

FCC TEST REPORT

FCC 47 CFR Part 15C Industry Canada RSS-210

Intentional radiator operating within the bands 902 – 928 MHz, 2400 – 2483.5 MHz and 5725 – 5875 MHz

Report Reference No. G0M-1703-6374-TFC249DXX-V01

Testing Laboratory: Eurofins Product Service GmbH

Address Storkower Str. 38c

15526 Reichenwalde

Germany

Accreditation:



A2LA Accredited Testing Laboratory, Certificate No.: 1983.01

FCC Filed Test Laboratory, Reg.-No.: 96970

IC OATS Filing assigned code: 3470A

Applicant's name: Liftup A/S

Address: Hagensvej 21

DK-9530 Støvring

DENMARK

Test specification:

Standard.....: 47 CFR Part 15C

RSS-210, Issue 9, 2016-08 RSS-Gen, Issue 4, 2014-11

ANSI C63.10, 2013

Test scope.....: complete Radio compliance test

Equipment under test (EUT):

Product description Remote for Liftup A/S products

Model No. 104016
Additional Model(s) None
Brand Name(s) Remote

Hardware version D
Firmware / Software version 1

FCC-ID: 2AK8H-REMOTE1 IC: 22516-REMOTE1

Test result Passed



Possible test case verdicts:

- required by standard but not appl. to test object: N/A

- required by standard but not tested: N/T

- not required by standard for the test object: N/R

- test object does meet the requirement P (Pass)

- test object does not meet the requirement: F (Fail)

Testing:

Test Lab Temperature: 20 – 23 °C

Test Lab Humidity.....: 32 – 38 %

Date of receipt of test item..... 2017-03-27

Date (s) of performance of tests...... 2017-03-27 - 2017-03-31

Compiled by Toralf Jahn

(Head of Lab)

Date of issue 2017-06-06

Total number of pages 78

General remarks:

The test results presented in this report relate only to the object tested.

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

Additional comments:

The manufacturer has declared that the following models are technical identical (with respect to its RF circuit) to the tested model: 103933

C. lozbe



Version History

Version	Issue Date	Remarks	Revised by
01	2017-06-06	Initial Release	



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1 Equipment (Test item) Description:

Description	Remote for Lift	up A	/S products	
Model	104016			
Additional Model(s)	None			
Brand Name(s)	Remote			
Serial number	None			
Hardware version	D			
Software / Firmware version	1			
PMN	REMOTE			
HVIN	104016			
FVIN	N/A			
HMN	N/A			
FCC-ID	2AK8H-REMO	TE1		
IC	22516-REMOT	E1		
Equipment type	End product			
Radio type	Transceiver			
Radio technology	custom			
Operating frequency range	2410 - 2460 MHz			
Assigned frequency band	2400 - 2483.5	MHz		
	F _{LOW}		2410 MHz	
Frequency range	F _{MID}		2435 MHz	
	F _{HIGH}		2460 MHz	
Spreading	None			
Modulations	GFSK			
Number of channels	3			
Channel spacing	25 MHz			
Number of antennas	1	1		
	Туре	inte	grated PCB pseudo quarter wave antenna	
Antenna	Model	PCE	3 conductor	
, and an a	Manufacturer	uns	pecified	
	Gain	-1.5	4 dBi (declared)	
	Liftup A/S			
Manufacturer	Hagensvej 21			
	DK- 9530 Støvring			
	DENMARK		2.0.VDC // ithium Pottom/	
Power cumply	V _{NOM}		3.0 VDC (Lithium-Battery)	
Power supply	V _{MIN}		N/A	
	V _{MIN}		N/A	



	Model	N/A
AC/DC-Adaptor	Vendor	N/A
AC/DC-Adaptor	Input	N/A
	Output	N/A



1.1 Photos – Equipment External



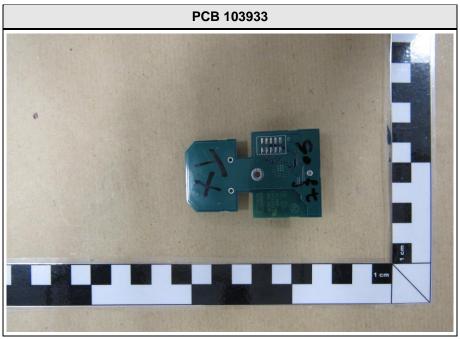




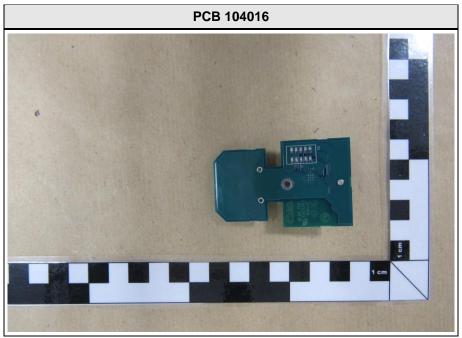


1.2 Photos – Equipment internal



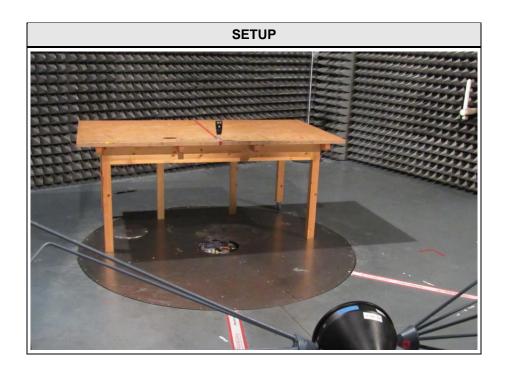








1.3 Photos – Test setup





1.4 Supporting Equipment Used During Testing

Product Type*	Device	Manufacturer	Model No.	Comments			
	None						
*Note: Use	*Note: Use the following abbreviations:						
AE:	AE : Auxiliary/Associated Equipment, or						
SIM : Simulator (Not Subjected to Test)							
CABL:	CABL : Connecting cables						



1.5 Test Modes

Mode #	Description				
	General conditions:	Specially prepared test mode with 100% duty cycle. EUT powered by fully charged battery			
Transmit	Radio conditions:	Mode = standalone transmit Modulation = GFSK Power level = Maximum			
	General conditions:	EUT powered by fully charged battery			
Receive	Radio conditions:	Mode = standalone receive Modulation = GFSK			

The duty cycle in normal transmit mode is less than 1%. For practical reasons the sample was tested with the specially prepared test mode with 100% duty cycle.



1.6 Test Equipment Used During Testing

Measurement Software				
Description	Manufacturer	Name	Version	
EMC Test Software	Dare Instruments	Radimation	2014.2.5	

Occupied Bandwidth						
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due	
Spectrum analyzer	R&S	FSU 26	EF01003	2016-03	2017-03	

Duty Cycle						
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due	
Spectrum analyzer	R&S	FSU 26	EF01003	2016-03	2017-03	

Field strength emissions						
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due	
Semi-anechoic chamber	Frankonia	AC 1	EF00062	-	-	
MXE EMI Receiver	Keysight Technologies	N9038A- 526/WXP	EF01070	2016-08	2017-08	
Biconical Antenna	R&S	HK 116	EF00012	2016-05	2019-05	
LPD Antenna	R&S	HL 223	EF00187	2016-05	2019-05	
Horn antenna	Schwarzbeck	BBHA 9120D	EF00019	2016-09	2018-09	



1.7 Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in dBµV. Any external preamplifiers used are taken into account through internal analyzer settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

Reading on Analyzer (dB μ V) + A.F. (dB) = Net field strength (dB μ V/m)

Net:

This is the net field strength measurement (as shown above).

Limit:

This is the FCC Class B radiated emission limit (in units of $dB\mu V/m$). The FCC limits are given in units of $\mu V/m$. The following formula is used to convert the units of $\mu V/m$ to $dB\mu V/m$:

Limit (dB μ V/m) = 20*log (μ V/m)

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example only:

Reading + AF = Net Reading : Net reading - FCC limit = Margin 21.5 dB μ V + 26 dB = 47.5 dB μ V/m : 47.5 dB μ V/m - 57.0 dB μ V/m = -9.5 dB



2 Result Summary

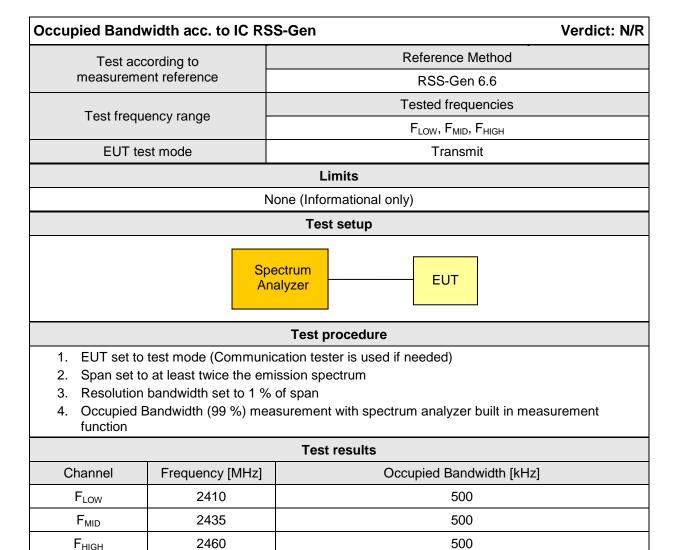
FCC 47 CFR Part 15C, IC RSS-210						
Product Specific Standard Section	Requirement – Test	Reference Method	Result	Remarks		
RSS-Gen 6.6	Occupied Bandwidth	RSS-Gen 6.6	N/R	Informational only		
FCC 15.35(c) RSS-Gen 6.10	Duty Cycle	ANSI C63.10	N/R	Informational only		
FCC 15.249(a),(c),(e) RSS-210 B.10(a)	Fundamental field strength emissions	ANSI C63.10	PASS			
FCC 15.249(a),(c),(d),(e) RSS-210 B.10(b)	Emission radiated outside the specified frequency band	ANSI C63.10	PASS			
RSS-Gen 7.1	Receiver radiated spurious emissions	ANSI C63.10	PASS			
FCC § 15.207 RSS-Gen 8.8	AC power line conducted emissions	ANSI C63.10	N/R	EUT exclusively battery powered		
Remarks:						



3 Test Conditions and Results

Comments:

3.1 Test Conditions and Results - Occupied Bandwidth





Occupied Bandwidth - FLOW

Occupied Bandwidth

Project Number: G0M-1703-6374

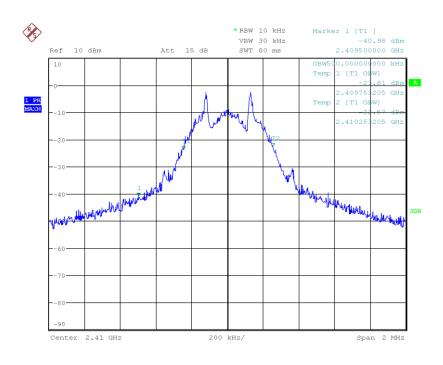
Applicant Liftup A/S
Model Description Remote
Model: 104016
Test Sample ID: 12519
Operator: T. Jahn

Test Site: Eurofins Product Service GmbH

Test Date: 2017-03-28

Note 1: Channel: low

Note 2: 500 kHz



Date: 28.MAR.2017 12:53:17



Occupied Bandwidth - F_{MID}

Occupied Bandwidth

Project Number: G0M-1703-6374

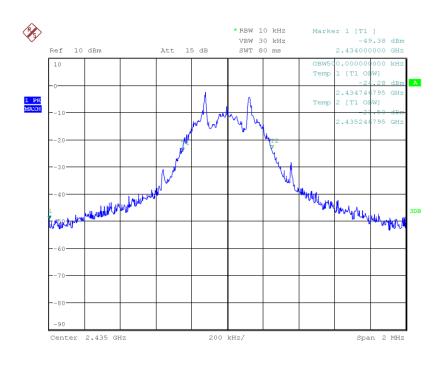
Applicant Liftup A/S
Model Description Remote
Model: 104016
Test Sample ID: 12519
Operator: T. Jahn

Test Site: Eurofins Product Service GmbH

 Test Date:
 2017-03-28

 Note 1:
 Channel: mid

 Note 2:
 500 kHz



Date: 28.MAR.2017 12:57:48



Occupied Bandwidth - F_{HIGH}

Occupied Bandwidth

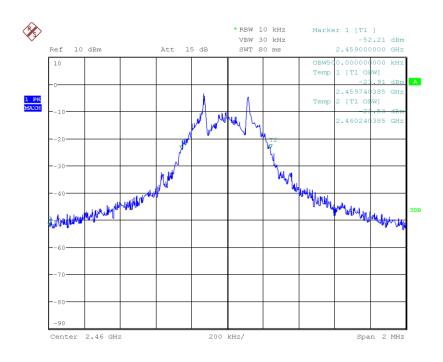
Project Number: G0M-1703-6374

Applicant Liftup A/S
Model Description Remote
Model: 104016
Test Sample ID: 12519
Operator: T. Jahn

Test Site: Eurofins Product Service GmbH

Test Date: 2017-03-28
Note 1: Channel: high

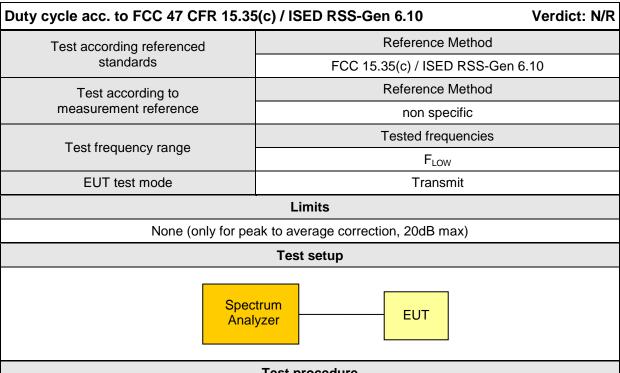
Note 2: 500 kHz



Date: 28.MAR.2017 13:07:20



3.2 Test Conditions and Results - Duty Cycle



Test procedure

- 1. EUT set to test mode
- 2. Center frequency is set to test frequency
- 3. Span it set to zero span
- 4. Resolution bandwidth is set large enough to accurately capture transmission bursts
- 5. Total transmission time is measured

	Test results						
Channel	Frequency [MHz]	Duty Cycle [% @ 100ms]	Duty Cycle correction [dB]				
F _{LOW}	2410	1	39.89 -> 20				

Comments: Duty cycle correction is used if pulsed operation is employed and field strength limits are expressed in terms of average value.



Product Service

Duty Cycle - F_{LOW}

Duty Cycle

Project Number: G0M-1703-6374

Applicant Liftup A/S
Model Description Remote
Model: 104016
Test Sample ID: 12519

Reference Standards: FCC 15.231, RSS-210

Reference Method: ANSI C63.10:2013, Section 7.5

Operating Frequency: 2410 MHz
Operating Conditions: Tnom/Vnom
Operator: T. Jahn

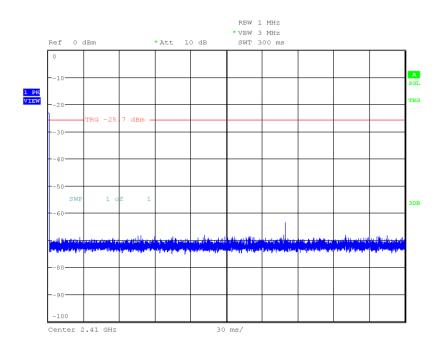
Test Site: Eurofins Product Service GmbH

Test Date: 2017-03-31

Maximum Duty Cycle: 0.01

Maximum Duty Cycle [%]: 1

Duty Cycle Correction [dB]: -39.89



Date: 31.MAR.2017 09:54:13

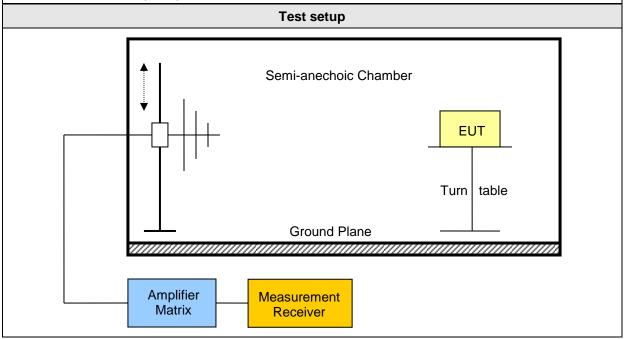


3.3 Test Conditions and Results – Fundamental field strength emissions

Field strength emissions acc. to FCC 47 CFR 15.249 / IC RSS-210 Verdict: PASS								
Test according referenced standards		Reference Method						
		FCC 15.249(a),(c),(e) / IC RSS-210 B.10(a)						
Test according to measurement reference			Reference Me	ethod				
		ANSI C63.10						
Toot fraguancy re	Tested frequencies							
Test frequency range		F _{LOW} , F _{MID} , F _{HIGH}						
EUT test mod	Transmit							
		Limits						
Frequency range [MHz]	Detector	Limit [mV/m] Limit [dBµV/m] Limit Distance [m						
902 – 928	Quasi-Peak	50 94 3						
2400 – 2483.5	Average	50 94 3						
5725 - 5875	Average	50	94	3				

FCC 15.249(e): for frequencies above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

Below 1GHz a CISPR quasi-peak detector is used.





Test procedure

- 1. EUT set to test mode
- 2. Span it set according to measurement range
- 3. Below 1 GHz the resolution bandwidth is set according to CISPR 16 to 120 kHz with peak/quasi-peak detector.
- 4. Above 1 GHz the resolution bandwidth is set to 1 MHz with peak/average detector. Pulsed emissions are averaged over 100 ms with duty cycle correction.
- 5. Markers are set to maximum emission levels

Test results pulsed emissions > 1 GHz										
Channel	Frequency [MHz]	Pol.	Peak Level [dBµV/m]	Duty Cycle Correct. [dB]	Average Level [dBµV/m]	Average Limit [dBµV/m]	Limit distance [m]*	Margin [dB]		
F_{LOW}	2410	hor	84.7	20	64.7	94	3	-29.3		
F_{LOW}	2410	ver	95.5	20	75.5	94	3	-18.5		
F _{MID}	2435	hor	82.2	20	62.2	94	3	-31.8		
F _{MID}	2435	ver	95.8	20	75.8	94	3	-18.2		
F _{HIGH}	2460	hor	82.8	20	62.8	94	3	-31.2		
F _{HIGH}	2460	ver	95.8	20	75.8	94	3	-18.2		

Comments: * Physical distance between EUT and measurement antenna.



3.4 Test Conditions and Results - Emissions radiated outside the specified frequency band

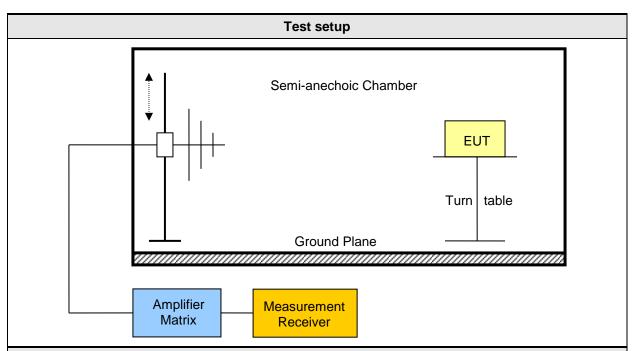
Radiated out-of-band band emissions acc. to FCC 47 CFR 15.249 / IC RSS-210 Verdict: PASS							
Test according refe	erenced	Reference Method					
standards		FCC 15.249(a),(c),(d),(e) / IC RSS-210 B.10(b)					
Test according	g to	Reference Method					
measurement ref	erence		ANSI C63.10				
Toot fraguency	-0000		Tested frequencie	S			
Test frequency	ange		30 MHz – 10 th harmo	onic			
EUT test mo	de	Transmit					
Limits - Harmonics							
The field strength of harm	onic emissions, r	neasured at 3 m, shall not exceed 500 μV/m (54 dBμV/m).					
	L	imits - General					
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]			
30 – 88	Quasi-Peak	100	40	3			
88 – 216	Quasi-Peak	150	43.5	3			
216 – 960	Quasi-Peak	200	46	3			
960 – 1000	Quasi-Peak	500	54	3			
> 1000	Average	500	54	3			

For frequencies above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

Except the higher order harmonics, emission radiated outside the specified frequency band shall be attenuated by at least 50 dB below the level of the fundamental or to the general field strength limits listed in 15.209 / RSS-Gen, whichever is less stringent.



Product Service



Test procedure

- 1. EUT set to test mode
- 2. Span it set according to measurement range
- 3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz
- 4. Markers are set to maximum emission levels

Test results										
Channel	Frequency [MHz]	Emission [MHz]	Level [dBµV/m]	Detector	Pol.	Limit [dBµV/m]	Margin [dB]			
F _{LOW}	2410	4816	39.50	pk	ver	54.00	-14.50			
F _{LOW}	2410	4820	41.40	pk	hor	54.00	-12.60			
F _{LOW}	2410	7224	40.98	pk	ver	54.00	-13.02			
F _{MID}	2435	4864	44.29	pk	hor	54.00	-09.71			
F _{MID}	2435	4864	40.26	pk	ver	54.00	-13.74			
F _{HIGH}	2460	4920	44.18	pk	hor	54.00	-09.82			
F _{HIGH}	2460	4920	38.64	pk	ver	54.00	-15.36			
F _{HIGH}	2460	7376	40.72	pk	ver	54.00	-13.28			

Comments: $\,^*$ Physical distance between EUT and measurement antenna.



3.5 Test Conditions and Results - Receiver radiated emissions

Receiver radiated emis	sions acc. t	o IC F	RSS-210				Verdict: PASS		
Test according refere	enced	Reference Method							
standards	RSS-Gen 7.1								
Test according to	Reference Method								
measurement refere	ence	ANSI C63.10							
Test frequency rar	nge -	Tested frequencies							
rest frequency far	igo			30 MI	Hz – 5 th Harm	onic			
EUT test mode					Receive				
			Limits						
Frequency range [MHz]	Detector		Limit [µV/m]	l	Limit [dBµV/m	1]	Limit Distance [m]		
30 – 88	Quasi-Pea	k	100		40		3		
88 – 216	Quasi-Pea	k	150		43.5		3		
216 – 960	Quasi-Pea	k	200		46		3		
960 – 1000	Quasi-Pea	k	500		54		3		
> 1000	Average		500		54		3		
		T	Test setup						
	-	Sei	mi-anechoic (Ground Plar		ber EL		le -		
Amplifier Measurement									
M	atrix	R	eceiver						



Test procedure

- 1. EUT set to receive mode (Communication tester is used if needed)
- 2. Span it set according to measurement range
- 3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz
- 4. Markers are set to peak emission levels

Test results										
Channel	Frequency [MHz]	Emission [MHz]	Level [dBµV/m]	Detector	Pol.	Limit [dBµV/m]	Margin [dB]			
F _{MID}	2435	7472	49.42	pk	hor	53.98	-04.56			
F _{MID}	2435	7544	48.83	pk	ver	53.98	-05.15			

The stated emission level corresponds to ambient noise floor. No real spurious emission has been measured.



ANNEX A Transmitter radiated spurious emissions

Spurious emissions according to FCC 15.249

Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

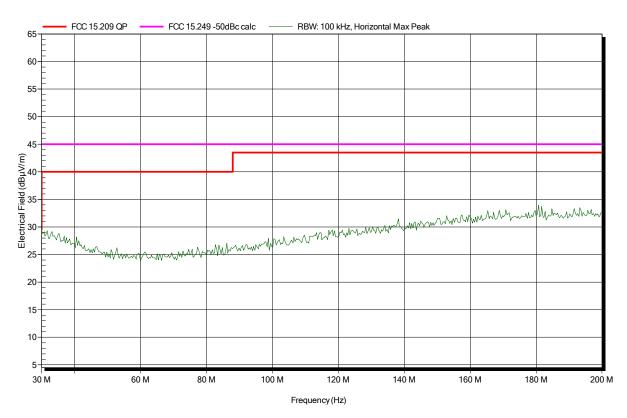
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: high Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

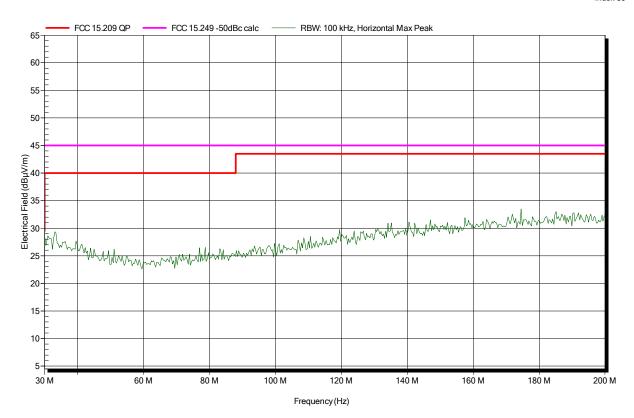
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: mid Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

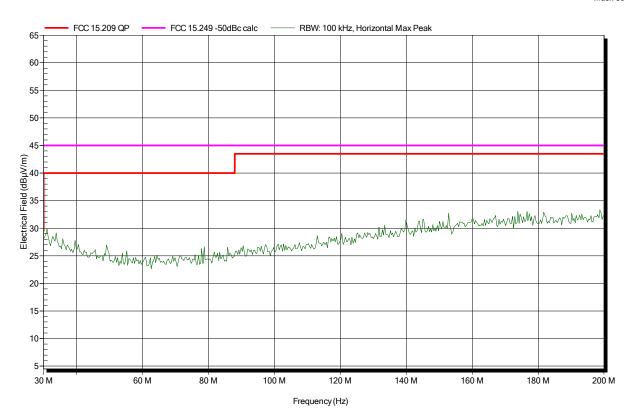
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: low Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

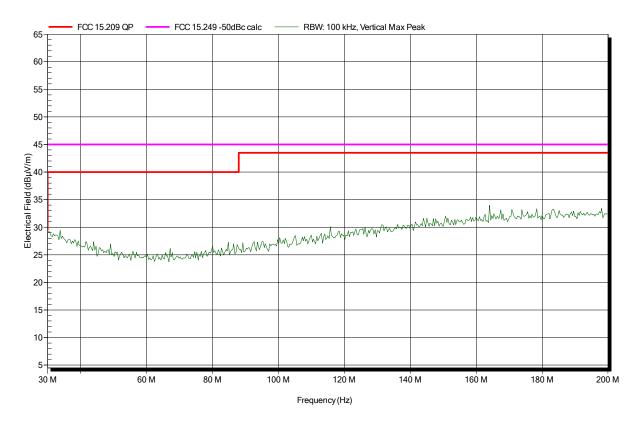
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; Channel: high

Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

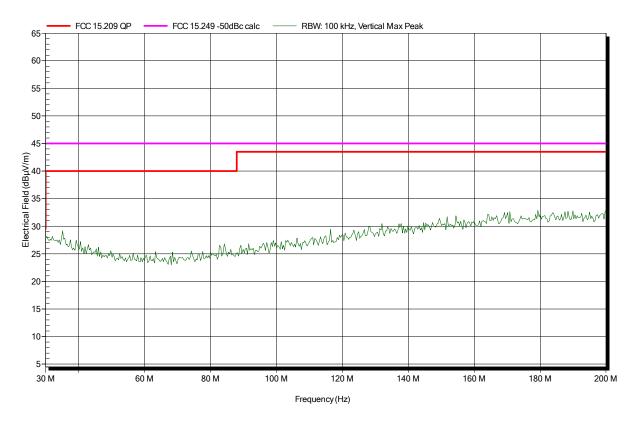
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; Channel: mid Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

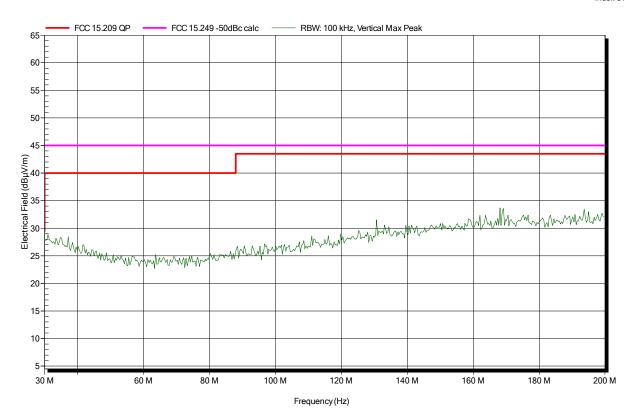
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; Channel: low Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

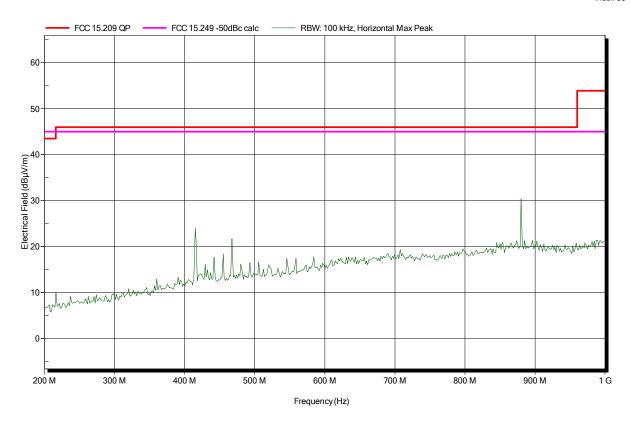
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: high Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

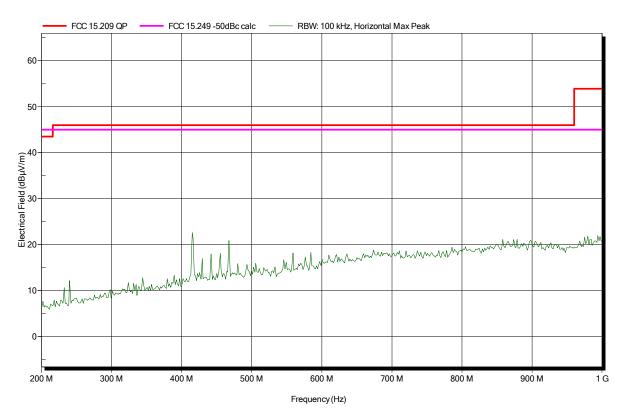
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: mid Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

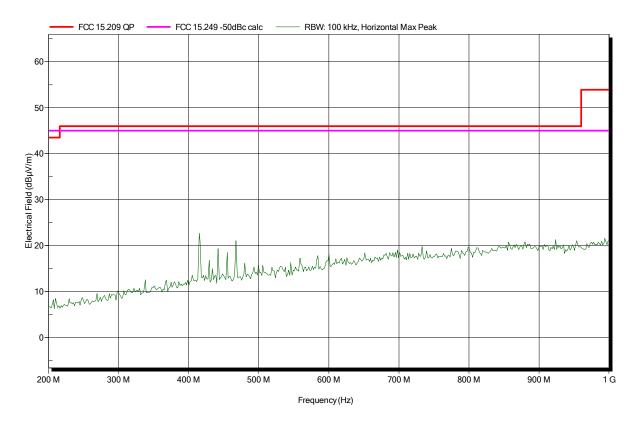
Test Conditions: Tnom: 20°C, Vnom: 3.0V

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Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

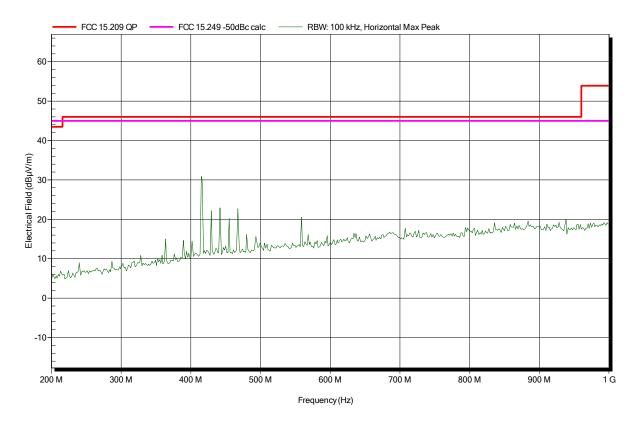
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: high Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

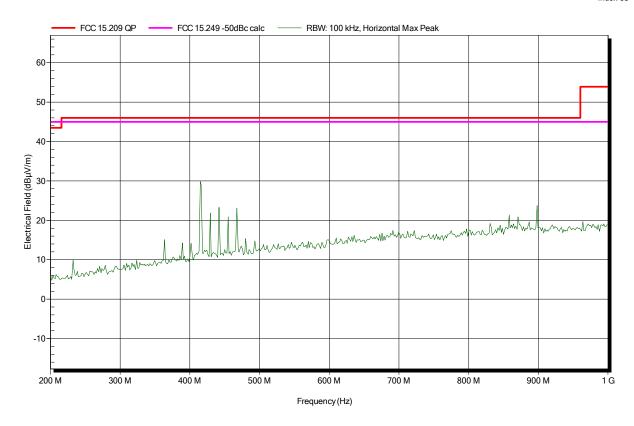
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: mid Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

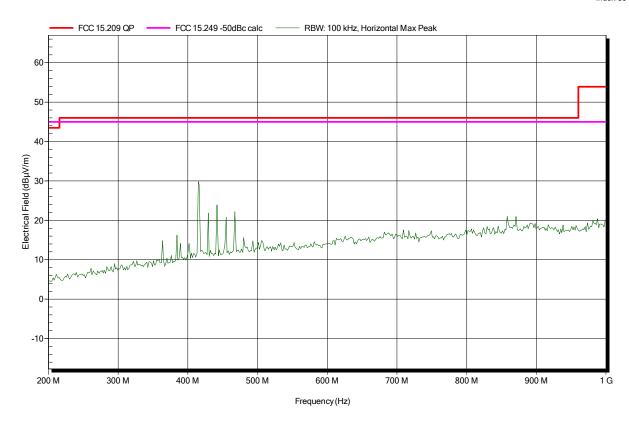
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: low Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

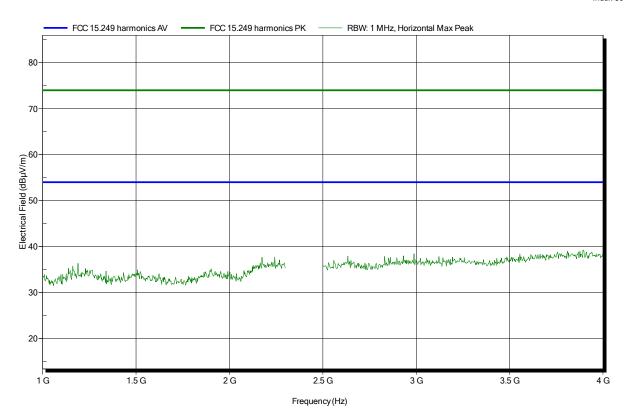
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: high Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

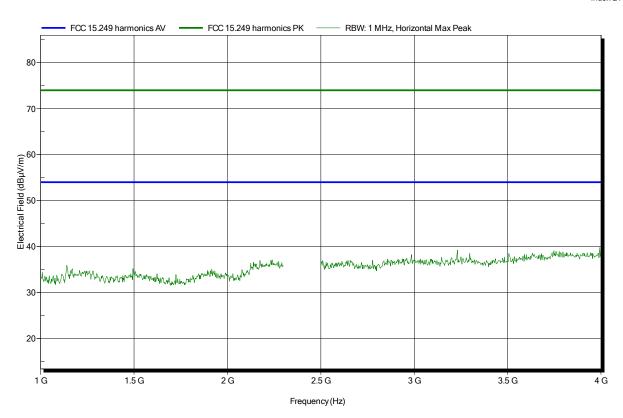
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: low Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

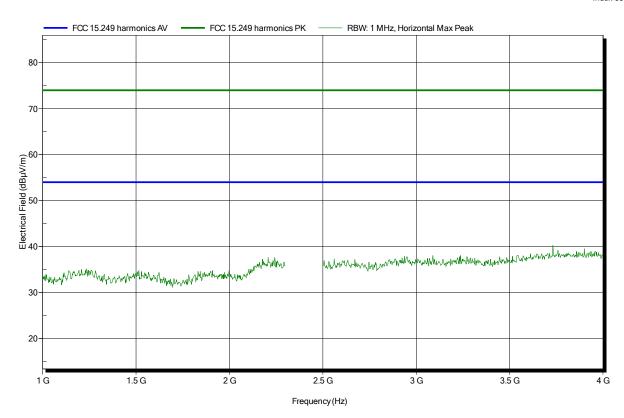
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: mid Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

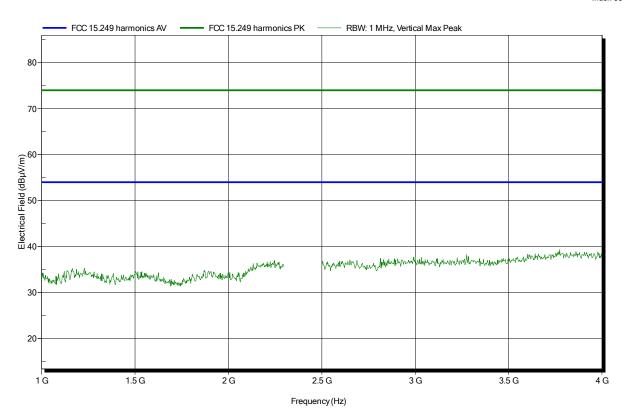
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; Channel: high Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

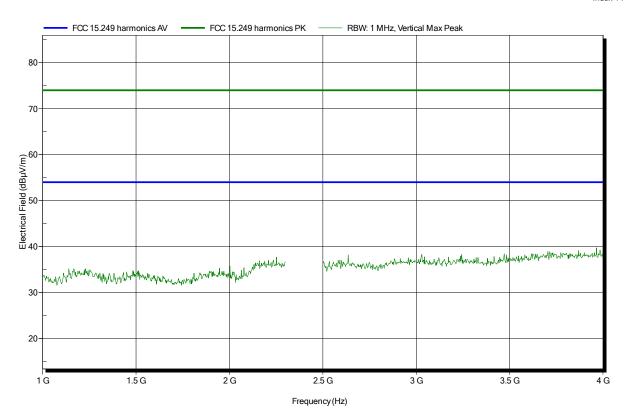
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; Channel: low Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

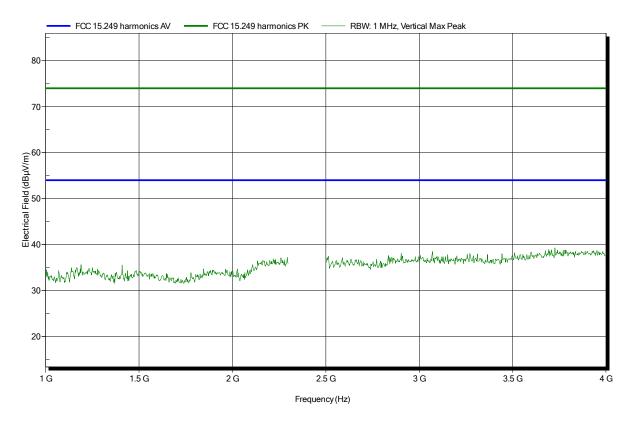
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; Channel: mid Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

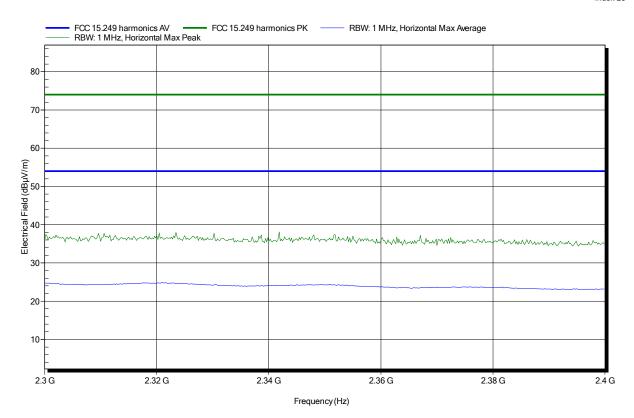
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; Channel: low Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

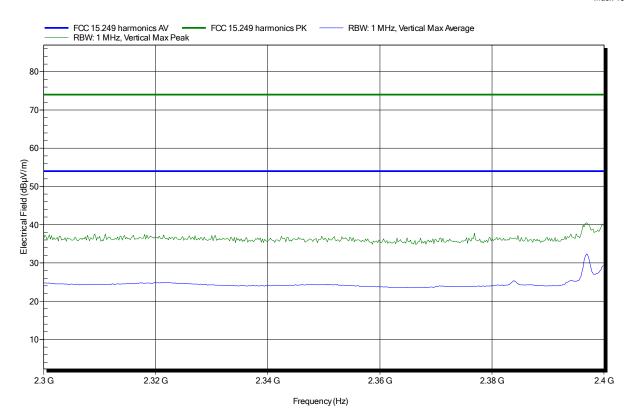
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; Channel: low Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S **EUT Name:** Remote 104016 Model:

Test Site: **Eurofins Product Service GmbH**

Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

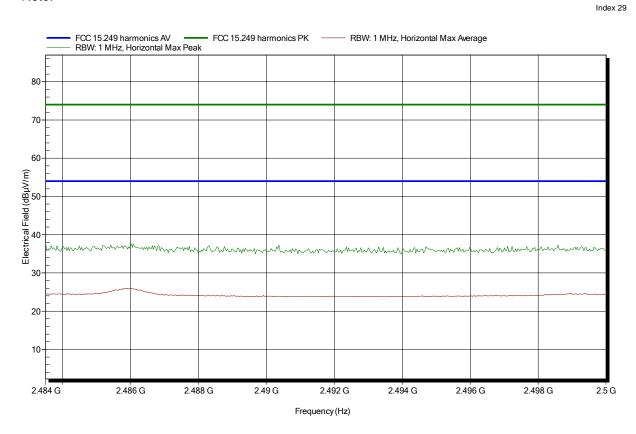
Schwarzbeck BBHA 9120D, Horizontal Antenna:

Measurement distance:

Mode: TX; Channel: high

Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S **EUT Name:** Remote 104016 Model:

Test Site: **Eurofins Product Service GmbH**

Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

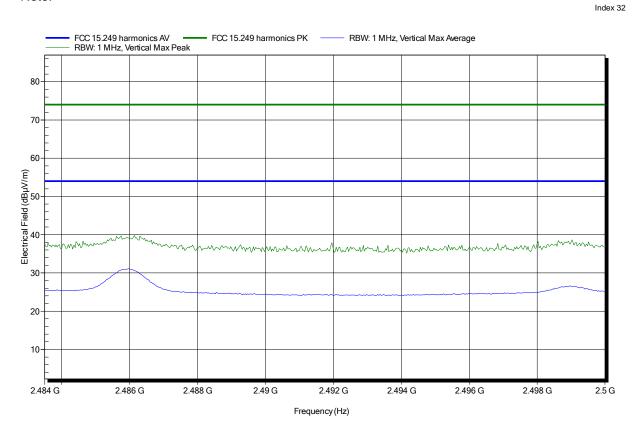
Schwarzbeck BBHA 9120D, Vertical Antenna:

Measurement distance:

Mode: TX; Channel: high

Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

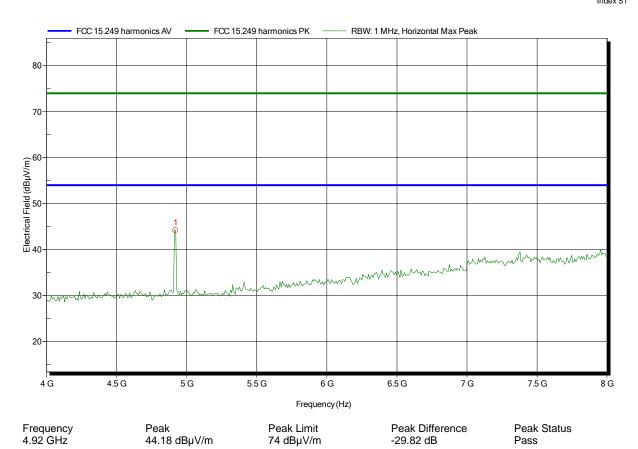
Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3 m Mode: TX; Channel: high

Test Date: 2017-03-27

Note:

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Test Report No.: G0M-1703-6374-TFC249DXX-V01



Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

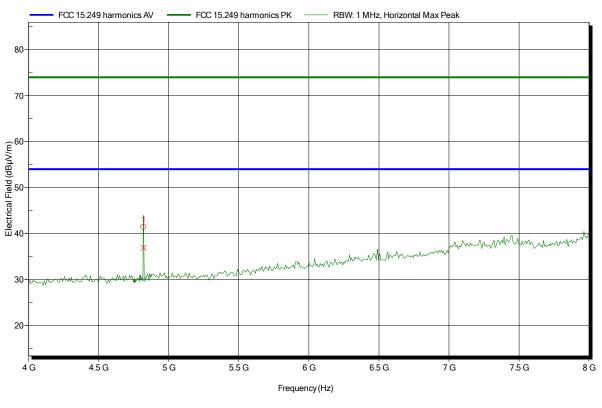
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3 m Mode: TX; Channel: low 2017-03-27

Note:

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Frequency 4.82 GHz Peak 41.4 dBµV/m Peak Limit 74 dBµV/m Peak Difference -32.6 dB Peak Status Pass



Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

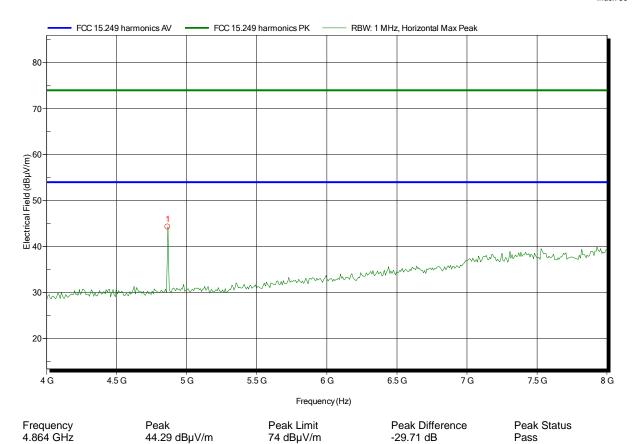
Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3 m Mode: TX; Channel: mid 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

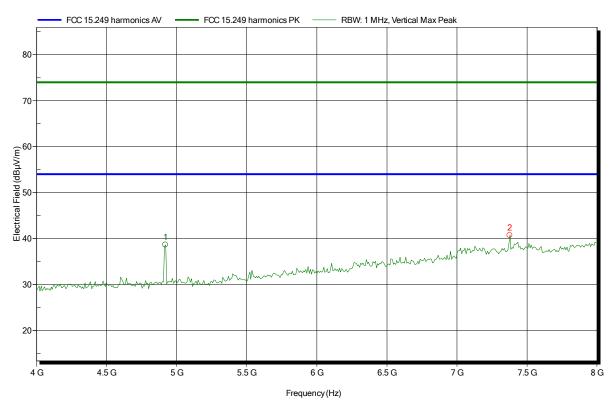
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3 m Mode: TX; Channel: high

Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

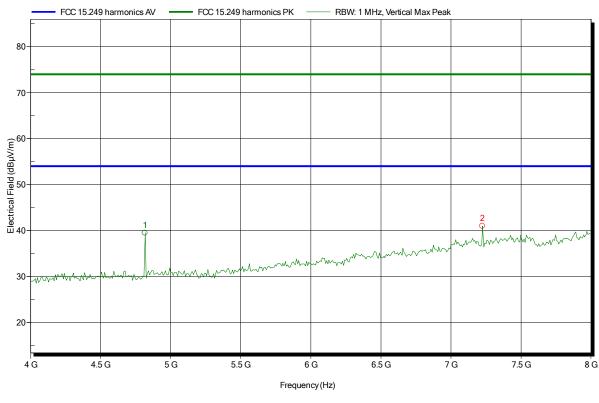
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3 m Mode: TX; Channel: low 2017-03-27

Note:

Index 45



Frequency 4.816 GHz 7.224 GHz Peak 39.5 dBμV/m 40.98 dBμV/m Peak Limit 74 dBµV/m 74 dBµV/m Peak Difference -34.5 dB -33.02 dB Peak Status Pass Pass



Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

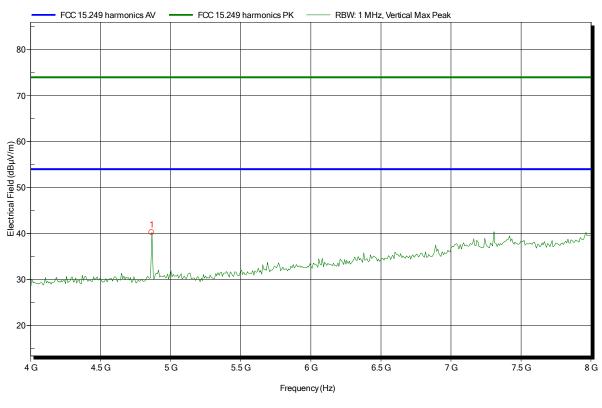
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3 m Mode: TX; Channel: mid 2017-03-27

Note:

Index 40



Frequency 4.864 GHz Peak 40.26 dBµV/m Peak Limit 74 dBµV/m Peak Difference -33.74 dB Peak Status Pass



Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

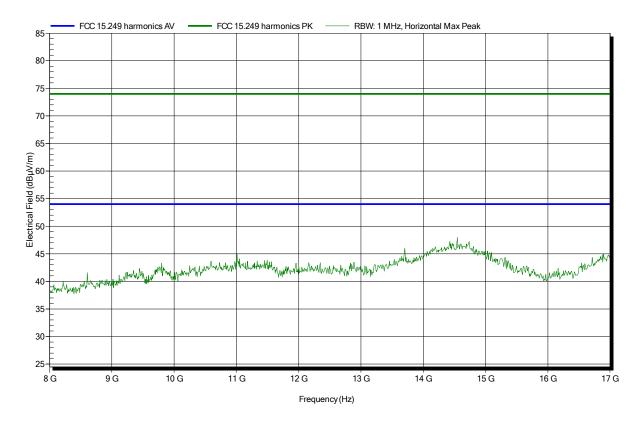
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3 m Mode: TX; Channel: high

Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

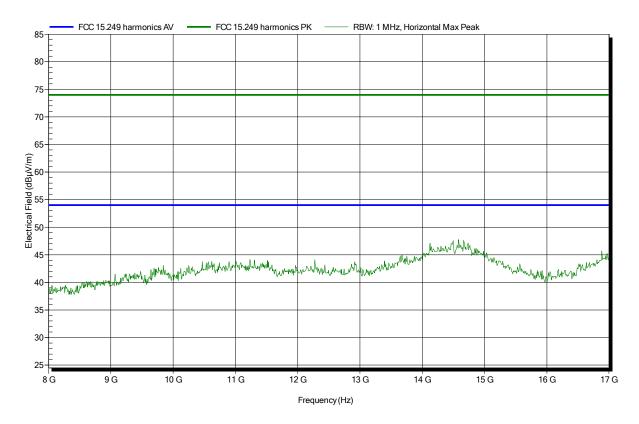
Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m Mode: TX; Channel: low 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

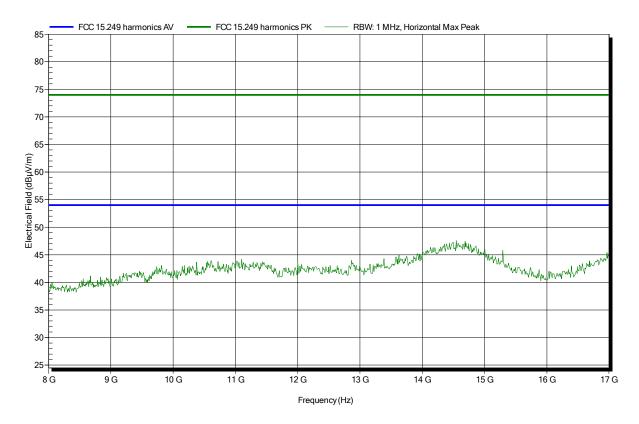
Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m Mode: TX; Channel: mid 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

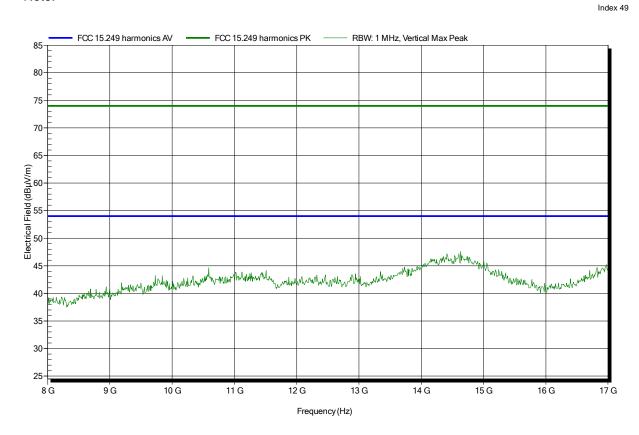
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m Mode: TX; Channel: high

Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

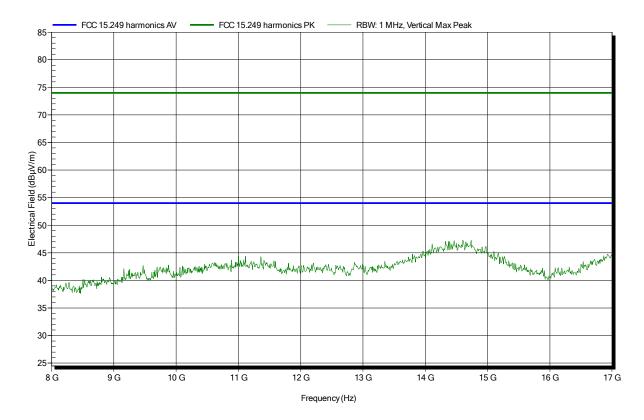
Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m Mode: TX; Channel: low 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

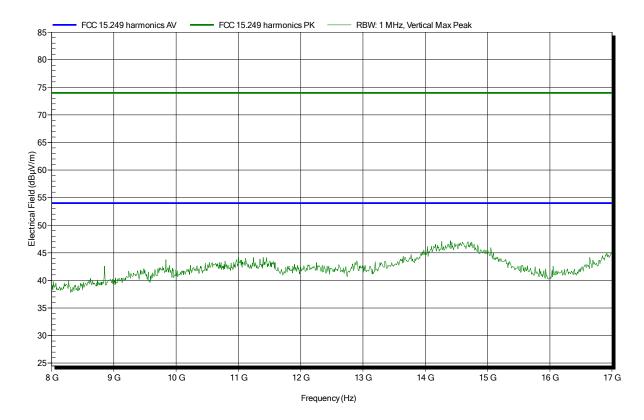
Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m Mode: TX; Channel: mid 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

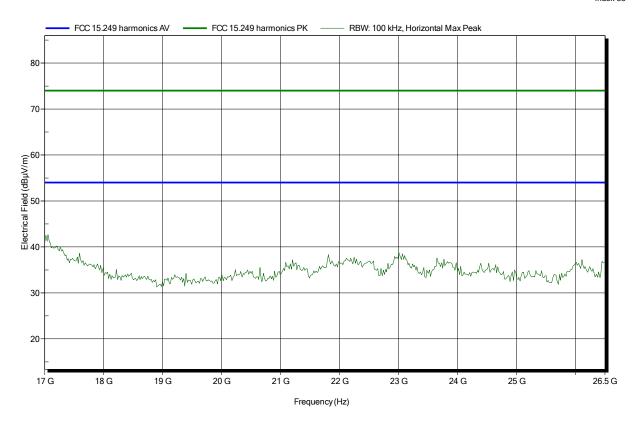
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Amplifier Research AT 4560 (old name) / ATH18G40 (new name),

Horizontal

Measurement distance: 1 m converted to 3m Mode: TX; Channel: high 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

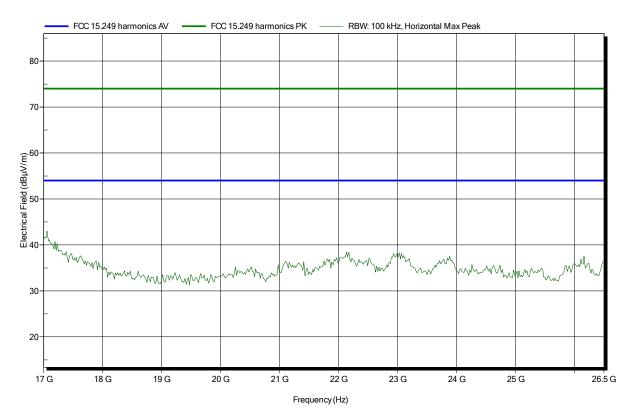
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Amplifier Research AT 4560 (old name) / ATH18G40 (new name),

Horizontal

Measurement distance: 1 m converted to 3m Mode: TX; Channel: low 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

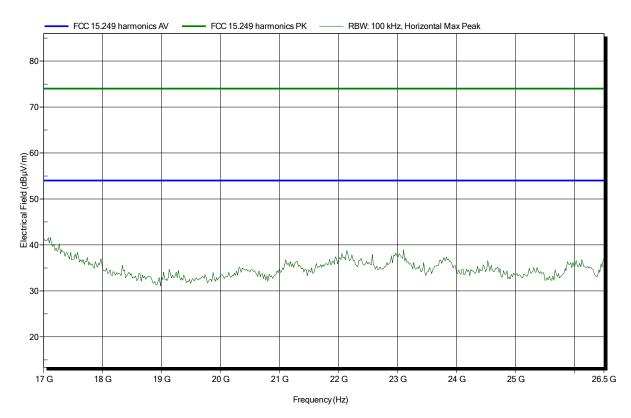
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Amplifier Research AT 4560 (old name) / ATH18G40 (new name),

Horizontal

Measurement distance: 1 m converted to 3m Mode: TX; Channel: mid 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

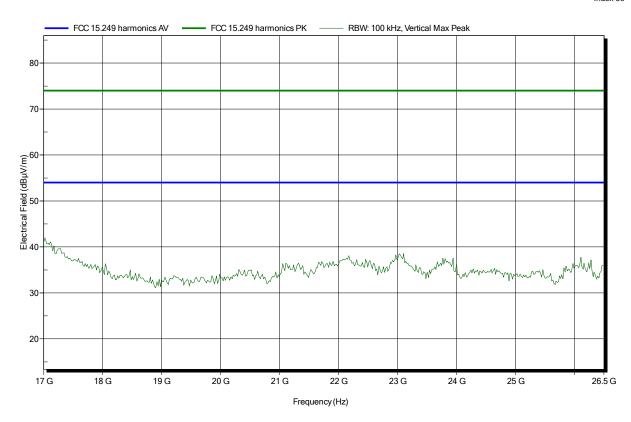
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Amplifier Research AT 4560 (old name) / ATH18G40 (new name),

Vertical

Measurement distance: 1 m converted to 3m Mode: TX; Channel: high 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

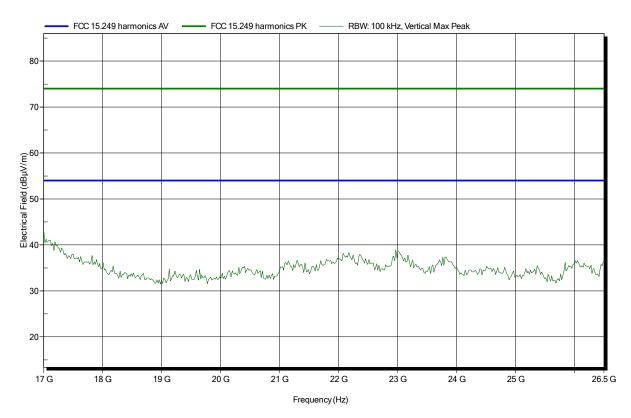
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Amplifier Research AT 4560 (old name) / ATH18G40 (new name),

Vertical

Measurement distance: 1 m converted to 3m Mode: TX; Channel: low 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

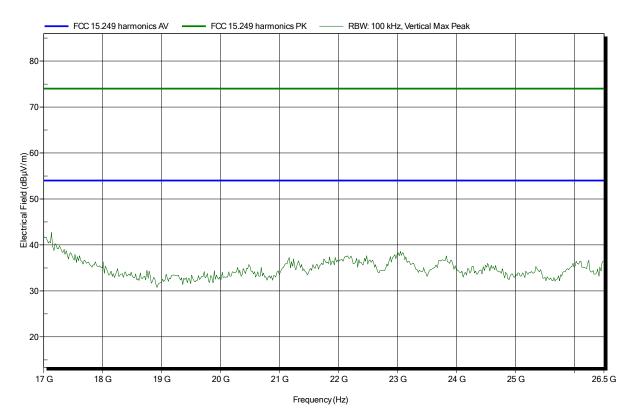
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Amplifier Research AT 4560 (old name) / ATH18G40 (new name),

Vertical

Measurement distance: 1 m converted to 3m Mode: TX; Channel: mid 2017-03-27

Note:





ANNEX B Receiver radiated spurious emissions Spurious emissions according to RSS-210

Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

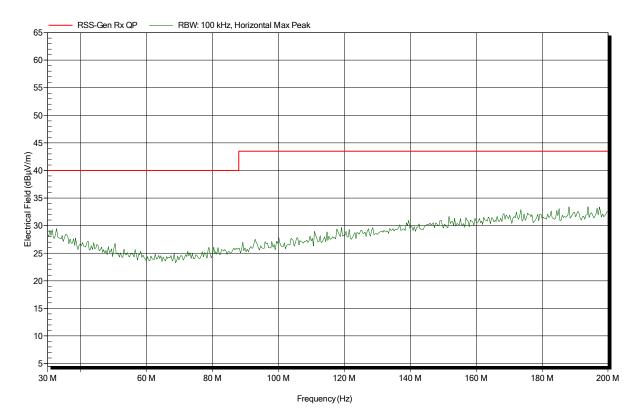
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: RX; Rx hopping Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

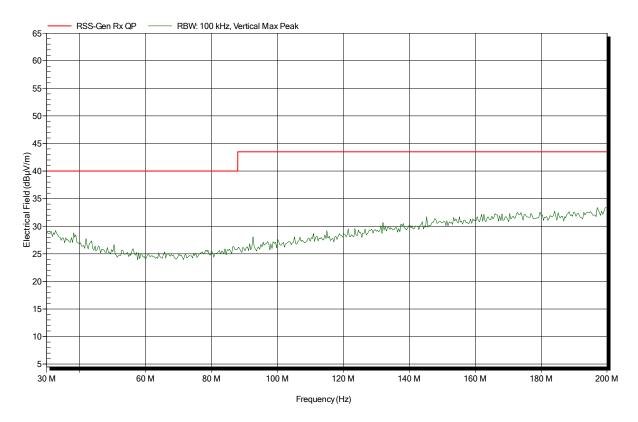
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: RX; Rx hopping Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

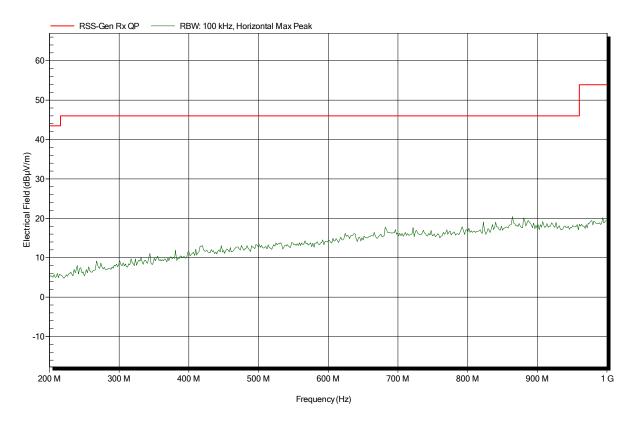
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: RX; Rx hopping Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

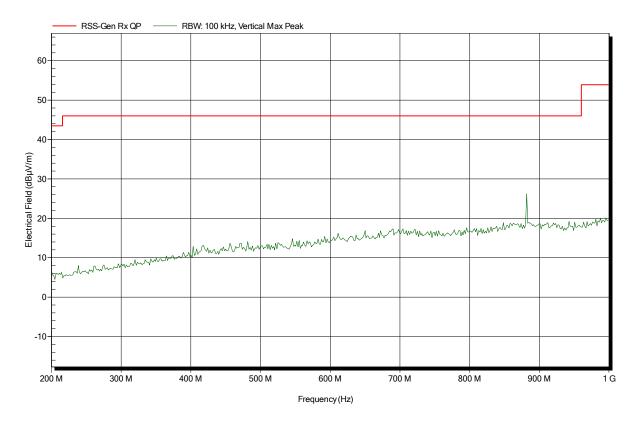
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: RX; Rx hopping Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

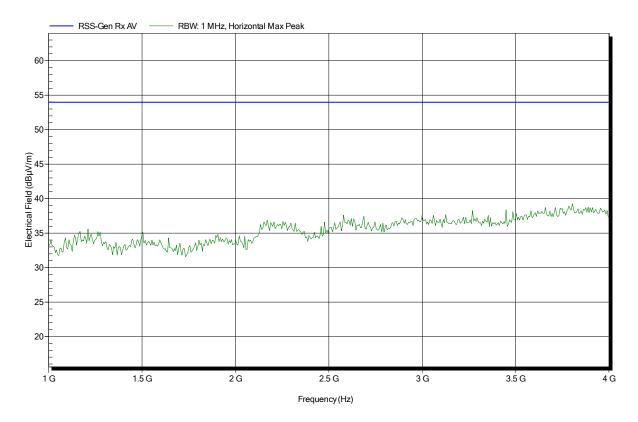
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: RX; Rx hopping Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

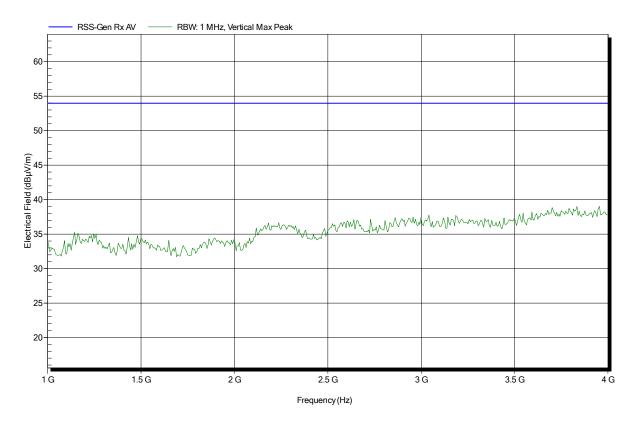
Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: RX; Rx hopping Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

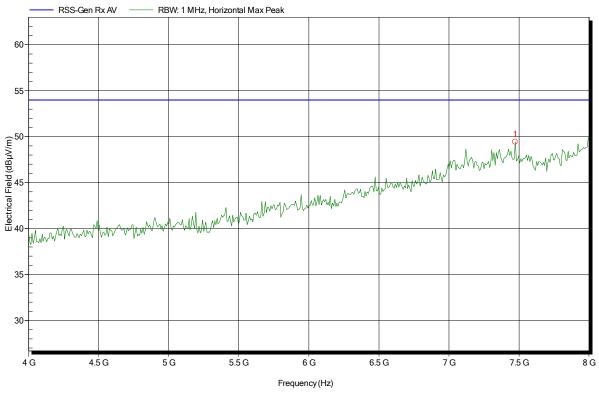
Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: RX; Rx hopping Test Date: 2017-03-27

Note:

Index 4



Frequency 7.472 GHz Peak 49.42 dBµV/m Peak Limit 53.98 dBµV/m Peak Difference -4.56 dB Peak Status Pass



Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

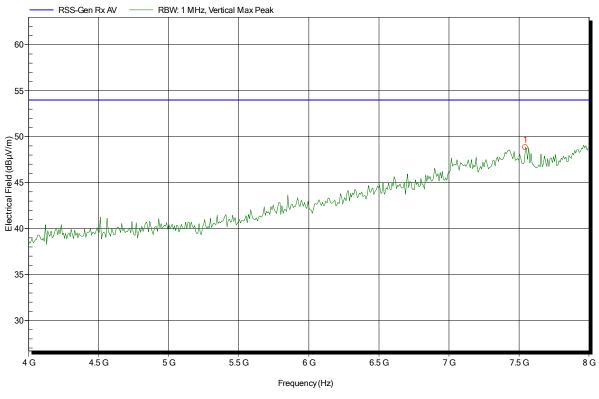
Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: RX; Rx hopping Test Date: 2017-03-27

Note:

Index 6



Frequency 7.544 GHz Peak 48.83 dBµV/m Peak Limit 53.98 dBµV/m Peak Difference -5.15 dB Peak Status Pass



Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

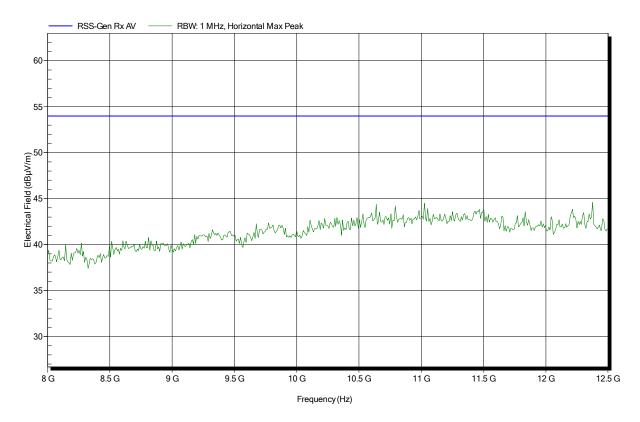
Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m Mode: RX; Rx hopping Test Date: 2017-03-27

Note:





Project number: G0M-1703-6374

Applicant: Liftup A/S EUT Name: Remote Model: 104016

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Test Conditions: Tnom: 20°C, Vnom: 3.0V

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m Mode: RX; Rx hopping Test Date: 2017-03-27

Note:

