



EMI - TEST REPORT

- FCC Part 15.225, RSS 210-

Type / Model Name : Voxter

Product Description : Voice Terminal

Applicant : ACD Elektronik GmbH

Address : Engelberg 2
88480 ACHSTETTEN, GERMANY

Manufacturer : ACD Elektronik GmbH

Address : Engelberg 2
88480 ACHSTETTEN, GERMANY

Test Result according to the standards listed in clause 1 test standards:	POSITIVE
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Test Report No. : T42973-02-00HS	03. November 2020 <hr style="border: 0; border-top: 1px solid black;"/> Date of issue
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FCC ID: O2FVOXTER
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Attachment A as separate supplement

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

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1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules and Regulations Part 15, Subpart A - General (September 2019)

Part 15, Subpart A, Section 15.31	Measurement standards
Part 15, Subpart A, Section 15.33	Frequency range of radiated measurements
Part 15, Subpart A, Section 15.35	Measurement detector functions and bandwidths

FCC Rules and Regulations Part 15, Subpart C - Intentional Radiators (September 2019)

Part 15, Subpart C, Section 15.205	Restricted bands of operation
Part 15, Subpart C, Section 15.207	Conducted limits
Part 15, Subpart C, Section 15.209	Radiated emission limits, general requirements
Part 15, Subpart C, Section 15.225	Operation within the band 13.110 - 14.010 MHz

RSS Rules and Regulations

RSS-Gen Issue 5, March 2019	General Requirements and Information for the Certification of Radiocommunication Equipment
RSS-210 Issue 9, August 2016	Low Power Licence – Exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment
ANSI C63.10: 2013	Testing Unlicensed Wireless Devices

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2 EQUIPMENT UNDER TEST

2.1 Information provided by the Client

Please note, we do not take any responsibility for information provided by the client or his representative which may have an influence on the validity of the test results.

2.2 Sampling

The customer is responsible for the choice of sample. Sample configuration, start-up and operation is carried out by the customer or according to his/her instructions.

2.3 Photo documentation of the EUT – Detailed photos see ATTACHMENT A

2.4 Short description of the equipment under test (EUT)

The EUT is a mobile body worn Voice Terminal. A combi-module (FCC ID: XO2-SPB228D) for WLAN, Bluetooth and BLE as well as an RFID module are integrated into the device. It can be charged and operated in a docking station (Voxter® Elite Charger), which is available as accessory. While in the docking station, all radios can transmit simultaneously.

Number of tested samples: 1 pc Voxter
Serial number: 20VT50100010

EUT operation mode:

The equipment under test was operated during the measurement under the following conditions:

- RFID TX

EUT configuration:

The following peripheral devices and interface cables were connected during the measurements:

- Docking Station Model : Voxter® Elite Charger
- AC/DC power supply Model : Adapter Tech., Model STD-12016E
- Headset Model : Topspeech HS18

2.5 Power supply system utilised

Power supply voltage : 3.7 VDC (lithium ion battery)
Alternative power supply : Charger 115VAC, 47-63 Hz, 15 VDC

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3 SUMMARY

3.1 Test results

FCC Rule Part	RSS Rule Part	Description	Result
15.207	RSS Gen, 8.8	AC power line conducted emissions	passed
15.225	RSS-210, B.6	Field strength of fundamental	passed
15.209	RSS Gen, 8.9	Spurious emissions	passed
15.225	RSS-210, B.6	Frequency tolerance	passed
15.215	RSS-Gen, 6.7	Occupied bandwidth	passed
15.225	RSS-210, B.6	Transmitter spectrum mask	passed

3.2 Final assessment

The equipment under test fulfills the EMI requirements cited in clause 1 test standards.

Date of receipt of test sample : acc. to storage records

Testing commenced on : 20 July 2020

Testing concluded on : 24 July 2020

Checked by:

Tested by:

 Jürgen Pessinger
 Radio Team

 Hermann Smetana
 Radio Team

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4 TEST ENVIRONMENT

4.1 Address of the test laboratory

**CSA Group Bayern GmbH
Ohmstrasse 1-4
94342 STRASSKIRCHEN
GERMANY**

4.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 86-106 kPa

4.3 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. It is noted that the expanded measurement uncertainty corresponds to the measurement results from the standard measurement uncertainty multiplied by the coverage factor $k = 2$. The true value is located in the corresponding interval with a probability of 95 % The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16-4-2 / 2011 + A1 / 2014 „Uncertainties, statistics and limit modelling – Uncertainty in EMC measurements“ and is documented in the quality system acc. to DIN EN ISO/IEC 17025. For all measurements shown in this report, the measurement uncertainty of the test laboratory, CSA Group Bayern GmbH, is below the measurement uncertainty as defined by CISPR. Therefore, no special measures must be taken into consideration with regard to the limits according to CISPR. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
AC Conducted Spurious Emissions	0.15 MHz to 30 MHz	95%	± 3.29 dB
20 dB Bandwidth	Center frequency of EuT	95%	± 2.5 x 10 ⁻⁷
99% Occupied Bandwidth	Center frequency of EuT	95%	± 2.5 x 10 ⁻⁷
Radiated Spurious Emissions	9 kHz to 30 MHz	95%	± 3.53 dB
Radiated Spurious Emissions	30 MHz to 1000 MHz	95%	± 3.71 dB
Radiated Spurious Emissions	1000 MHz to 10000 MHz	95%	± 2.34 dB
Peak conducted output power	902 MHz to 928 MHz	95%	± 0.35 dB
Conducted Spurious Emissions	9 kHz to 10000 MHz	95%	± 2.15 dB

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4.4 Conformity Decision Rule

The conformity decision rule is based on the ILAC G8 published at the time of reporting.

4.5 Measurement Protocol for FCC

4.5.1 GENERAL INFORMATION

CSA Group Bayern GmbH is recognized as wireless testing laboratory under the CAB identifier:

FCC: DE 0011
ISED: DE0009

4.5.2 General Standard information

The test methods used comply with ANSI C63.10 - "Testing Unlicensed Wireless Devices".

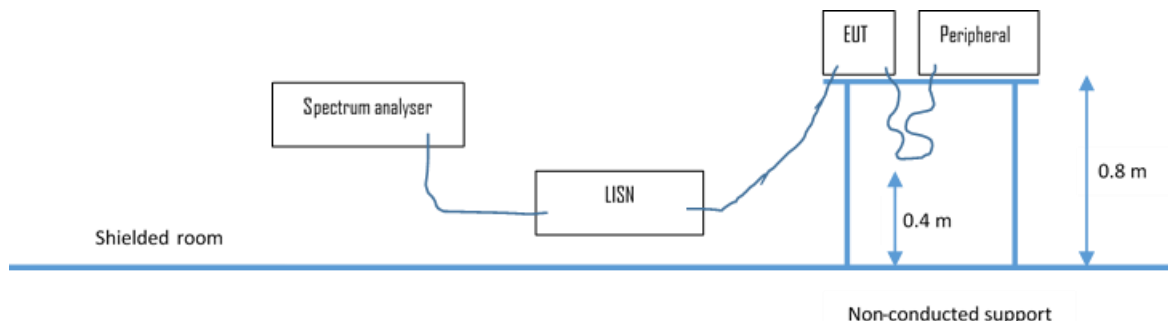
4.5.2.1 Justification

The equipment under test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions.

4.5.3 Details of test procedures

4.5.3.1 Conducted emission

Test setup according ANSI C63.10



The final level, expressed in dBµV, is arrived at by taking the reading directly from the Spectrum analyser. This level is compared to the limit.

To convert between dBµV and µV, the following conversions apply:

$$dB\mu V = 20(\log \mu V)$$

$$\mu V = \text{Inverse log}(dB\mu V/20)$$

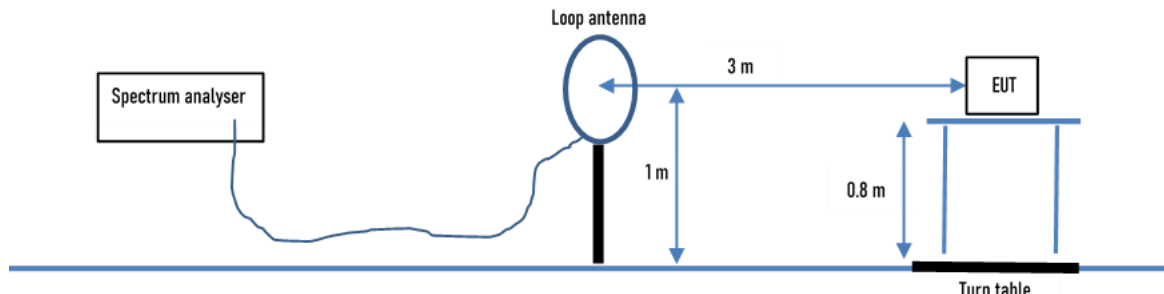
Conducted emissions on the 50 Hz and/or 60 Hz power interface of the EUT are measured in the frequency range of 150 kHz to 30 MHz. The measurements are performed using a receiver, which has CISPR characteristic bandwidth and quasi-peak detection and a Line Impedance Stabilization Network (LISN) with 50 Ω / 50 µH (CISPR 16) characteristics. The receiver is protected by means of an impedance matched pulse limiter connected directly to the RF input. Table top equipment is placed on a non-conducting table 80 centimetres above the floor and is positioned 40 centimetres from the vertical ground plane (wall) of the screen room. If the minimum limit margin appears to be less than 20 dB with a peak mode measurement, the emission is re-measured using a tuned receiver with quasi-peak and average detection and recorded on the data sheets.

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4.5.3.2 Radiated emission

4.5.3.2.1 OATS1 test site (9 kHz - 30 MHz):

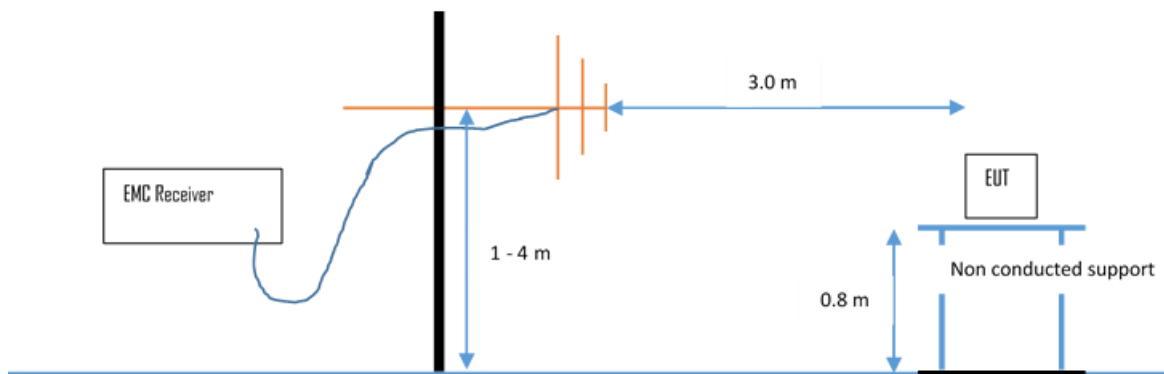
Test setup according ANSI C63.10



Emissions from the EUT are measured in the frequency range of 9 MHz to 30 MHz using a tuned receiver and a calibrated loop antenna. Table top equipment is placed on a 1.0 X 1.5 m non-conducting table 80 centimetres above the ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screened room located outside the test area. The antenna is positioned 3, 10 or 30 metres horizontally from the EUT and is repeated vertically. To locate maximum emissions from the test sample the antenna is varied along the site axis and the EUT is rotated 360 degrees.

4.5.3.2.2 OATS1 test site (30 MHz - 1 GHz):

Test setup according ANSI C63.10.



Spurious emissions from the EUT are measured in the frequency range of 30 MHz to 1000 MHz using a tuned receiver and appropriate broadband linearly polarised antennas. Measurements between 30 MHz and 1000 MHz are made with 120 kHz/6 dB bandwidth and quasi-peak detection. Table top equipment is placed on a 1.0 X 1.5 m non-conducting table 80 centimetres above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screened room located outside the test area. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 metres and the EUT is rotated 360 degrees. The final level in dBµV/m is calculated by taking the reading from the EMI receiver (Level dBµV) and adding the correction factors and cable loss factor (dB). The FCC limit is subtracted from this result in order to provide the limit margin listed in the measurement protocol.

The resolution bandwidth setting:

30 MHz – 1000 MHz: RBW: 120 kHz

Example:

Frequency (MHz)	Level (dBµV)	+	Factor (dB)	=	Level (dBµV/m)	-	Limit (dBµV/m)	=	Delta (dB)
719.0	75.0	+	32.6	=	107.6	-	110.0	=	-2.4

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5 TEST CONDITIONS AND RESULTS

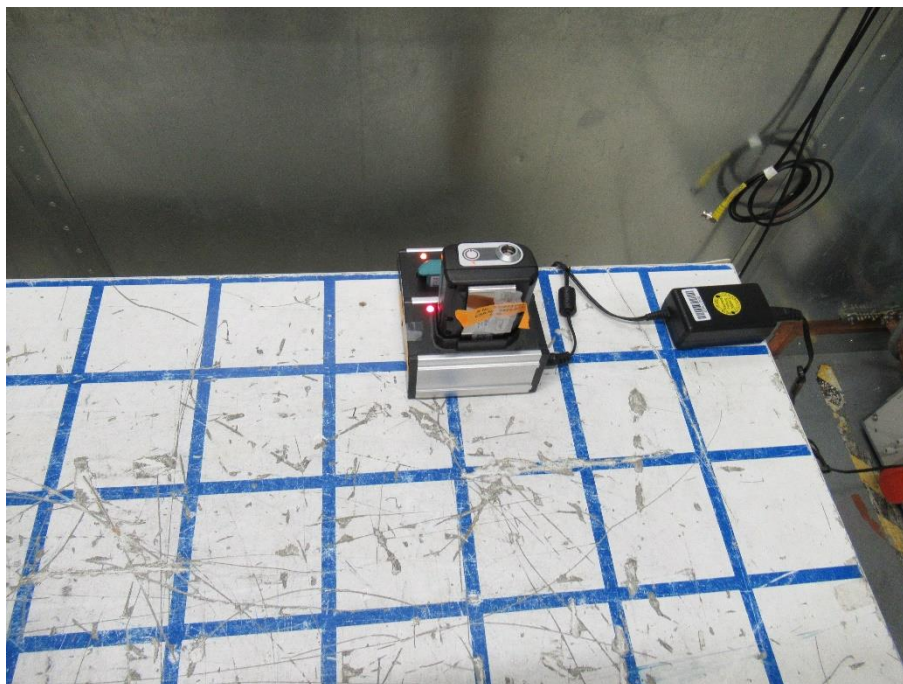
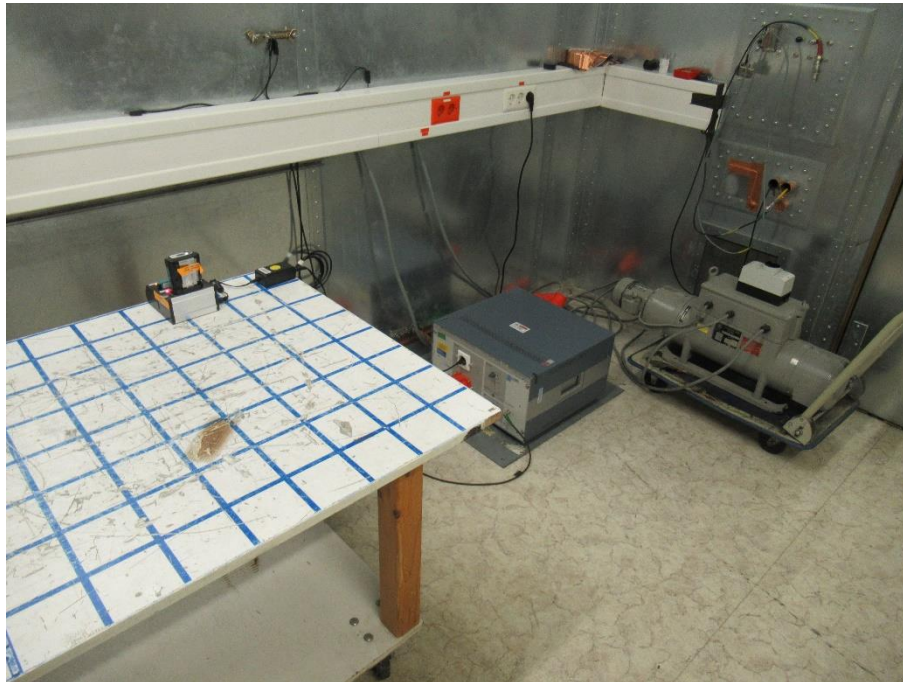
5.1 Conducted emissions

For test instruments and accessories used, see section 6 Part A 4.

5.1.1 Description of the test location

Test location: Shielded Room S2

5.1.2 Photo documentation of the test set-up



5.1.3 Applicable standard

CSA Group Bayern GmbH
 Ohmstrasse 1-4 · 94342 STRASSKIRCHEN · GERMANY
 Tel.:+49(0)9424-94810 · Fax:+49(0)9424-9481440

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FCC Part 15, Section 15.207 and RSS-Gen clause 8.8

5.1.4 Test result

Frequency range: 0.15 MHz - 30 MHz
 Min. limit margin -16.8 dB at 0.191 MHz

Limit according to FCC Part 15, Section 15.207 and RSS-Gen clause 8.8

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency

The requirements are **FULFILLED**.

Remarks: For detailed test result please refer to following test protocols

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

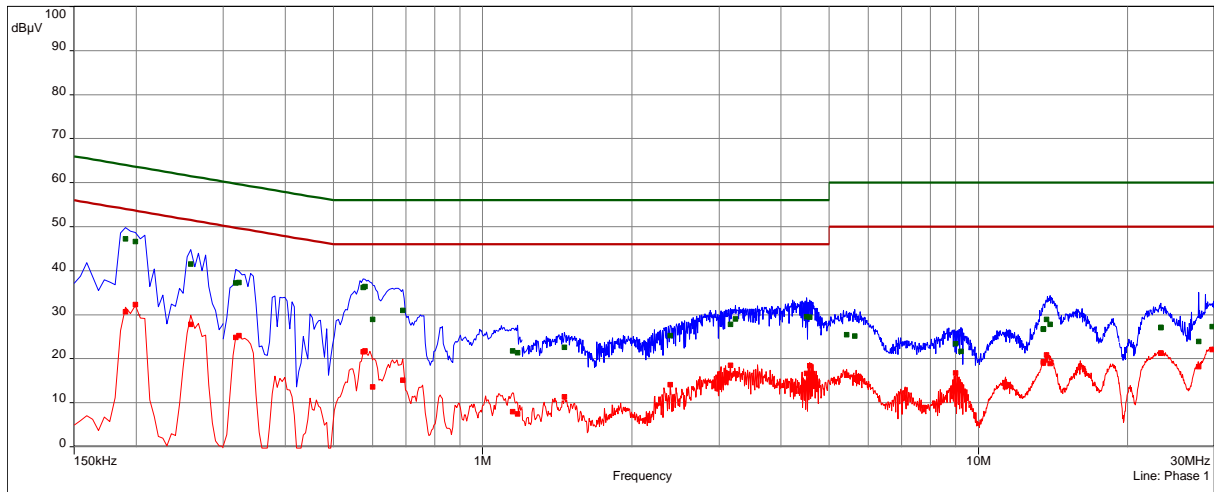
FCC ID: O2FVOXTER

5.1.5 Test protocol

Test point: L1
 Operation mode: RFID TX, charging
 Remarks:

Result: Passed

- FCC/FCC Part 15C (15.207) B - Average/
- FCC/FCC Part 15C (15.207) B - QPeak/
- Meas.Peak (Phase 1)
- Mes. CISPR AVG (Phase 1)
- QuasiPeak (Finals) (Phase 1)
- CISPR AV (Finals) (Phase 1)



FCC/FCC Part 15C (15.207)B

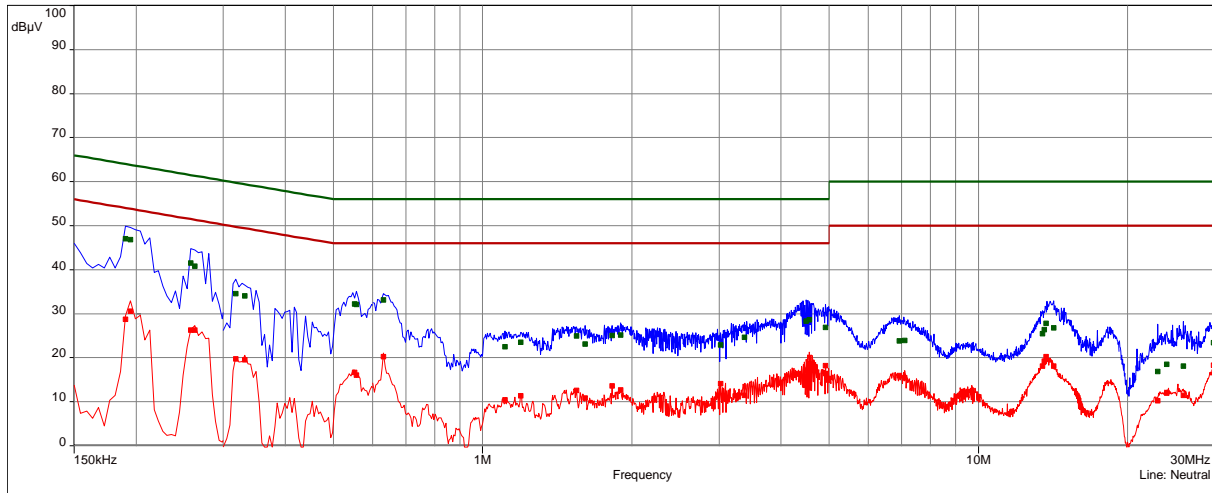
freq	SR	QP	margin	limit	AV	margin	limit	line	corr
MHz		dB(µV)	dB	dB	dB(µV)	dB	dB		dB
0.191	1	47.3	-16.8	64.0	30.7	-23.3	54.0	Phase 1	10.1
0.200	1	46.6	-17.1	63.6	32.3	-21.3	53.6	Phase 1	10.1
0.258	1	41.5	-20.0	61.5	27.8	-23.7	51.5	Phase 1	10.1
0.318	2	37.2	-22.5	59.8	24.8	-24.9	49.8	Phase 1	10.1
0.323	2	37.3	-22.3	59.6	25.3	-24.3	49.6	Phase 1	10.1
0.575	2	36.2	-19.8	56.0	21.6	-24.4	46.0	Phase 1	10.2
0.579	2	36.4	-19.6	56.0	21.8	-24.2	46.0	Phase 1	10.2
0.600	3	29.0	-27.0	56.0	13.7	-32.4	46.0	Phase 1	10.2
0.690	3	31.0	-25.0	56.0	15.1	-30.9	46.0	Phase 1	10.2
1.149	3	21.8	-34.2	56.0	8.0	-38.0	46.0	Phase 1	10.2
1.176	3	21.4	-34.6	56.0	7.5	-38.5	46.0	Phase 1	10.2
1.461	4	22.6	-33.4	56.0	11.3	-34.7	46.0	Phase 1	10.3
2.393	4	25.2	-30.8	56.0	14.1	-31.9	46.0	Phase 1	10.3
3.161	5	27.9	-28.2	56.0	18.5	-27.5	46.0	Phase 1	10.4
3.237	5	29.1	-27.0	56.0	16.6	-29.4	46.0	Phase 1	10.4
4.502	5	29.5	-26.5	56.0	16.7	-29.3	46.0	Phase 1	10.4
4.574	5	29.5	-26.5	56.0	18.5	-27.5	46.0	Phase 1	10.4
5.421	6	25.4	-34.6	60.0	16.3	-33.7	50.0	Phase 1	10.5
5.633	6	25.2	-34.8	60.0	15.7	-34.3	50.0	Phase 1	10.5
9.003	6	23.4	-36.6	60.0	16.8	-33.2	50.0	Phase 1	10.7
9.219	6	21.7	-38.3	60.0	12.8	-37.2	50.0	Phase 1	10.7
13.529	7	26.8	-33.2	60.0	19.4	-30.7	50.0	Phase 1	11.0
13.533	7	26.7	-33.3	60.0	19.1	-30.9	50.0	Phase 1	11.0
13.722	7	28.9	-31.1	60.0	20.8	-29.2	50.0	Phase 1	11.0
13.965	7	27.8	-32.2	60.0	19.0	-31.1	50.0	Phase 1	11.0
23.340	8	27.1	-32.9	60.0	21.3	-28.7	50.0	Phase 1	11.4
23.349	8	27.1	-32.9	60.0	21.3	-28.7	50.0	Phase 1	11.4
27.822	8	23.9	-36.1	60.0	18.3	-31.8	50.0	Phase 1	11.4
29.631	8	27.3	-32.7	60.0	22.1	-27.9	50.0	Phase 1	11.4

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Test point: N
 Operation mode: RFID TX, charging
 Remarks:

Result: Passed

- FCC/FCC Part 15C (15.207) B - Average/
- FCC/FCC Part 15C (15.207) B - QPeak/
- Meas.Peak (Neutral)
- Mes. CISPR AVG (Neutral)
- QuasiPeak (Finals) (Neutral)
- CISPR AV (Finals) (Neutral)



FCC/FCC Part 15C (15.207)B

freq	SR	QP	margin	limit	AV	margin	limit	line	corr
MHz		dB(µV)	dB	dB	dB(µV)	dB	dB		dB
0.191	9	47.1	-17.0	64.0	28.7	-25.3	54.0	Neutral	10.1
0.195	9	46.8	-17.0	63.8	30.6	-23.2	53.8	Neutral	10.1
0.258	9	41.5	-20.0	61.5	26.3	-25.2	51.5	Neutral	10.1
0.263	9	40.8	-20.6	61.4	26.3	-25.0	51.4	Neutral	10.1
0.318	10	34.6	-25.2	59.8	19.8	-30.0	49.8	Neutral	10.2
0.332	10	34.1	-25.4	59.4	19.6	-29.8	49.4	Neutral	10.2
0.552	10	32.2	-23.8	56.0	16.6	-29.4	46.0	Neutral	10.2
0.557	10	32.1	-23.9	56.0	16.1	-29.9	46.0	Neutral	10.2
0.632	11	33.1	-22.9	56.0	20.2	-25.8	46.0	Neutral	10.2
1.109	11	22.5	-33.5	56.0	10.4	-35.6	46.0	Neutral	10.2
1.194	11	23.5	-32.5	56.0	11.4	-34.6	46.0	Neutral	10.2
1.547	12	25.0	-31.0	56.0	12.6	-33.4	46.0	Neutral	10.3
1.610	12	23.1	-32.9	56.0	10.8	-35.2	46.0	Neutral	10.3
1.826	12	25.1	-30.9	56.0	13.7	-32.3	46.0	Neutral	10.3
1.898	12	25.2	-30.8	56.0	12.7	-33.4	46.0	Neutral	10.3
3.021	13	22.9	-33.1	56.0	14.1	-31.9	46.0	Neutral	10.4
3.372	13	24.6	-31.4	56.0	11.5	-34.5	46.0	Neutral	10.4
4.497	13	28.4	-27.6	56.0	17.2	-28.8	46.0	Neutral	10.4
4.565	13	28.6	-27.4	56.0	18.6	-27.4	46.0	Neutral	10.4
4.922	14	26.9	-29.1	56.0	18.2	-27.8	46.0	Neutral	10.4
6.929	14	23.8	-36.2	60.0	16.0	-34.0	50.0	Neutral	10.6
7.104	14	24.0	-36.1	60.0	15.5	-34.5	50.0	Neutral	10.6
13.484	15	25.4	-34.6	60.0	18.1	-31.9	50.0	Neutral	11.0
13.569	15	26.4	-33.6	60.0	19.2	-30.8	50.0	Neutral	11.0
13.700	15	27.8	-32.2	60.0	20.3	-29.7	50.0	Neutral	11.0
14.186	15	26.8	-33.2	60.0	18.1	-31.9	50.0	Neutral	11.0
22.989	16	16.9	-43.1	60.0	10.3	-39.7	50.0	Neutral	11.4
24.002	16	18.5	-41.5	60.0	12.0	-38.0	50.0	Neutral	11.4
25.896	16	18.1	-41.9	60.0	11.5	-38.5	50.0	Neutral	11.3
29.829	16	23.4	-36.6	60.0	18.3	-31.7	50.0	Neutral	11.2

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5.2 Field strength of the fundamental wave

For test instruments and accessories used see section 6 Part CPR 1.

5.2.1 Description of the test location

Test location: OATS1
Test distance: 3 metres

5.2.2 Photo documentation of the test set-up



The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

FCC ID: O2FVOXTER

5.2.3 Applicable standard

FCC Part 15, Section 15.225(a) and RSS-210 clause B.6(a)

5.2.4 Test result

a) Result at a measurement distance of 3m

Frequency (MHz)	Level (dB μ V)	Ant. factor (dB 1/m)	Field strength dB(μ V/m)
13.56	54.0	20.0	74.0

b) Result extrapolated to a distance of 30 m

Frequency (MHz)	Level (dB μ V)	Ant. factor (dB 1/m)	Field strength dB(μ V/m)	Limit dB(μ V/m)	Delta (dB)
13.56	14.0	20.0	34	84.0	-50.0

Limit according to FCC Part 15, Section 15.225(a): and RSS-210 clause B.6(a)

Frequency (MHz)	Field strength of fundamental wave (μ V/m)	dB(μ V/m)	Measurement distance (metres)
13.553 - 13.567	15848	84.0	30

The requirements are **FULFILLED**.

Remarks:

FCC ID: O2FVOXTER

5.3 Spurious emissions

For test instruments and accessories used see section 6 Part **SER 1**, **SER 2**.

5.3.1 Description of the test location

Test location: OATS1
Test distance: 3 metres

5.3.2 Photo documentation of the test set-up



FCC ID: O2FVOXTER



5.3.3 Applicable standard

FCC Part 15, Section 15.209 and RSS-Gen clause 8.9

The resolution bandwidth during the measurement is as follows:

9 kHz – 150 kHz: RBW: 200 Hz
 150 kHz – 30 MHz: RBW: 9 kHz
 30 MHz – 1000 MHz: RBW: 120 kHz

5.3.4 Test result

f < 30 MHz:

Results at a measurement distance of 3m

Frequency [kHz]	Read QP [dBµV]	Read AV [dBµV]	Bandwidth [kHz]	Correct. [dB]	Level: QP [dBµV/m]	Level: AV [dBµV/m]	Limit [dBµV/m]	Delta [dB]
552	30.9	-	9.0	20	50.9	-	72.8	-21.9
6020	28.4	-	9.0	20	48.4	-	69.5	-21.1
27120	17.3	-	9.0	20	37.3	-	69.5	-32.2

Note: Limit adopted to 3 m distance

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

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f 30 MHz - 1000 MHz:

Frequency (MHz)	Reading Vert. (dBµV)	Reading Hor. (dBµV)	Correct. Vert. (dB)	Correct. Hor. (dB)	Level Vert. (dBµV/m)	Level Hor. (dBµV/m)	Limit (dBµV/m)	Dlimit (dB)
54.68	13.2	15.1	13.5	14.6	26.7	29.7	40.0	-10.3
76.56	18.1	19.1	11.1	11.5	29.2	30.6	40.0	-9.4
131.30	16.3	19.7	14.7	14.1	31.0	33.8	43.5	-9.7
236.10	27.4	26.9	14.5	14.2	41.9	41.1	46.0	-4.1
358.60	6.6	7.9	18.2	18.5	24.8	26.4	46.0	-19.6
447.80	-0.7	-1.6	20.6	20.9	19.9	19.3	46.0	-26.1
836.70	0.8	-1.4	27.6	28.3	28.4	26.9	46.0	-17.6

Limit according to FCC Part 15 Subpart 15.209(a) and RSS-Gen clause 8.9

Frequency (MHz)	Field strength of spurious emissions		Measurement distance (metres)
	(µV/m)	dB(µV/m)	
0.009 - 0.490	2400/F(kHz)	--	300
0.490 - 1.705	24000/F (kHz)	--	30
1.705 - 30.0	30	29.5	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

The requirements are **FULFILLED**.

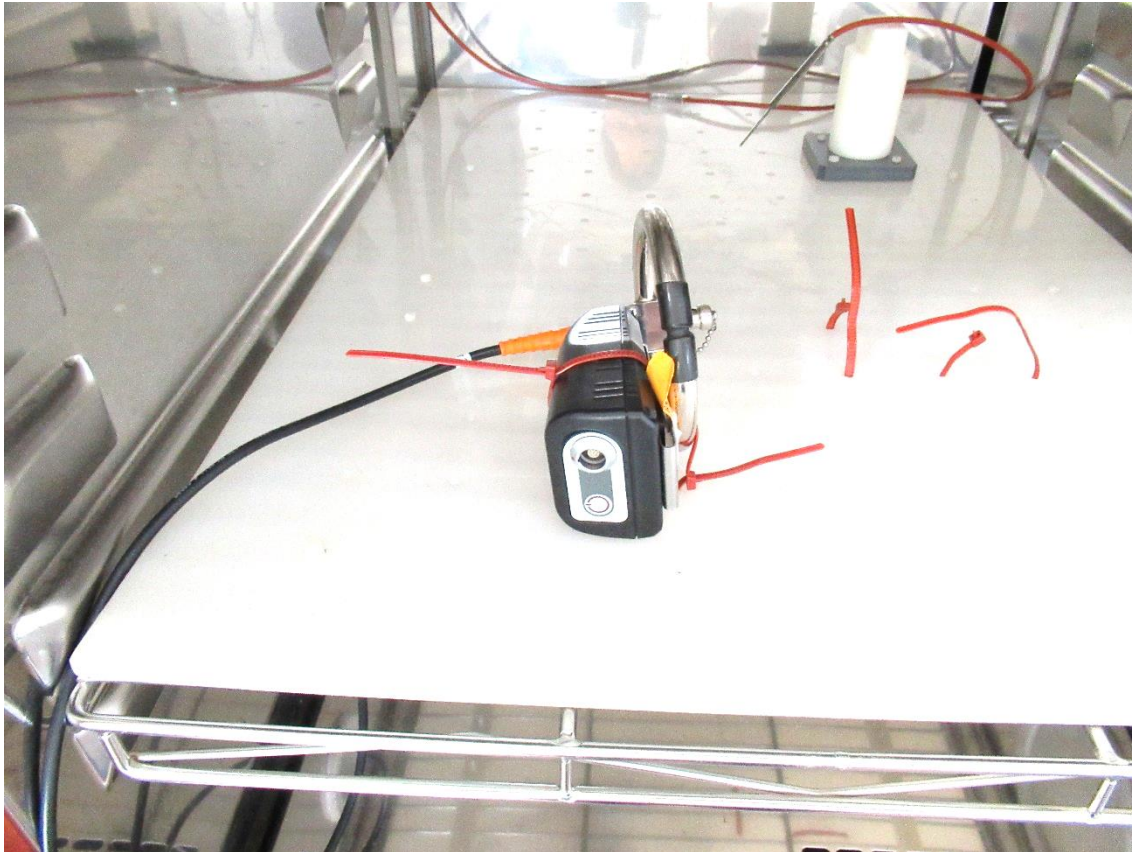
Remarks: Measurement has been performed up to 1000MHz

FCC ID: O2FVOXTER**5.4 Frequency tolerance**

For test instruments and accessories used see section 6 Part FE.

5.4.1 Description of the test location

Test location: AREA4 (Climatic Chamber)

5.4.2 Photo documentation of the test set-up**5.4.3 Applicable standard**

According to FCC Part 15, Section 15.225(e) and RSS-210 clause B.6

FCC ID: O2FVOXTER

5.4.4 Test result

Battery equipment. Battery fully charged before testing.

Temperture (°C)	Level (dBm)	Frequency (MHz)	Tolerance (kHz)	Limit (kHz)
-20	-41.9	13.560965	-0.275	±1.356
-10	-41.9	13.560965	-0.275	±1.356
0	-42.0	13.560910	-0.220	±1.356
10	-42.0	13.561056	-0.366	±1.356
20	-42.2	13.560690	0.000	±1.356
30	-42.2	13.560969	-0.279	±1.356
40	-42.4	13.560931	-0.241	±1.356
50	-42.45	13.560931	-0.241	±1.356

Limit Calculation:

Carrier frequency: $f_c = 13.56 \text{ MHz}$

Max. tolerance: $\pm 0.01 \% \text{ of } 13.56 \text{ MHz} = \pm 1.356 \text{ kHz}$

Limit according to FCC Part 15, Section 15.225(e) and RSS-210 clause B.6:

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01 \%$ of the operating frequency.

The requirements are **FULFILLED**.

Remarks:

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

FCC ID: O2FVOXTER

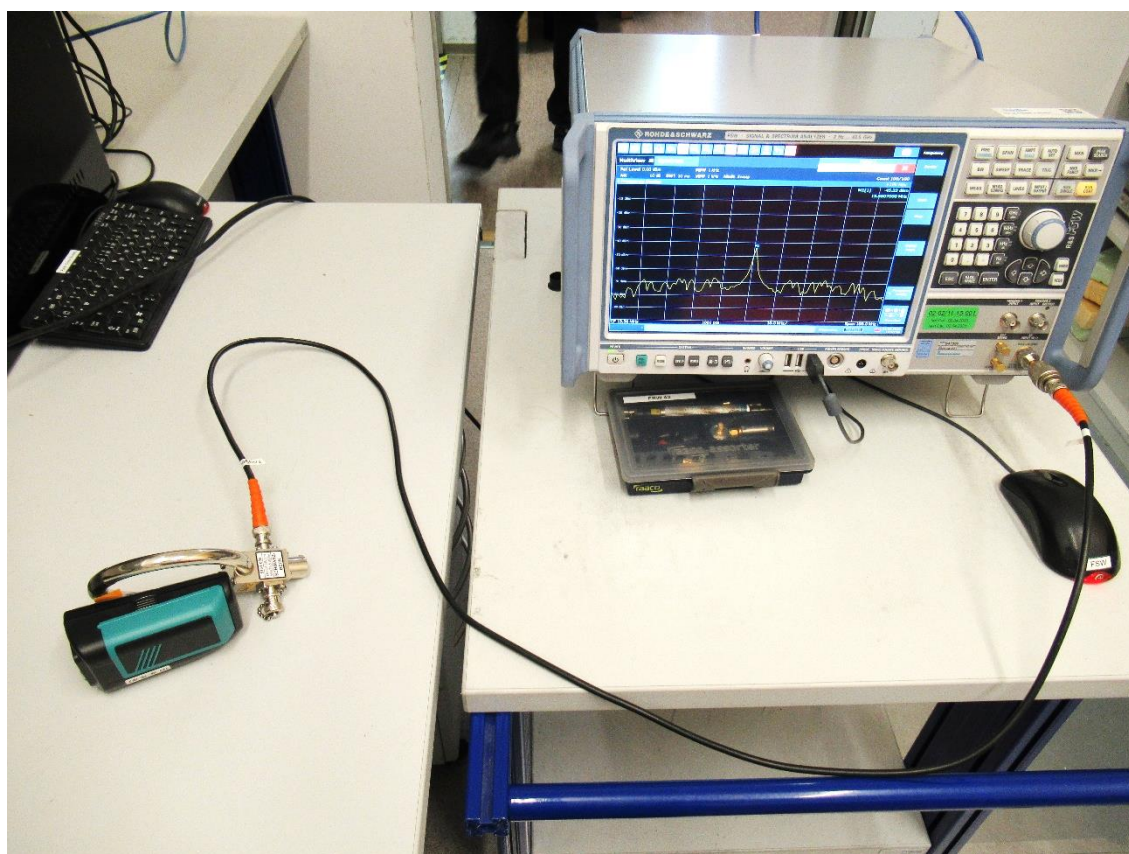
5.5 Bandwidth

For test instruments and accessories used see section 6 Part MB.

5.5.1 Description of the test location

Test location: Shielded Room S6

5.5.2 Photo documentation of the test set-up



5.5.3 Applicable standard

According to FCC Part 15, Section 15.215(c) and RSS-Gen 6.7

5.5.4 Test result

Measured Bandwidth	result (kHz)	Limit (kHz)
20dB	2.50	--
99%	2.09	--

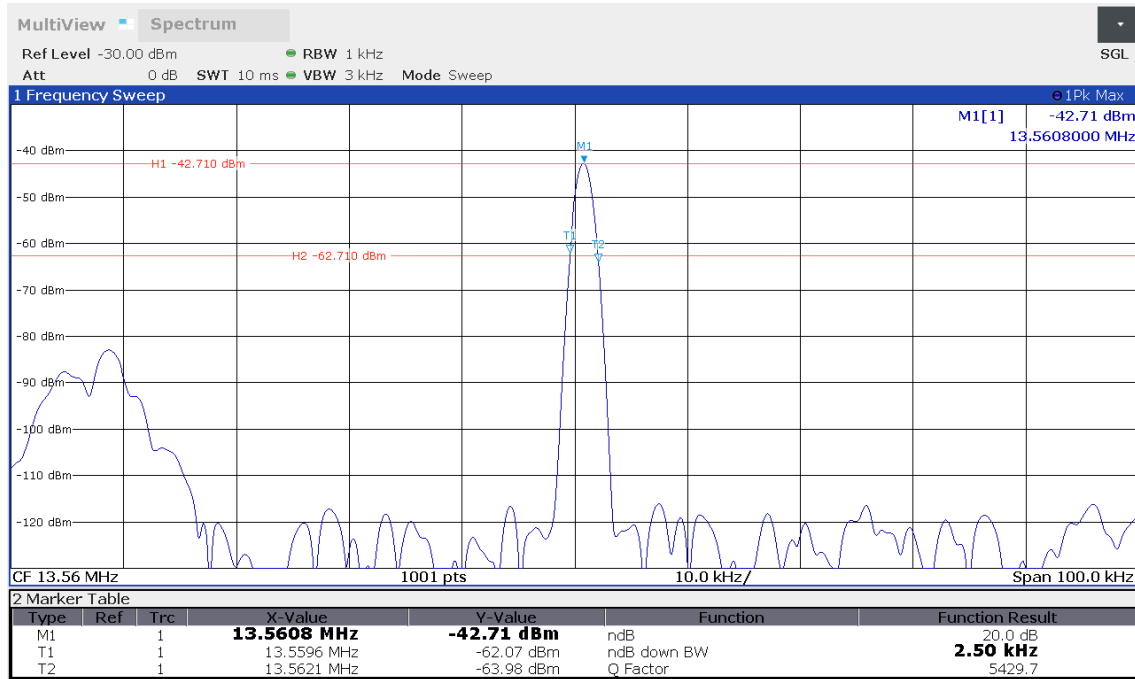
The requirements are **FULFILLED**.

Remarks: For detailed test result please refer to following test protocol.

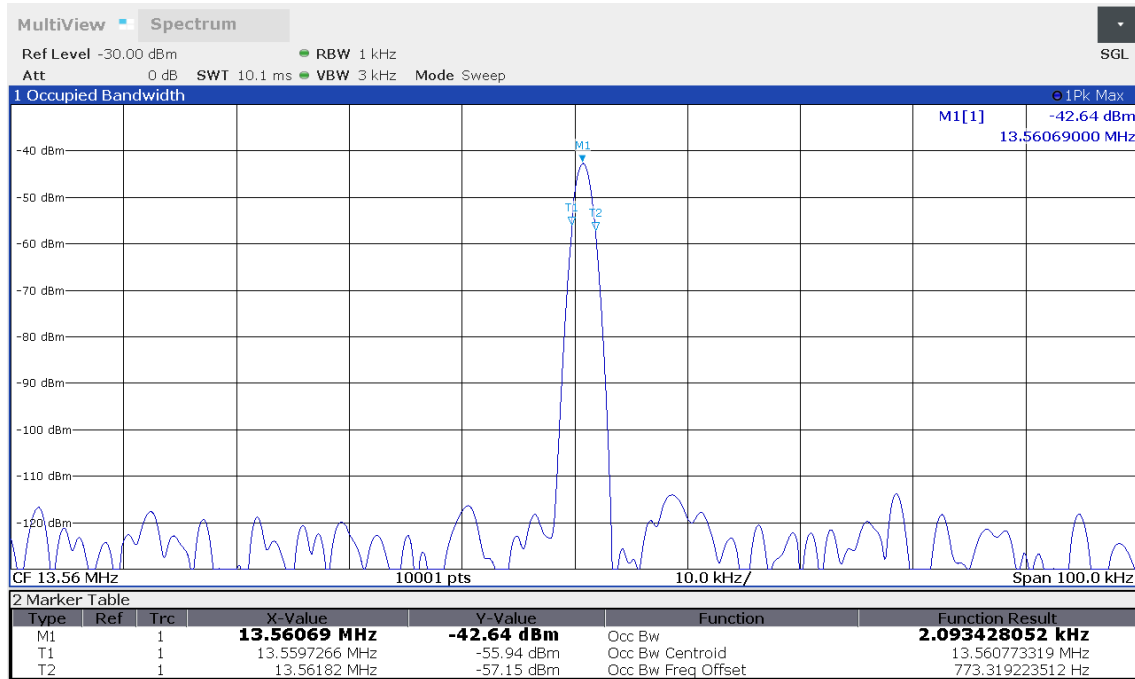
FCC ID: O2FVOXTER

5.5.5 Test protocol

20 dB bandwidth



99% Bandwidth



The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

FCC ID: O2FVOXTER

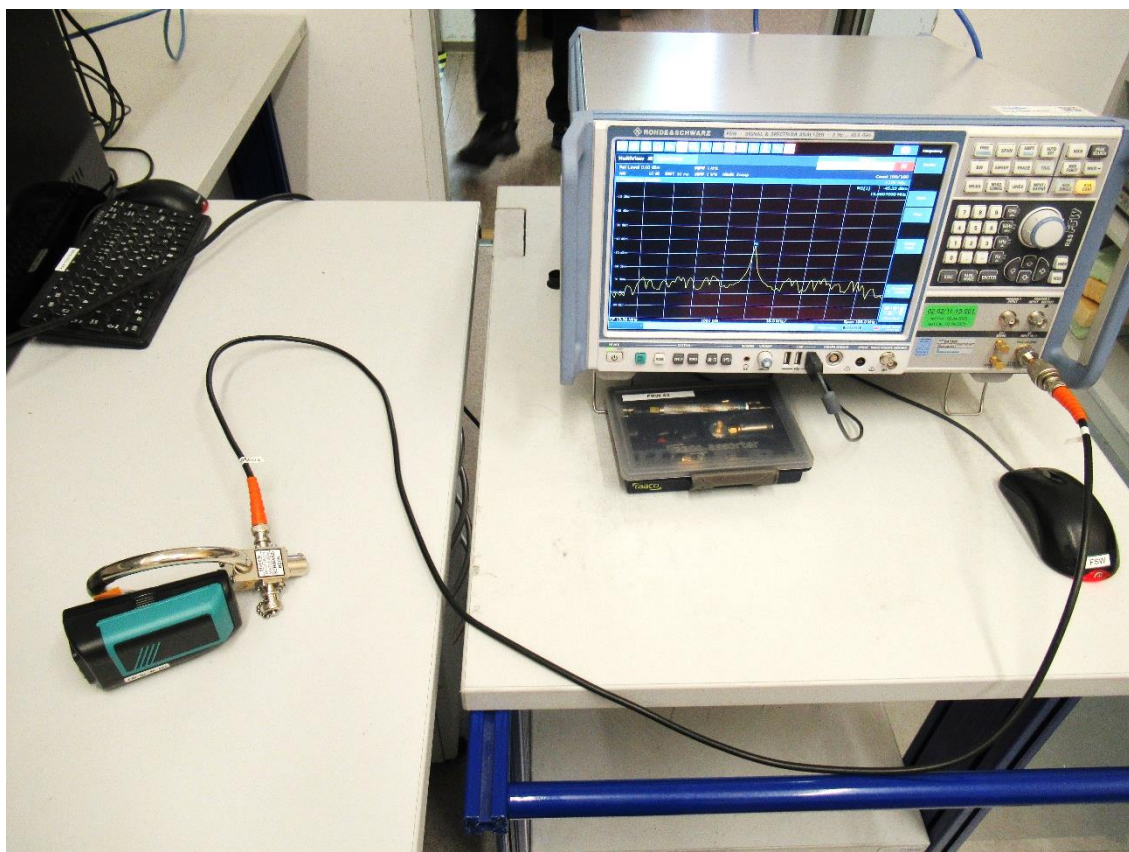
5.6 Transmitter spectrum mask

For test instruments and accessories used see section 6 Part MB.

5.6.1 Description of the test location

Test location: AREA4

5.6.2 Photo documentation of the test set-up



5.6.3 Applicable standard

According to FCC Part 15, Section 15.225 (a-d) and RSS-210 clause B.6 (a-d)

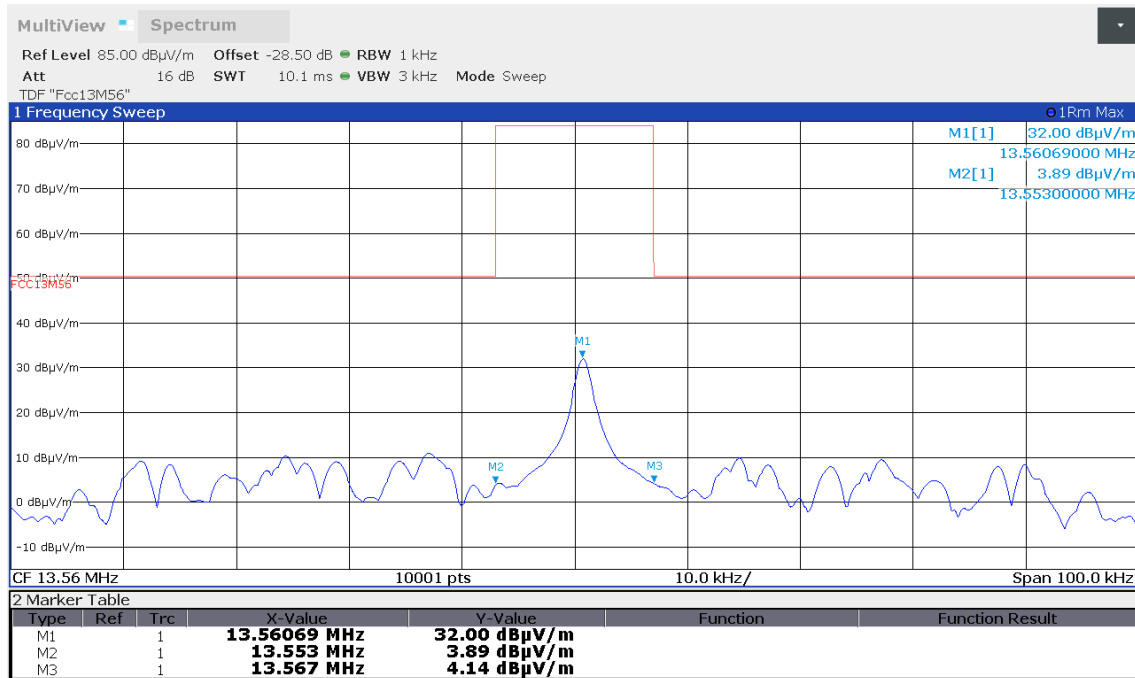
5.6.4 Description of Measurement

measurement was performed radiated.

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

FCC ID: O2FVOXTER

5.6.5 Test result



Limits according to FCC Part 15, Section 15.225(a-d) and RSS-210 clause B.6 (a-d)

Frequency band (MHz)	Emission level limit at 30 m (μV/m)	Emission level limit at 30 m (dBμV/m)
13.110 – 13.410	106	40.5
13.410 - 13.553	334	50.5
13.553 - 13.567	15.848	84.0
13.567 – 13.710	334	50.5
13.710 – 14.010	106	40.5
outside of 13.110 – 14.010	30	29.5

The requirements are **FULFILLED**.

Remarks:

FCC ID: O2FVOXTER

6 USED TEST EQUIPMENT AND ACCESSORIES

All test instruments used are calibrated and verified regularly. The calibration history is available on request.

Test ID	Model Type	Equipment No.	Next Calib.	Last Calib.	Next Verif.	Last Verif.
A 4	BAT-EMC 3.19.1.24	01-02/68-13-001				
	ESCI	02-02/03-15-001	24/06/2021	24/06/2020		
	ESH 2 - Z 5	02-02/20-05-004	31/10/2021	31/10/2019	04/11/2020	04/05/2020
	N-4000-BNC	02-02/50-05-138				
	N-1500-N	02-02/50-05-140				
	ESH 3 - Z 2	02-02/50-05-155	13/11/2022	13/11/2019	12/11/2020	12/05/2020
	SP 103 /3.5-60	02-02/50-05-182				
CPR 1	ESR 7	02-02/03-13-001	09/03/2021	09/03/2020		
	HFH 2 - Z 2	02-02/24-15-001	01/04/2021	01/04/2020		
	KK-SD_7/8-2X21N-33,0M	02-02/50-15-028				
FE	FSP 30	02-02/11-05-001	30/09/2020	30/09/2019		
	HZ-10	02-02/24-05-012	26/11/2020	26/11/2019		
	WK-340/40	02-02/45-05-001	18/08/2020	18/04/2019	23/10/2020	23/04/2020
MB	FSW43	02-02/11-15-001	02/04/2021	02/04/2020		
	HZ-10	02-02/24-05-012	26/11/2020	26/11/2019		
SER 1	ESR 7	02-02/03-13-001	09/03/2021	09/03/2020		
	HFH 2 - Z 2	02-02/24-15-001	01/04/2021	01/04/2020		
	KK-SD_7/8-2X21N-33,0M	02-02/50-15-028				
SER 2	ESVS 30	02-02/03-05-006	15/07/2021	15/07/2020		
	VULB 9168	02-02/24-05-005	19/09/2020	19/07/2019		
	NW-2000-NB	02-02/50-05-113				
	KK-EF393/U-16N-21N20 m	02-02/50-12-018				
	KK-SD_7/8-2X21N-33,0M	02-02/50-15-028				

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.