

FCC TEST REPORT FCC 47 CFR Part 15C Industry Canada RSS-247 Digital transmission systems operating within the 2400 – 2483.5 MHz band	
Report Reference No.	G0M-1505-4755-TFC247BL-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	Spectralink Europe ApS
Address	Langmarksvej 34 8700 Horsens DENMARK
Test specification: Standard 47 CFR Part 15C RSS-247, Issue 1, 2015-05 RSS-Gen, Issue 4, 2014-11 ANSI C63.10:2013 ANSI C63.4:2014 Test scope..... complete Radio compliance test	
Equipment under test (EUT): Product description DECT handset 7742 Model No. K023a Additional Model(s) DECT handset 7642 (K23b) Brand Name(s) Spectralink Hardware version PCS 04 Firmware / Software version PCS 15J_ FCC-ID: PXA-K023A IC: 4604A-K023A	
Test result	Passed

Possible test case verdicts:

- neither assessed nor tested: N/N
- 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: 2015-06-01

Date (s) of performance of tests: 2015-06-04

Compiled by: Wilfried Treffke

Tested by (+ signature): Wilfried Treffke
(Responsible for Test)

W. Treffke

Approved by (+ signature): Christian Weber
(Head of Lab)

C. Weber

Date of issue: 2015-08-03

Total number of pages: 73

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:**Declaration of changes due to variant creation.**

Applicant: Spectralink Europe ApS
Project No(s): G0M-1505-4752, G0M-1505-4755
EUT (Product): Spectralink 7742 (K023a), Spectralink 7642 (K023b)

The difference between 7742 and 7642 is the keyboard type with corresponding plastic.
7742 use Foil-keyboard with ESD protection circuit.
7642 use Key-buttons with keyfoil.
All other components and firmware are the same.

Date: 2015-06-11


Henrik Birch Rasmussen

Spectralink Europe Aps.
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8700 Horsens
Denmark

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Note:

The test for all radiated spurious emission was performed on the fully version 7742 (K023a)

Version History

Version	Issue Date	Remarks	Revised by
01	2015-08-03	Initial Release	

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1 Equipment (Test item) Description

Description	DECT handset 7742	
Model	K023a	
Additional Model(s)	DECT handset 7642 (K23b)	
Brand Name(s)	Spectralink	
Serial number	None	
Hardware version	PCS 04	
Software / Firmware version	PCS 15J_	
FCC-ID	PXA-K023A	
IC	4604A-K023A	
Equipment type	End product	
Radio type	Transceiver	
Radio technology	Bluetooth 4.0 Low Energy	
Operating frequency range	2402 - 2480 MHz	
Assigned frequency band	2400 - 2483.5 MHz	
Main test frequencies	F _{LOW}	2402 MHz
	F _{MID}	2440 MHz
	F _{HIGH}	2480 MHz
Spreading	Frequency Hopping	
Modulations	GFSK	
Number of channels	40	
Channel spacing	2MHz	
Number of antennas	1	
Radio module	Type	TI Bluetooth HCI module
	Model	CC2564MODN
	Manufacturer	Texas Instrument Inc.
	HW Version	V3.32
	SW Version	7.16
	FCC-ID	Z64-2564N
	IC	4511-2564N
Antenna	Type	integrated
	Model	47948
	Manufacturer	MOLEX
	Gain	-1 (manufacturer declaration)
Manufacturer	Spectralink Europe ApS Langmarksvej 34 8700 Horsens DENMARK	

Power supply	V _{NOM}	3.7 VDC (lithium battery)
	V _{MIN}	N/R
	V _{MAX}	N/R
AC/DC-Adaptor	Model	UE08WCP-060100SPA
	Vendor	Fuhua
	Input	110 - 240 VAC
	Output	6,0V 1,0A

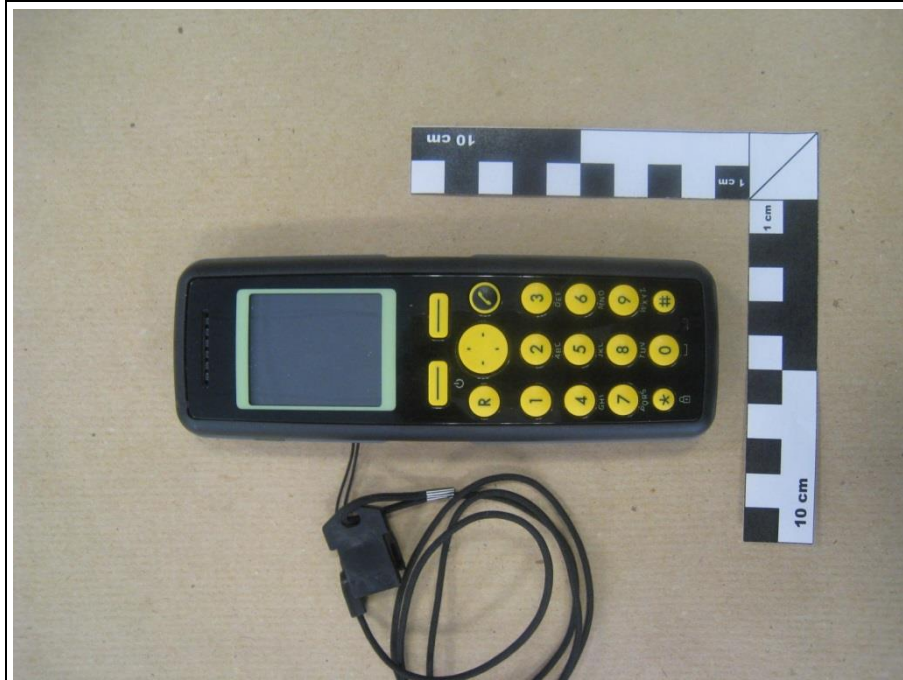
1.1 Photos – Equipment External



EUT 7742 BATTERY CASE



VARIANT 7642 TOP



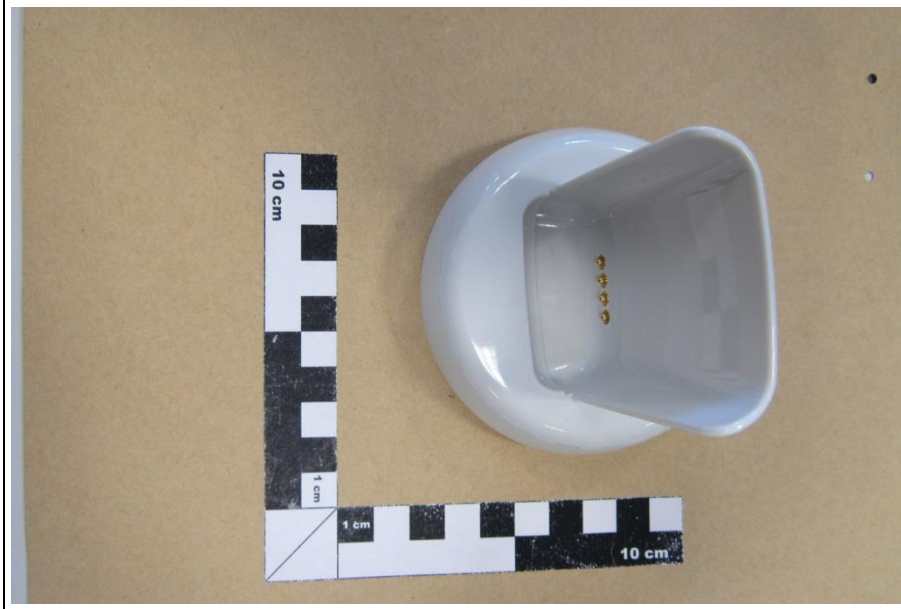
VARIANT 7642 BOTTOM



VARIANT 7642 BATTERY CASE



AE1: Charger, single 84642493, TOP



AE1: Charger, single 84642493, CONNECTOR



AE1: Charger, single 84642493, LABEL



AE2: Charger, USB 84642494, TOP



AE2: Charger, USB 84642494, CONNECTORS



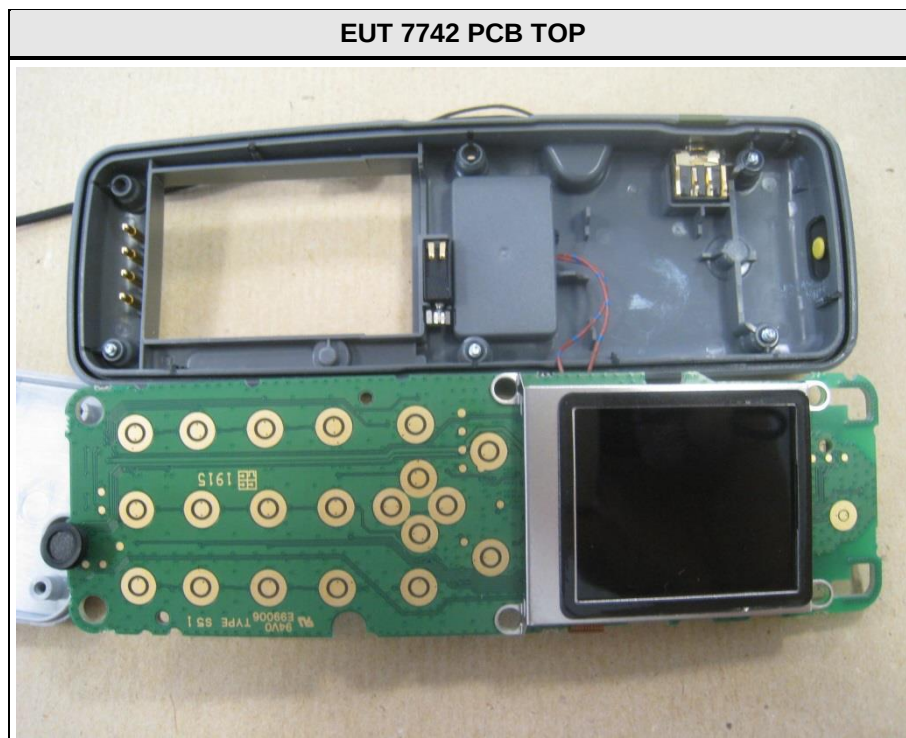
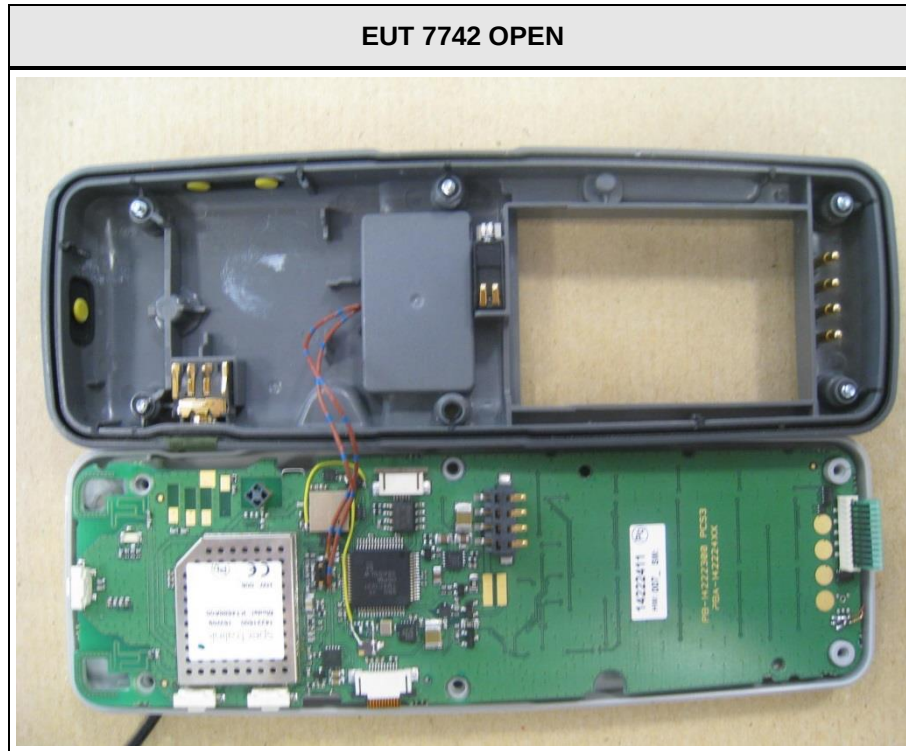
AE2: Charger, USB 84642494, LABEL



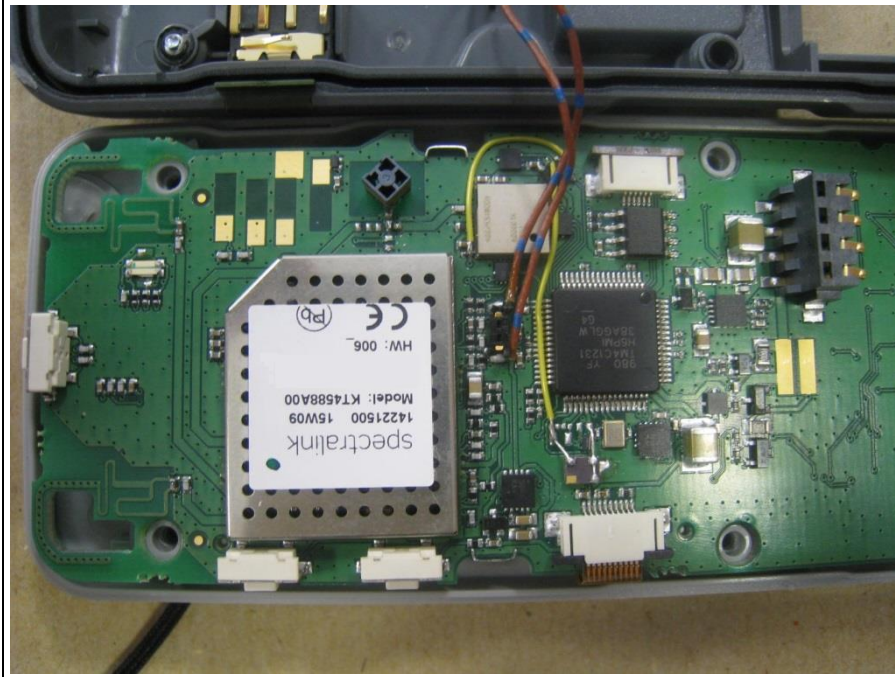
AE3: Power adaptor



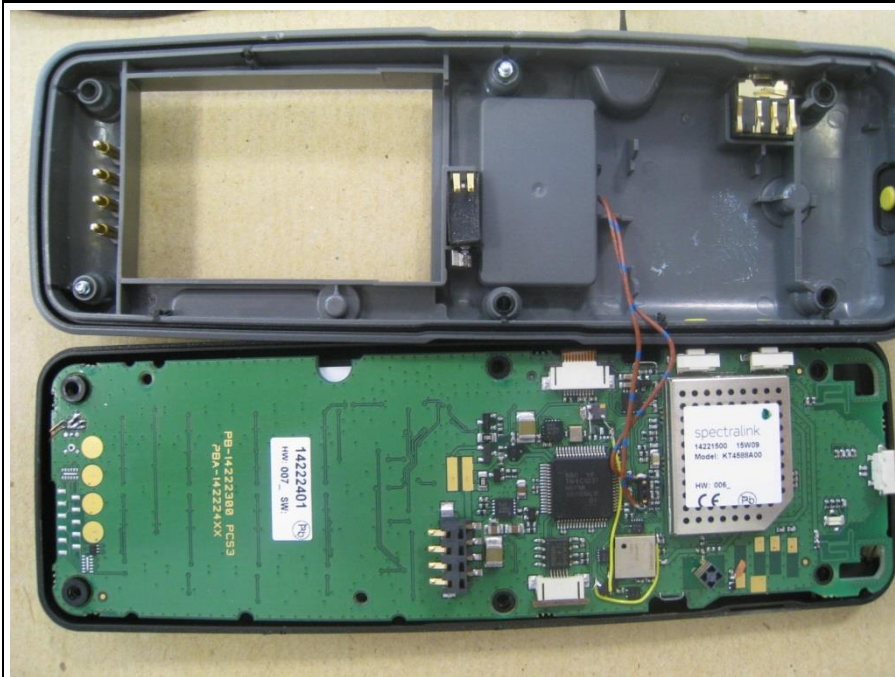
1.1 Photos – Equipment internal



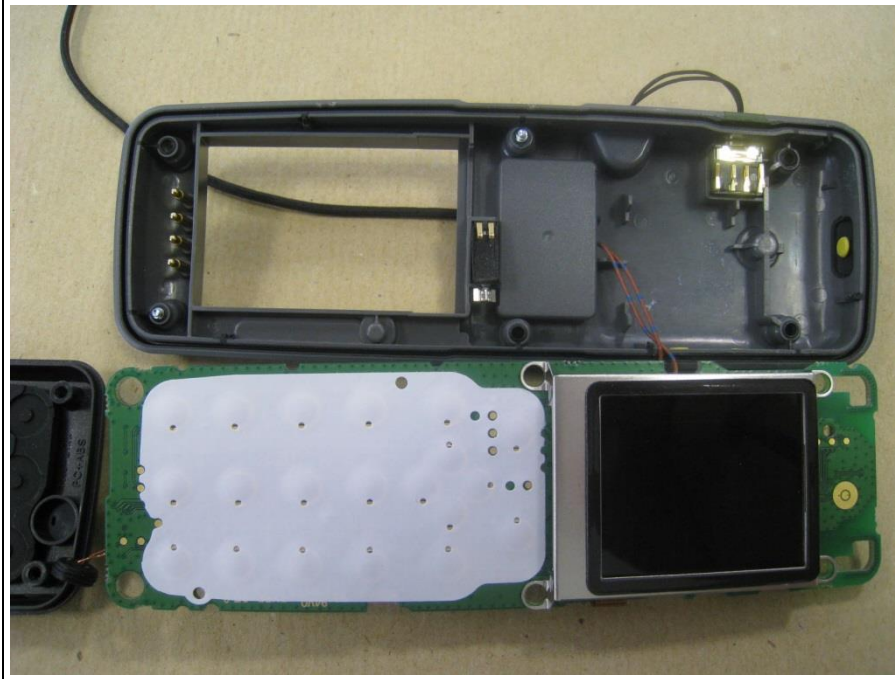
EUT 7742 PCB BOTTOM



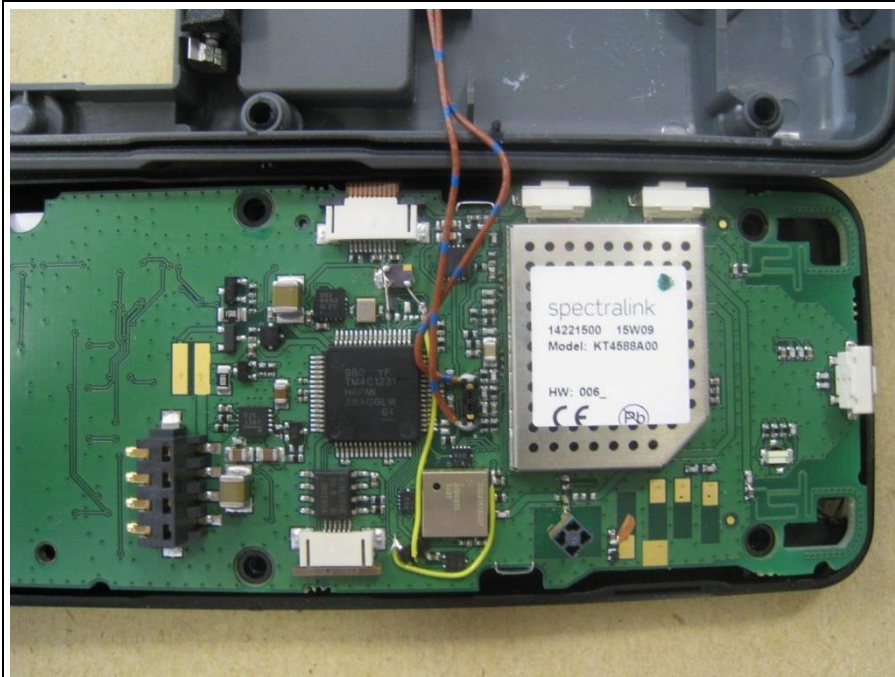
VARIANT 7642 OPEN



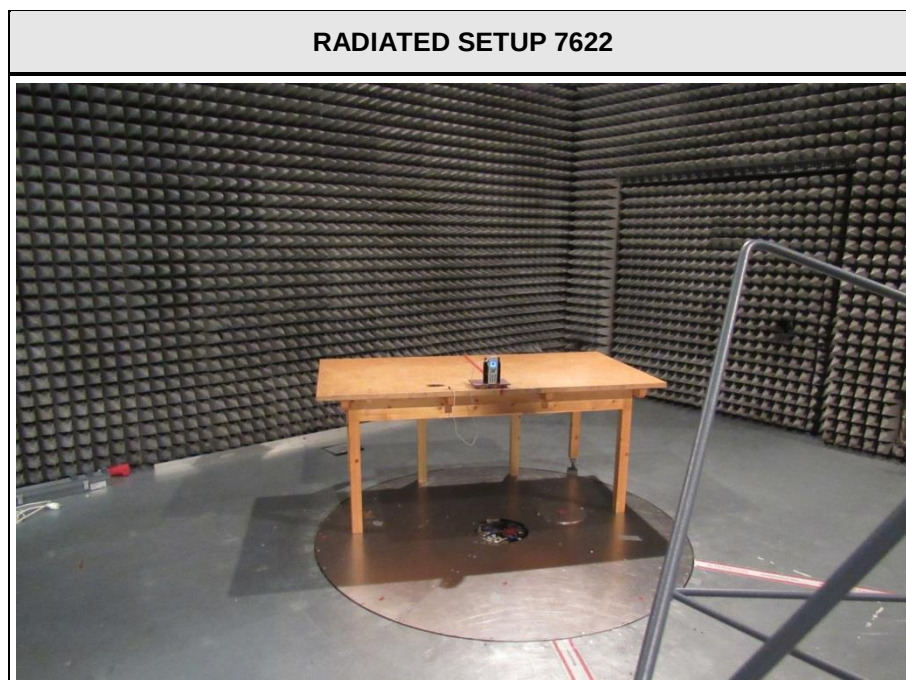
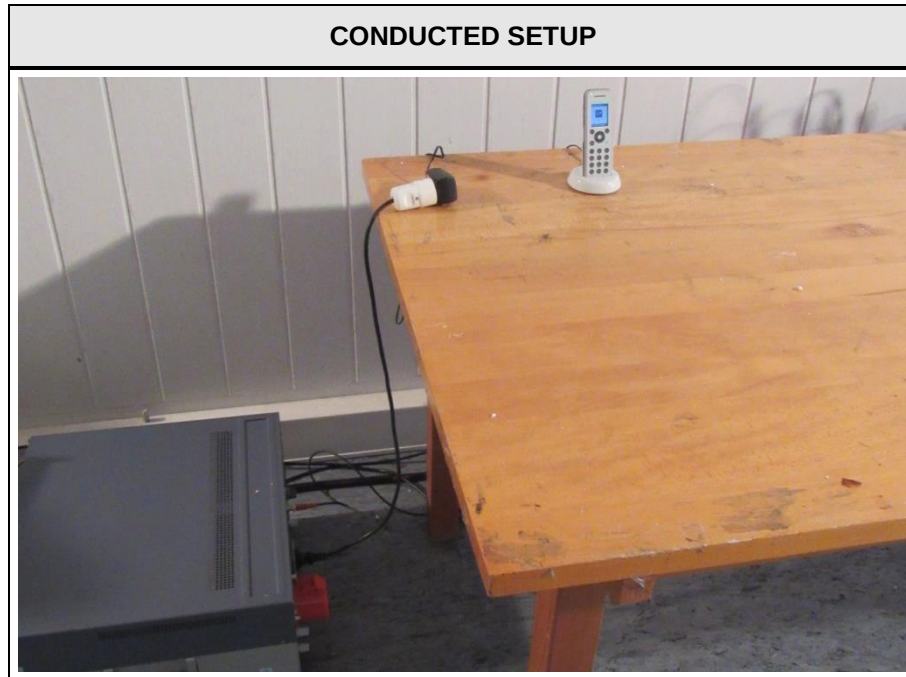
VARIANT 7642 PCB TOP



VARIANT 7642 PCB BOTTOM



1.2 Photos – Test setup



1.4 Supporting Equipment Used During Testing

Product Type*	Device	Manufacturer	Model No.	Comments
AE1	Charger, single	Spectralink	84642493	
AE2	Charger, single, USB	Spectralink	84642494	
AE3	Power adaptor	Fuhua	UE08WCP-060100SPA	

***Note:** Use the following abbreviations:

AE : Auxiliary/Associated Equipment, or

SIM : Simulator (Not Subjected to Test)

CABL : Connecting cables

1.5 Test Modes

Mode #	Description	
Transmit	General conditions:	EUT powered by fully charged battery
	Radio conditions:	Mode = standalone transmit Spreading = Hopping stopped (single hopping channel) Modulation = GFSK Data rate = 1 Mbps Bandwidth = 2 MHz Duty cycle = 100 % Power level = Maximum
Receive	General conditions:	EUT powered by fully charged battery
	Radio conditions:	Mode = standalone receive (scan mode) Spreading = On Modulation = GFSK
AC-Powerline	General conditions:	EUT powered by AC/DC adaptor
	Radio conditions:	Mode = Transmit Spreading = On

1.6 Test Equipment Used During Testing

Measurement Software			
Description	Manufacturer	Name	Version
EMC Test Software	Dare Instruments	Radimation	2014.1.15

Occupied Bandwidth					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2015-02	2016-02

Radiated spurious emissions					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Semi-anechoic chamber	Frankonia	AC 1	EF00062	-	-
Spectrum Analyzer	R&S	FSIQ26	EF00242	2015-04	2016-04
Biconical Antenna	R&S	HK 116	EF00012	2013-02	2016-02
LPD Antenna	R&S	HL 223	EF00187	2014-03	2017-03
LPD Antenna	R&S	HL 025	EF00327	2013-02	2016-02

AC powerline conducted emissions					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
AMN	R&S	ESH2-Z5	EF00182	2010-09	2012-09
AMN	R&S	ESH3-Z5	EF00036	2010-11	2012-11
EMI Test Receiver	R&S	ESCS 30	EF00295	2011-06	2012-06

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:

$$\text{Reading on Analyzer (dB}\mu\text{V)} + \text{A.F. (dB)} = \text{Net field strength (dB}\mu\text{V/m)}$$

Net:

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

Limit:

This is the FCC Class B radiated emission limit (in units of dBμV/m). The FCC limits are given in units of μV/m. The following formula is used to convert the units of μV/m to dBμV/m:

$$\text{Limit (dB}\mu\text{V/m)} = 20 \cdot \log (\mu\text{V/m})$$

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:

$$\begin{array}{rclclcl} \text{Reading} & + & \text{AF} & = & \text{Net Reading} & : & \text{Net reading - FCC limit} & = & \text{Margin} \\ 21.5 \text{ dB}\mu\text{V} & + & 26 \text{ dB} & = & 47.5 \text{ dB}\mu\text{V/m} & : & 47.5 \text{ dB}\mu\text{V/m} - 57.0 \text{ dB}\mu\text{V/m} & = & -9.5 \text{ dB} \end{array}$$

2 Result Summary

FCC 47 CFR Part 15C, IC RSS-247				
Product Specific Standard Section	Requirement – Test	Reference Method	Result	Remarks
RSS-Gen 6.6	Occupied Bandwidth	ANSI C63.10	N/R	Informational only
FCC § 15.247(a)(2) IC RSS-247 § 5.2	6dB Bandwidth	ANSI C63.10	N/R	Note1
FCC § 15.247(b)(3) IC RSS-247 § 5.4	Maximum peak conducted power	ANSI C63.10	N/R	Note1
FCC § 15.247(e) IC RSS-247 § 5.2	Power spectral density	ANSI C63.10	N/R	Note1
47 CFR 15.207 IC RSS-247 § 3.1	AC power line conducted emissions	ANSI C63.4	PASS	
FCC § 15.247(d) IC RSS-247 § 5.5	Band edge compliance	ANSI C63.10	N/R	Note1
FCC § 15.247(d) IC RSS-247 § 5.5	Conducted spurious emissions	ANSI C63.10	N/R	Note1
FCC § 15.247(d) FCC § 15.209 IC RSS-247 § 5.5	Transmitter radiated spurious emissions	ANSI C63.10	PASS	
IC RSS-247 § 3.1	Receiver radiated spurious emissions	ANSI C63.10	PASS	
Remarks: Note1: see report FR3D0402AE Rev.01 for conducted measurement results under FCC-ID Z64-2564HN				

3 Test Conditions and Results

3.1 Test Conditions and Results – Occupied Bandwidth

Occupied Bandwidth acc. to IC RSS-Gen			Verdict: PASS
Test according to measurement reference	Reference Method		
	ANSI C63.10		
Test frequency range	Tested frequencies		
	F _{LOW} / F _{MID} / F _{HIGH}		
Limits			
None (Informational only)			
Test setup			
Spectrum Analyzer EUT			
Test procedure			
1. EUT set to test mode (Communication tester is used if needed) 2. Span set to at least twice the emission spectrum 3. Resolution bandwidth set to 1 % of span 4. Occupied Bandwidth (99 %) measurement with spectrum analyzer built in measurement function			
Test results			
Channel	Frequency [MHz]	Mode	Occupied Bandwidth [kHz]
F _{LOW}	2402	Transmit	1009
F _{MID}	2442	Transmit	1010
F _{HIGH}	2480	Transmit	1009
Comments:			

3.2 Test Conditions and Results – AC power line conducted emissions

Power line conducted emissions acc. FCC 47 CFR 15.207 / IC RSS-Gen				Verdict: PASS	
Test according referenced standards		Reference Method			
		ANSI C63.4			
Fully configured sample scanned over the following frequency range		Frequency range			
		0.15 MHz to 30 MHz			
Points of Application		Application Interface			
AC Mains		LISN			
EUT test mode		AC power line			
Limits and results					
Frequency [MHz]	Quasi-Peak [dBμV]	Result	Average [dBμV]	Result	
0.15 to 5	66 to 56*	PASS	56 to 46*	PASS	
0.5 to 5	56	PASS	46	PASS	
5 to 30	60	PASS	50	PASS	
Comments:					
* Limit decreases linearly with the logarithm of the frequency.					

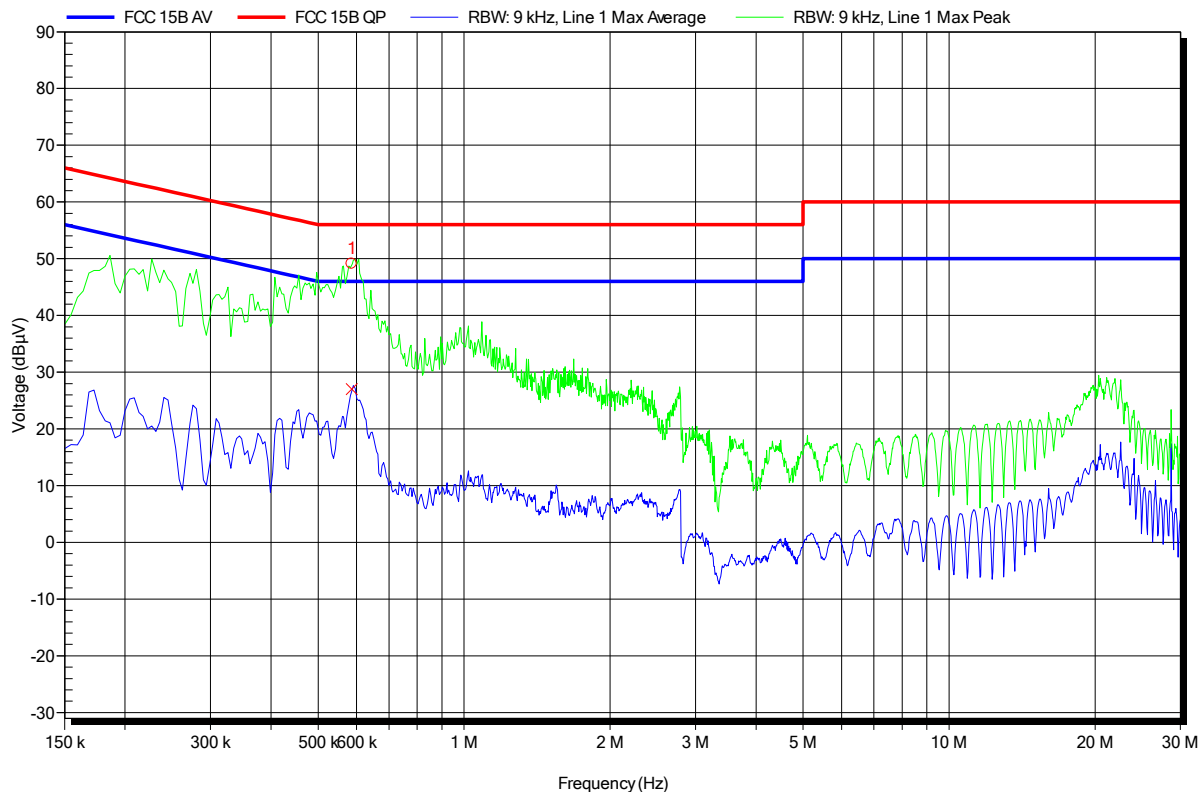
Conducted Emissions

EMI voltage test in the ac-mains according to FCC 15B

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742/7642
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Klein
 Test Conditions: Tnom: 23°C, Unom: 120 VAC
 LISN: ESH2-Z5 L
 Mode: 7742, charging in cradle, DECT link to Base/Companion,
 BT Classic to Headset
 Test Date: Montag, 1. Juni 2015
 Note:

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Frequency	Average	Average Limit	Average Difference	Average Status
586,5 kHz	27,03 dBμV	46 dBμV	-18,97 dB	Pass

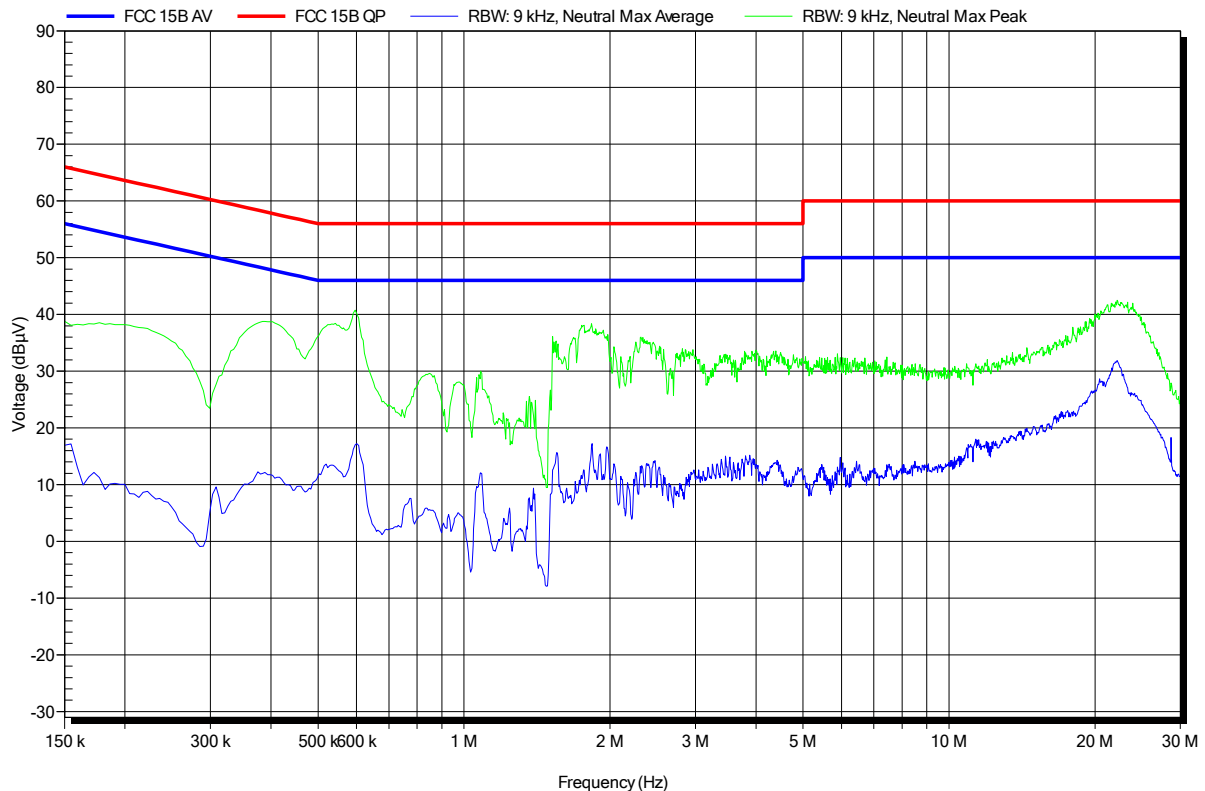
Conducted Emissions

EMI voltage test in the ac-mains according to FCC 15B

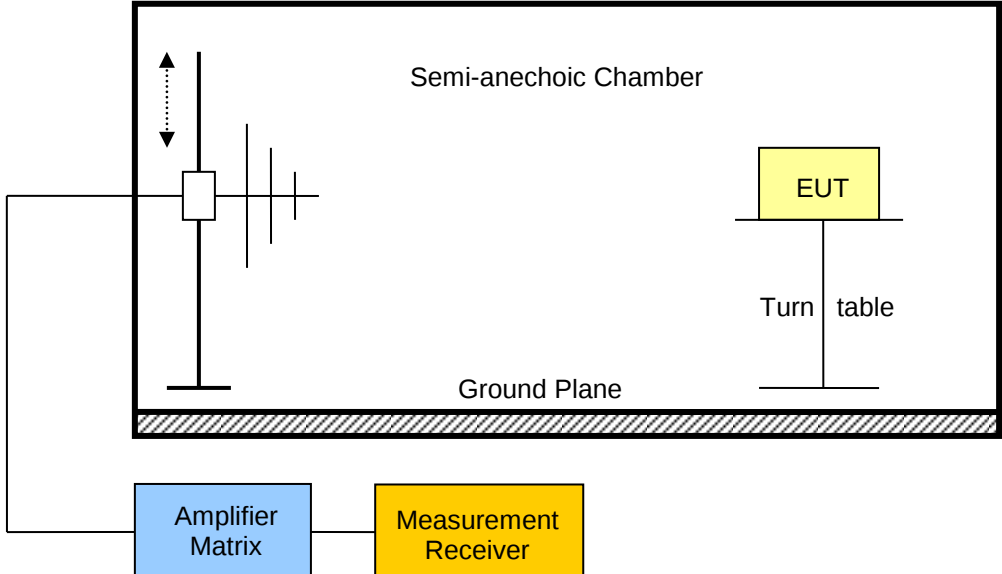
Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
EUT Name: DECT handset 7742/7642
Model: K023a
Test Site: Eurofins Product Service GmbH
Operator: Mr. Klein
Test Conditions: Tnom: 23°C, Unom: 120 VAC
LISN: ESH2-Z5 N
Mode: 7742, charging in cradle, DECT link to Base/Companion,
BT Classic to Headset
Test Date: Montag, 1. Juni 2015
Note:

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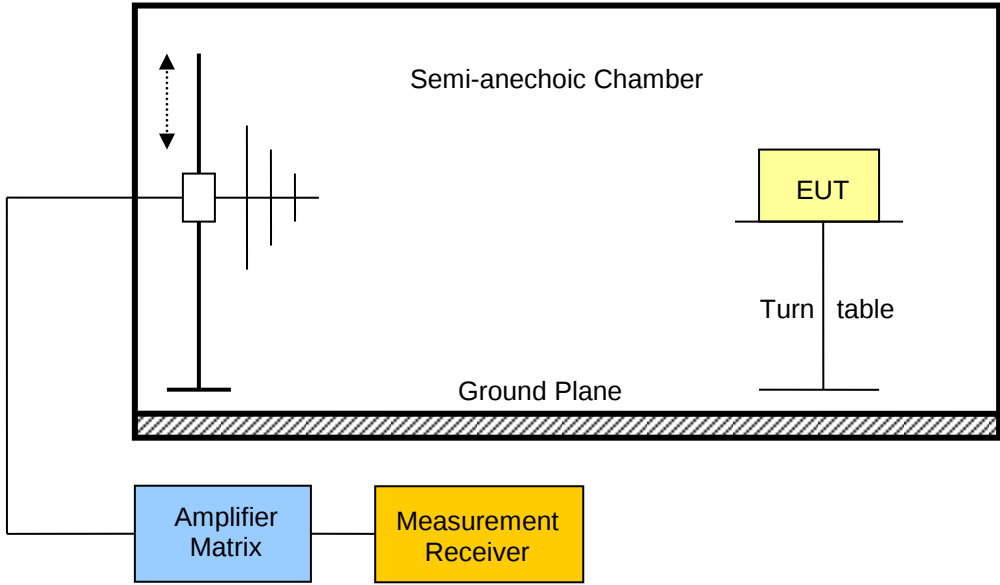


3.4 Test Conditions and Results – Transmitter radiated emissions

Transmitter radiated emissions acc. FCC 47 CFR 15.247 / IC RSS-247				Verdict: PASS
Test according referenced standards		Reference Method		
		FCC 15.247(d) / IC RSS-247 5.5		
Test according to measurement reference		Reference Method		
		ANSI C63.10		
Test frequency range		Tested frequencies		
		30 MHz – 10 th Harmonic		
Limits				
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
Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)). When average radiated emission measurements are specified, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.				
Test setup				
				

Test procedure									
1. EUT set to test 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 within restricted bands									
Test results									
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dB μ V/m]	Det.	Pol.	Limit [dB μ V/m]	Limit dist. [m]*	Margin [dB]
F _{LOW}	2402	Transmit	4804	54.22	pk	ver	74.00	1	-19.78
F _{LOW}	2402	Transmit	4804	50.45	avg	ver	54.00	1	-03.55
F _{LOW}	2402	Transmit	4805	55.62	pk	hor	74.00	1	-18.38
F _{LOW}	2402	Transmit	4805	51.44	avg	hor	54.00	1	-02.56
F _{LOW}	2402	Transmit	14412	63.53	pk	hor	95.00	1	-31.47
F _{MID}	2440	Transmit	2377.6	45.71	pk	ver	74.00	3	-28.29
F _{MID}	2440	Transmit	4880	48.76	pk	ver	74.00	1	-25.24
F _{MID}	2440	Transmit	4881	52.28	pk	hor	74.00	1	-21.72
F _{MID}	2440	Transmit	4881	47.87	avg	hor	54.00	1	-06.13
F _{HIGH}	2480	Transmit	2483.5	53.17	pk	hor	74.00	3	-20.83
F _{HIGH}	2480	Transmit	2483.5	41.73	RMS	hor	54.00	3	-12.27
F _{HIGH}	2480	Transmit	2483.5	53.08	pk	ver	74.00	3	-20.92
F _{HIGH}	2480	Transmit	2483.5	41.87	RMS	ver	54.00	3	-12.13
F _{HIGH}	2480	Transmit	4960	56.17	pk	hor	74.00	1	-17.83
F _{HIGH}	2480	Transmit	4960	52.65	avg	hor	54.00	1	-01.35
F _{HIGH}	2480	Transmit	4960	58.01	pk	ver	74.00	1	-15.99
F _{HIGH}	2480	Transmit	4960	51.53	avg	ver	54.00	1	-02.47
Comments: * Physical distance between EUT and measurement antenna.									

3.5 Test Conditions and Results – Receiver radiated emissions

Receiver radiated emissions acc. IC RSS-247				Verdict: PASS
Test according referenced standards	Reference Method			
	IC RSS-247 3.1			
Test according to measurement reference	Reference Method			
	ANSI C63.10			
Test frequency range	Tested frequencies			
	30 MHz – 5 th Harmonic			
EUT test mode	Receive			
Limits				
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
Test setup				
				

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]	Emission Level [db μ V/m]	Polarisation	Det.	Limit [db μ V/m]	Margin [db μ V/m]
F _{MID}	2440	4808	47.55	hor	pk	53.98	-6.43 dB
F _{MID}	2440	4808	48.71	ver	pk	53.98	-5.27 dB
F _{MID}	2440	11040	43.46	hor	pk	53.98	-10.52 dB
Comments:							

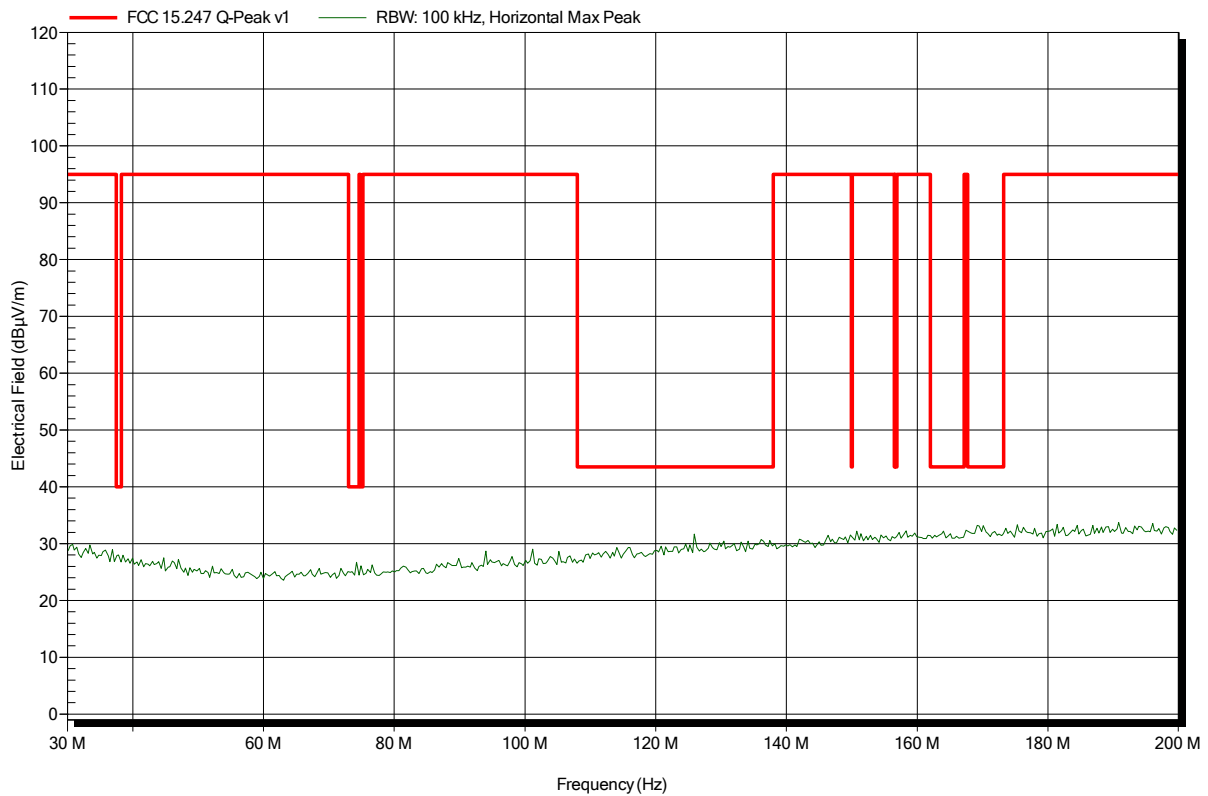
ANNEX A Transmitter radiated spurious emissions

Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; #A01, BTLE; 2402 MHz
Test Date:	2015-06-04
Note:	

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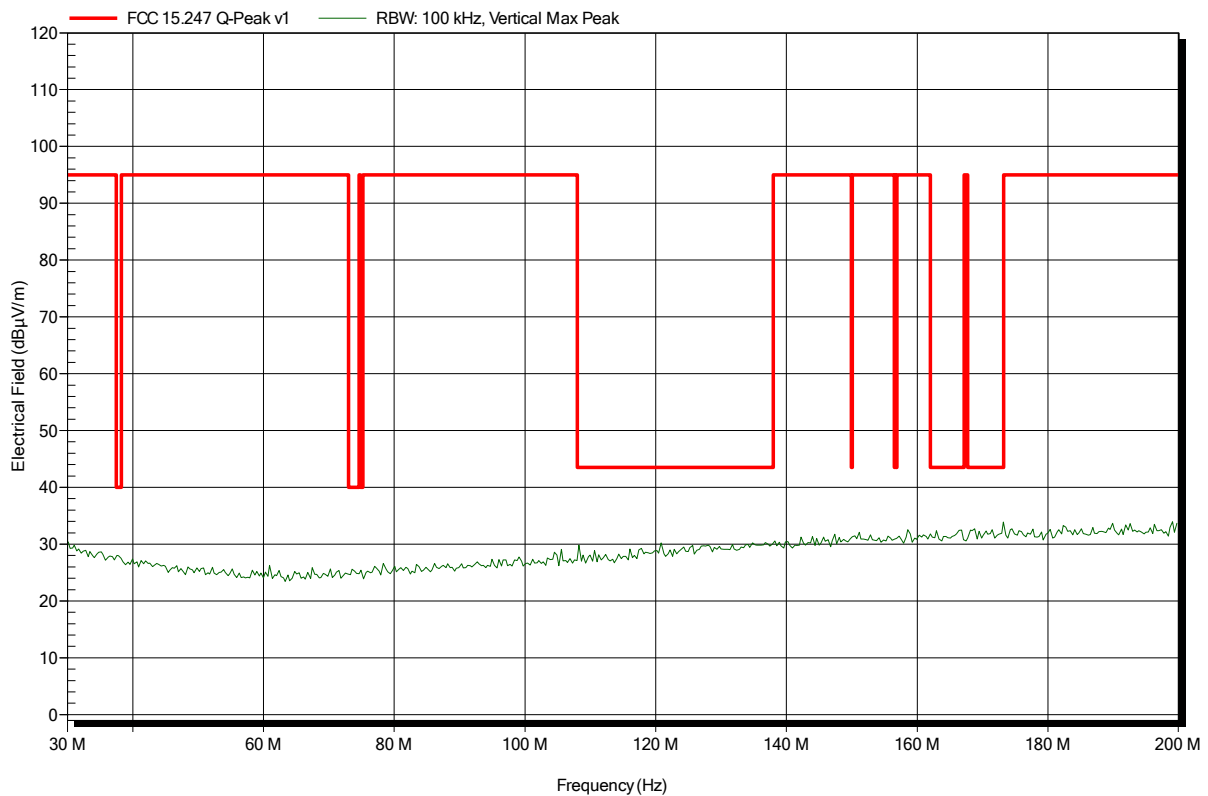


Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; #A01, BTLE; 2402 MHz
Test Date:	2015-06-04
Note:	

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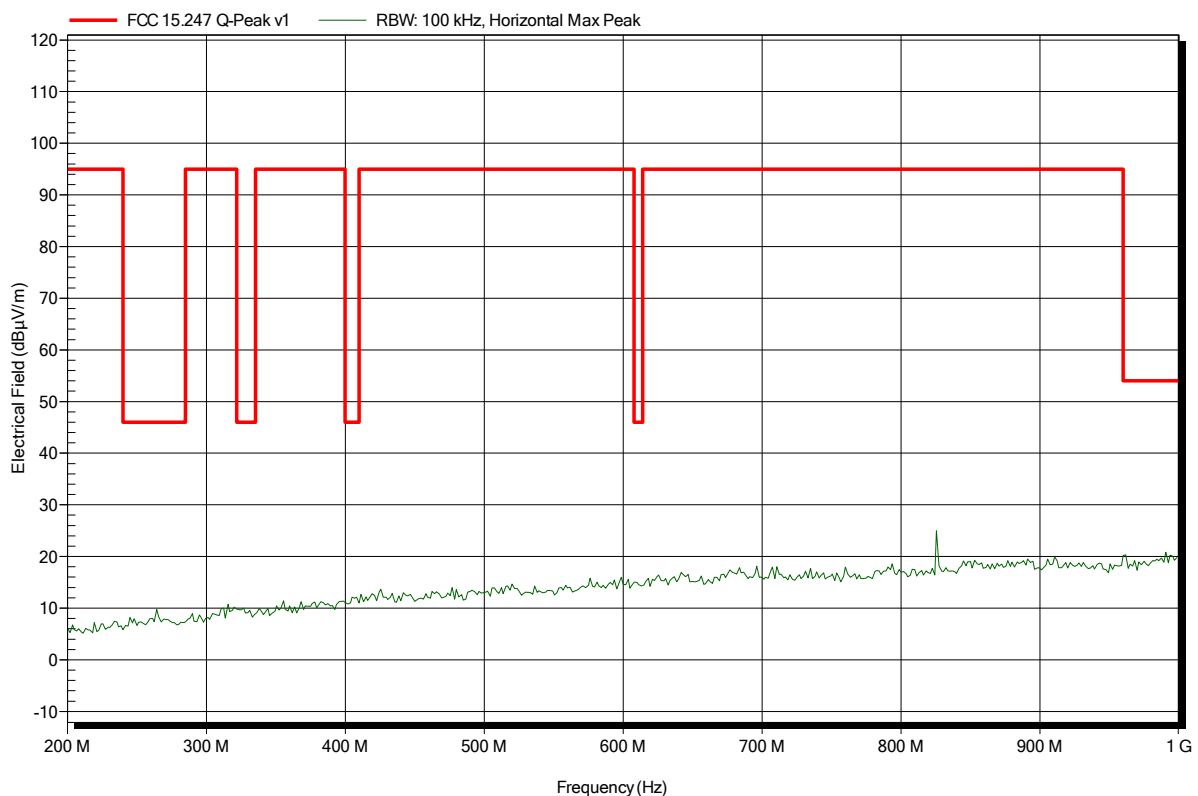


Spurious emissions according to FCC 15.247

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Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; #A01, BTLE; 2402 MHz
Test Date:	2015-06-04
Note:	

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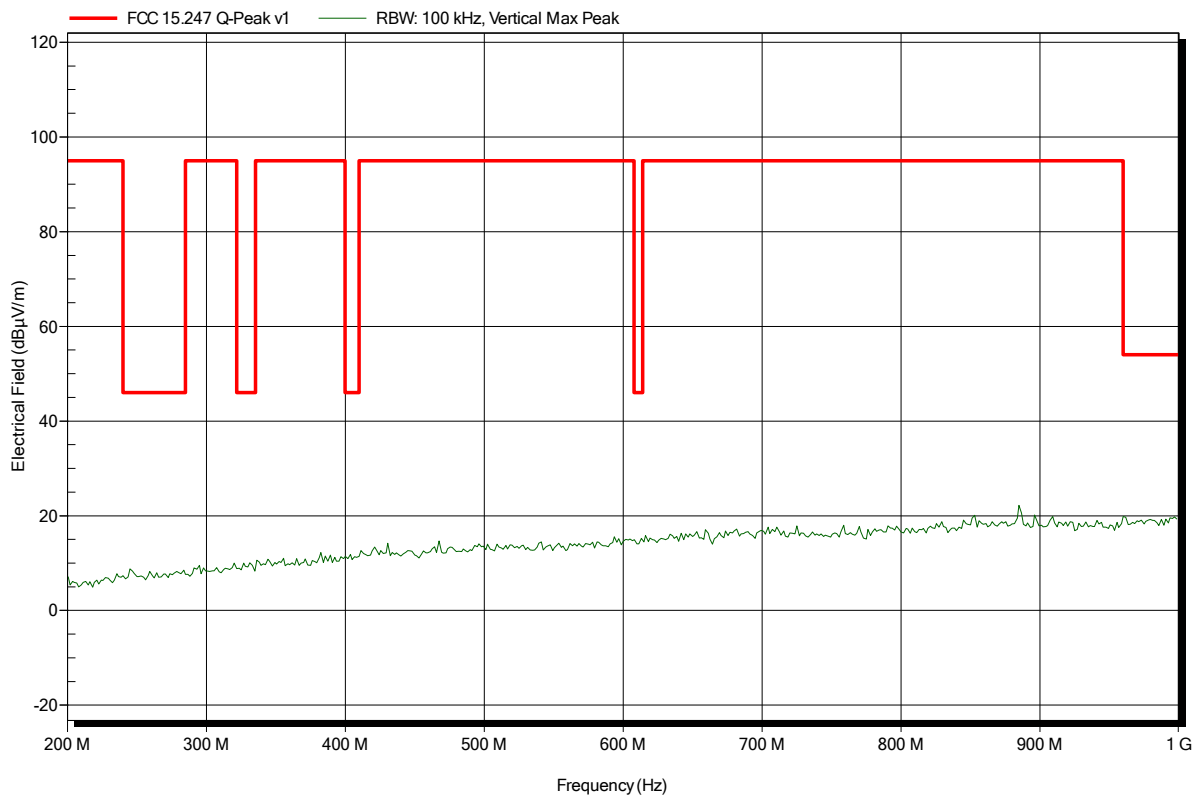


Spurious emissions according to FCC 15.247

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 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Rohde & Schwarz HL 223, Vertical
 Measurement distance: 3 m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note:

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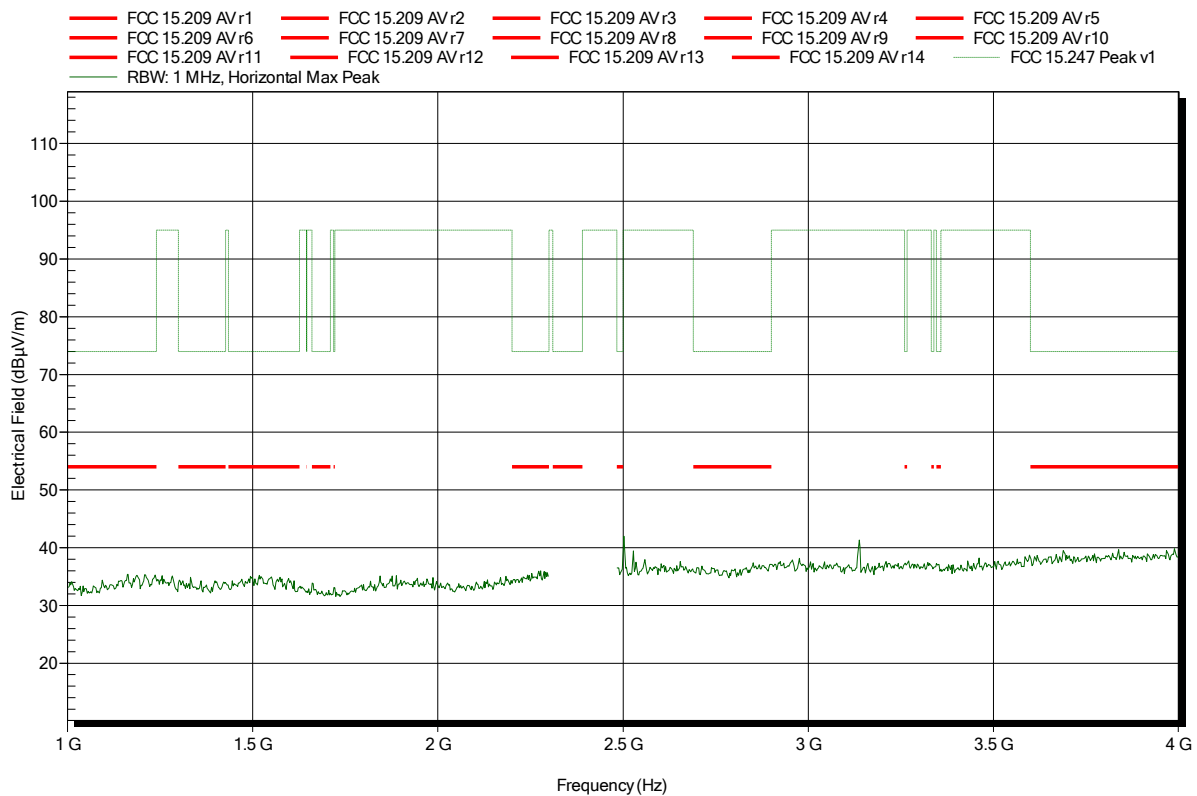


Spurious emissions according to FCC 15.247

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 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note:

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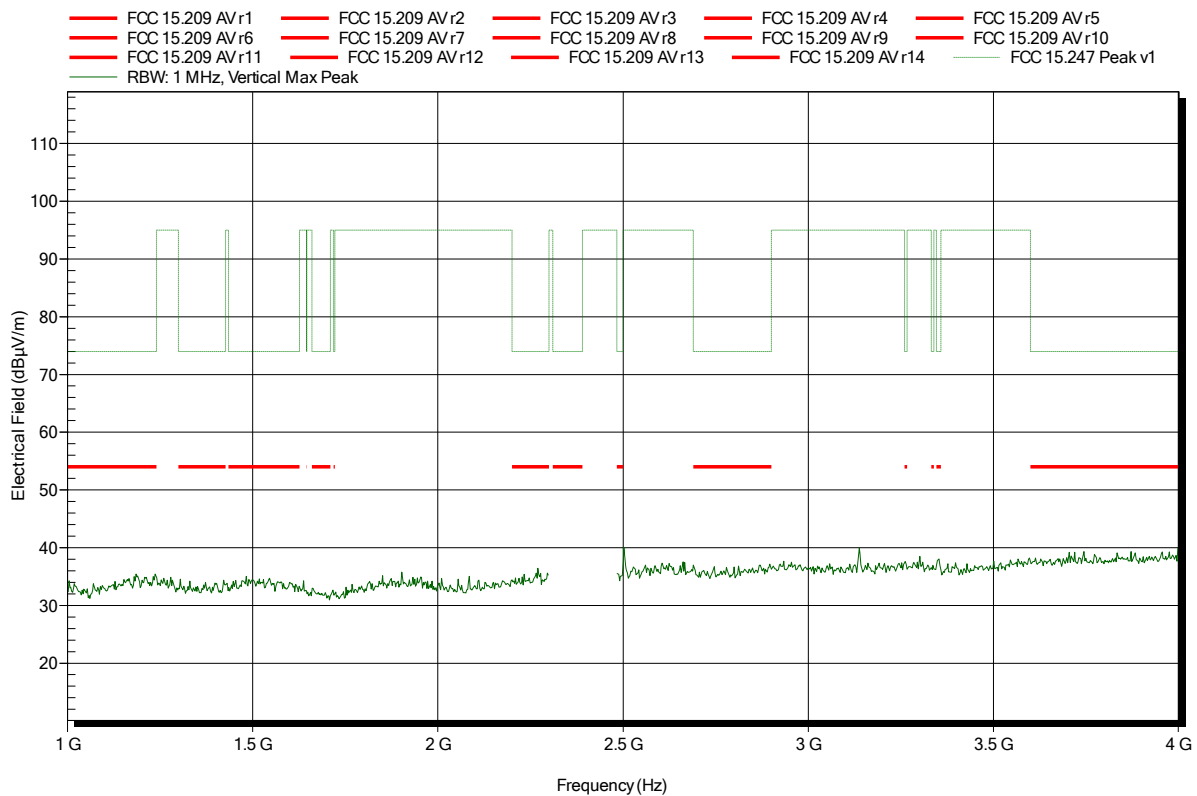


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note:

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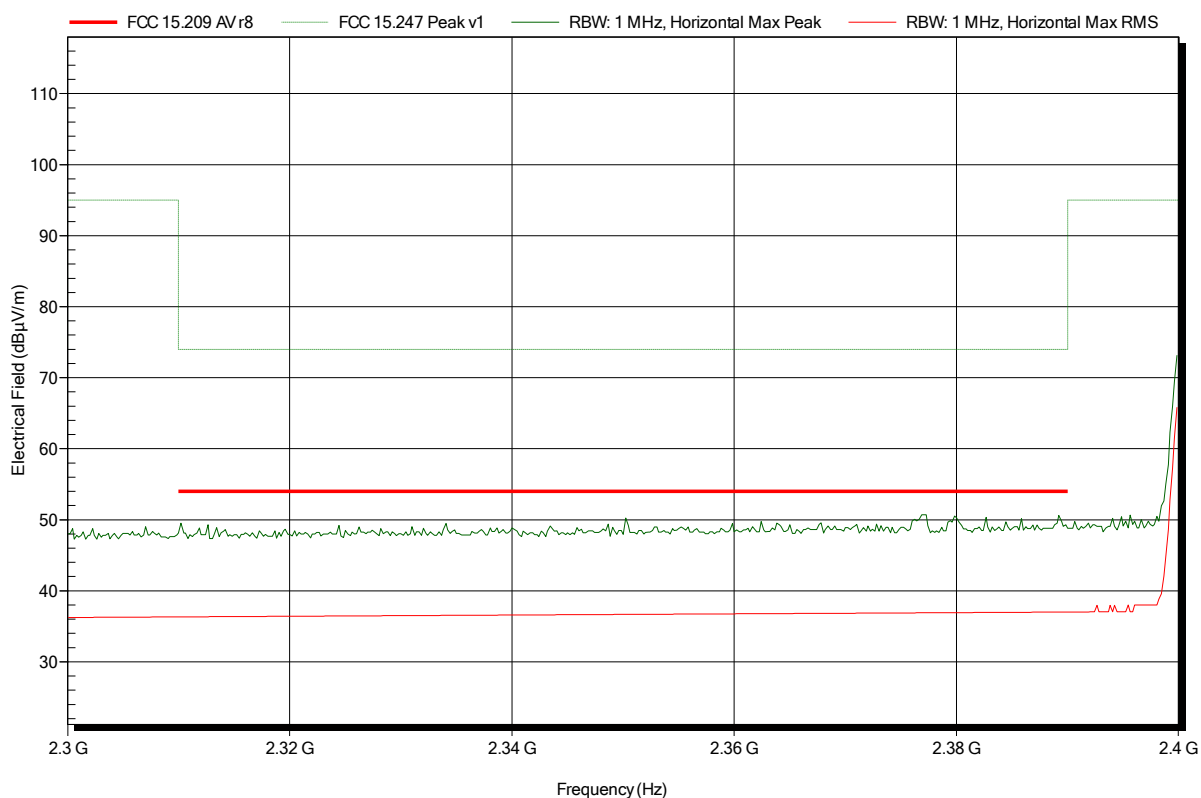


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note: lower bandedge

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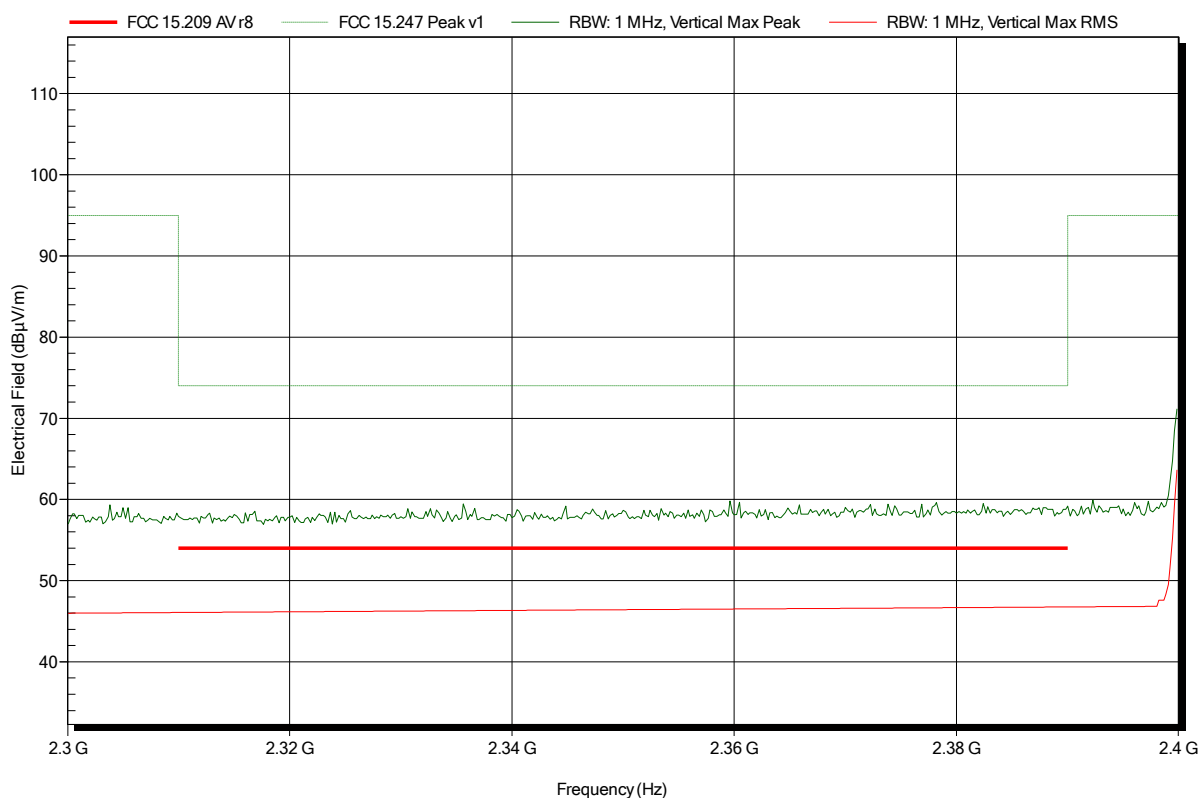


Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note: lower bandedge

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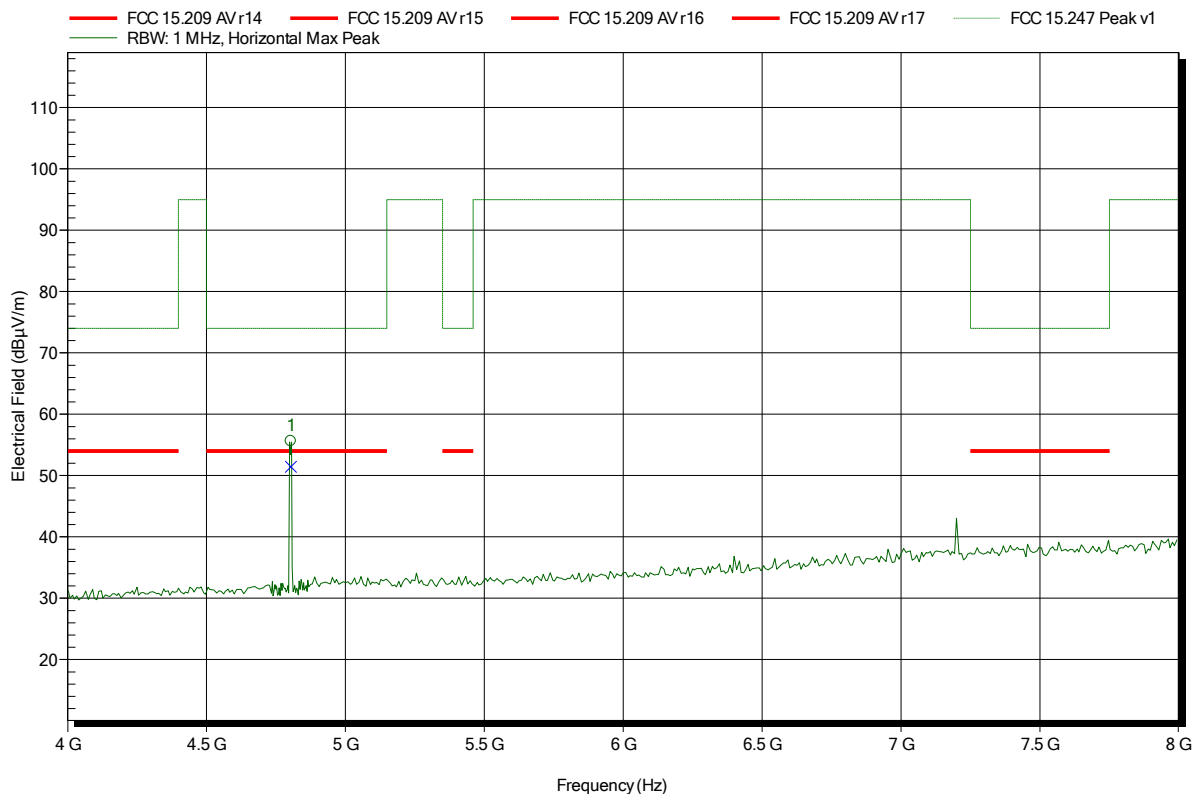


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note:

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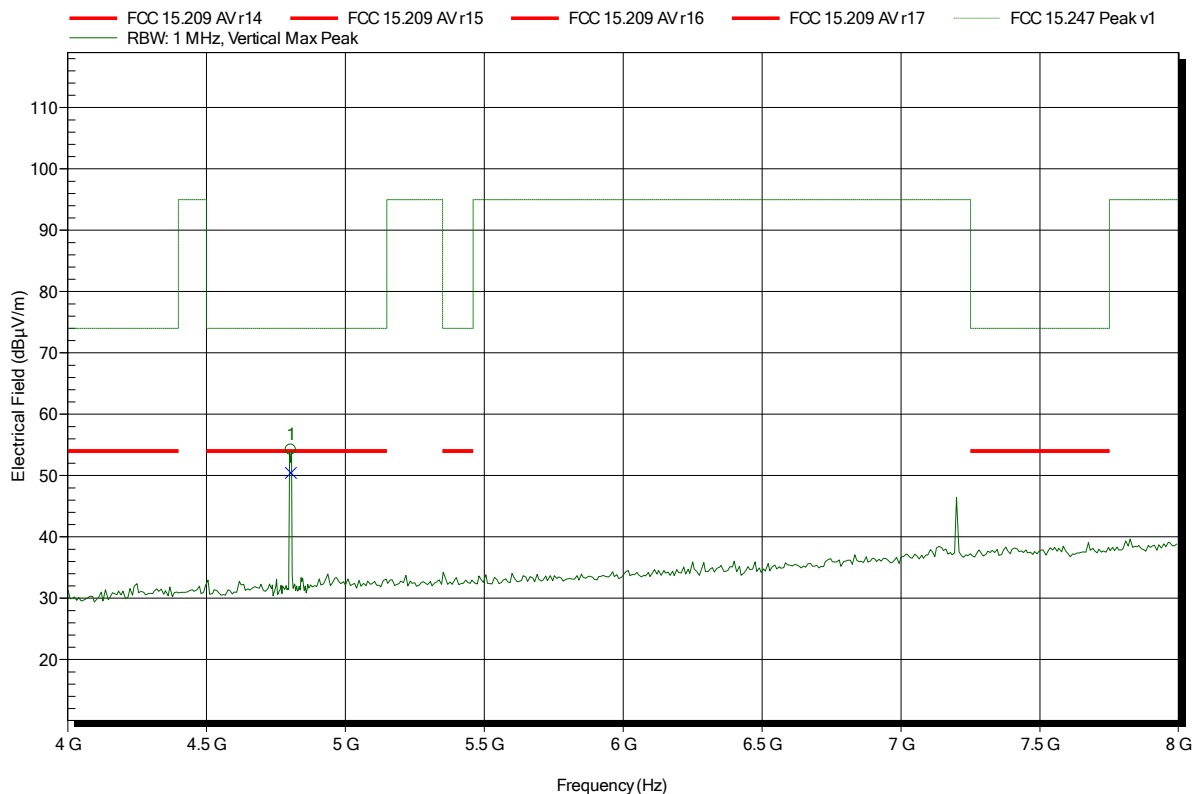
Frequency 4.805 GHz	Peak 55.62 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -18.38 dB	Status Pass
Frequency 4.805 GHz	Average 51.44 dBµV/m	Average Limit 54 dBµV/m	Average Difference -2.56 dB	Average Status Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note:

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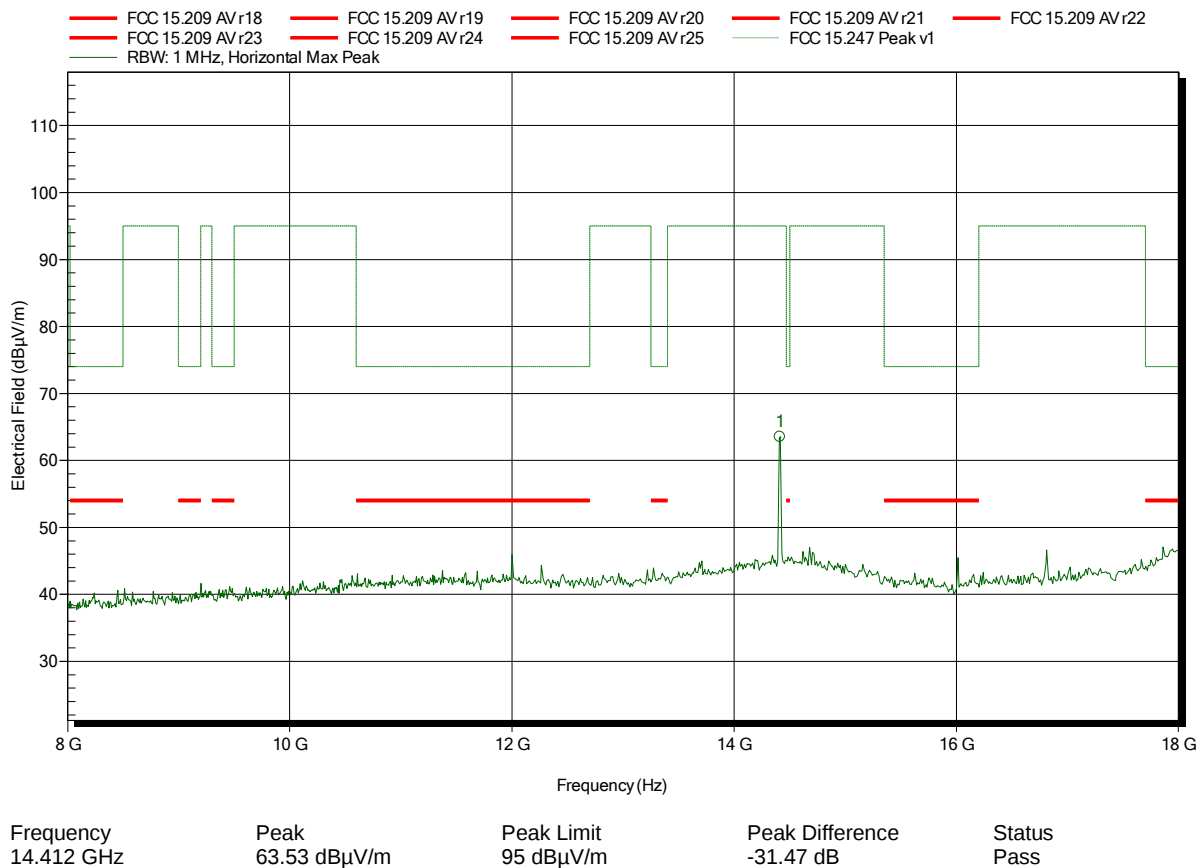
Frequency 4.804 GHz	Peak 54.22 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -19.78 dB	Status Pass
Frequency 4.804 GHz	Average 50.45 dBµV/m	Average Limit 54 dBµV/m	Average Difference -3.55 dB	Average Status Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note:

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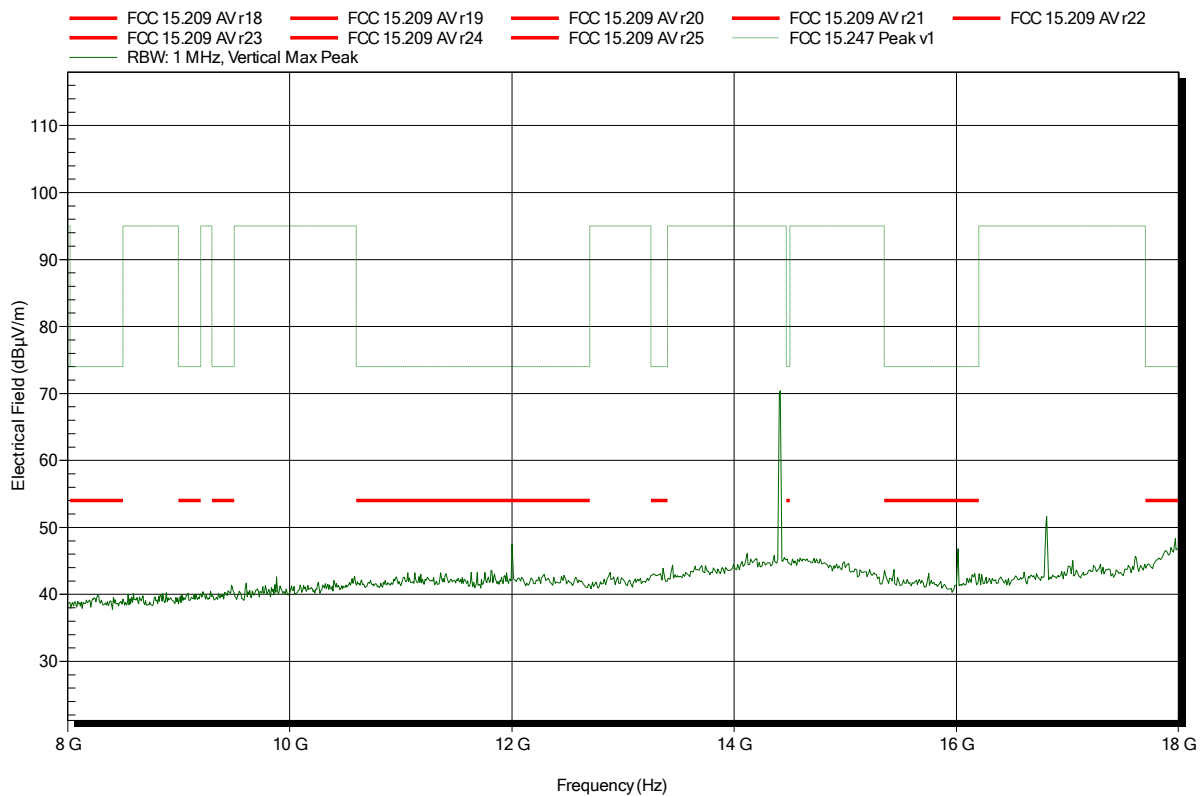


Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2402 MHz
 Test Date: 2015-06-04
 Note:

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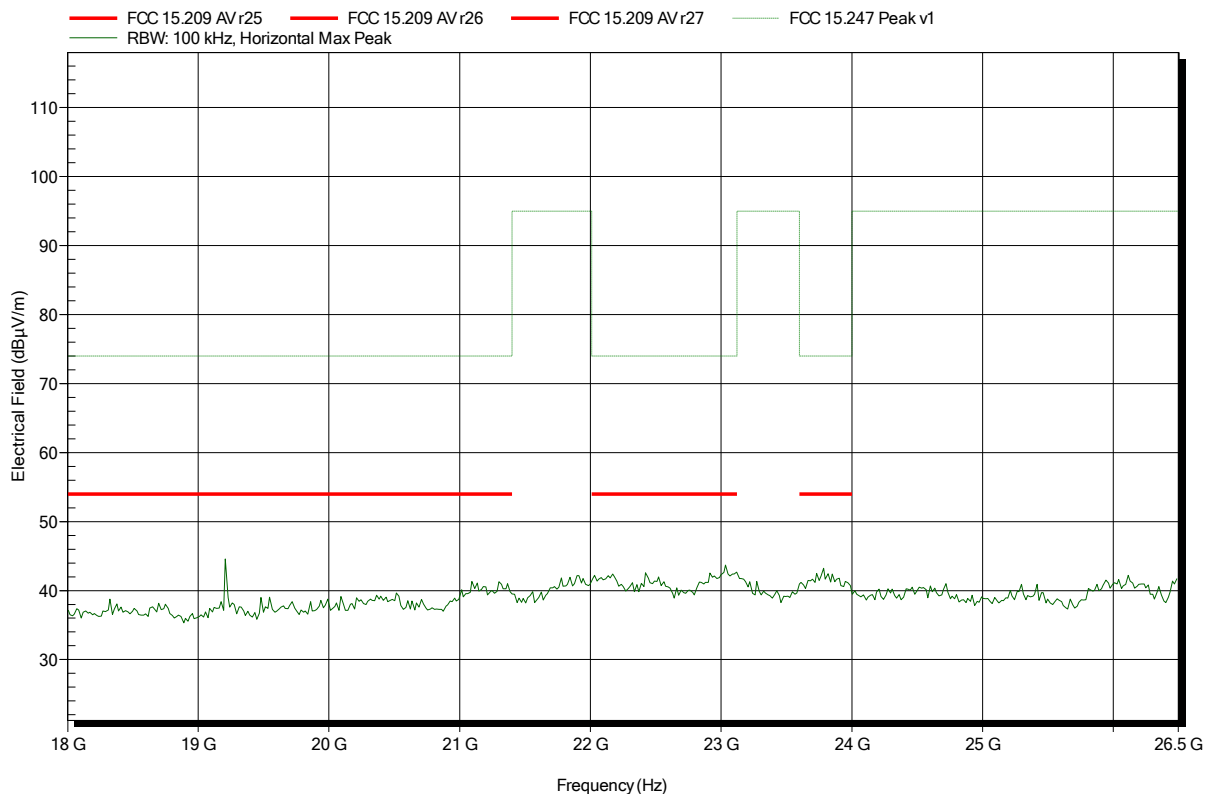


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; #A01, BTLE; 2402 MHz
Test Date:	2015-06-04
Note:	

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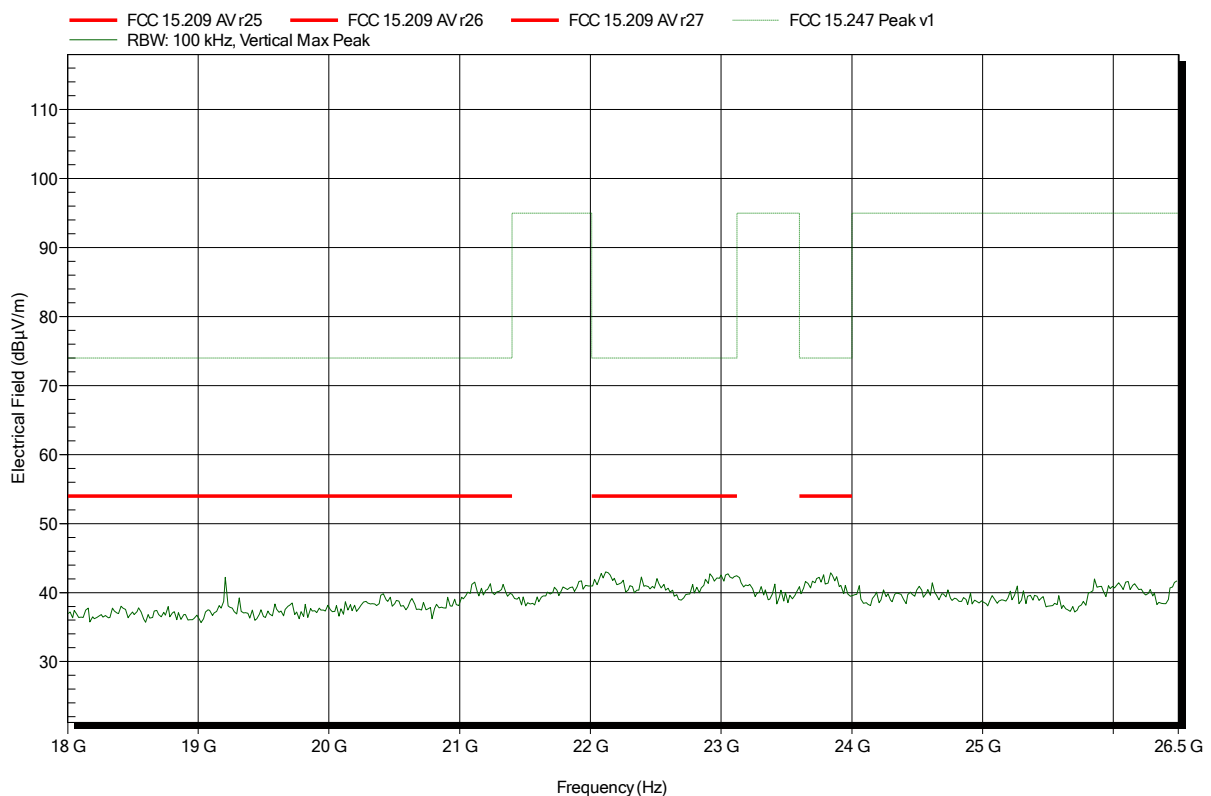


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; #A01, BTLE; 2402 MHz
Test Date:	2015-06-04
Note:	

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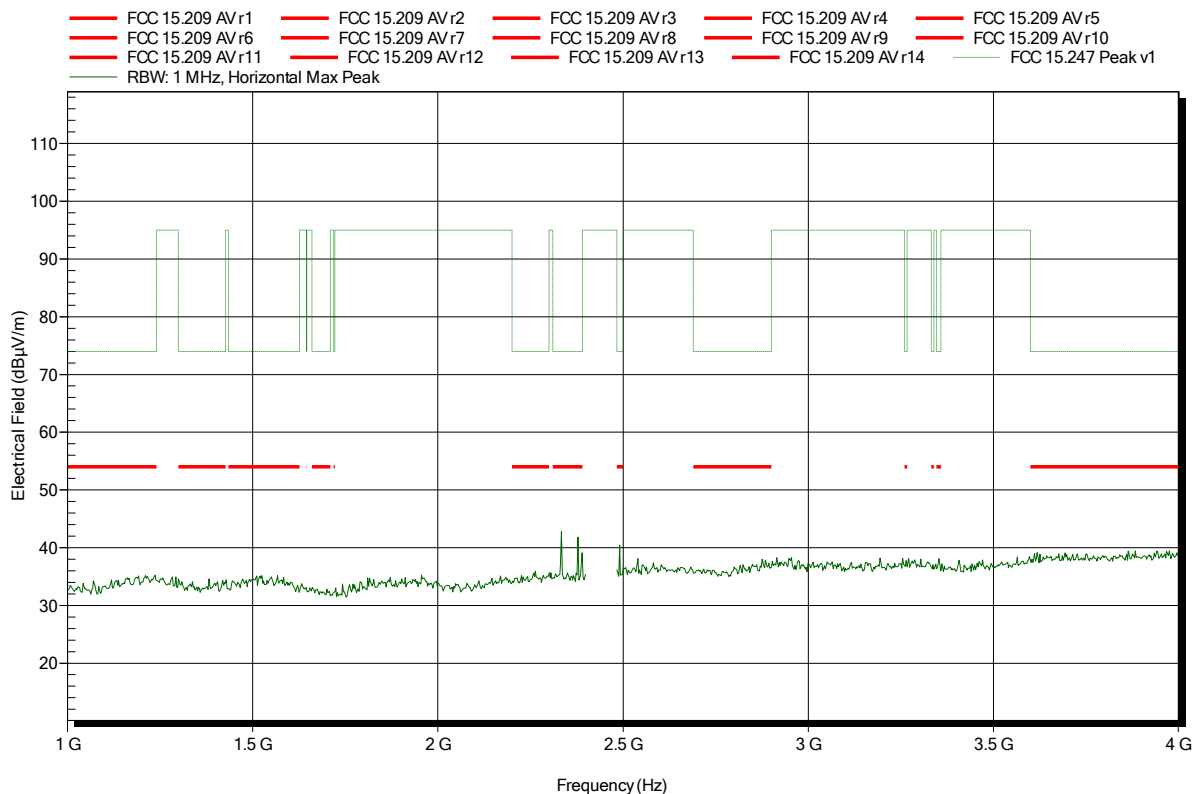


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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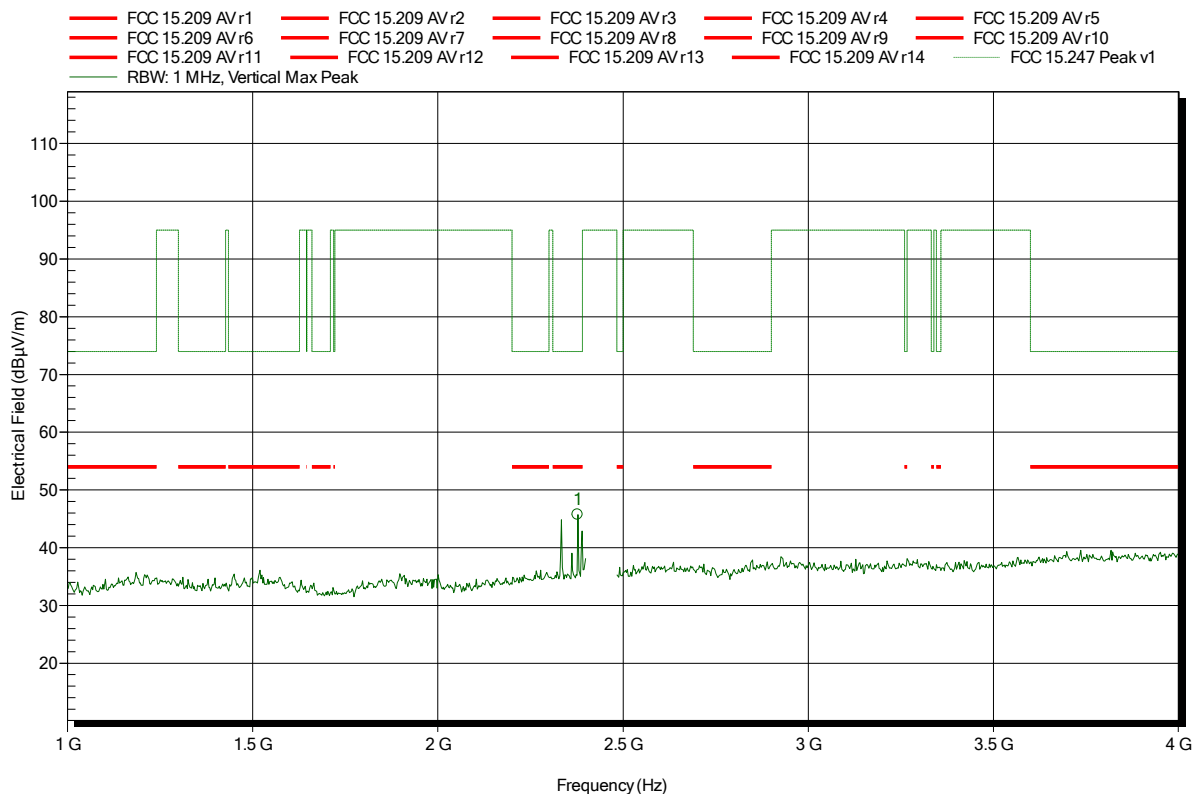


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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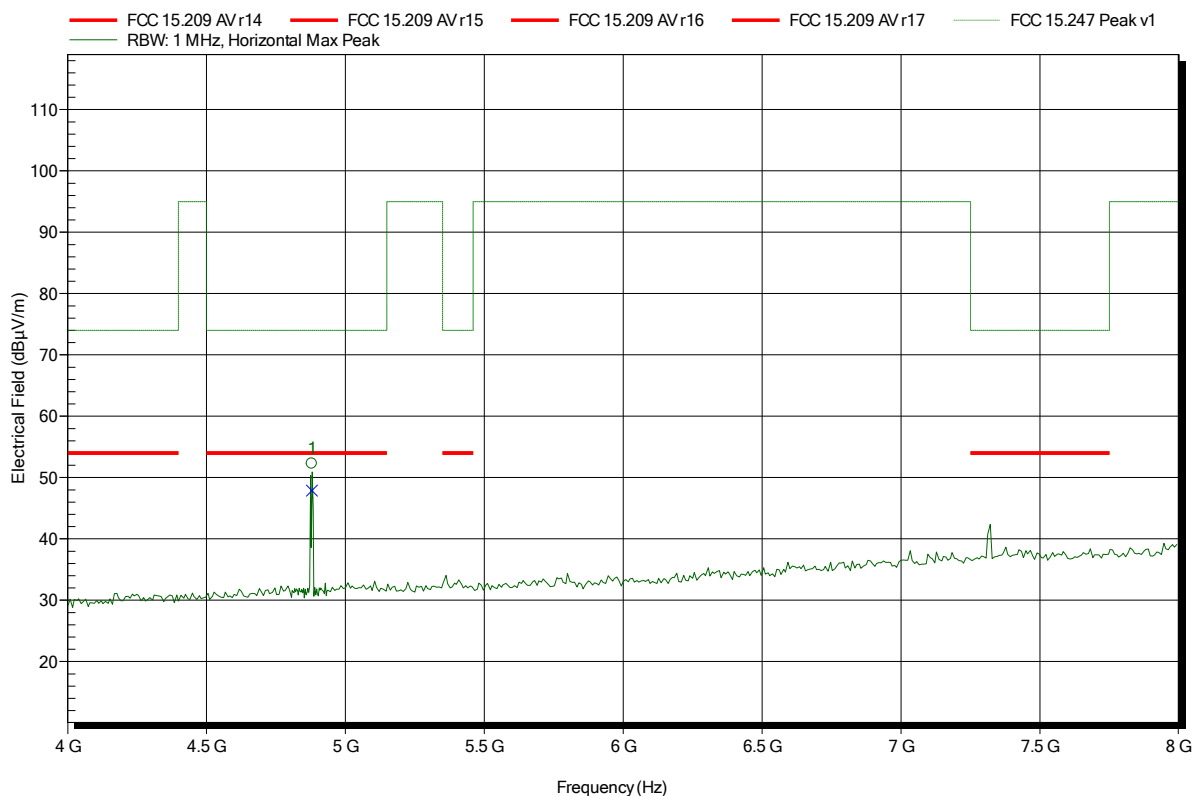
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3776 GHz	45.71 dBµV/m	74 dBµV/m	-28.29 dB	Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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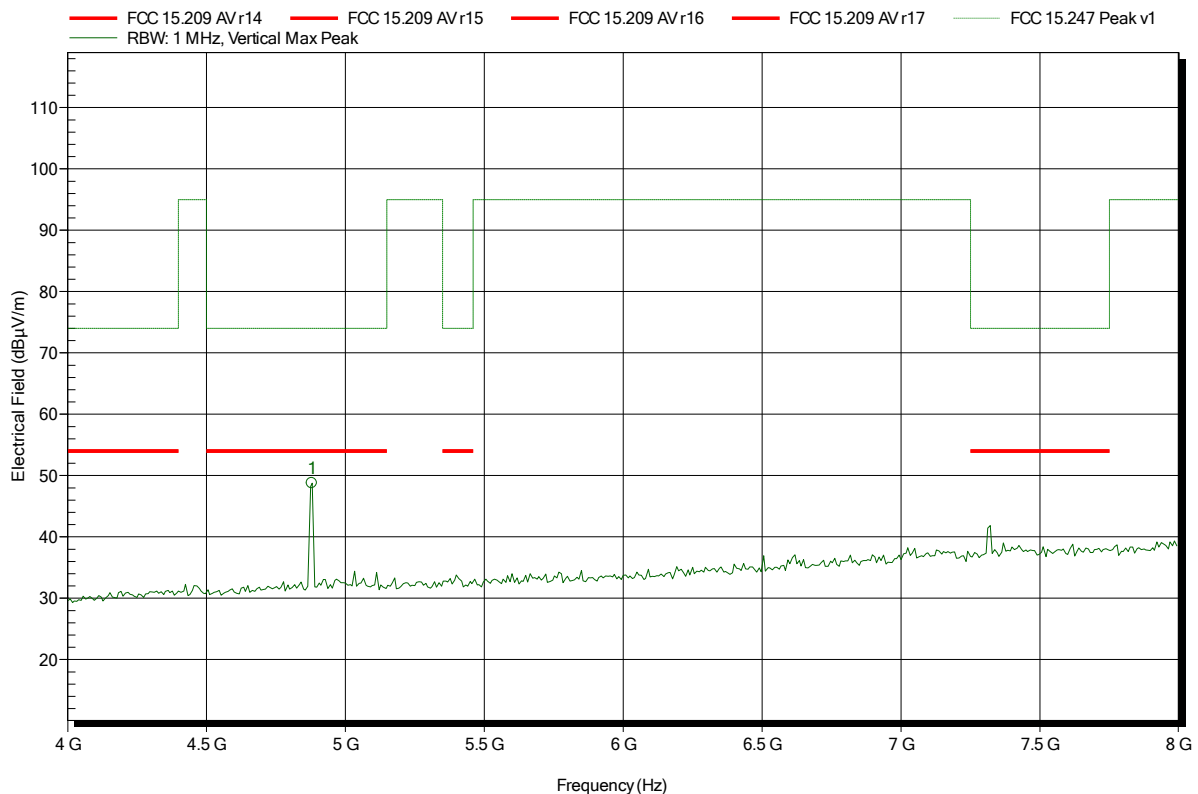
Frequency 4.881 GHz	Peak 52.28 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -21.72 dB	Status Pass
Frequency 4.881 GHz	Average 47.87 dBµV/m	Average Limit 54 dBµV/m	Average Difference -6.13 dB	Average Status Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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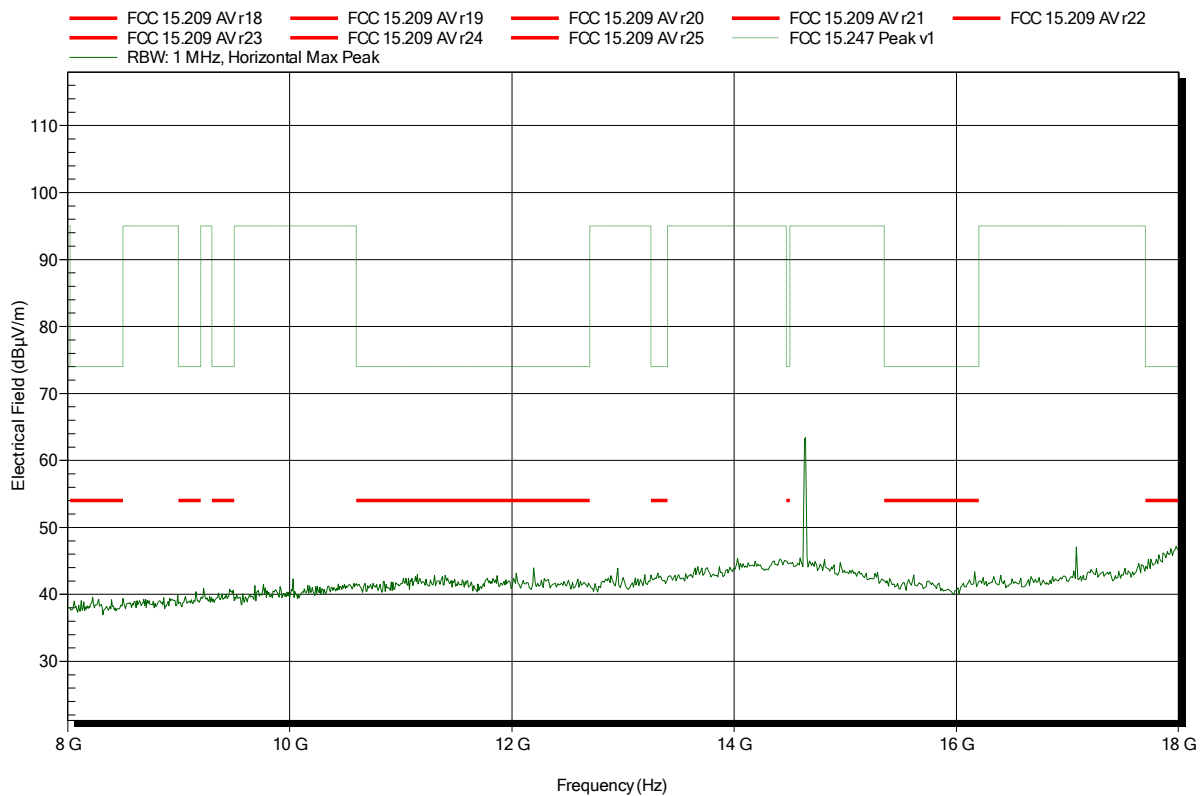
Frequency	Peak	Peak Limit	Peak Difference	Status
4.88 GHz	48.76 dBµV/m	74 dBµV/m	-25.24 dB	Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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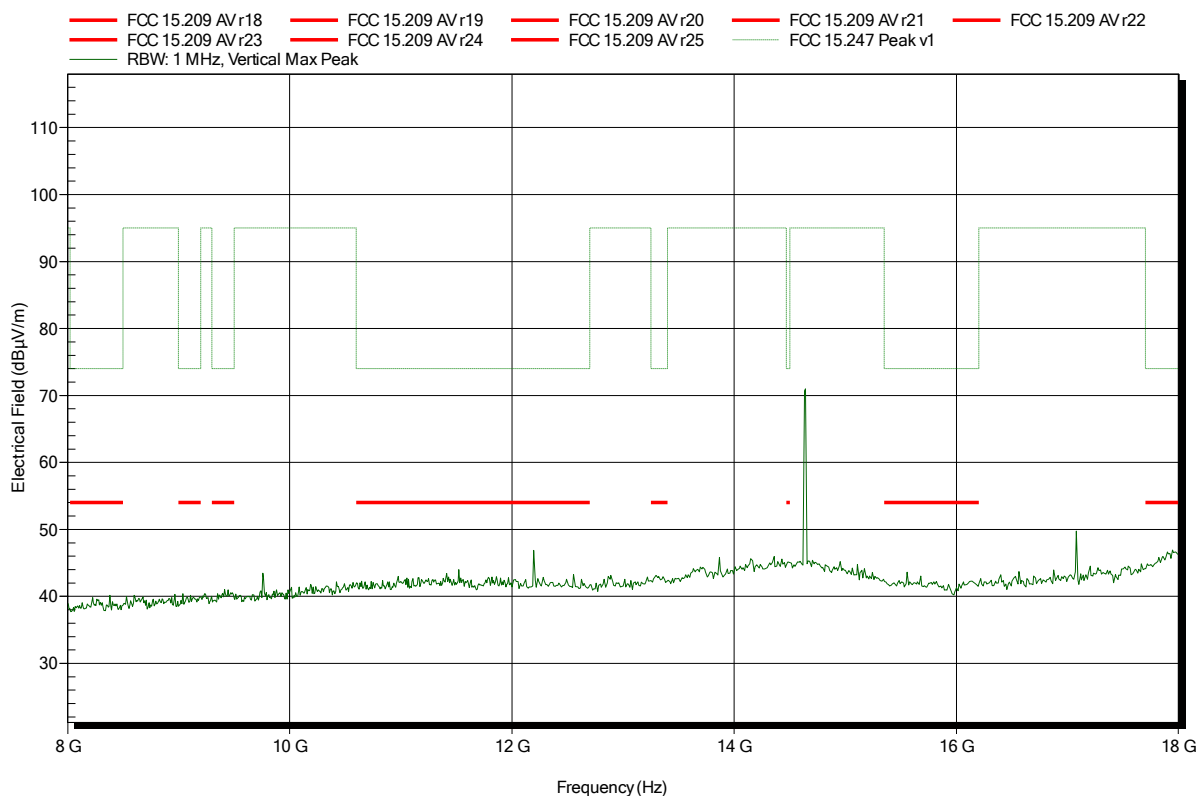


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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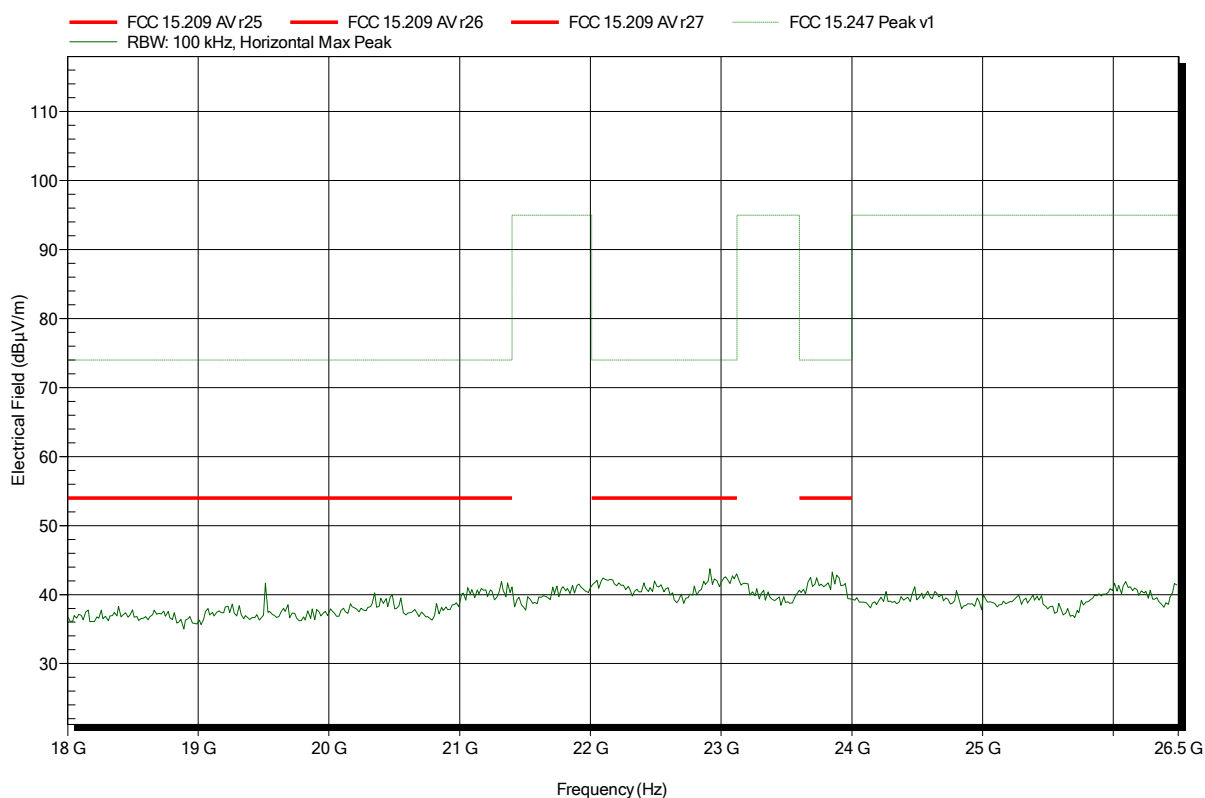


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Rohde & Schwarz HL 025, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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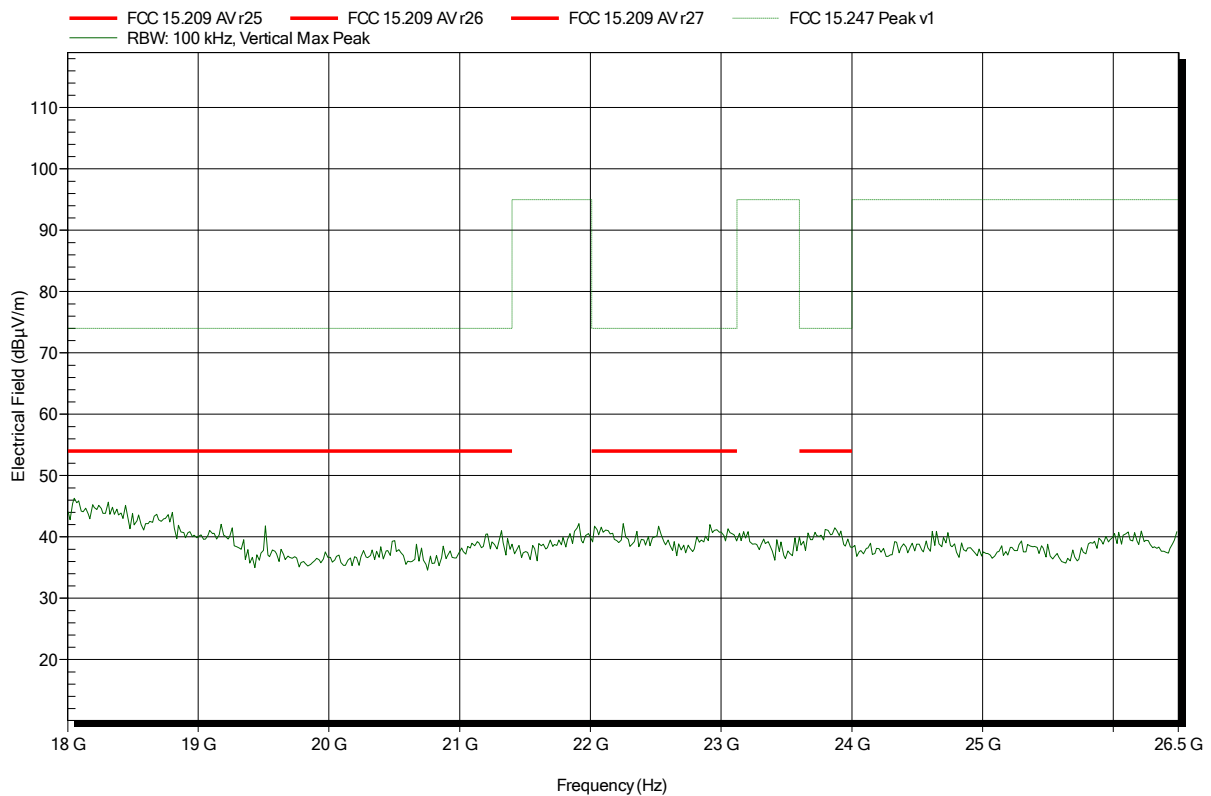


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Rohde & Schwarz HL 025, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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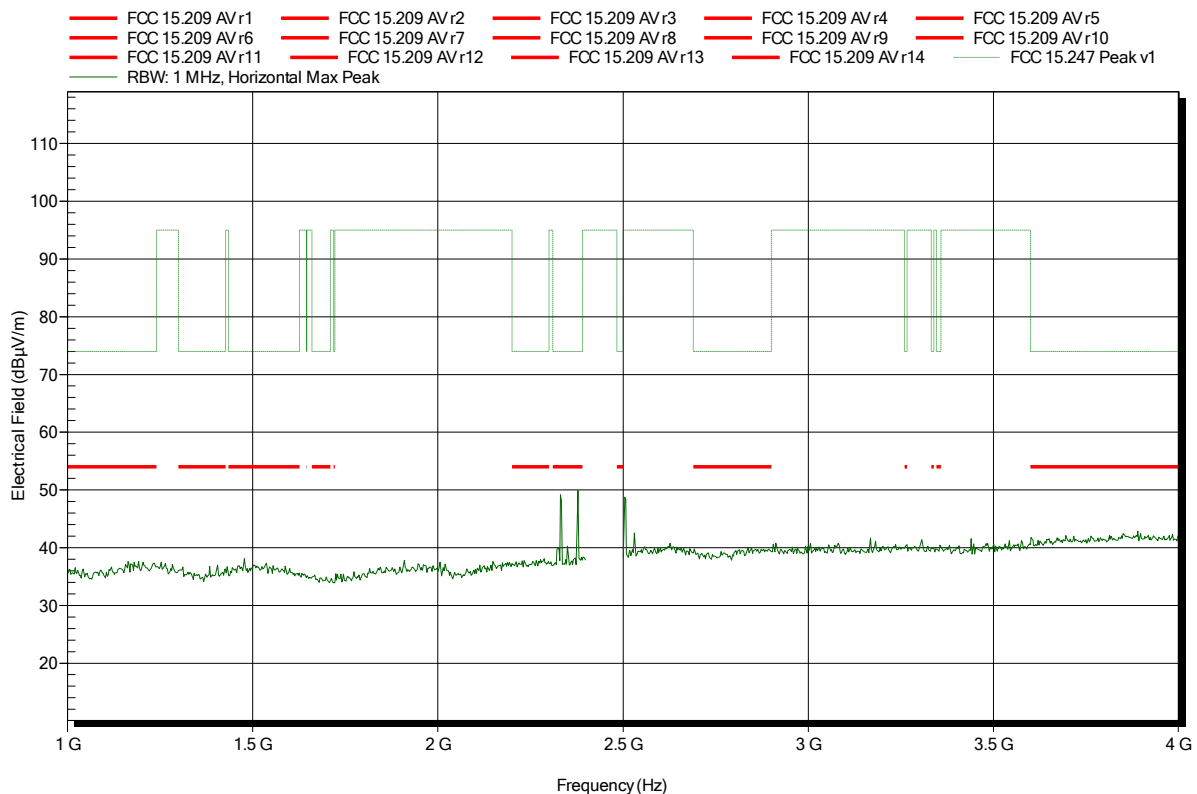


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note:

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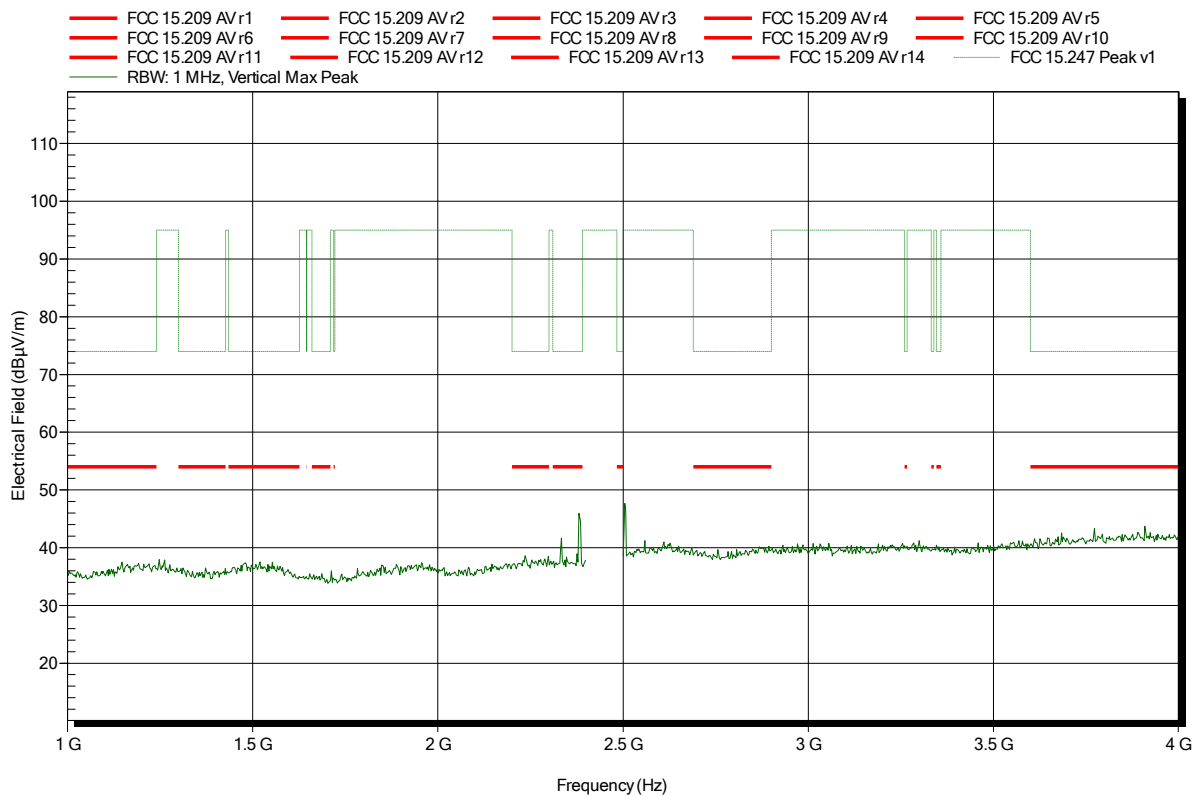


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note:

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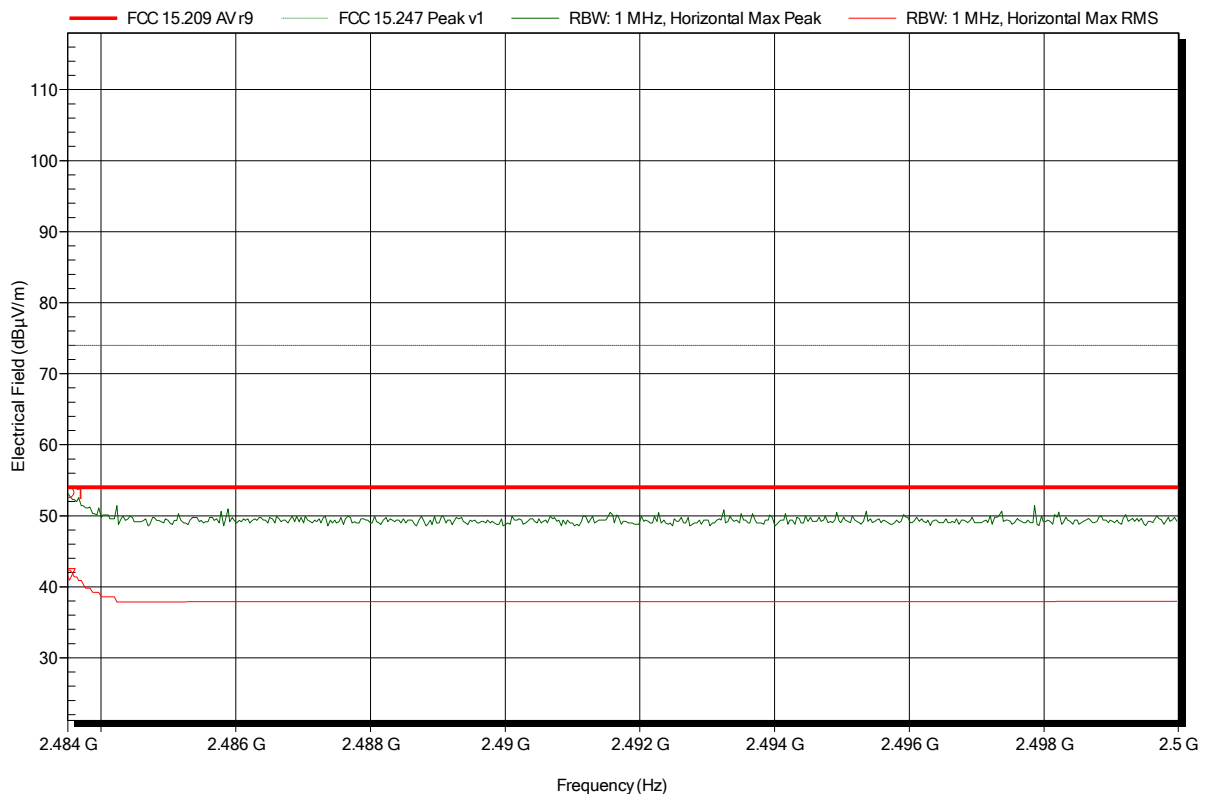


Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note: upper bandedge

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Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	53.17 dBµV/m	74 dBµV/m	-20.83 dB	Pass

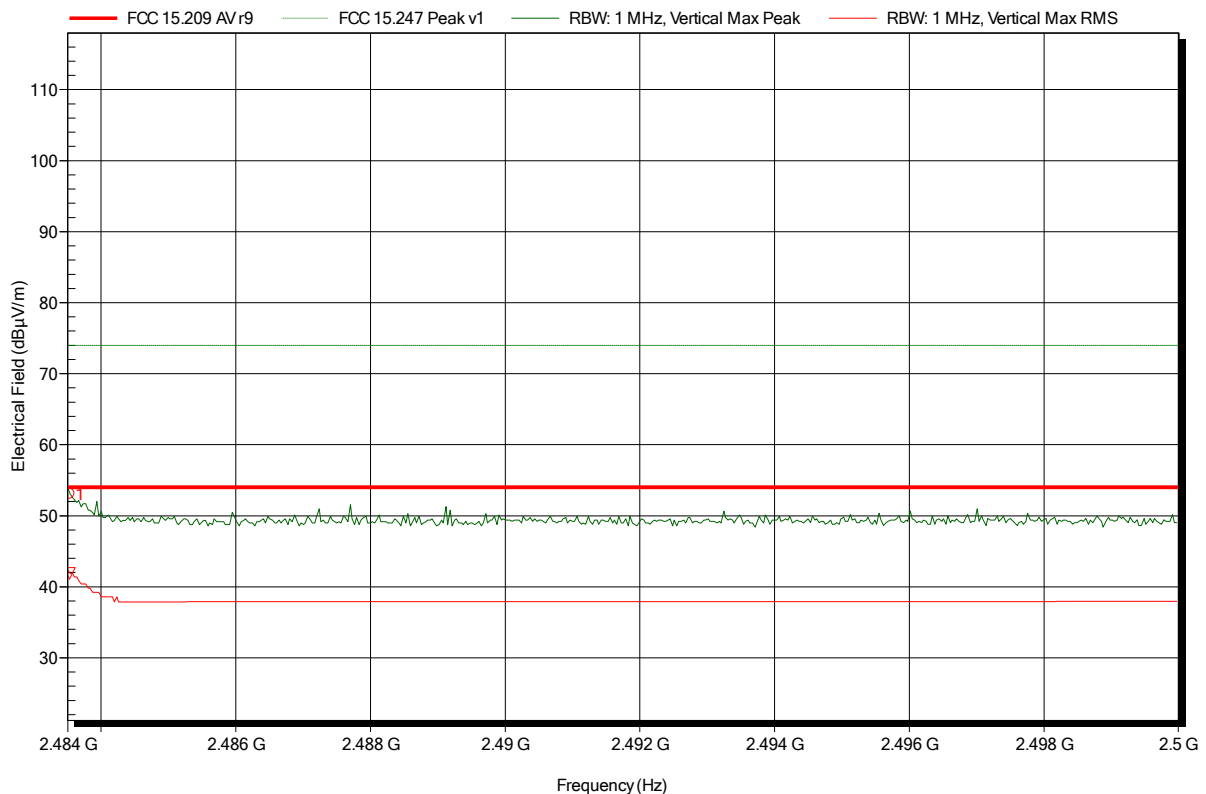
Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.4835 GHz	41.73 dBµV/m	54 dBµV/m	-12.27 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note: upper bandedge

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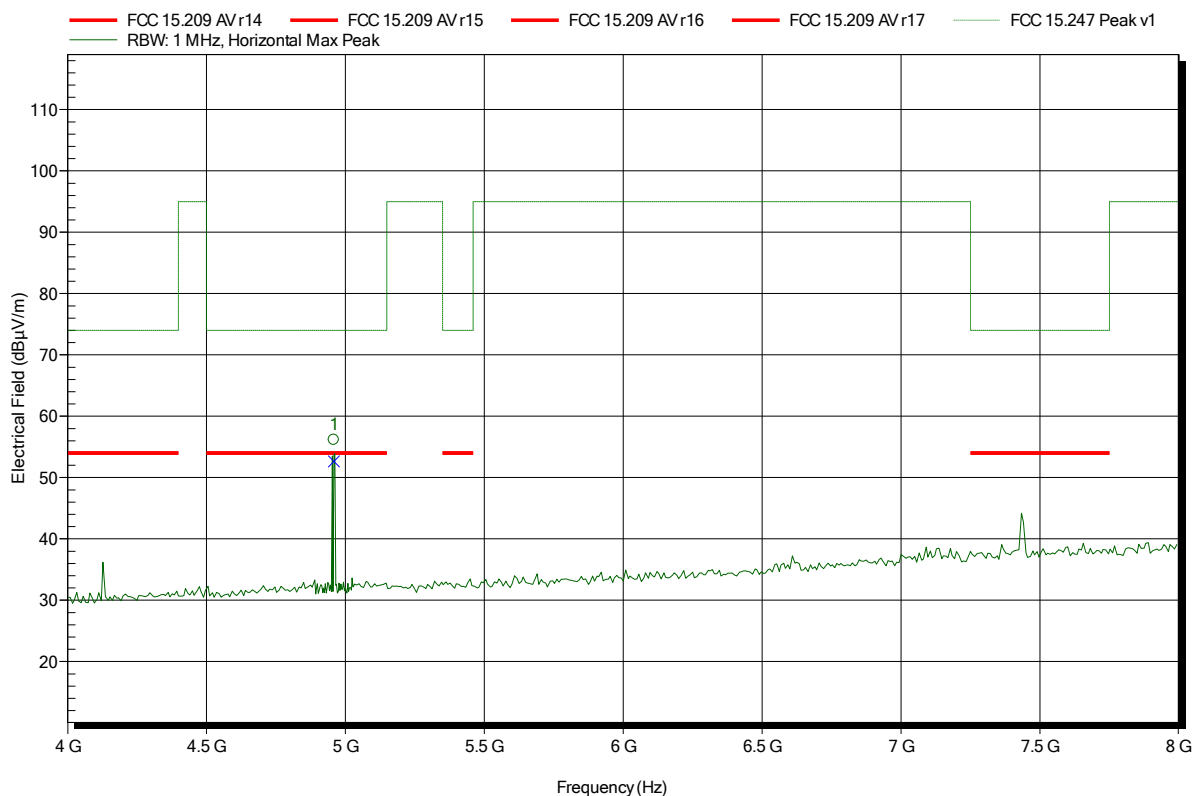
Frequency 2.4835 GHz	Peak 53.08 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -20.92 dB	Peak Status Pass
Frequency 2.4835 GHz	RMS 41.87 dBµV/m	RMS Limit 54 dBµV/m	RMS Difference -12.13 dB	RMS Status Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note:

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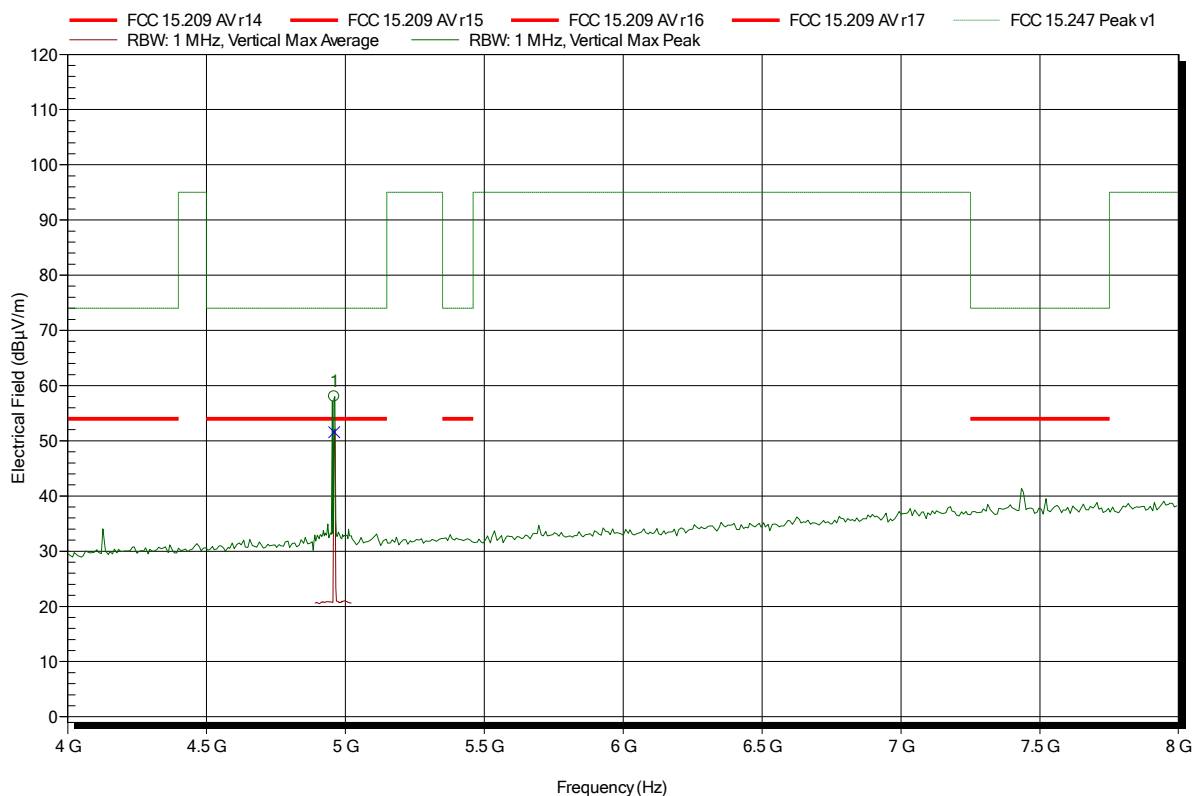
Frequency 4.96 GHz	Peak 56.17 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -17.83 dB	Status Pass
Frequency 4.96 GHz	Average 52.65 dBµV/m	Average Limit 54 dBµV/m	Average Difference -1.35 dB	Average Status Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note:

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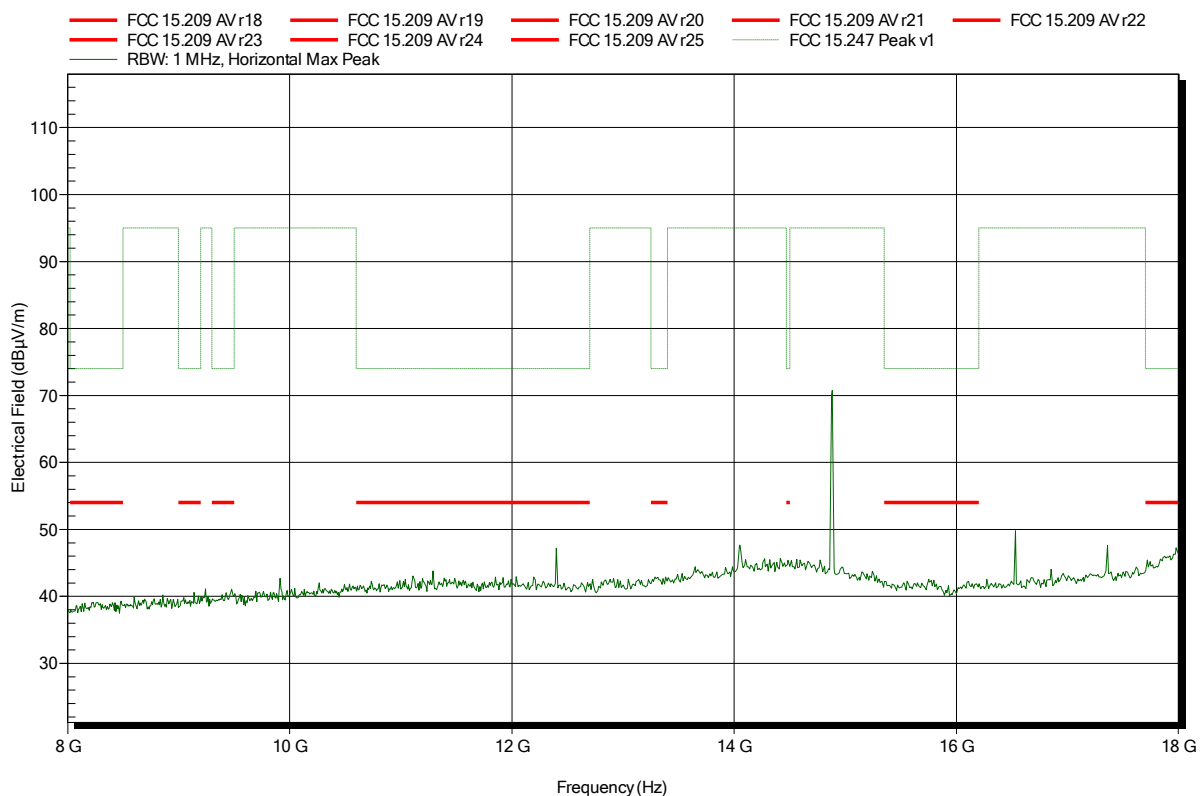
Frequency 4.96 GHz	Peak 58.01 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -15.99 dB	Status Pass
Frequency 4.96 GHz	Average 51.53 dBµV/m	Average Limit 54 dBµV/m	Average Difference -2.47 dB	Average Status Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note:

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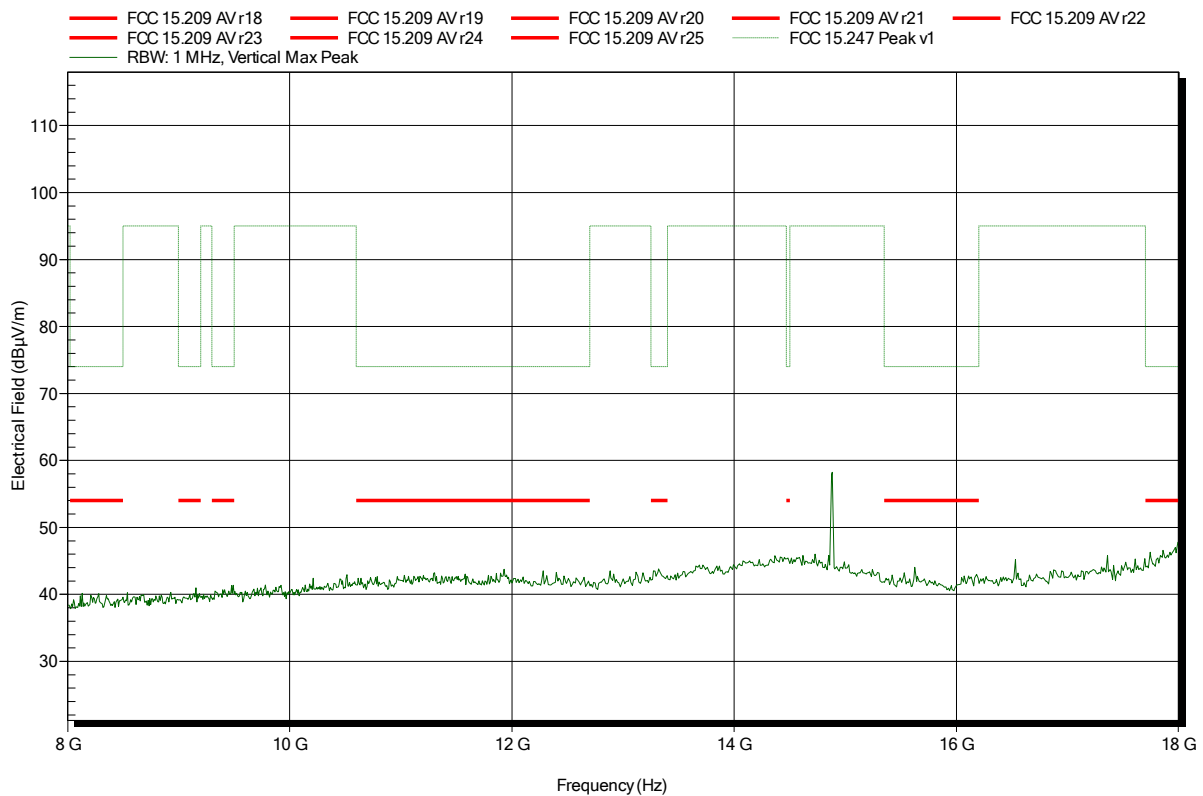


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note:

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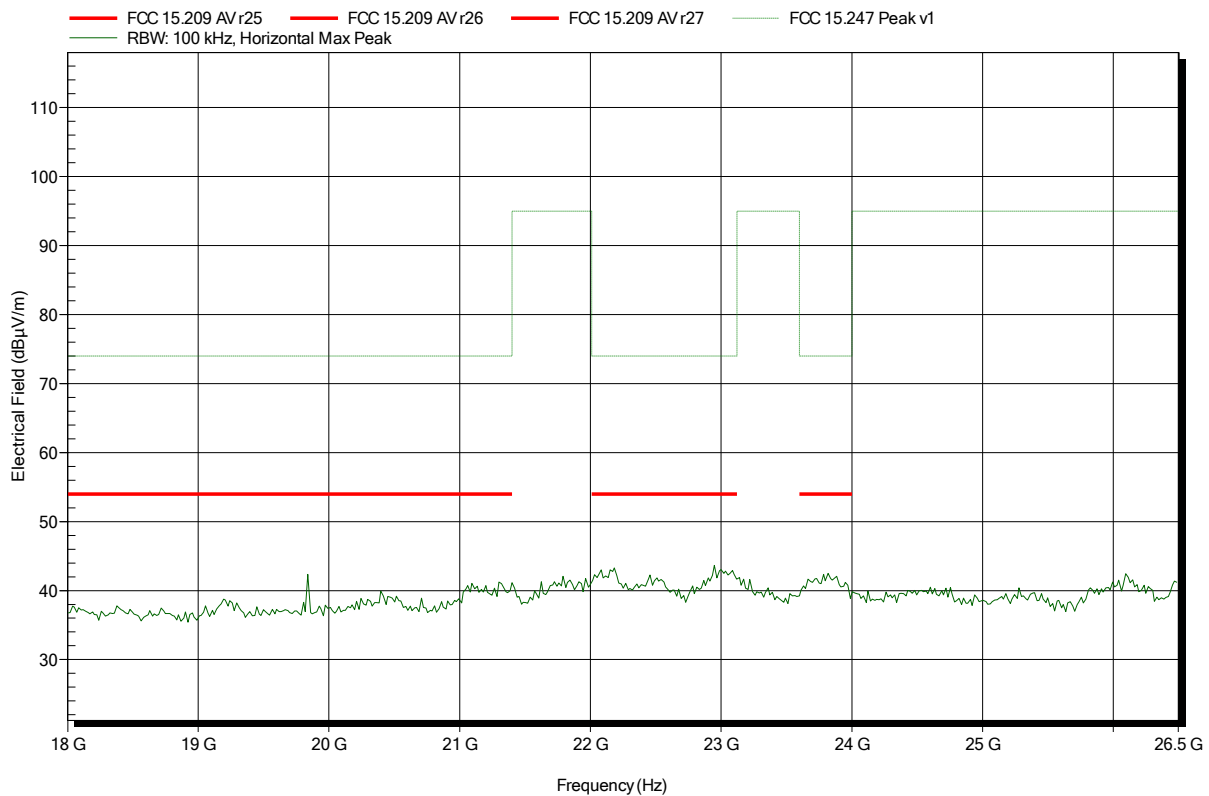


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; #A01, BTLE; 2480 MHz
Test Date:	2015-06-04
Note:	

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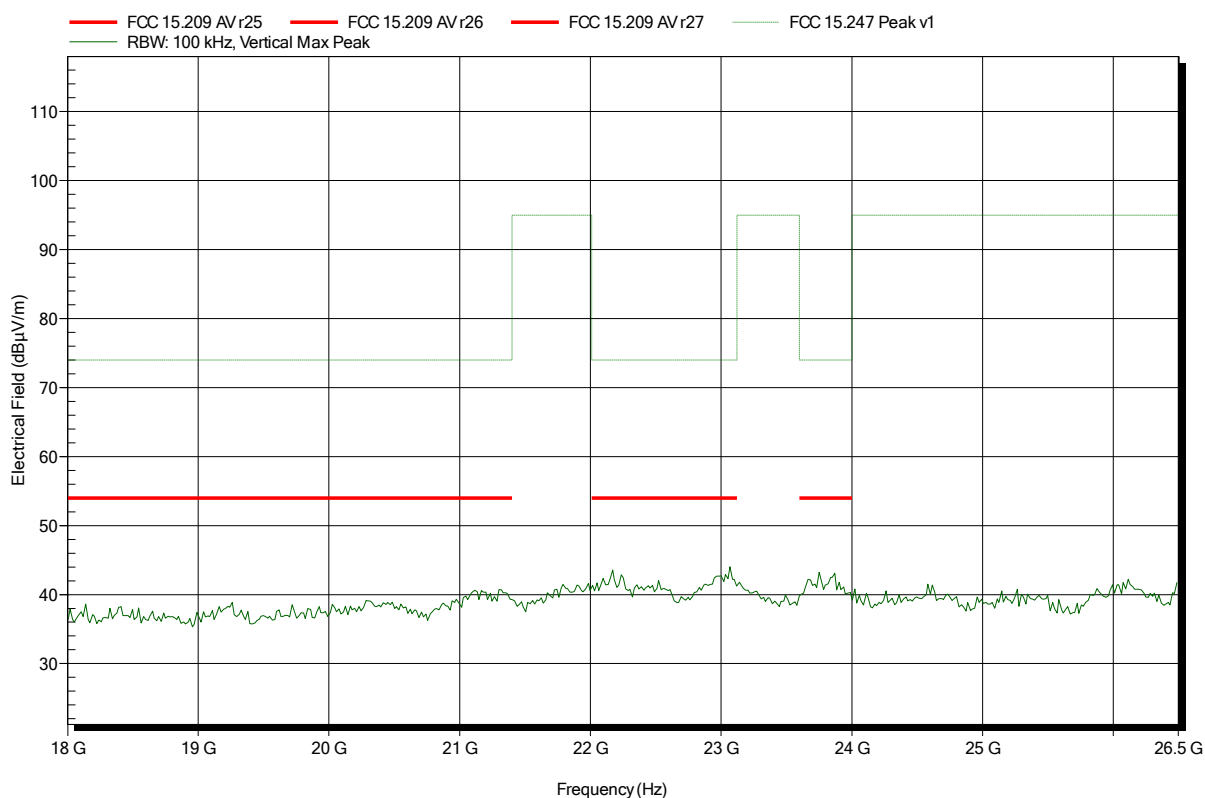


Spurious emissions according to FCC 15.247

Project number: GOM-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Rohde & Schwarz HL 025, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; #A01, BTLE; 2480 MHz
 Test Date: 2015-06-04
 Note:

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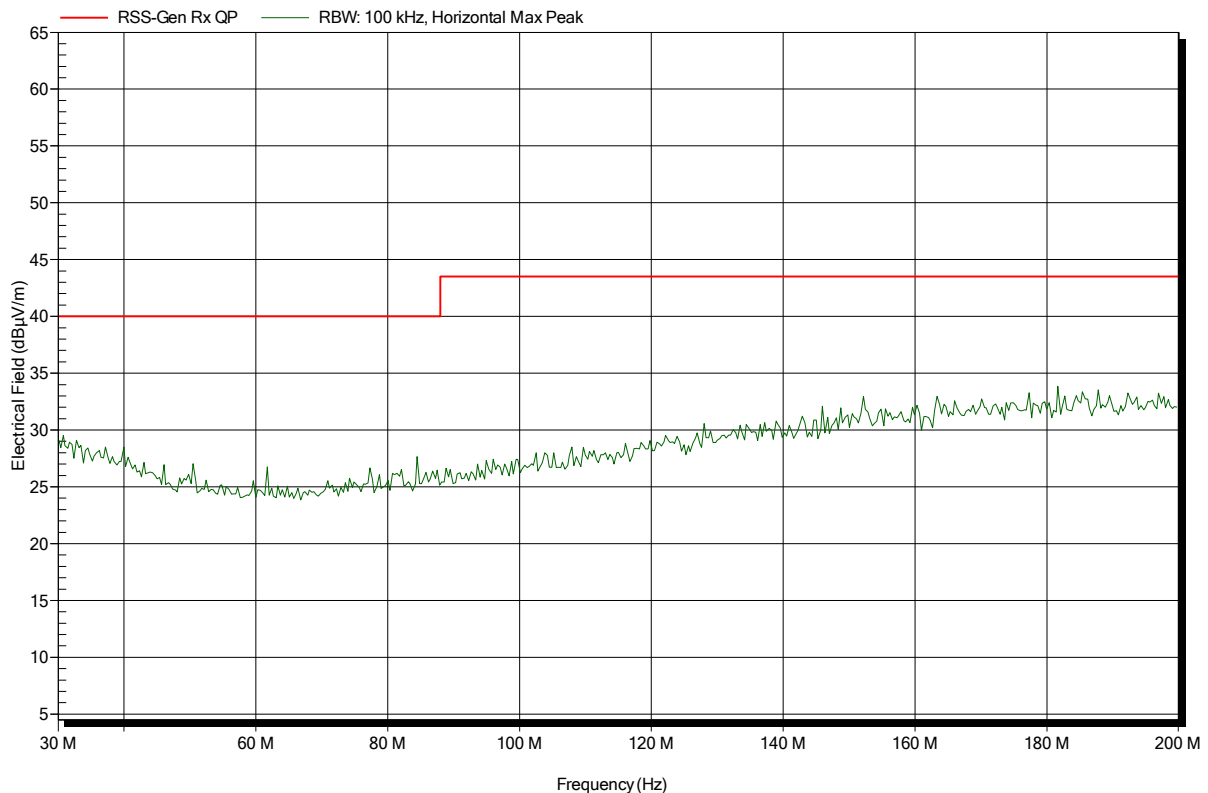
ANNEX B Receiver radiated spurious emissions

Spurious emissions according to RSS-GEN

Project number: G0M-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	RX; #A01, BTLE; 2440 MHz
Test Date:	2015-06-04
Note:	

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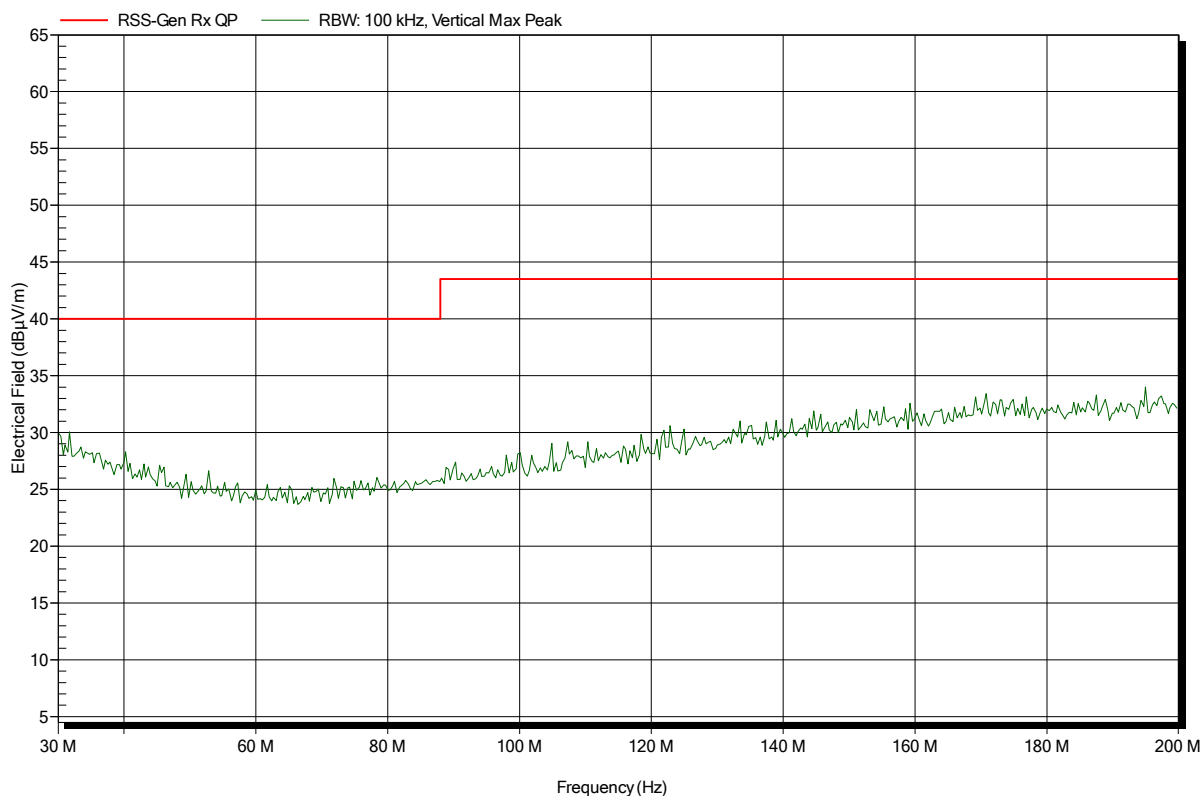


Spurious emissions according to RSS-GEN

Project number: G0M-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	RX; #A01, BTLE; 2440 MHz
Test Date:	2015-06-04
Note:	

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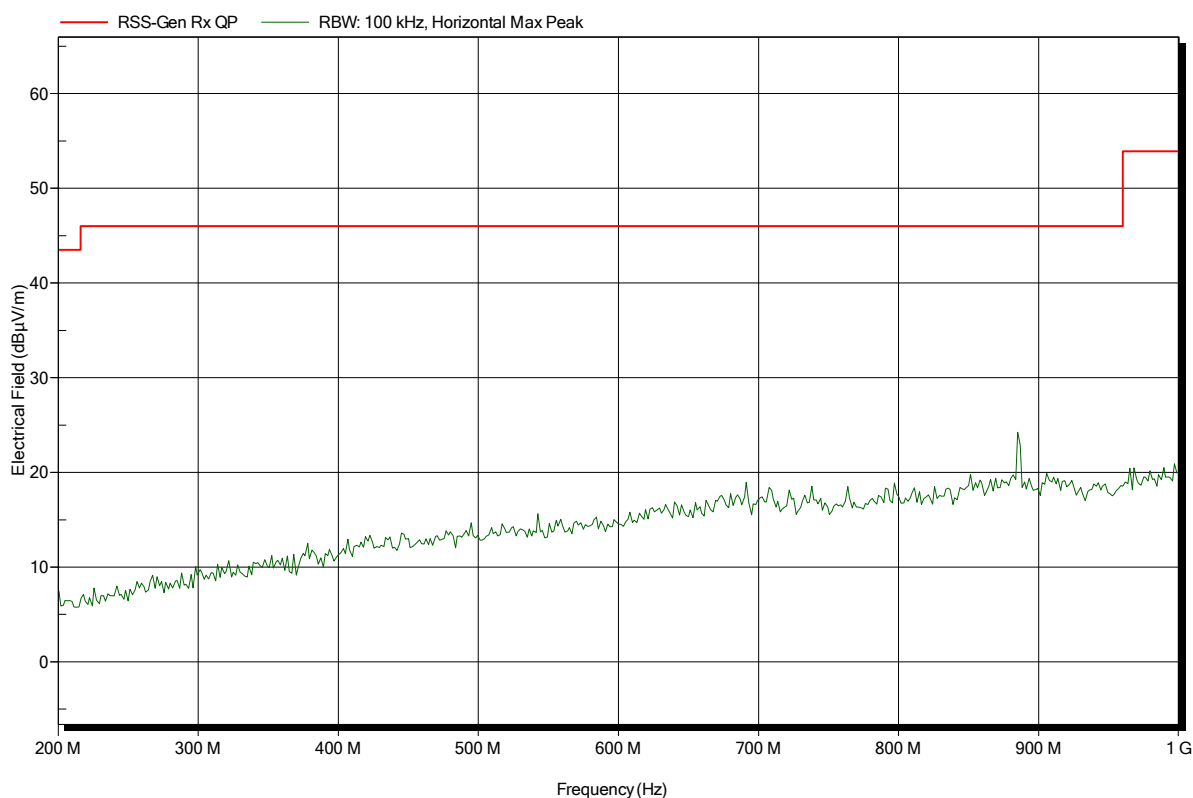


Spurious emissions according to RSS-GEN

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Rohde & Schwarz HL 223, Horizontal
 Measurement distance: 3 m
 Mode: RX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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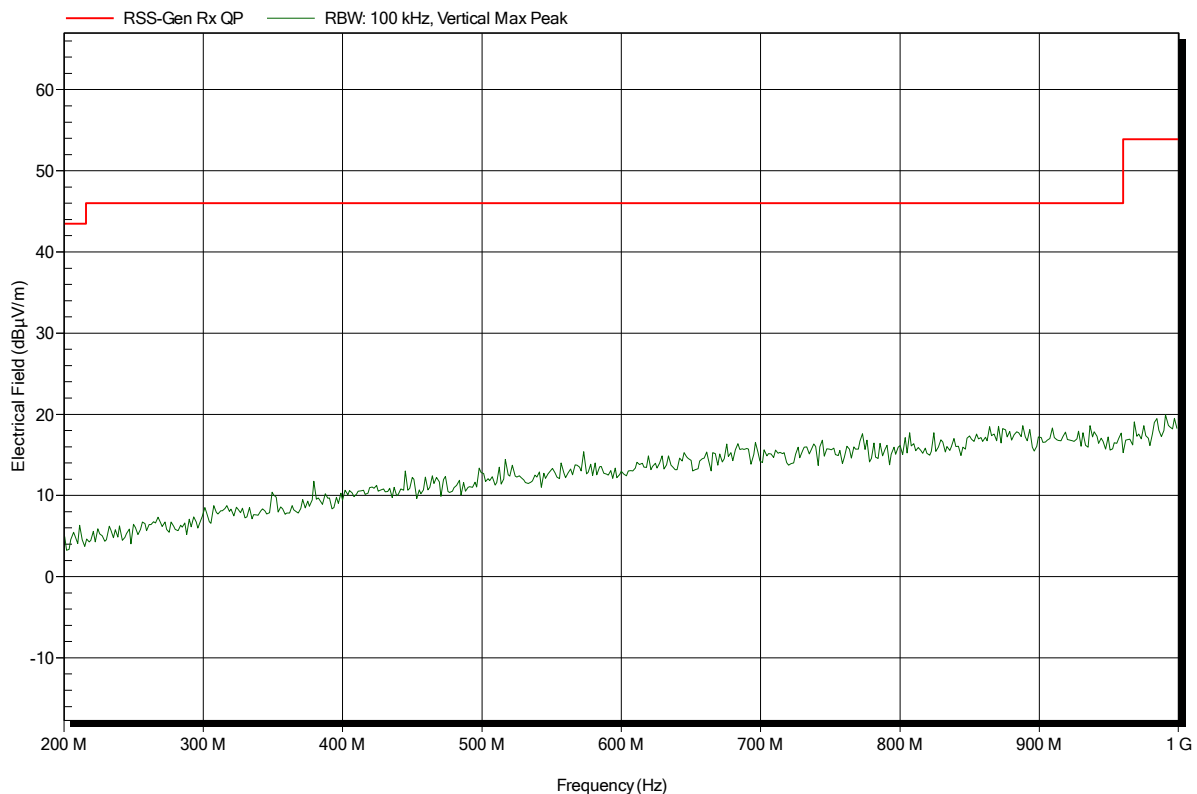


Spurious emissions according to RSS-GEN

Project number: GOM-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	RX; #A01, BTLE; 2440 MHz
Test Date:	2015-06-04
Note:	

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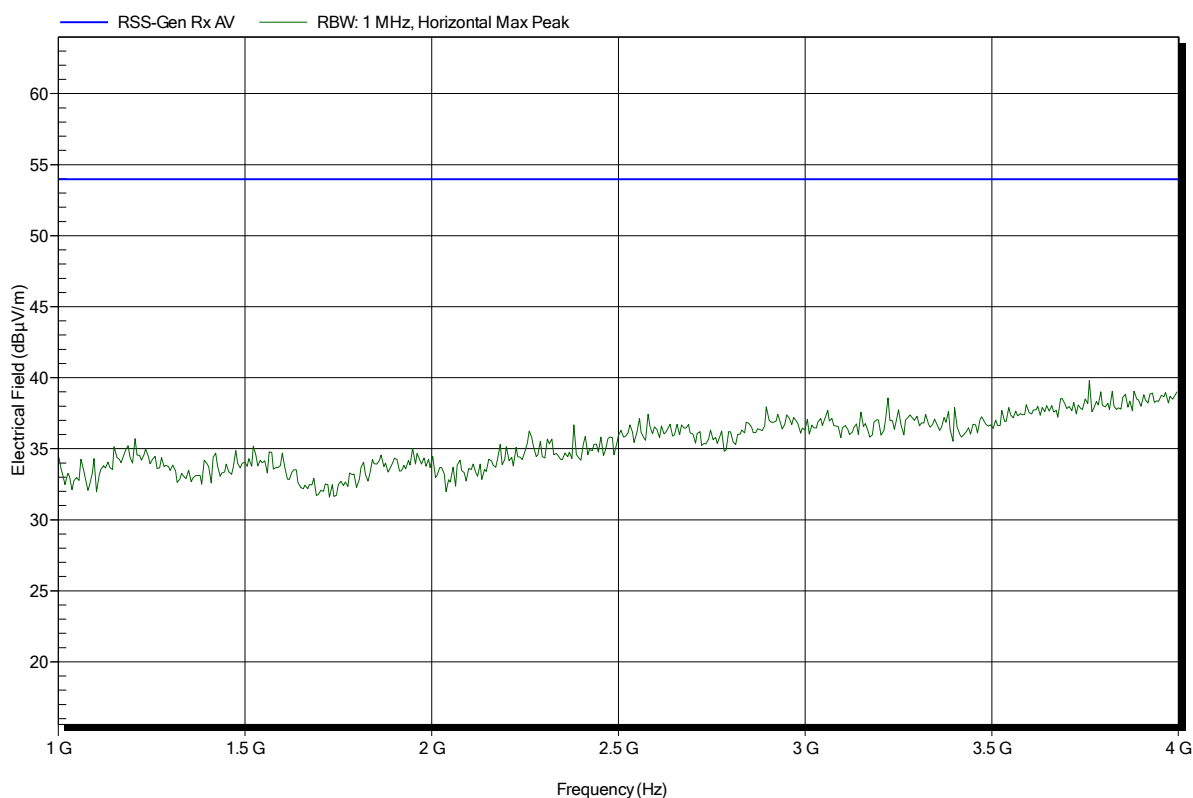


Spurious emissions according to RSS-GEN

Project number: GOM-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; #A01, BTLE; 2440 MHz
Test Date:	2015-06-04
Note:	

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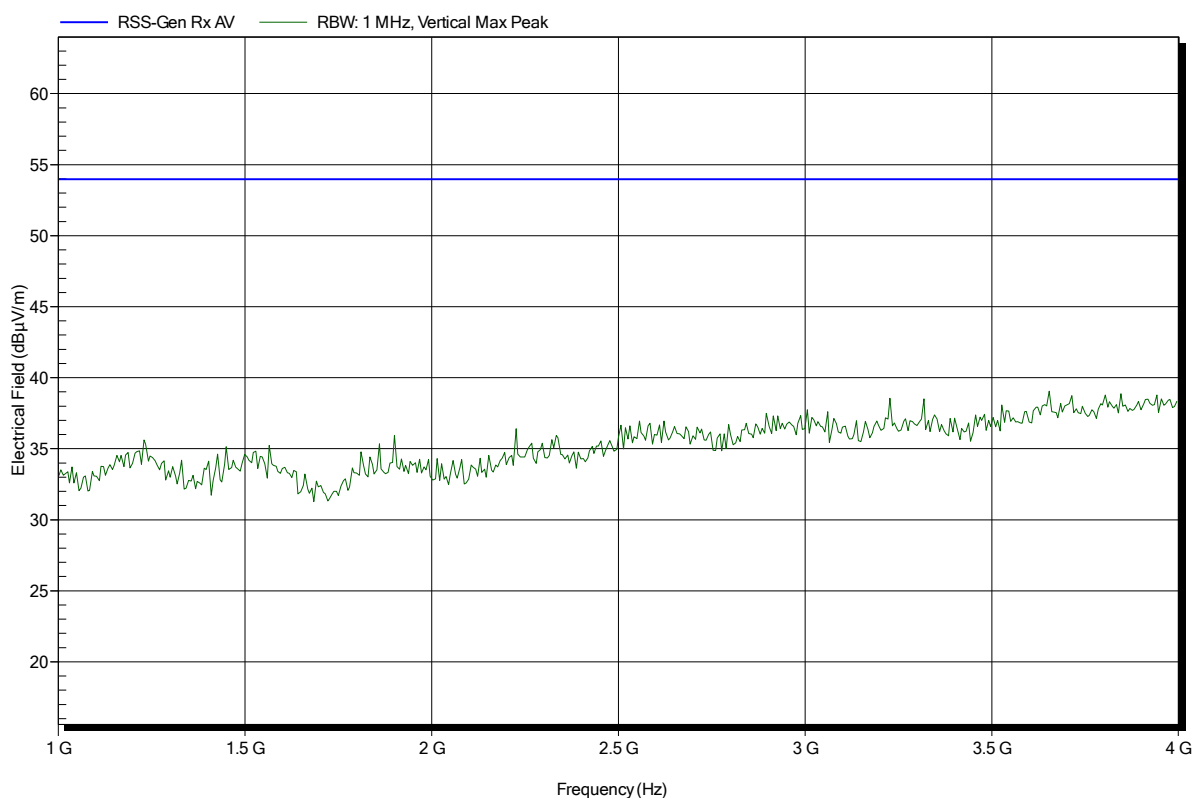


Spurious emissions according to RSS-GEN

Project number: GOM-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; #A01, BTLE; 2440 MHz
Test Date:	2015-06-04
Note:	

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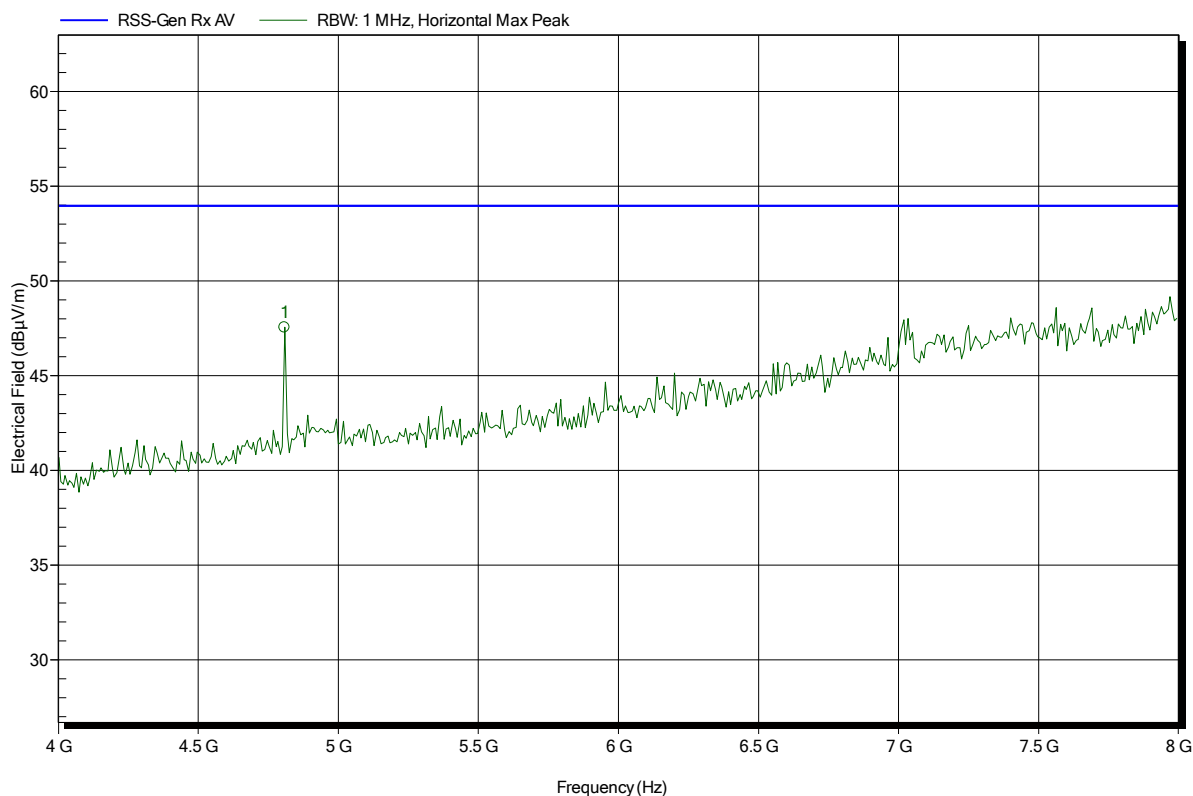


Spurious emissions according to RSS-GEN

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: RX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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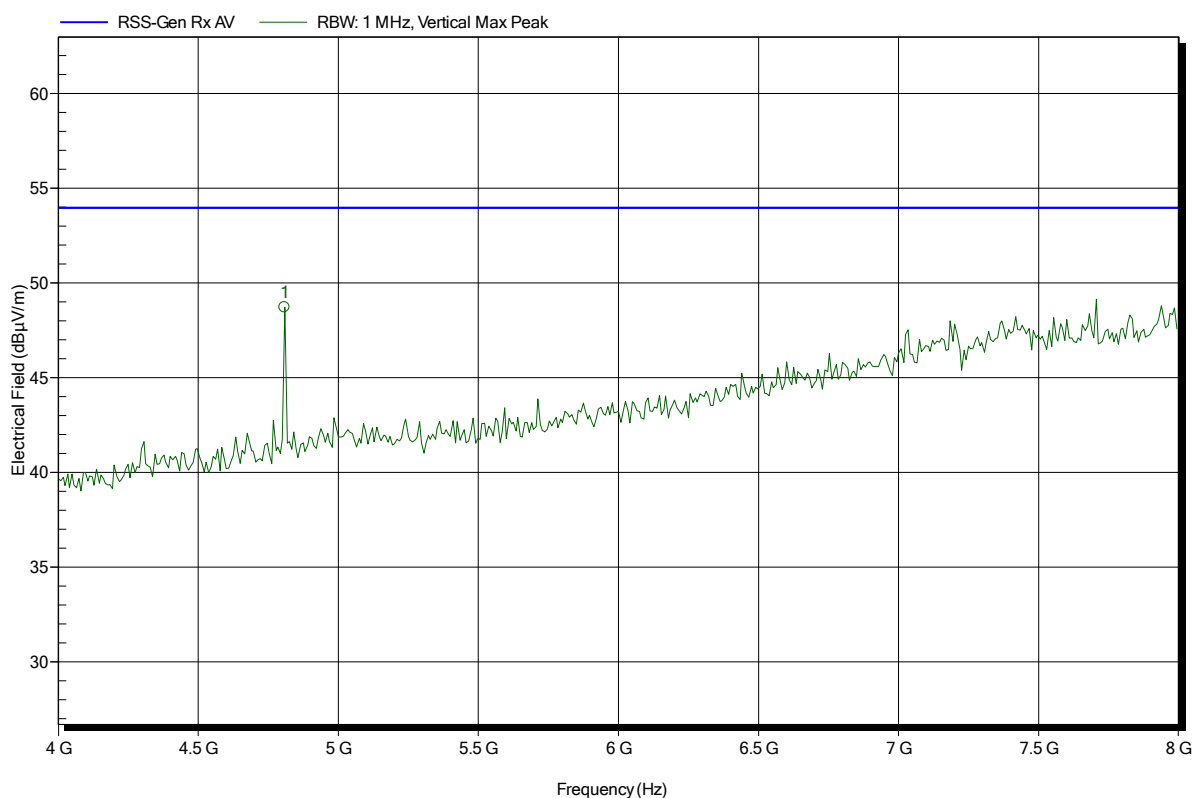
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.808 GHz	47.55 dBµV/m	53.98 dBµV/m	-6.43 dB	Pass

Spurious emissions according to RSS-GEN

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: RX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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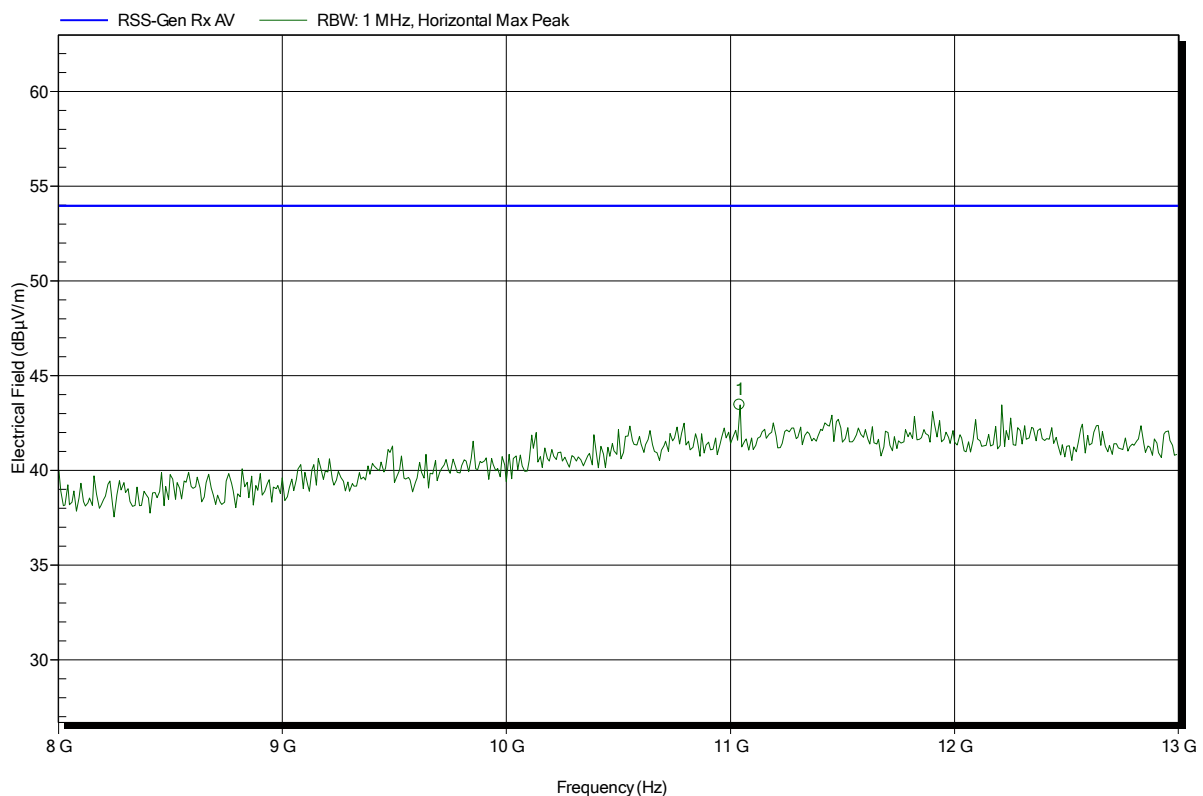
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.808 GHz	48.71 dBµV/m	53.98 dBµV/m	-5.27 dB	Pass

Spurious emissions according to RSS-GEN

Project number: G0M-1505-4755

Applicant: Spectralink Europe ApS
 EUT Name: DECT handset 7742
 Model: K023a
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 24°C, Vnom: 3.7 V DC lithium battery
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: RX; #A01, BTLE; 2440 MHz
 Test Date: 2015-06-04
 Note:

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Frequency	Peak	Peak Limit	Peak Difference	Status
11.04 GHz	43.46 dBµV/m	53.98 dBµV/m	-10.52 dB	Pass

Spurious emissions according to RSS-GEN

Project number: G0M-1505-4755

Applicant:	Spectralink Europe ApS
EUT Name:	DECT handset 7742
Model:	K023a
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Treffke
Test Conditions:	Tnom: 24°C, Vnom: 3.7 V DC lithium battery
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	RX; #A01, BTLE; 2440 MHz
Test Date:	2015-06-04
Note:	

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