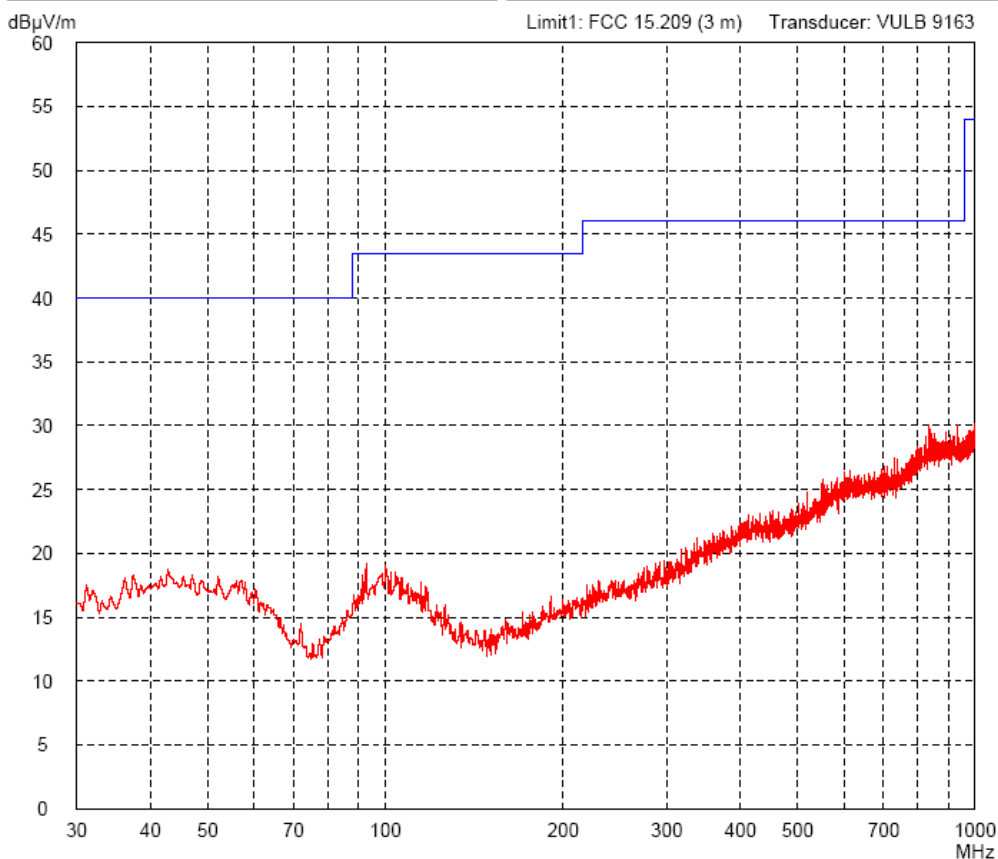


Radiated Emission Test 30 MHz - 1 GHz acc. to FCC Part 15 Subpart C (FAR)	
Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - EUT in horizontal position - right side on table (2)
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 02/04/2010	Operator: T. Eberl
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



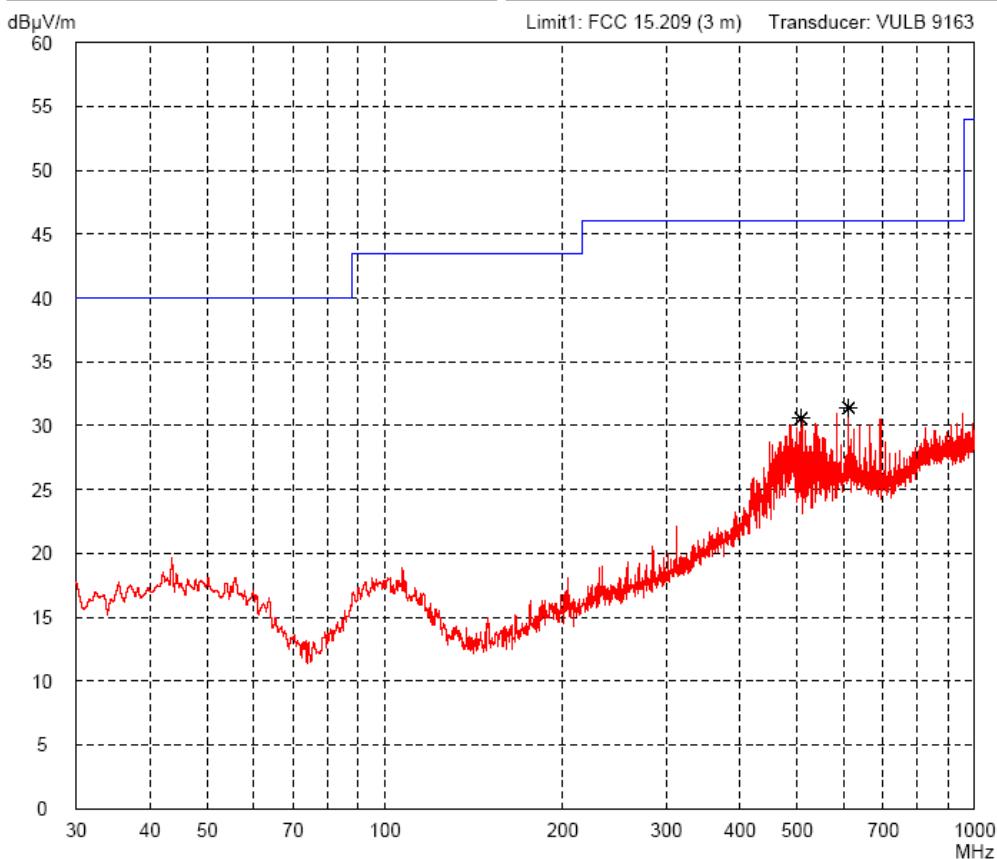
**Radiated Emission Test 30 MHz - 1 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - EUT in horizontal position - right side on table (2)
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 02/04/2010 Operator: T. Eberl	
Test performed: automatically File name: default.emi	
Detector: Peak	List of values: 10 dB Margin 50 Subranges



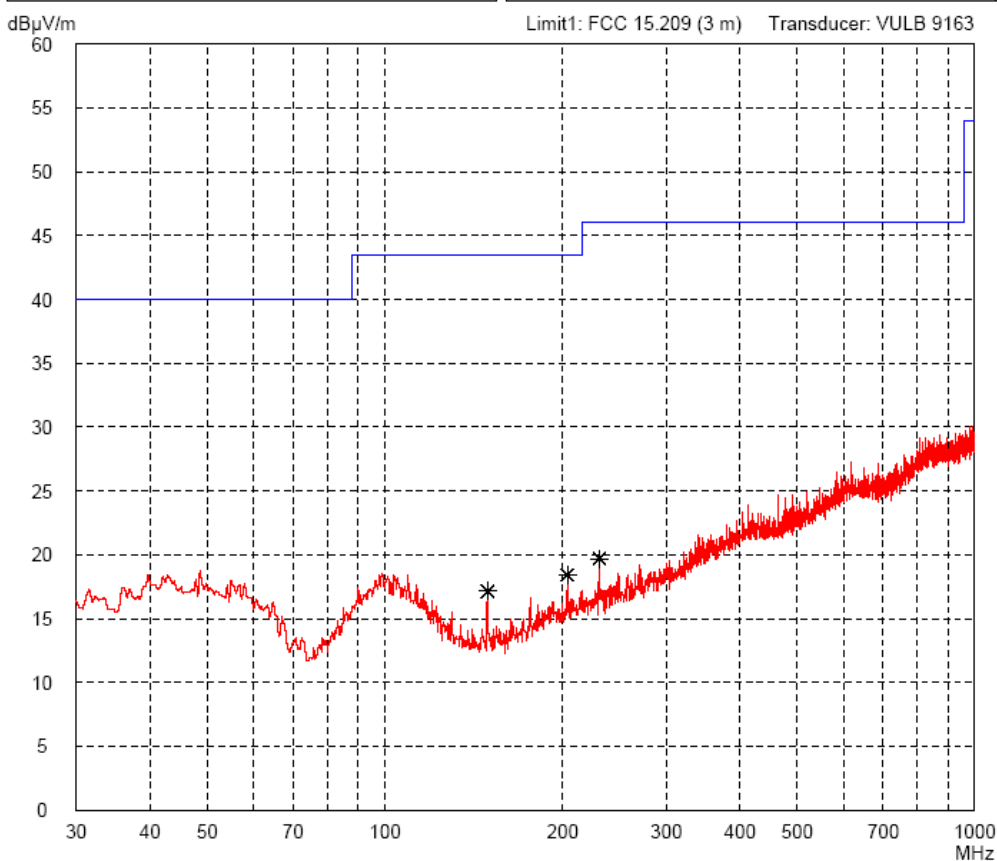
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 acc. to FCC Part 15 Subpart C (FAR)**

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Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 02/04/2010	Operator: T. Eberl
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



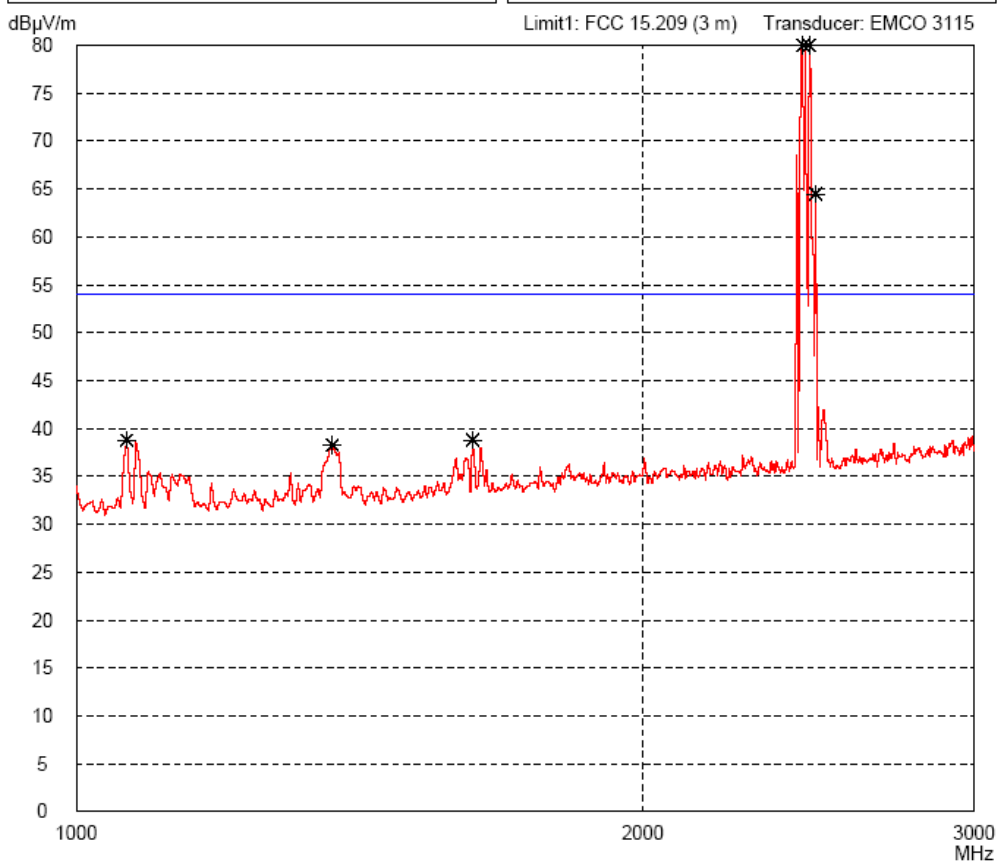
Radiated Emission Test 30 MHz - 1 GHz
 acc. to FCC Part 15 Subpart C (FAR)

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - EUT in horizontal position - rear side on table (3)
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 02/04/2010	Operator: T. Eberl
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



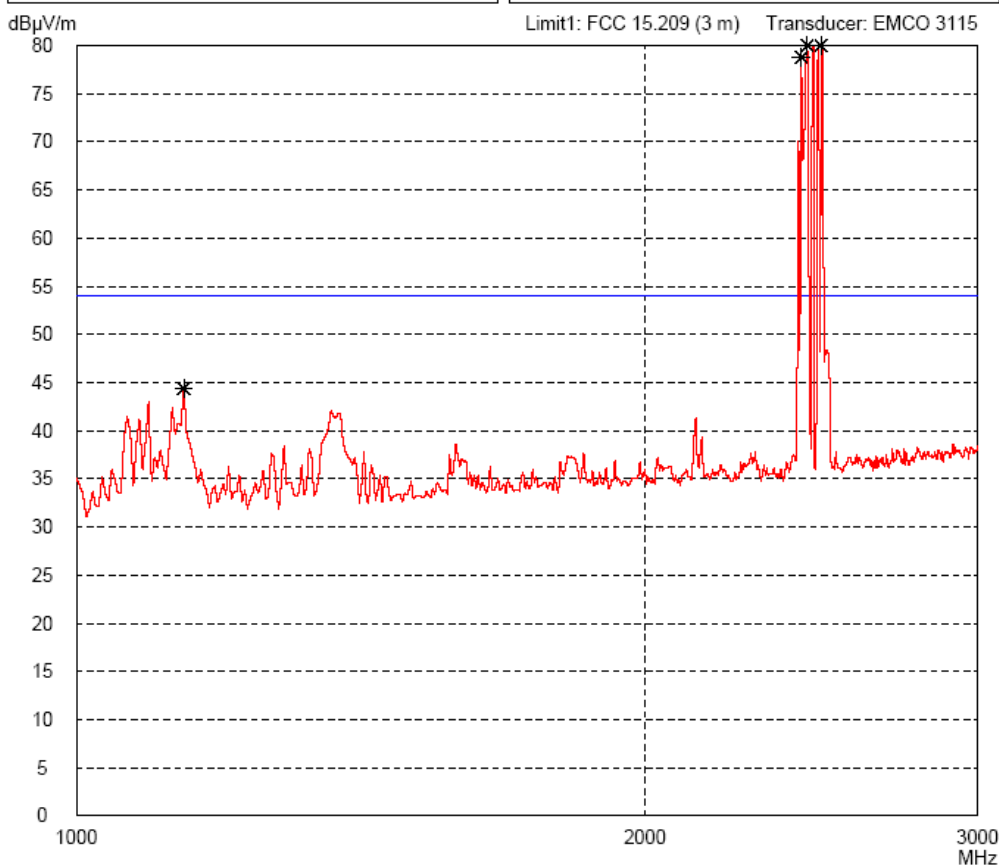
Radiated Emission Test 1 GHz - 3 GHz
 acc. to FCC Part 15 Subpart C (FAR)

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 06/23/2010	Operator: M. Steindl
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



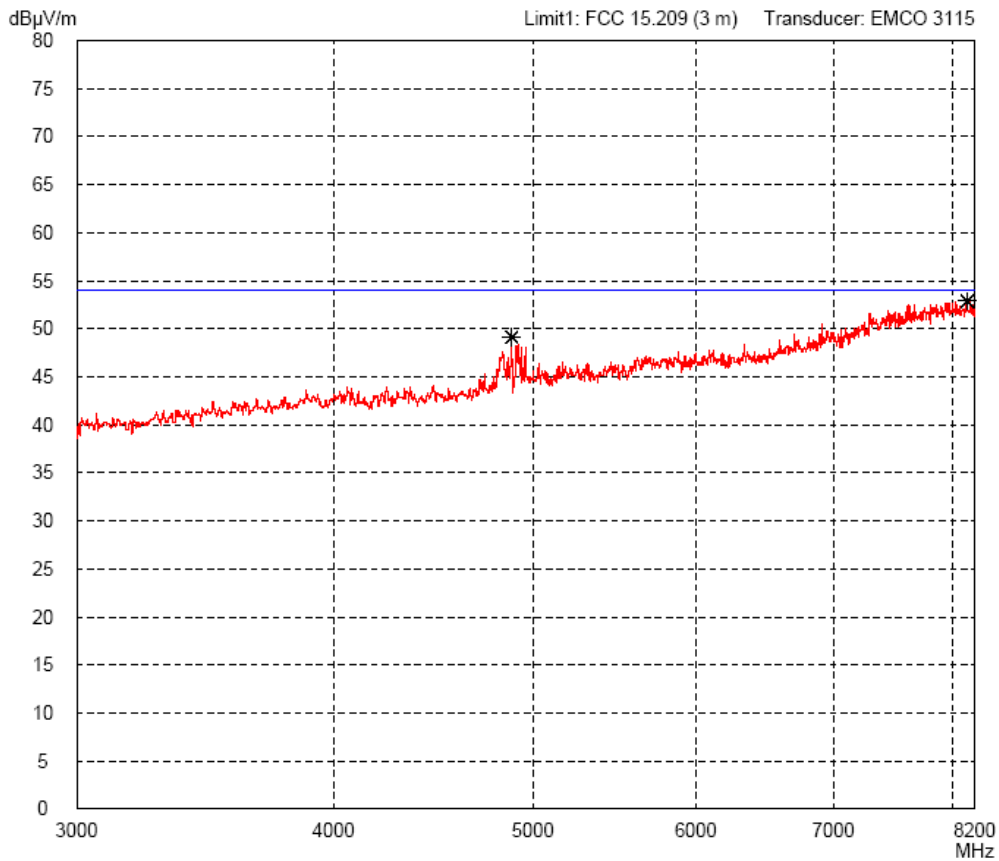
**Radiated Emission Test 1 GHz - 3 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 06/23/2010	Operator: M. Steindl
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



**Radiated Emission Test 3 GHz - 8.2 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

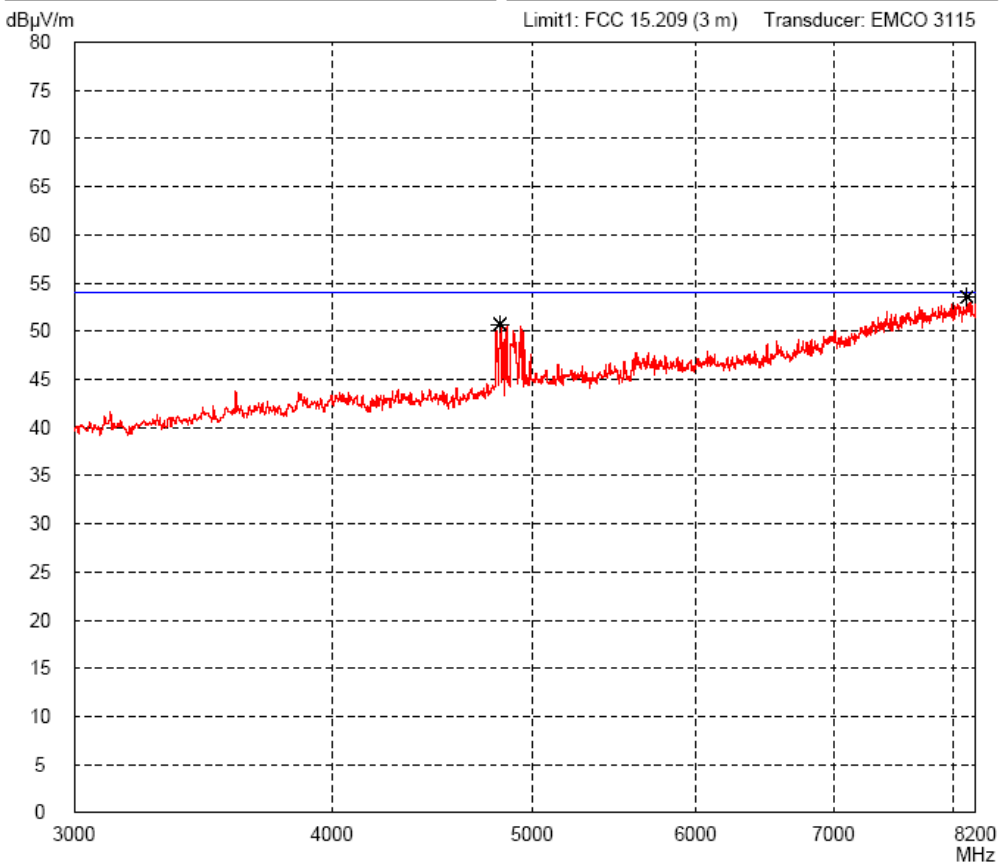
Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Horizontal Polarization	
Date of test: 06/23/2010	Operator: M. Steindl
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



Radiated Emission Test 3 GHz - 8.2 GHz
 acc. to FCC Part 15 Subpart C (FAR)

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 3 metres Vertical Polarization	
Date of test: 06/23/2010	Operator: M. Steindl
Test performed: automatically	File name: default.emi

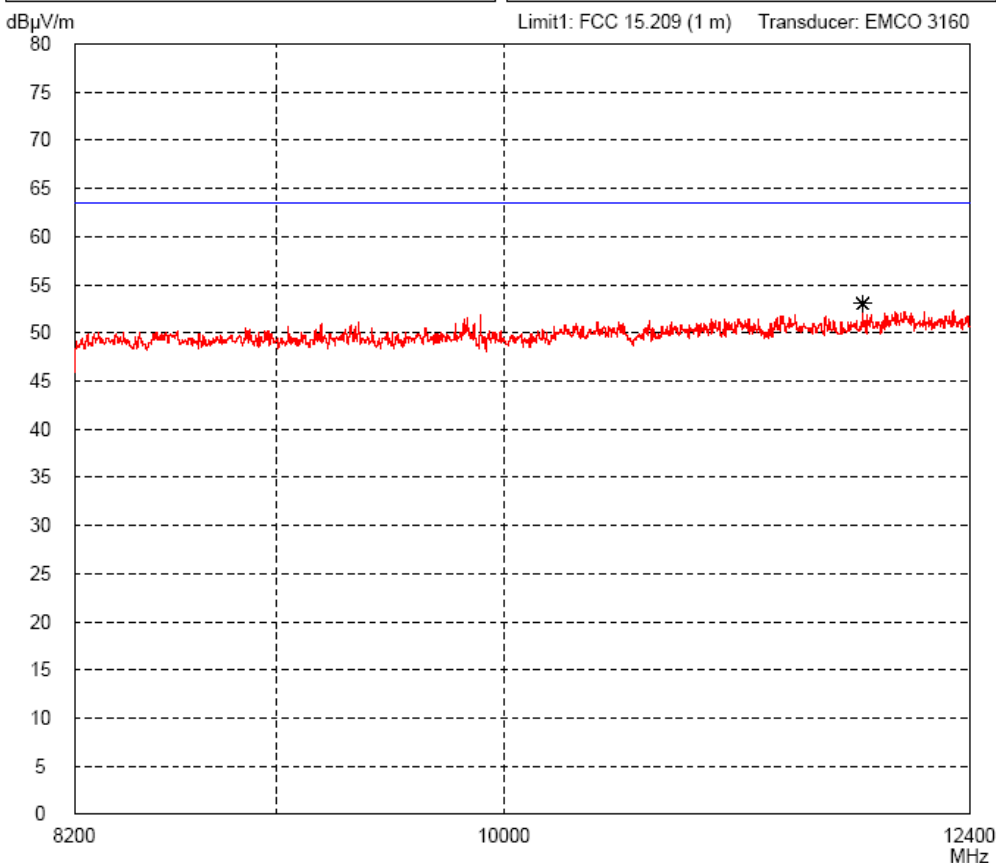
Detector: Peak	List of values: Selected by hand
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**Radiated Emission Test 8.2 GHz - 12.4 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

Model: AC-MOBILEREADER <hr/> Serial no.: 09400003 <hr/> Applicant: SKIDATA AG <hr/> Test site: Fully anechoic room, cabin no. 2 <hr/> Tested on: Test distance 1 meter Horizontal Polarization <hr/> Date of test: 06/23/2010 Operator: M. Steindl <hr/> Test performed: automatically File name: default.emi	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
---	---

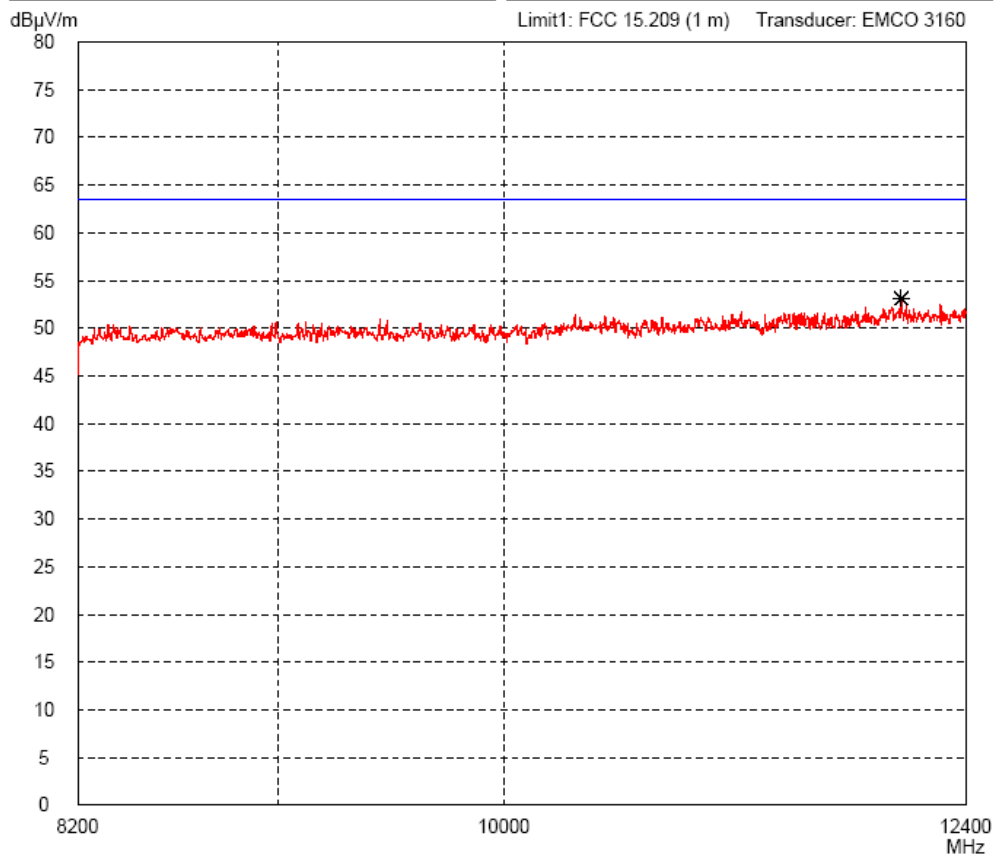
Detector: Peak	List of values: Selected by hand
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**Radiated Emission Test 8.2 GHz - 12.4 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

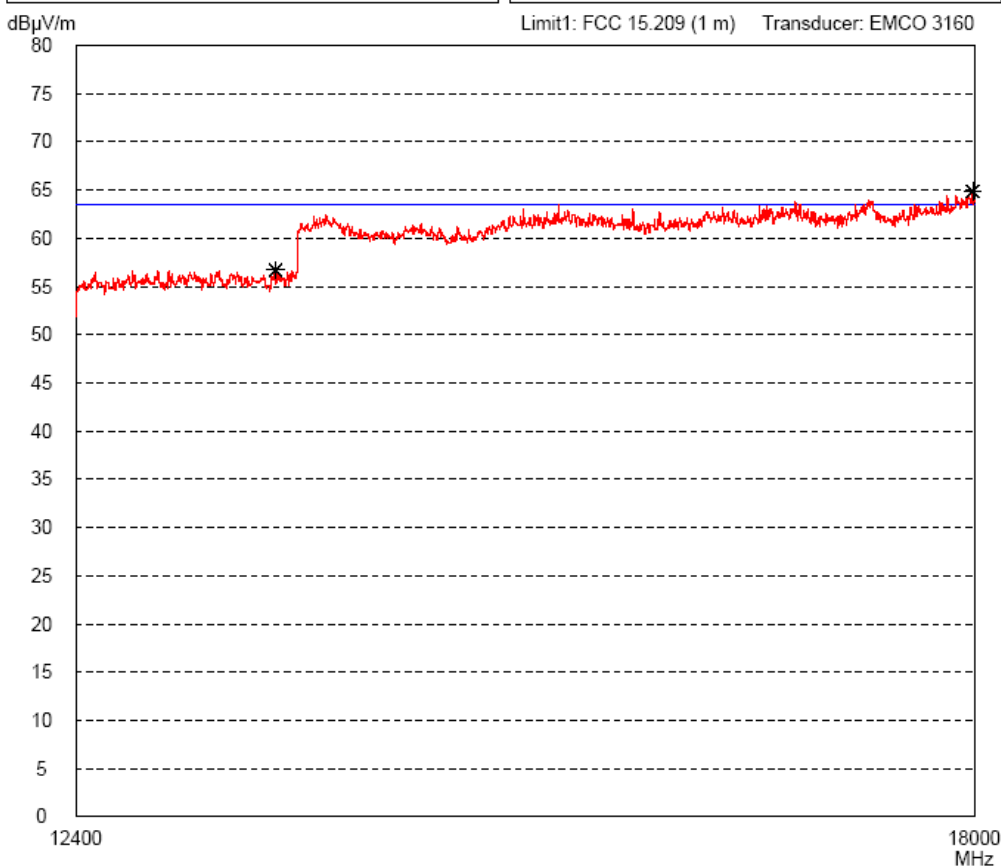
Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 06/23/2010 Operator: M. Steindl	
Test performed: automatically File name: default.emi	

Detector: Peak	List of values: Selected by hand
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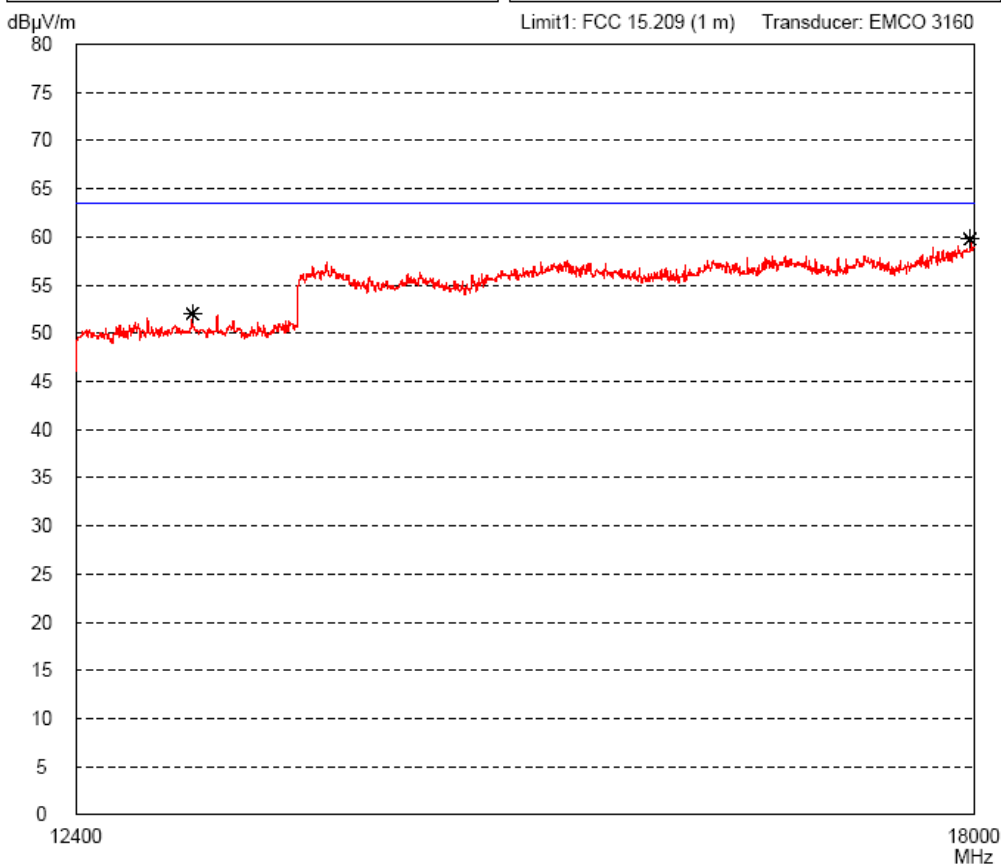
**Radiated Emission Test 12.4 GHz - 18 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 06/23/2010	
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



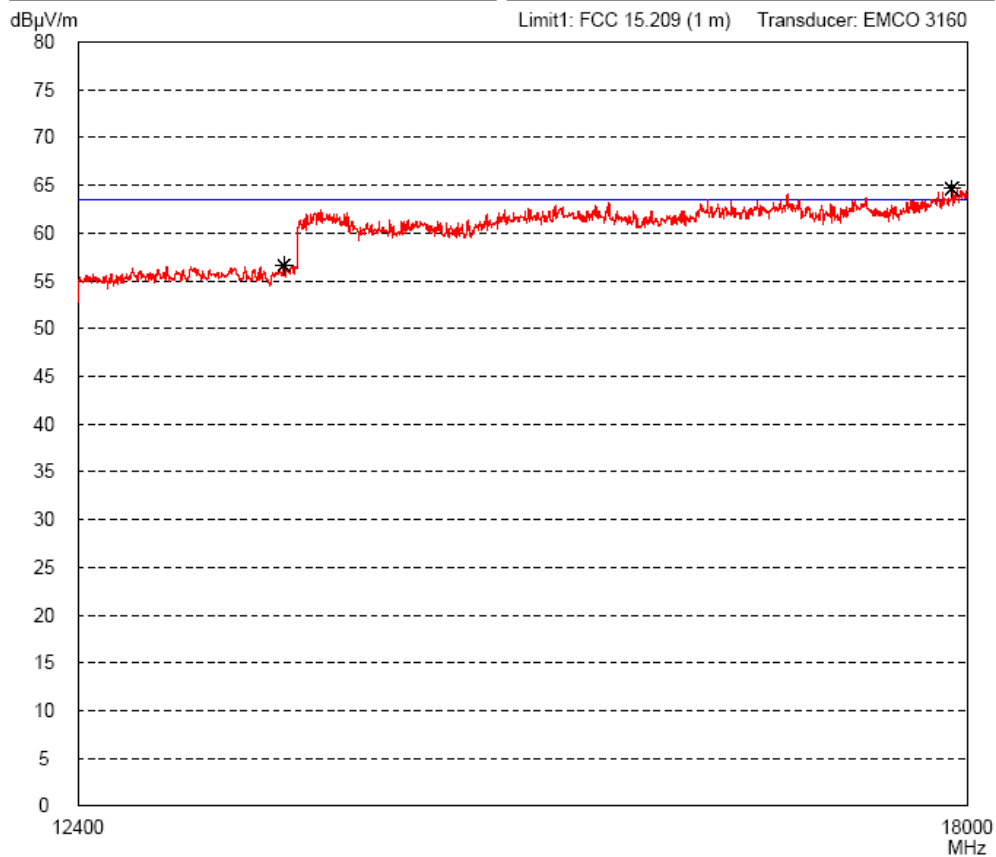
**Radiated Emission Test 12.4 GHz - 18 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
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Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Horizontal Polarization	
Date of test: 06/23/2010	
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



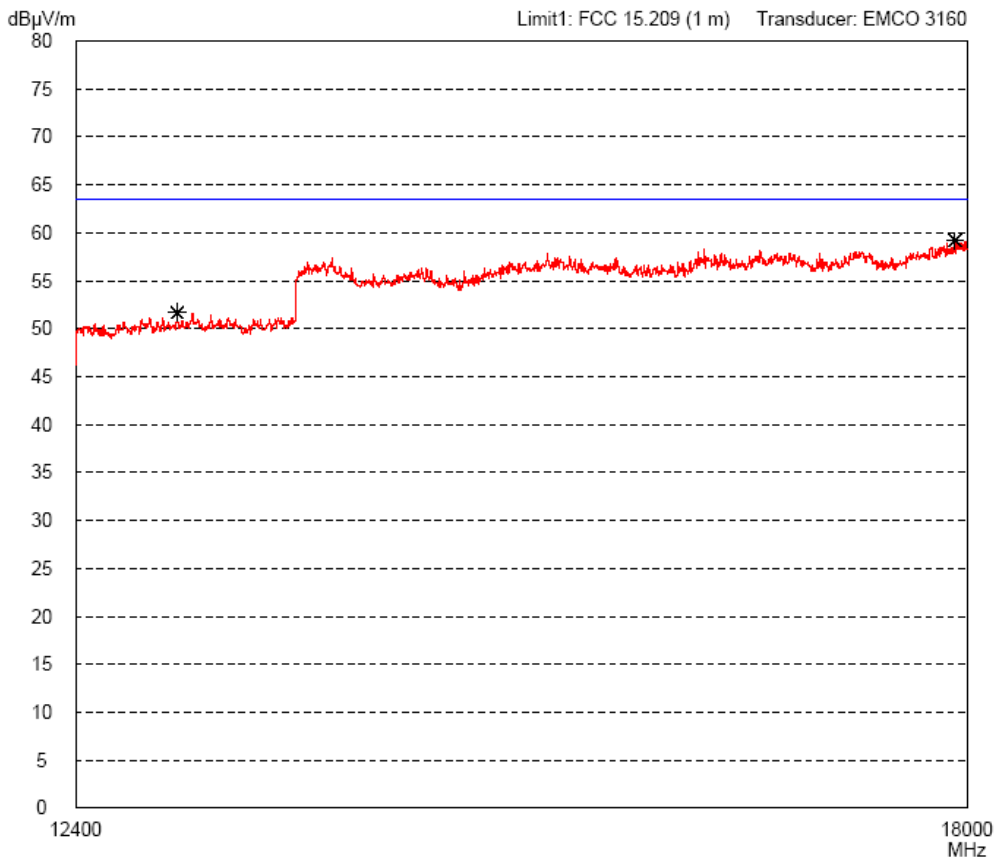
**Radiated Emission Test 12.4 GHz - 18 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 06/23/2010	
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



**Radiated Emission Test 12.4 GHz - 18 GHz
 acc. to FCC Part 15 Subpart C (FAR)**

Model: AC-MOBILEREADER	Comment: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC
Serial no.: 09400003	
Applicant: SKIDATA AG	
Test site: Fully anechoic room, cabin no. 2	
Tested on: Test distance 1 meter Vertical Polarization	
Date of test: 06/23/2010 Operator: M. Steindl	
Test performed: automatically	File name: default.emi
Detector: Peak	List of values: Selected by hand



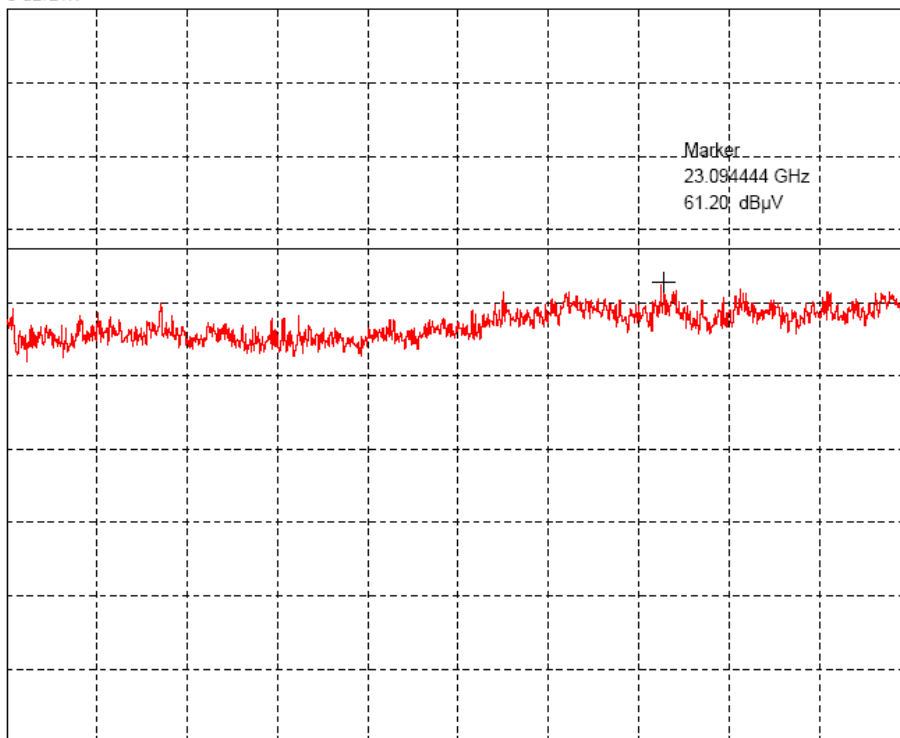
Radiated Emission Test acc. to FCC Part 15 Subpart C

Model: AC-MOBILEREADER	Mode: - TX mode - Test mode #2 - Bluetooth connected to DELL lapto PC - Distance: 1 m - Polarisation: vertical
Serial No.: 09400003	
Applicant: SKIDATA AG	

Ref.Level 79.8 dBµV
 5 dB/Div.

ATT 0 dB

Ref. Offset 42.8 dB



Start 18.000 GHz
 RBW 1 MHz

VBW 1 MHz

Stop 25.000 GHz
 SWP 40 ms

Tested by: M. Steindl	Project-No.: 69575-01059
Date: 2010/06/25	Page of pages