

## TEST REPORT

Test report no.: 1-4852/12-02-02-A



Deutsche  
Akkreditierungsstelle  
D-PL-12076-01-01

### Testing laboratory

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**Accredited Testing Laboratory:**

The testing laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025 (2005) by the Deutsche Akkreditierungsstelle GmbH (DAkkS)

The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate with the registration number: D-PL-12076-01-01

Area of Testing: Radio/Satellite Communications

### Applicant

**Oticon A/S**

Kongebakken 9

2765 Smørum / DENMARK

Phone: +45 39 17 71 00

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### Manufacturer

**Oticon A/S**

Kongebakken 9

2765 Smørum / DENMARK

### Test standard/s

47 CFR Part 15

Title 47 of the Code of Federal Regulations; Chapter I  
Part 15 - Radio frequency devices

RSS - 210 Issue 8

Spectrum Management and Telecommunications - Radio Standards Specification  
Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands):  
Category I Equipment

RSS – GEN Issue 3

General Requirements & Information for the Certification of Radio Apparatus under  
test standards.

For further applied test standards please refer to section 3 of this test report.

### Test Item

**Kind of test item:** Hearing Aid

**Model name:** mini RITE Fusion 2

**FCC ID:** U28FU2MRIT

**IC:** 1350B-FU2MRIT

**Frequency:** 3.84 MHz

**Technology tested:** Magnetic coupling

**Antenna:** Integrated coil antenna

**Power Supply:** 1.40 V DC by zinc - air battery / power supply

**Temperature Range:** 0°C to +35 °C

This test report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

### Test report authorised:

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Marco Bertolino  
Testing Manager

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Stefan BöS  
Senior Testing Manager

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## 2 General information

### 2.1 Notes and disclaimer

The test results of this test report relate exclusively to the test item specified in this test report. CETECOM ICT Services GmbH does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item.

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In no case this test report can be considered as a Letter of Approval.

This test report is electronically signed and valid without handwritten signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

### 2.2 Application details

Date of receipt of order:	2012-08-28
Date of receipt of test item:	2012-08-20
Start of test:	2012-08-28
End of test:	2012-08-28
Person(s) present during the test:	-/-

## 3 Test standard/s

Test standard	Date	Test standard description
47 CFR Part 15	2010-10	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices
RSS - 210 Issue 8	2010-12	Spectrum Management and Telecommunications - Radio Standards Specification Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment
RSS – GEN Issue 3	2010-12	General Requirements & Information for the Certification of Radio Apparatus under test standards.

#### 4 Test environment

Temperature:	$T_{nom}$	+22 °C during room temperature tests
	$T_{max}$	+35 °C during high temperature tests
	$T_{min}$	0 °C during low temperature tests
Relative humidity content:		53 %
Barometric pressure:		not relevant for this kind of testing
Power supply:	$V_{nom}$	1.40 V DC by zinc - air battery / power supply
	$V_{max}$	1.40 V
	$V_{min}$	1.26 V

#### 5 Test item

Kind of test item	:	Hearing Aid
Type identification	:	mini RITE Fusion 2
S/N serial number	:	TX units: EUT No. 1: 21069106 EUT No. 2: 21068529 EUT No. 3: 21069024 RX units: EUT No. 4: 21068626 EUT No. 5: 21068839 Photo unit: EUT No. 6: 21069454
HW hardware status	:	Rev. 5
SW software status	:	23-090.4.1
Frequency band [MHz]	:	EUT No. 1: 3.814 MHz EUT No. 2: 3.807 MHz EUT No. 3: 3.806 MHz
Type of radio transmission	:	Modulated carrier
Use of frequency spectrum	:	
Type of modulation	:	A1D
Number of channels	:	1
Antenna	:	Integrated coil antenna
Power supply	:	1.40 V DC by zinc - air battery / power supply
Temperature range	:	0°C to +35 °C

#### 6 Test laboratories sub-contracted

None

## 7 Summary of measurement results



No deviations from the technical specifications were ascertained



There were deviations from the technical specifications ascertained

TC Identifier	Description	Verdict	Date	Remark
RF-Testing	CFR Part 15 RSS 210, Issue 8	Passed	2012-11-13	-/-

Test Specification Clause	Test Case	Temperature Conditions	Power Source Voltages	Pass	Fail	NA	NP	Results
§ 15.35 (c) / RSS-GEN Issue 3 Section 4.5	Timing of the transmitter (Duty cycle correction factor )	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	complies
§ 15.223 / RSS-210 Issue 8	Bandwidth of the modulated carrier	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	complies
§ 15.223 / RSS-210 Issue 8	Fieldstrength of fundamental	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	complies
§ 15.209 (a) / RSS-210 Issue 8	Fieldstrength of harmonics and spurious	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	complies
§ 15.109 / RSS-210 Issue 8	Receiver spurious emissions	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	complies
§ 15.107 / § 15.207	Conducted limits	Nominal	Nominal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-/-

## 8 RF measurements

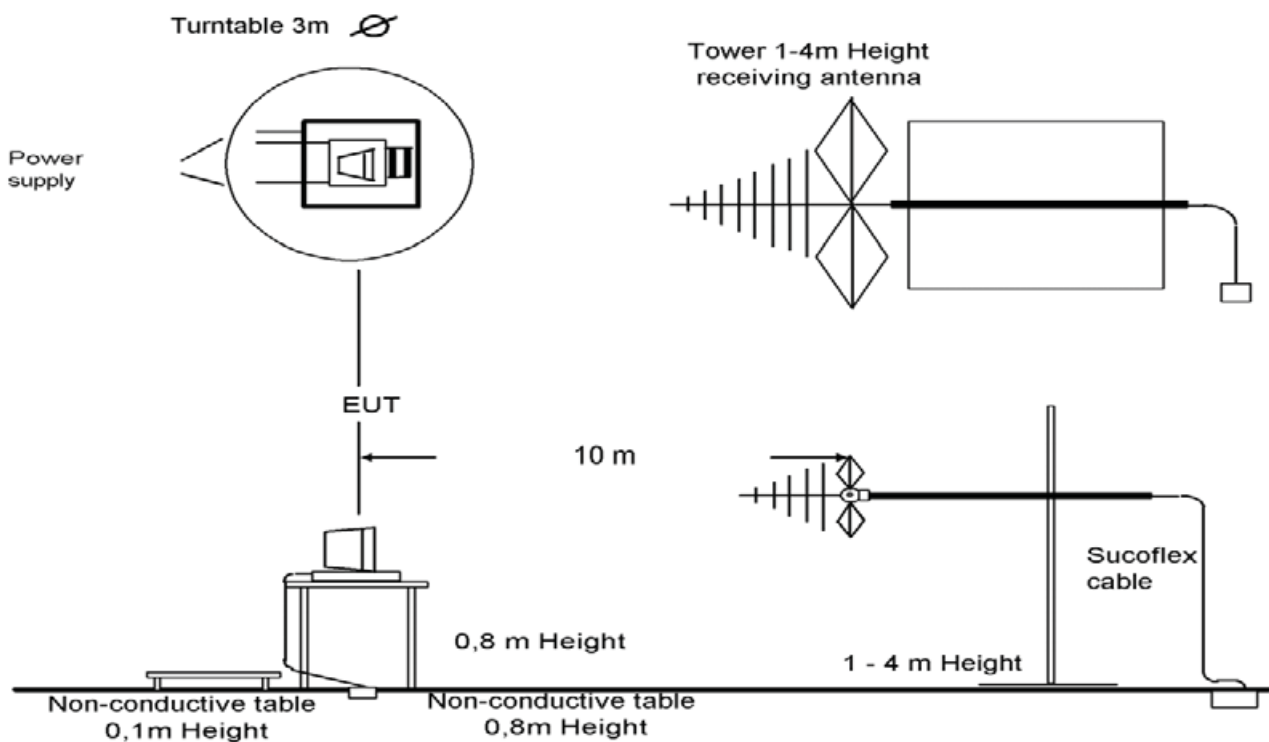
### 8.1 Description of test setup

#### 8.1.1 Radiated measurements

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 25 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber. The receiving antennas are confirmed with specifications ANSI C63.2-1996 clause 15 and ANSI C63.4-2009 clause 4.1.5. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test setups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received. The wanted and unwanted emissions are received by spectrum analysers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63-4-2009 clause 4.2.

Antennas are confirmed with ANSI C63.2-1996 item 15.

Semi anechoic chamber



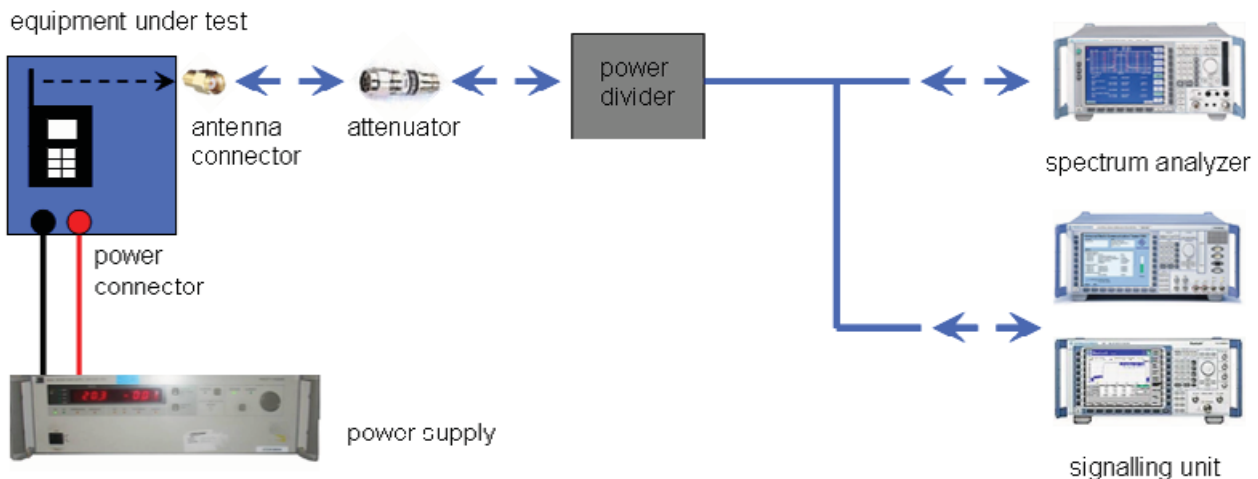
Picture 1: Diagram radiated measurements

9 kHz - 30 MHz:	active loop antenna
30 MHz – 1 GHz:	tri-log antenna
> 1 GHz:	horn antenna

The EUT is powered by an external power supply with nominal voltage. The signalling is performed from outside the chamber with a signalling unit (CMU200 or other) by air link using signalling antenna.

### 8.1.2 Conducted measurements

The EUT's RF signal is coupled out by the antenna connector which is supplied by the manufacturer. The signal is first 10dB attenuated before it is power divided (~6dB loss per branch). One of the signal paths is connected to the communication base Station (CMU200 or other), the other one is connected to the spectrum analyzer. The specific losses for both signal paths are first checked within a calibration. The measurement readings on the signalling unit/spectrum analyzer are corrected by the specific test set-up loss. The attenuator, power divider, signalling unit and the spectrum analyzer are impedance matched on 50 Ohm.



Picture 2: Diagram conducted measurements

### 8.2 Additional comments

Reference documents: Oticon Wireless Hearing Aids – RF Test Setup 2012.

#### Manufacturer statement:

The RF-carrier frequency in Oticons wireless hearing aids, targeted for 3.84 MHz, is in the current Fusion platform generated by an RC-oscillator in turn feeding an LC-tank circuit in the transceiver. In other words, there is NO stable crystal oscillator and NO closed phase lock loop keeping the oscillator frequency in place. Furthermore, due to tolerances of the self induction of the antenna coil, which is part of the RF-tank circuit, and tolerances of the parallel capacitors, the initial carrier frequency tolerance of the RF-carrier is about plus and minus 2.5%. Finally due to the configuration of the RF-carrier frequency generating parts as described above an uncorrelated temperature drift of about plus and minus 2.5% can be added to the initial tolerance, resulting in an overall frequency accuracy of about plus minus 5.0% worst case!

**Note:** The EUT with the maximum field strength was used to perform the radiated spurious emissions tests!

#### Manufacturer declaration:

The provided test sample for radiated measurements had a transmitter duty cycle of 22% for ease of test, while the transmitter duty cycle in normal use is approximately 2.5%.

Special test descriptions: We perform the radiated pre-scans in different spherical positions and consolidate the results in one result plot. The test procedure includes scans in the theta axes every 120° and in phi axes @ 0° and 90° for both polarizations vertical & horizontal or magnetic emissions.

Configuration descriptions: None

## 8.3 RSP100 test report cover sheet / performance test data

Test Report Number	:	1-4852/12-02-02-A
Equipment Model Number	:	mini RITE Fusion 2
Certification Number	:	1350B-FU2MRIT
Manufacturer (complete Address)	:	Oticon A/S Kongebakken 9 2765 Smørum / DENMARK
Tested to radio standards specification no.	:	RSS 210, Issue 8
Open Area Test Site IC No.	:	IC 3462C-1
Frequency Range or fixed frequency	:	3.806 MHz
Field Strength [dBµV/m] (@ 30m)	:	56.5 dBµV/m @ 1m (-3.5 dBµV/m@30m)
Occupied bandwidth (99%-BW)	:	373 kHz
Type of modulation	:	A1D
Emission Designator (TRC-43)	:	373KA1D
Antenna Information	:	Integrated coil antenna
Transmitter Spurious (worst case) [dBµV/m @ 10m]	:	31.2 @ 1 GHz (noise floor)
Receiver Spurious (worst case) [dBµV/m @ 10m]	:	31.2 @ 1 GHz (noise floor)


**ATTESTATION:****DECLARATION OF COMPLIANCE:**

I attest that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned Industry Canada standard(s); and that the equipment identified in this application has been subjected to all the applicable test conditions specified in the Industry Canada standards and all of the requirements of the standard have been met.

**Laboratory Manager:**

2012-11-13  
Date

Stefan Bös  
Name

  
Signature



## 9 Measurement results

### 9.1 Timing of the transmitter

#### Measurement:

Measurement parameter	
Detector:	-/-
Sweep time:	-/-
Resolution bandwidth:	-/-
Video bandwidth:	-/-
Span:	-/-
Trace-Mode:	-/-

#### Limits:

FCC	IC
CFR Part SUBCLAUSE § 15.35 (c)	RSS-GEN Issue 3
Timing of the transmitter	
<p>(c) Unless otherwise specified, e.g. Section 15.255(b), when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.</p>	

**Duty cycle of the sample with test mode: 22 %**

**In normal use the duty cycle is approximately 2.5 % (declared by the manufacturer).**

**Result: Passed**

## 9.2 Bandwidth of the modulated carrier

### Limits:

FCC	IC
CFR Part SUBCLAUSE § 15.223	RSS-210 Issue 8
Bandwidth of the modulated carrier	

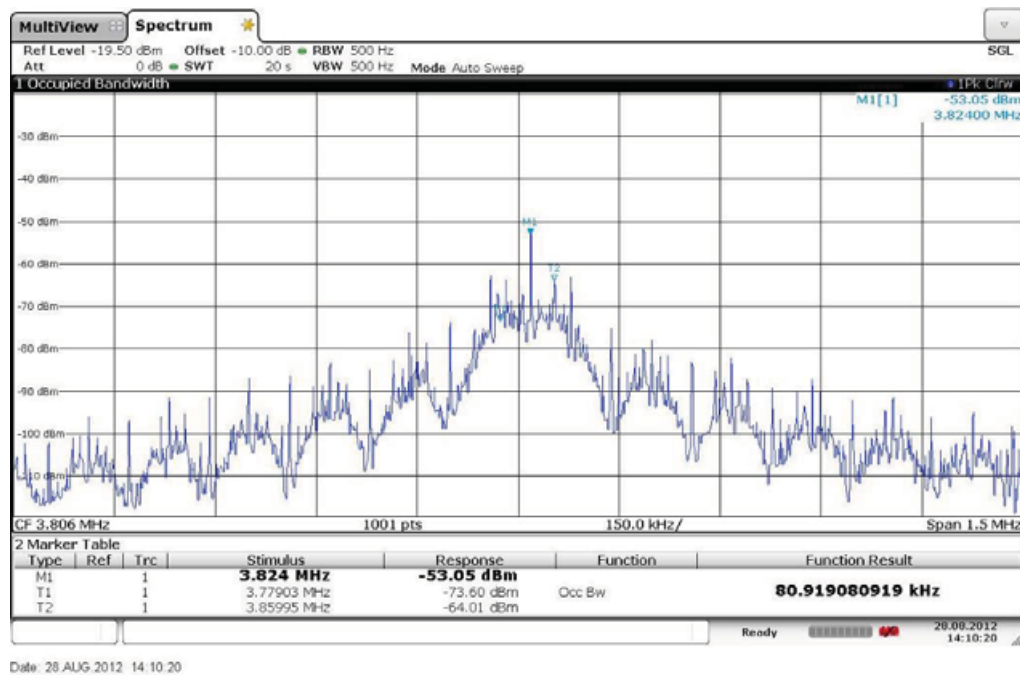
Measured with the integrated OBW-function of the spectrum analyser (measurement criteria is the integrated power in %)

### Result: (Tested sample: EUT No. 3)

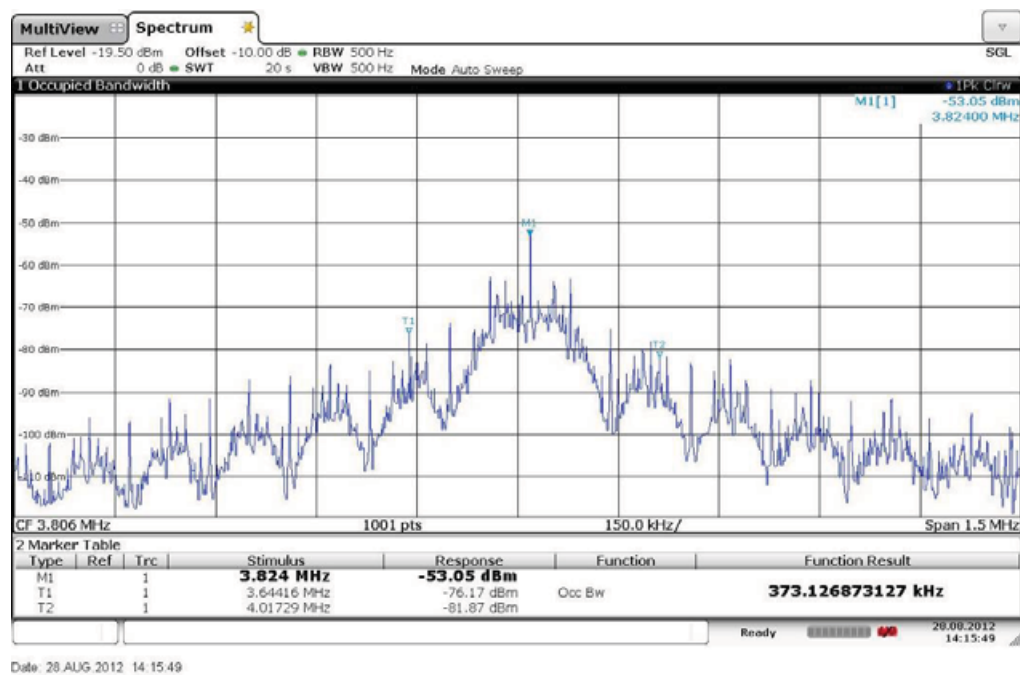
	Occupied Bandwidth
6 dB (75%)	81 kHz
20 dB (99%)	373 kHz

**Plots of the measurement** (Tested sample: EUT No. 3)

Plot 1: 6dB (75%) – bandwidth



Plot 2: 20dB (99%) – bandwidth



### 9.3 Field strength of the fundamental

#### Measurement:

Measurement parameter	
Detector:	Quasi Peak (CISPR)
Resolution bandwidth:	10kHz
Trace-Mode:	Max Hold

#### Limits:

FCC		IC
CFR Part SUBCLAUSE § 15.223		RSS-210 Issue 8
Fundamental Frequency (MHz)	Field strength of Fundamental ( $\mu\text{V/m}$ )	Measurement distance (m)
1.705 – 10.0	[15] or [6dB-BW(kHz) / F(MHz)] Whichever is higher	30

#### Results:

TEST CONDITIONS		MAXIMUM POWER (dB $\mu\text{V/m}$ )	
Frequency		3.8 MHz	3.8 MHz
EUT 1: 21069106		at 1 m distance	at 30 m distance
$T_{\text{nom}}$	$V_{\text{nom}}$	52.5	-7.5*
EUT 2: 21068529		at 1 m distance	at 30 m distance
$T_{\text{nom}}$	$V_{\text{nom}}$	55.5	-4.5*
EUT 3: 21069024		at 1 m distance	at 30 m distance
$T_{\text{nom}}$	$V_{\text{nom}}$	56.5	-3.5*
Measurement uncertainty		$\pm 3\text{dB}$	

Recalculation to a measurement distance of 30m with a correction of 40 dB/decade.

**Result:** **Passed**

Noise floor: 26.5 dB $\mu$ V/m

**\*Note:**

- Calculation: Measured maximum field strength @ 1 m: 56.5 dB $\mu$ V/m

Correction factor from 1m to 10m: -40 dB (40 dB / decade)

56.5 dB $\mu$ V/m @ 1 meter - 40 dB = 16.5 dB $\mu$ V/m @ 10 meter

Correction factor from 1m to 30m: -60 dB (40 dB / decade)

56.5 dB $\mu$ V/m @ 1 meter - 60 dB = -3.5 dB $\mu$ V/m @ 30 meter

## 9.4 Field strength of the harmonics and spurious

### Measurement:

Measurement parameter	
Detector:	Average / Quasi Peak
Sweep time:	Auto
Resolution bandwidth:	3 kHz - 120 kHz
Video bandwidth:	Comparable to RBW
Trace-Mode:	Max hold

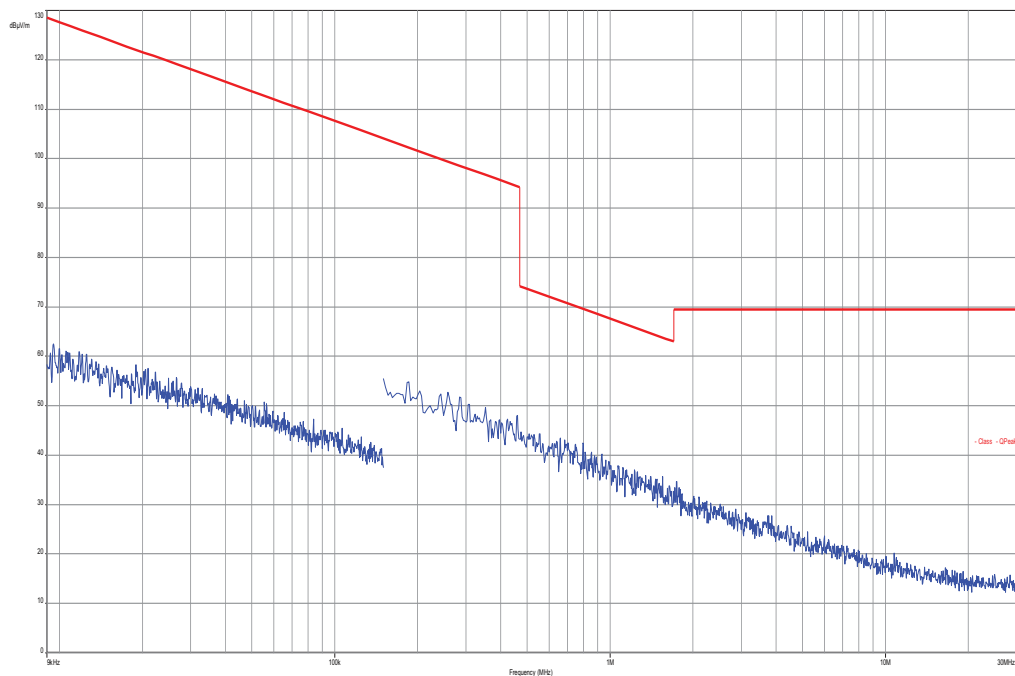
### Limits:

FCC		IC
SUBCLAUSE § 15.209 (a)		RSS-210 Issue 8
Field strength of the harmonics and spurious.		
Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30 (29.5 dBµV/m)	30
30 – 88	100 (40 dBµV/m)	3
88 – 216	150 (43.5 dBµV/m)	3
216 – 960	200 (46 dBµV/m)	3

### Result:

EMISSION LIMITATIONS				
f [MHz]	Detector	Limit max. allowed [dBµV/m]	Amplitude of emission [dBµV/m]	Results
No critical peaks detected. All detected emissions are below the limit!				

Result: **Passed**

**Plots of the measurements:** Radiated unit No. 3 / 21069024 (TX-mode)**Plot 1:** 9 kHz – 30 MHz, magnetic emissions, loop antenna, measuring distance 3 m, EUT 0° and 90° position

**Plot 2:** 30 MHz – 1000 MHz, vertical & horizontal polarization

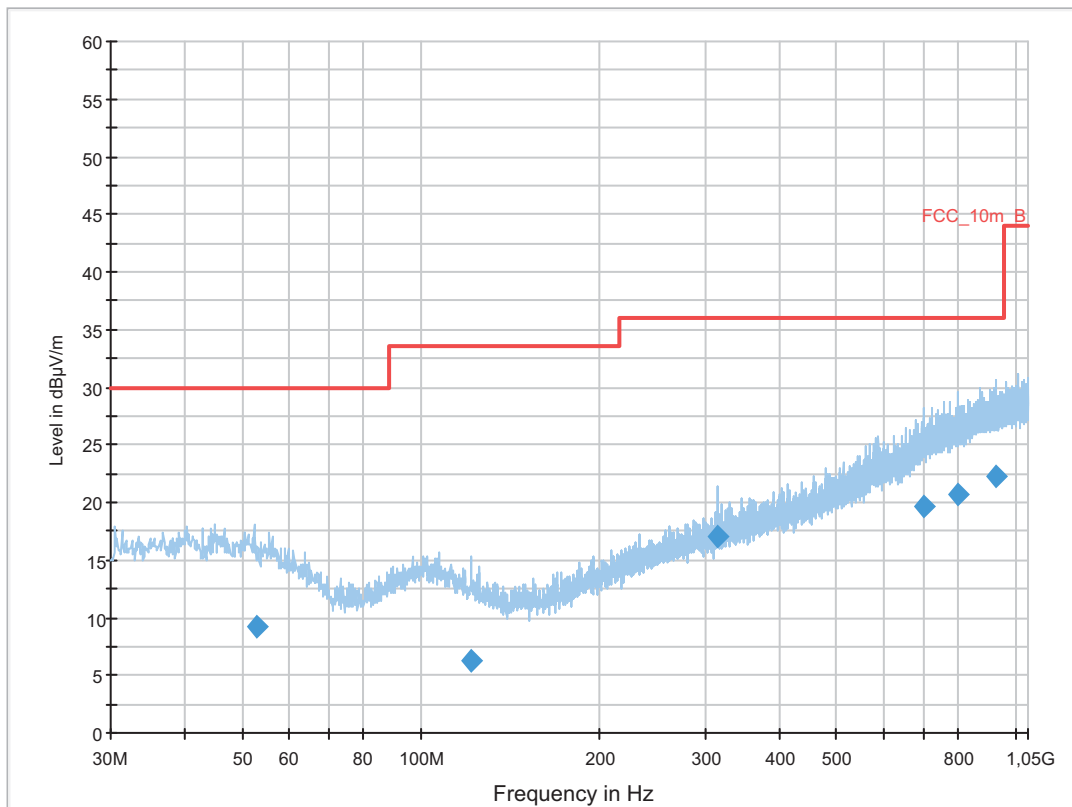
## Common Information

EUT: mini RITE Fusion 2  
 Serial Number: 21068529  
 Test Description: FCC part 15 B class B @ 10 m  
 Operating Conditions: TX High Duty Cycle  
 Operator Name: Wolsdorfer  
 Comment: battery powered

## Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESCI 3]  
 Level Unit: dB $\mu$ V/m

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamplifier
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



## Final Result 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
52.771200	9.2	1000.0	120.000	178.0	V	41.0	13.1	20.8	30.0	
121.398150	6.2	1000.0	120.000	234.0	V	45.0	10.1	27.3	33.5	
314.977200	17.0	1000.0	120.000	106.0	V	140.0	15.0	19.0	36.0	
702.666300	19.7	1000.0	120.000	200.0	V	297.0	22.6	16.3	36.0	
801.904950	20.8	1000.0	120.000	323.0	H	-28.0	23.8	15.2	36.0	
929.004600	22.3	1000.0	120.000	200.0	V	326.0	25.3	13.7	36.0	



**Hardware Setup: EMI radiated\Electric Field (NOS) - [EMI radiated]**

Subrange 1	
Frequency Range:	30 MHz - 2 GHz
Receiver:	Receiver [ESCI 3] @ GPIB0 (ADR 20), SN 100083/003, FW 4.42
Signal Path:	without Notch FW 1.0
Antenna:	VULB 9163 SN 9163-295, FW --- Correction Table (vertical): VULP6113 Correction Table (horizontal): VULP6113 Correction Table (vertical): Cable_EN_1GHz (1005) Correction Table (horizontal): Cable_EN_1GHz (1005)
Antenna Tower:	Tower [EMCO 2090 Antenna Tower] @ GPIB0 (ADR 8), FW REV 3.12
Turntable:	Turntable [EMCO Turntable] @ GPIB0 (ADR 9), FW REV 3.12

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## 9.5 Receiver spurious emissions

### Measurement:

Measurement parameter	
Detector:	Average / Quasi Peak
Sweep time:	Auto
Resolution bandwidth:	3 kHz - 120 kHz
Video bandwidth:	Comparable to RBW
Trace-Mode:	Max hold

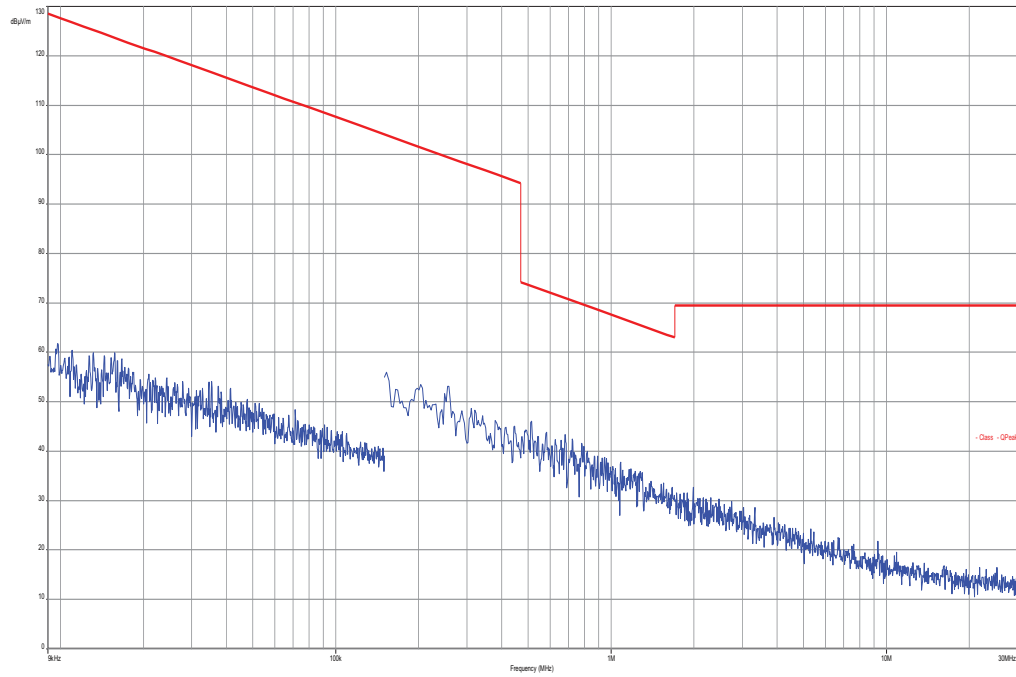
### Limits:

FCC		IC
SUBCLAUSE § 15.109		RSS-210 Issue 8
Field strength of the harmonics and spurious.		
Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30 (29.5 dBµV/m)	30
30 – 88	100 (40 dBµV/m)	3
88 – 216	150 (43.5 dBµV/m)	3
216 – 960	200 (46 dBµV/m)	3

### Result:

EMISSION LIMITATIONS				
f [MHz]	Detector	Limit max. allowed [dBµV/m]	Amplitude of emission [dBµV/m]	Results
No critical peaks detected. All detected emissions are below the limit!				

**Result:** Passed

**Plots of the measurements:** Radiated unit No. 4 / 121068626 (RX – mode)**Plot 1:** 9 kHz – 30 MHz, magnetic emissions, loop antenna, measuring distance 3 m, EUT 0° and 90° position

**Plot 2:** 30 MHz – 1000 MHz, vertical & horizontal polarization

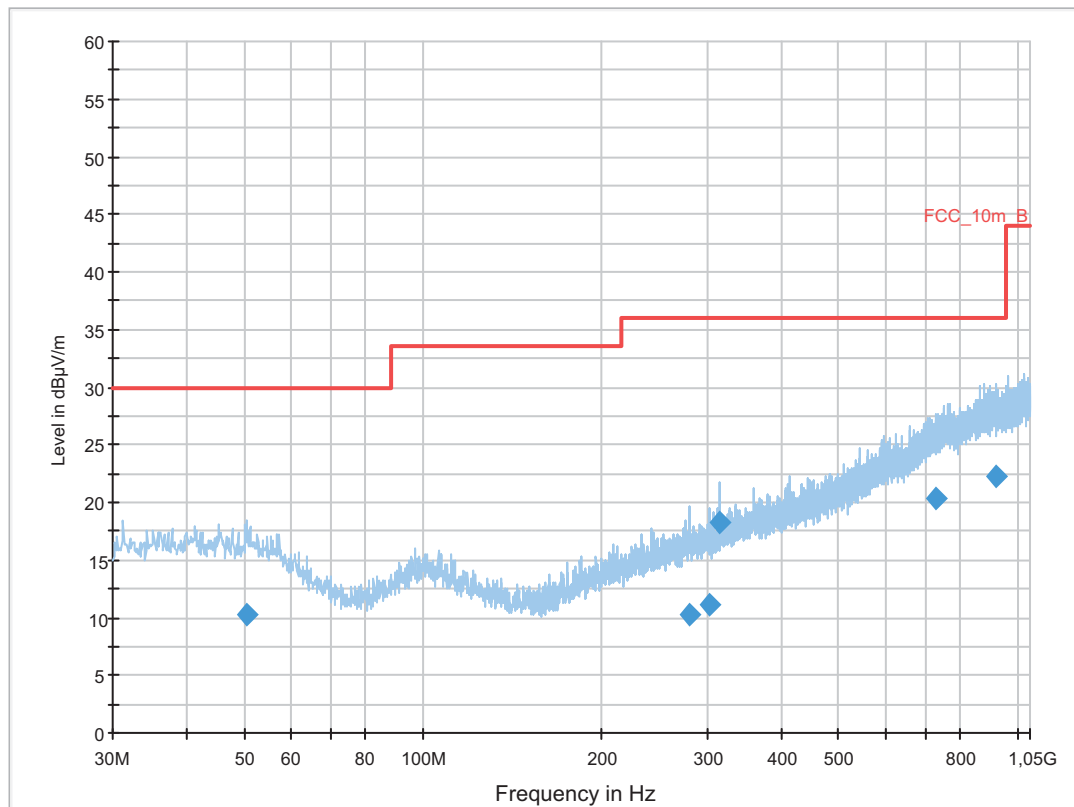
## Common Information

EUT: mini RITE Fusion 2  
 Serial Number: 121068626  
 Test Description: FCC part 15 B class B @ 10 m  
 Operating Conditions: RX  
 Operator Name: Wolsdorfer  
 Comment: battery powered

## Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESCI 3]  
 Level Unit: dB $\mu$ V/m

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamplifier
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



## Final Result 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
50.529150	10.2	1000.0	120.000	194.0	V	185.0	13.3	19.8	30.0	
280.161450	10.3	1000.0	120.000	400.0	V	35.0	14.1	25.7	36.0	
303.493350	11.1	1000.0	120.000	400.0	H	140.0	14.6	24.9	36.0	
314.978550	18.3	1000.0	120.000	100.0	V	266.0	15.0	17.7	36.0	
729.207150	20.3	1000.0	120.000	400.0	H	179.0	23.2	15.7	36.0	
917.270700	22.3	1000.0	120.000	200.0	V	66.0	25.3	13.7	36.0	

**Hardware Setup: EMI radiated\Electric Field (NOS) - [EMI radiated]**

Subrange 1	
Frequency Range:	30 MHz - 2 GHz
Receiver:	Receiver [ESCI 3] @ GPIB0 (ADR 20), SN 100083/003, FW 4.42
Signal Path:	without Notch FW 1.0
Antenna:	VULB 9163 SN 9163-295, FW --- Correction Table (vertical): VULP6113 Correction Table (horizontal): VULP6113 Correction Table (vertical): Cable_EN_1GHz (1005) Correction Table (horizontal): Cable_EN_1GHz (1005)
Antenna Tower:	Tower [EMCO 2090 Antenna Tower] @ GPIB0 (ADR 8), FW REV 3.12
Turntable:	Turntable [EMCO Turntable] @ GPIB0 (ADR 9), FW REV 3.12

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## 9.6 Conducted limits

Not applicable!

The EUT is battery powered only!

No possibility to connect to the mains power supply!

## 10 Test equipment and ancillaries used for tests

Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Weekly chamber inspections and range calibrations are performed. Where possible, rf-generating and signalling equipment as well as measuring receivers and analyzers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Labor/Item).

No.	Lab / Item	Equipment	Type	Manufact.	Serial No.	INV. No Cetecom	Kind of Calibration	Last Calibration	Next Calibration
1	n. a.	Isolating Transformer	RT5A	Grundig	8041	300001626	g		
2	n. a.	DC power supply, 60Vdc, 50A, 1200 W	6032A	HP Meßtechnik	2818A03450	300001040	Ve	12.01.2012	12.01.2015
3	n. a.	Double-Ridged Waveguide Horn Antenna 1-18.0GHz	3115	EMCO	8812-3088	300001032	vIKI!	11.05.2011	11.05.2013
4	n. a.	Active Loop Antenna	6502	EMCO	2210	300001015	ne		
5	n. a.	Anechoic chamber	FAC 3/5m	MWB / TDK	87400/02	300000996	ev		
6	Spec.A. 2_2e	System rack for EMI measurement solution	85900	HP I.V.	*	300000222	ne		
7	9	Artificial Mains 9 kHz to 30 MHz	ESH3-Z5	R&S	828576/020	300001210	Ve	06.01.2012	06.01.2014
8	n. a.	Relais Matrix	3488A	HP Meßtechnik	2719A15013	300001156	ne		
9	n. a.	Relais Matrix	PSU	R&S	890167/024	300001168	ne		
10	n. a.	Isolating Transformer	RT5A	Grundig	9242	300001263	ne		
11	n. a.	Three-Way Power Splitter, 50 Ohm	11850C	HP Meßtechnik		300000997	ne		
12	n. a.	Switch / Control Unit	3488A	HP	2605e08770	300001443	ne		
13	n. a.	Amplifier	js42-00502650-28-5a	Parzich GMBH	928979	300003143	ne		
14	n. a.	Band Reject filter	WRCG185 5/1910-1835/1925-40/8SS	Wainwright	7	300003350	ev		
15	n. a.	Band Reject filter	WRCG240 0/2483-2375/2505-50/10SS	Wainwright	11	300003351	ev		
16	n. a.	TILE-Software Emission	Quantum Change, Modell TILE-ICS/FULL	EMCO	none	300003451	ne		
17	n. a.	Highpass Filter	WHKX2.9/1 8G-12SS	Wainwright	1	300003492	ev		
18	n. a.	Highpass Filter	WHK1.1/15 G-10SS	Wainwright	3	300003255	ev		
19	n. a.	Highpass Filter	WHKX7.0/1 8G-8SS	Wainwright	18	300003789	ne		
20	n. a.	MXG Microwave Analog Signal Generator	N5183A	Agilent Technologies	MY47420220	300003813	k	13.09.2010	13.09.2012
21	n. a.	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	371	300003854	vIKI!	14.10.2011	14.10.2014
22	n. a.	MXE EMI Receiver 20 Hz bis 26,5 GHz	N9038A	Agilent Technologies	MY51210197	300004405	k	19.12.2011	19.12.2012

**Agenda:** Kind of Calibration

k	calibration / calibrated	EK	limited calibration
ne	not required (k, ev, izw, zw not required)	zw	cyclical maintenance (external cyclical maintenance)
ev	periodic self verification	izw	internal cyclical maintenance
Ve	long-term stability recognized	g	blocked for accredited testing
vkI!	Attention: extended calibration interval		
NK!	Attention: not calibrated	*)	next calibration ordered / currently in progress

## 11 Observations

No observations exceeding those reported with the single test cases have been made.