

FCC TEST REPORT																									
FCC 47 CFR Part 15C Industry Canada RSS-210 Frequency hopping systems operating within the 2400 – 2483.5 MHz band																									
Report Reference No.....	G0M-1406-3920-TFC247BT-Issue02V01																								
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	GN Netcom A/S																								
Address.....	Lautrupbjerg 7 2750 Ballerup DENMARK																								
Test specification: Standard: 47 CFR Part 15C RSS-210, Issue 8, 2010-12 RSS-Gen, Issue 3, 2010-12 ANSI C63.4:2009																									
Equipment under test (EUT): <table border="0"> <tr> <td>Product description</td> <td colspan="2">Bluetooth headset</td> </tr> <tr> <td>Model No.</td> <td colspan="2">OTE20</td> </tr> <tr> <td>Additional Model(s)</td> <td colspan="2">None</td> </tr> <tr> <td>Brand Name(s)</td> <td colspan="2">Jabra</td> </tr> <tr> <td>Hardware version</td> <td colspan="2">28-03918-I</td> </tr> <tr> <td>Firmware / Software version</td> <td colspan="2">2-19</td> </tr> <tr> <td></td> <td>FCC-ID: BCE-OTE20</td> <td>IC: 2386C-OTE20</td> </tr> <tr> <td>Test result</td> <td colspan="2">Passed</td> </tr> </table>		Product description	Bluetooth headset		Model No.	OTE20		Additional Model(s)	None		Brand Name(s)	Jabra		Hardware version	28-03918-I		Firmware / Software version	2-19			FCC-ID: BCE-OTE20	IC: 2386C-OTE20	Test result	Passed	
Product description	Bluetooth headset																								
Model No.	OTE20																								
Additional Model(s)	None																								
Brand Name(s)	Jabra																								
Hardware version	28-03918-I																								
Firmware / Software version	2-19																								
	FCC-ID: BCE-OTE20	IC: 2386C-OTE20																							
Test result	Passed																								

Test Report No.: G0M-1406-3920-TFC247BT-Issue02V01

Eurofins Product Service GmbH
Storkower Str. 38c, D-15526 Reichenwalde, Germany

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: 2014-07-15

Date (s) of performance of tests: 2014-08-14 - 2014-08-19

Compiled by: Toralf Jahn

Tested by (+ signature).....: Toralf Jahn
(Responsible for Test)

Approved by (+ signature): Christian Weber

Date of issue: 2014-09-11

Total number of pages: 129



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:

Version History

Version	Issue Date	Remarks	Revised by
01	2014-07-02	Initial Release	
Issue02V01	2014-09-11	FCC/IC retest after modification	

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1 Equipment (Test item) Description

Description	Bluetooth headset	
Model	OTE20	
Additional Model(s)	None	
Brand Name(s)	Jabra	
Serial number	None	
Hardware version	28-03918-I	
Software / Firmware version	2-19	
FCC-ID	BCE-OTE20	
IC	2386C-OTE20	
Equipment type	End product	
Radio type	Transceiver	
Radio technology	Bluetooth	
Operating frequency range	2402 - 2480 MHz	
Assigned frequency band	2400 - 2483.5 MHz	
Main test frequencies	F _{LOW}	2402 MHz
	F _{MID}	2441 MHz
	F _{HIGH}	2480 MHz
Spreading	FHSS	
Modulations	GFSK, PI/4-DQPSK, 8-PSK	
Number of channels	79 hopping channels at all	
Channel spacing	1 MHz	
Number of antennas	1	
Antenna	Type	integrated
	Model	-
	Manufacturer	GN Netcom
	Gain	-1.41 dBi (manufacturer declaration)
Manufacturer	GN Netcom A/S Lautrupbjerg 7 2750 Ballerup DENMARK	
Power supply	V _{NOM}	3.7 VDC
	V _{MIN}	3.2 VDC
	V _{MIN}	4.2 VDC
AC/DC-Adaptor	Model	SSA-5W-05 EU 050060F
	Vendor	SIL Switching Adapter
	Input	100-240V ~ 50/60Hz 0.2A
	Output	5.0V DC 800mA

1.4 Supporting Equipment Used During Testing

Product Type*	Device	Manufacturer	Model No.	Comments
SIM	Bluetooth tester	Rhode & Schwarz	CBT	
AE	Laptop	Samsung	NP-X20I	
AE : Auxiliary/Associated Equipment SIM : Simulator (Not Subjected to Test)				

1.5 Test Modes

Mode #	Description	
DH5-Sngl	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone transmit Spreading = Hopping stopped (single hopping channel) Modulation = GFSK Packet type = DH5 Data rate = 1 Mbps Duty cycle = 77 % Power level = Maximum
2DH5-Sngl	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone transmit Spreading = Hopping stopped (single hopping channel) Modulation = $\pi/4$ -DQPSK Packet type = 2DH5 Data rate = 2 Mbps Duty cycle = 77 % Power level = Maximum
3DH5-Sngl	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone transmit Spreading = Hopping stopped (single hopping channel) Modulation = 8-DPSK Packet type = 3DH5 Data rate = 3 Mbps Duty cycle = 77 % Power level = Maximum
DH5-Hop	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone transmit Spreading = Hopping Modulation = GFSK Packet type = DH5 Data rate = 1 Mbps Duty cycle = 77 % Power level = Maximum

2DH5-Hop	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone transmit Spreading = Hopping Modulation = $\pi/4$ -DQPSK Packet type = 2DH5 Data rate = 2 Mbps Duty cycle = 77 % Power level = Maximum
3DH5-Hop	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone transmit Spreading = Hopping Modulation = 8-DPSK Packet type = 3DH5 Data rate = 3 Mbps Duty cycle = 77 % Power level = Maximum
Receive	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone receive Spreading = Hopping
AC-Powerline	General conditions:	EUT powered by commercial AC/DC-Adapter
	Radio conditions:	Mode = standalone transmit Spreading = Hopping Power level = Maximum

1.6 Test Equipment Used During Testing

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

20dB Bandwidth					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2014-02	2015-02

Number of hopping frequencies					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2014-02	2015-02

Time of occupancy					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2014-02	2015-02

Maximum peak conducted power					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2014-02	2015-02

Band edge compliance					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2014-02	2015-02

Conducted spurious emissions					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2014-02	2015-02

Radiated spurious emissions					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Semi-anechoic chamber	Frankonia	AC 1	EF00062	2013-01	2015-01
Spectrum Analyzer	R&S	FSIQ26	EF00242	2014-03	2015-03
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	2012-10	2014-10
AMN	R&S	ESH3-Z5	EF00036	2012-11	2014-11
EMI Test Receiver	R&S	ESCS 30	EF00295	2013-10	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:

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

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-210				
Product Specific Standard Section	Requirement – Test	Reference Method	Result	Remarks
RSS-Gen 4.6.1	Occupied Bandwidth	RSS-Gen 4.6.1	N/R	Informational only
FCC § 15.247(a)(1) IC RSS-210 § A8.1	20 dB Bandwidth	Public notice DA 00-705	PASS	
FCC § 15.247(a)(1)(iii) IC RSS-210 § A8.1	Number of hopping frequencies	Public notice DA 00-705	PASS	
FCC § 15.247(a)(1) IC RSS-210 § A8.1	Frequency hopping channel separation	Public notice DA 00-705	PASS	
FCC § 15.247(a)(1)(iii) IC RSS-210 § A8.1	Time of occupancy (Dwell time)	Public notice DA 00-705	PASS	
FCC § 15.247(b)(1) IC RSS-210 § A8.4	Maximum peak conducted power	Public notice DA 00-705	PASS	
47 CFR 15.207 RSS-Gen 7.2.4	AC power line conducted emissions	ANSI C63.4	PASS	
FCC § 15.247(d) IC RSS-210 § A8.5	Band edge compliance	Public notice DA 00-705	PASS	
FCC § 15.247(d) IC RSS-210 § A8.5	Conducted spurious emissions	Public notice DA 00-705	PASS	
FCC § 15.247(d) FCC § 15.209 IC RSS-210 A8.5 IC RSS-Gen 4.9 IC RSS-Gen 7.2.5	Transmitter radiated spurious emissions	Public notice DA 00-705 / ANSI C 63.4	PASS	
IC RSS-Gen 4.10 IC RSS-Gen 6.1	Receiver radiated spurious emissions	ANSI C 63.4	PASS	
Remarks:				

3 Test Conditions and Results

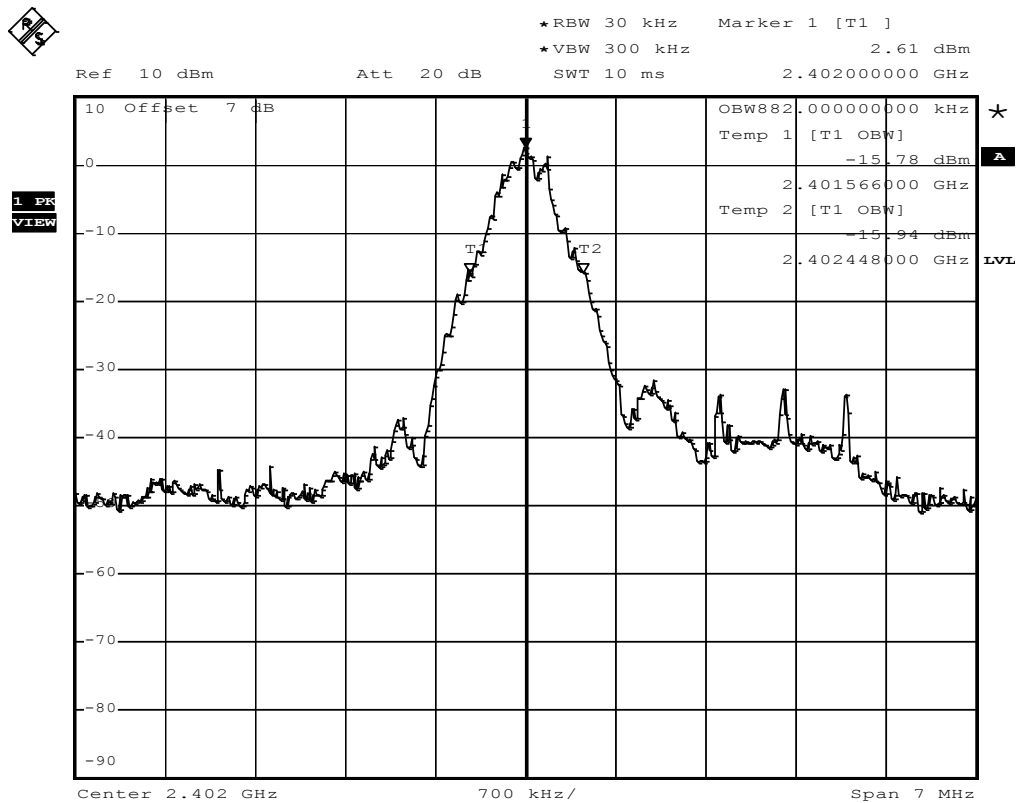
3.1 Test Conditions and Results – Occupied Bandwidth

Occupied Bandwidth acc. IC RSS-Gen			Verdict: PASS
Test according to measurement reference	Reference Method		
	RSS-Gen 4.6.1		
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	DH5-Sngl	882
F _{MID}	2441	DH5-Sngl	882
F _{HIGH}	2480	DH5-Sngl	882
F _{LOW}	2402	3DH5-Sngl	1176
F _{MID}	2441	3DH5-Sngl	1190
F _{HIGH}	2480	3DH5-Sngl	1204
Comments:			

Occupied Bandwidth – DH5-Sngl F_{Low}

RSS Gen Occupied Bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 0 / 2402 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	DH5

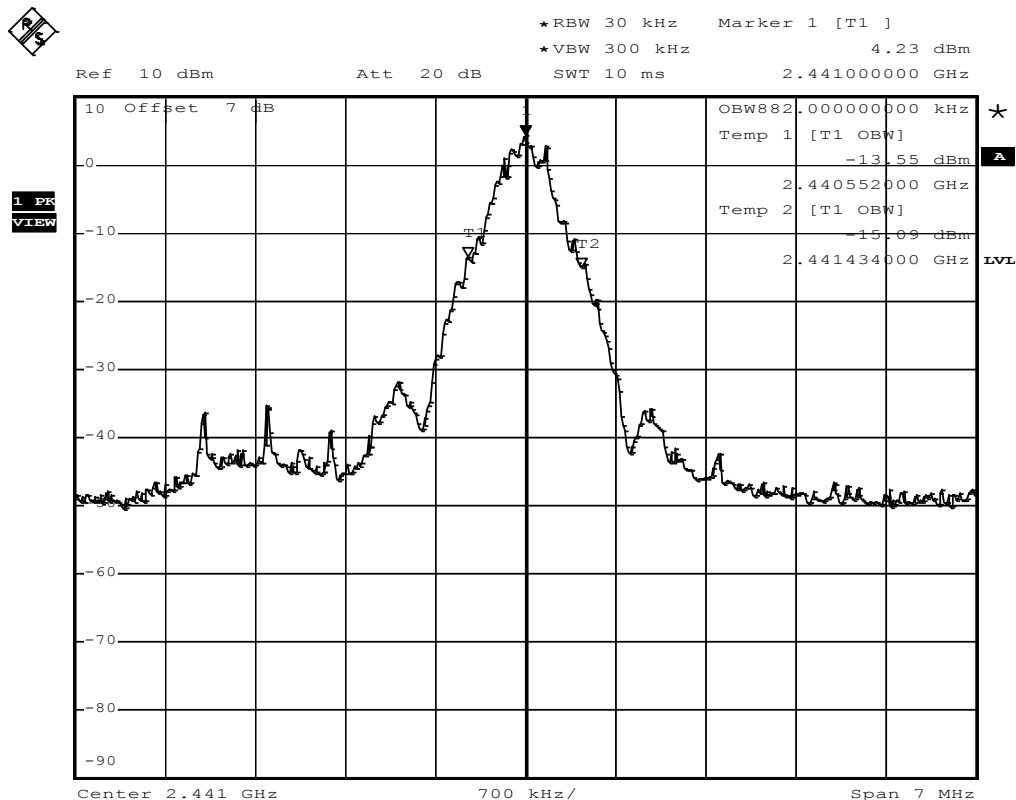


Comment: Occupied bandwidth: 882 KHz
Date: 18.AUG.2014 11:04:47

Occupied Bandwidth – DH5-Sngl F_{MID}

RSS Gen Occupied Bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 39 / 2441 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	DH5

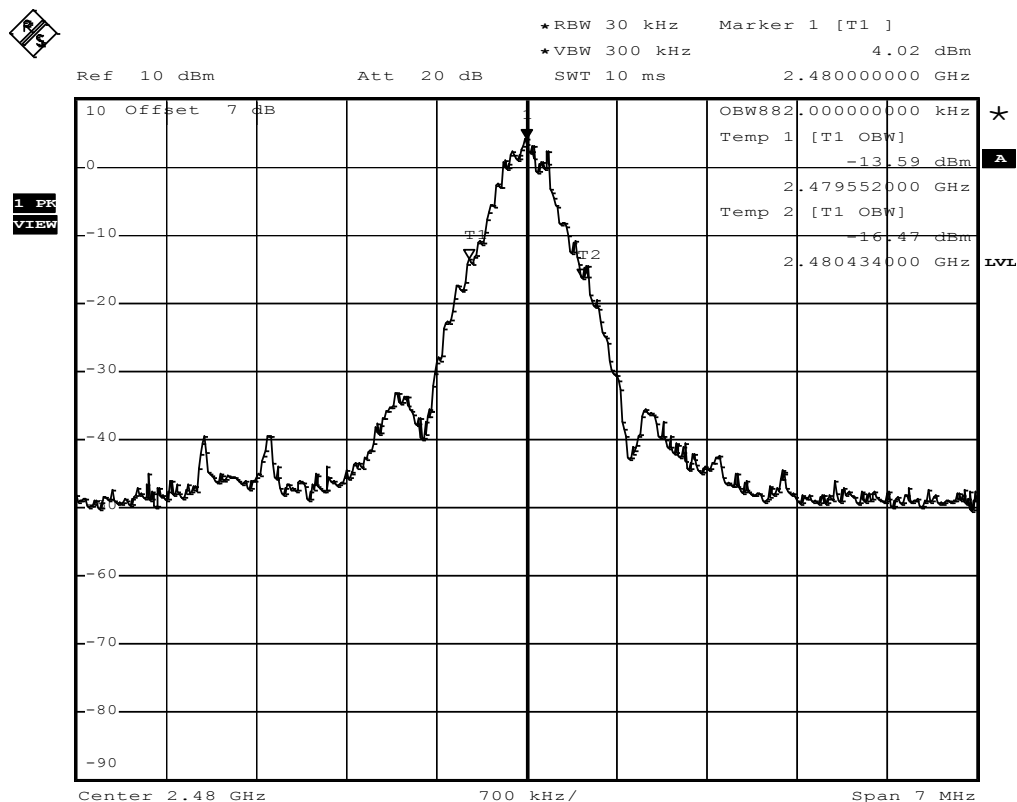


Comment: Occupied bandwidth: 882 KHz
Date: 18.AUG.2014 11:06:58

Occupied Bandwidth – DH5-Sngl F_{HIGH}

RSS Gen Occupied Bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 78 / 2480 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	DH5

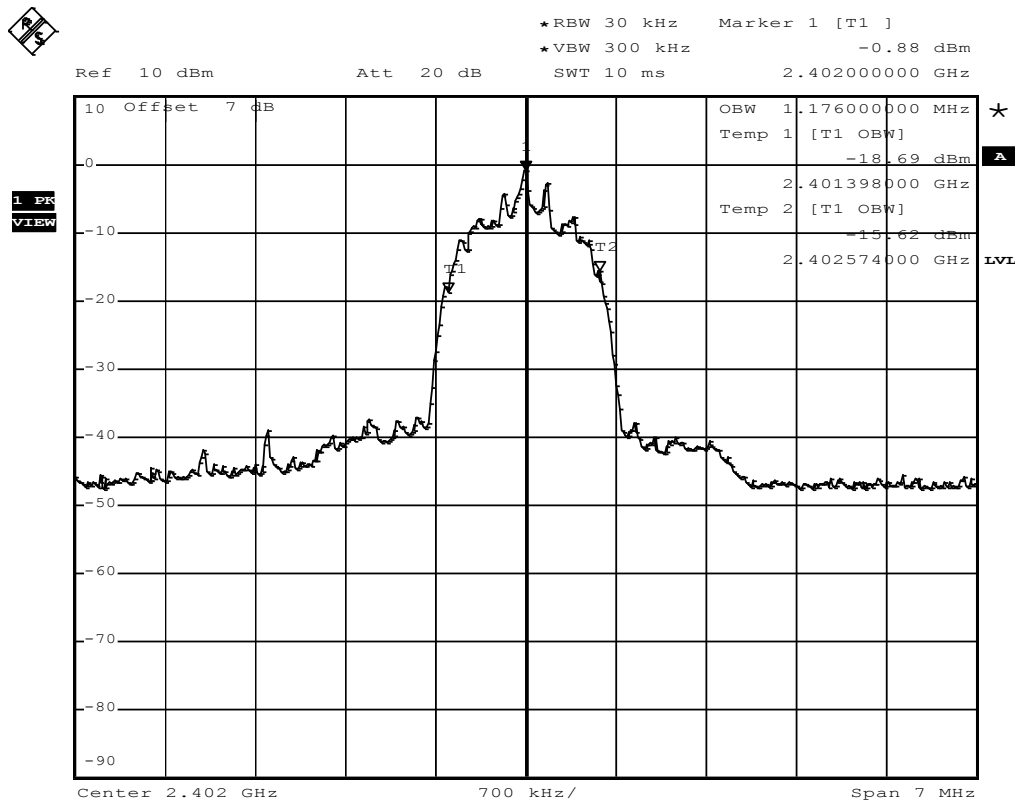


Comment: Occupied bandwidth: 882 KHz
Date: 18.AUG.2014 11:09:26

Occupied Bandwidth – 3-DH5-Sngl F_{LOW}

RSS Gen Occupied Bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 0 / 2402 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	3-DH5

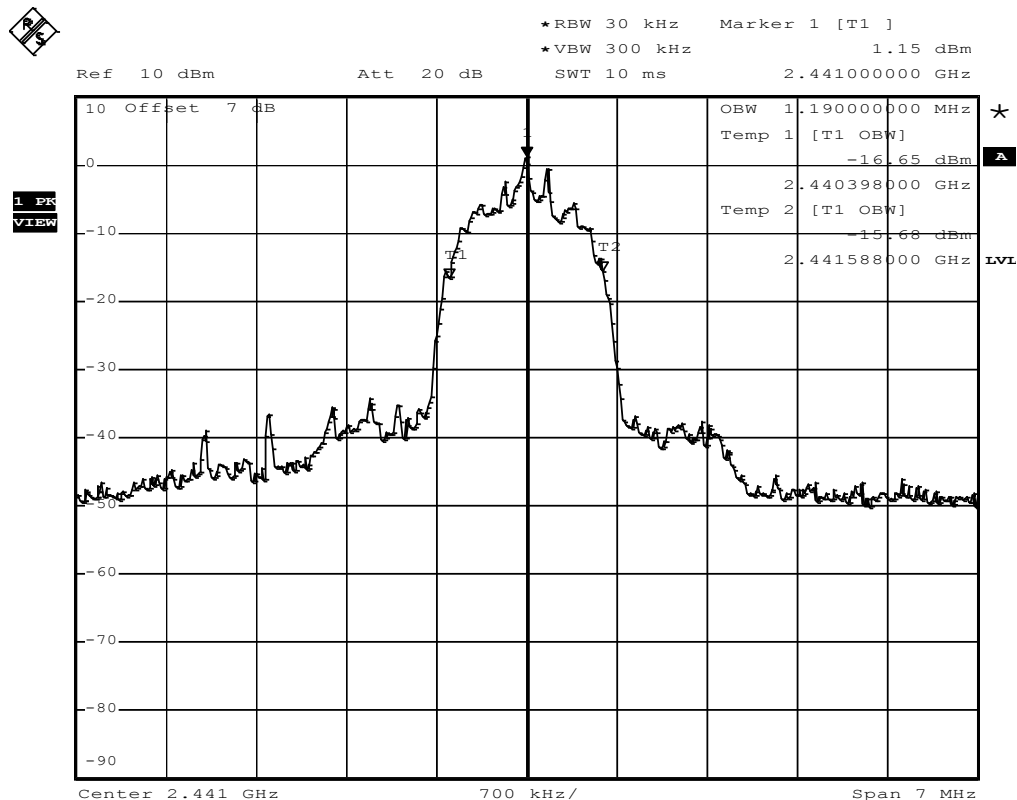


Comment: Occupied bandwidth: 1176 KHz
Date: 18.AUG.2014 11:39:17

Occupied Bandwidth – 3-DH5-Sngl F_{MID}

RSS Gen Occupied Bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 39 / 2441 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	3-DH5

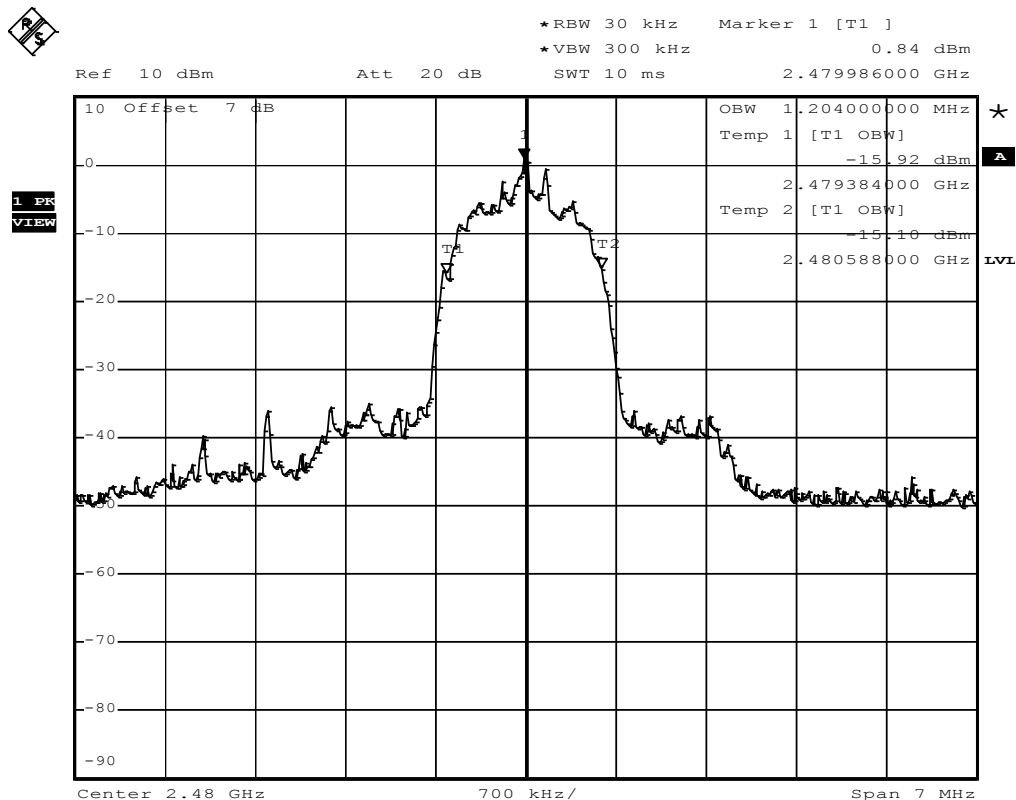


Comment: Occupied bandwidth: 1190 KHz
Date: 18.AUG.2014 11:40:40

Occupied Bandwidth – 3-DH5-Sngl F_{HIGH}

RSS Gen Occupied Bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / G0M-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 78 / 2480 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	3-DH5



Comment: Occupied bandwidth: 1204 KHz
Date: 18.AUG.2014 11:42:21

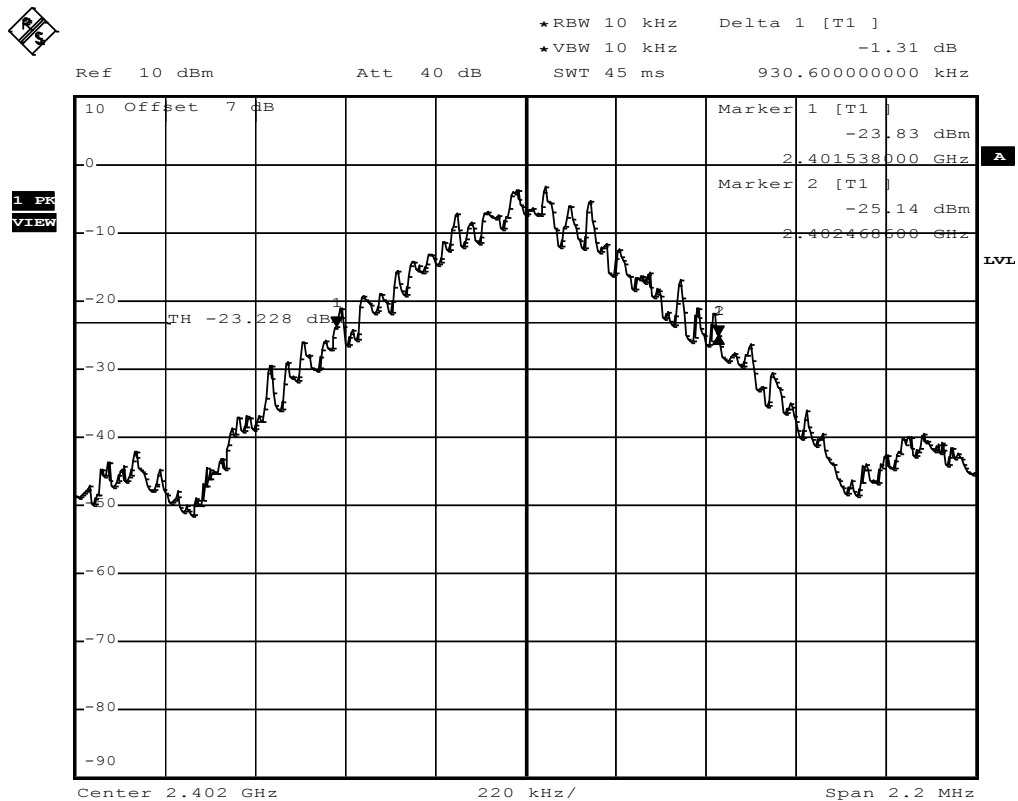
3.2 Test Conditions and Results – 20 dB Bandwidth

20 dB Bandwidth acc. FCC 15.247 / IC RSS-210				Verdict: PASS	
EUT requirement rule parts and clause	Reference				
	FCC 15.247(a)(1) / IC RSS-210 A8.1				
Test according to measurement reference	Reference Method				
	FCC Public Notice DA 00-705				
Test frequency range	Tested frequencies				
	F _{LOW} / F _{MID} / F _{HIGH}				
Limits					
Limit		Condition			
1.5 · Carrier spacing		Output power ≤ 125 mW / 21 dBm			
1.0 · Carrier spacing		125 mW / 21 dBm < Output power ≤ 1 W / 30 dBm			
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. Detector set to peak and max hold 4. Envelope peak value of emission spectrum is selected 5. Marker on envelope of spectrum is set to level of -20 dB to the left of the peak 6. Marker on envelope of spectrum is set to level of -20 dB to the right of the peak 7. 20dB Bandwidth is determined by marker frequency separation					
Test results					
Channel	Frequency [MHz]	Mode	20 dB Bandwidth [MHz]	Limit [MHz]	Result
F _{LOW}	2402	DH5-Sngl	930.6	1.5	PASS
F _{MID}	2441	DH5-Sngl	930.6	1.5	PASS
F _{HIGH}	2480	DH5-Sngl	930.6	1.5	PASS
F _{LOW}	2402	2DH5-Sngl	1309	1.5	PASS
F _{MID}	2441	2DH5-Sngl	1317.8	1.5	PASS
F _{HIGH}	2480	2DH5-Sngl	1317.8	1.5	PASS
F _{LOW}	2402	3DH5-Sngl	1269.4	1.5	PASS
F _{MID}	2441	3DH5-Sngl	1269.4	1.5	PASS
F _{HIGH}	2480	3DH5-Sngl	1269.4	1.5	PASS
Comments:					

20 dB Bandwidth – DH5-Sngl F_{LOW}

FCC part 15.247
20 dB bandwidth

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / GOM-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15 section 247(a)
Comment 1 20 dB bandwidth
Comment 2 Channel.: 0 / 2402 MHz / GFSK
Comment 3 pass

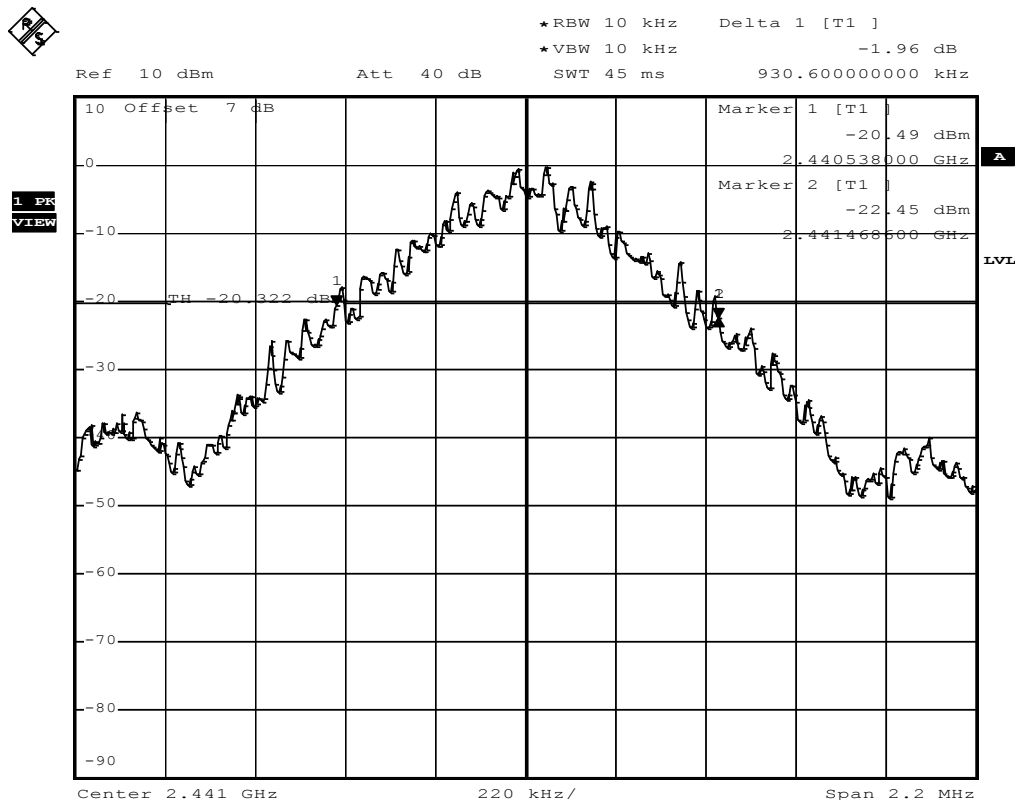


Comment: 20 dB bandwidth: 930.6 KHz
Date: 14.AUG.2014 12:51:49

20 dB Bandwidth – DH5-Sngl F_{MID}

FCC part 15.247
20 dB bandwidth

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / GOM-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15 section 247(a)
Comment 1 20 dB bandwidth
Comment 2 Channel.: 39 / 2441 MHz / GFSK
Comment 3 pass

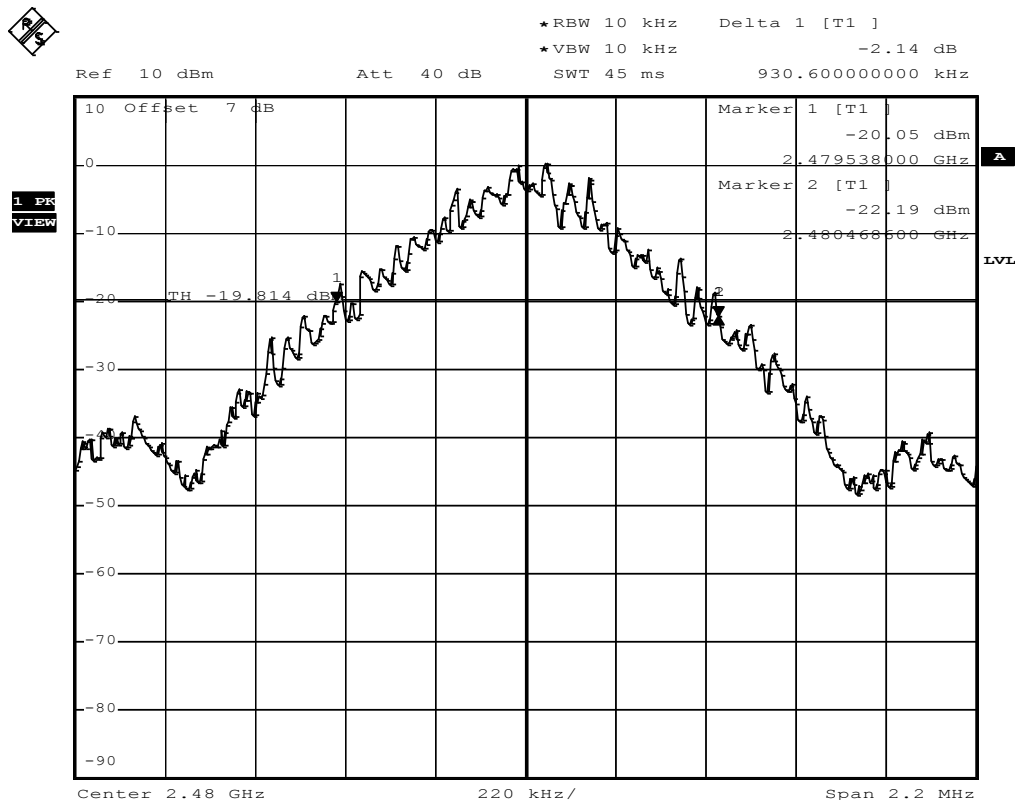


Comment: 20 dB bandwidth: 930.6 KHz
Date: 15.AUG.2014 11:45:16

20 dB Bandwidth – DH5-Sngl F_{HIGH}

FCC part 15.247
20 dB bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)
Comment 1	20 dB bandwidth
Comment 2	Channel.: 78 / 2480 MHz / GFSK
Comment 3	pass

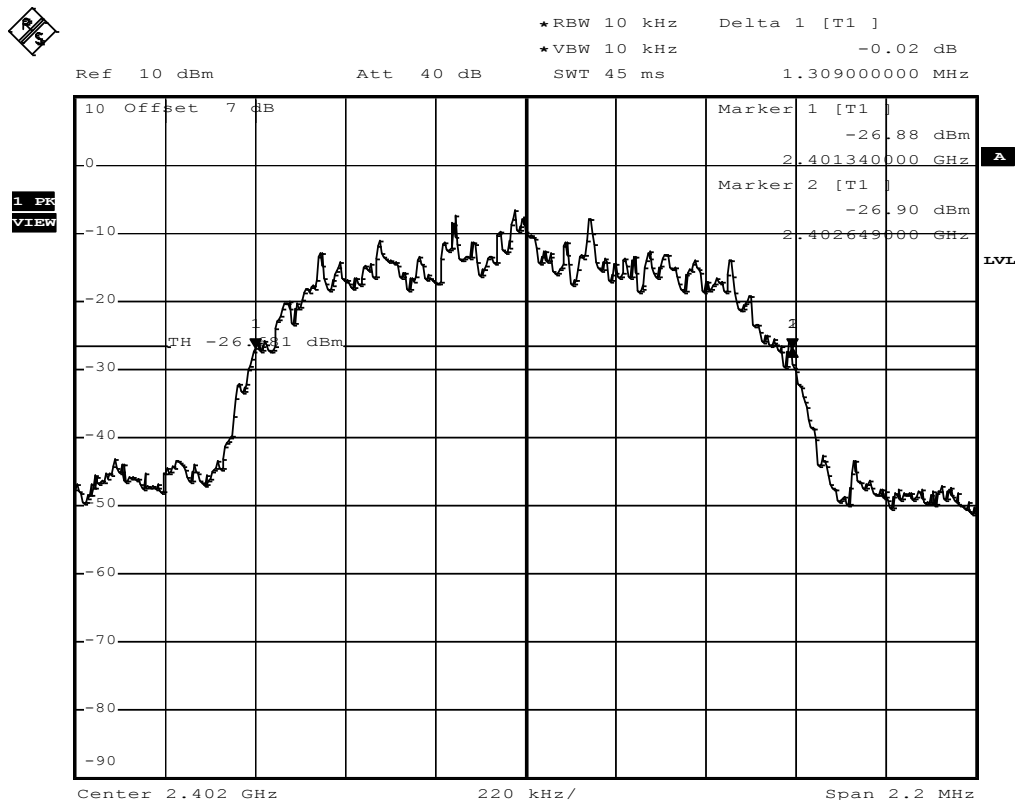


Comment: 20 dB bandwidth: 930.6 KHz
Date: 15.AUG.2014 11:52:25

20 dB Bandwidth – 2-DH5-Sngl F_{Low}

FCC part 15.247
20 dB bandwidth

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / GOM-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15 section 247(a)
Comment 1 20 dB bandwidth
Comment 2 Channel.: 0 / 2402 MHz / Pi/4 DQPSK
Comment 3 pass

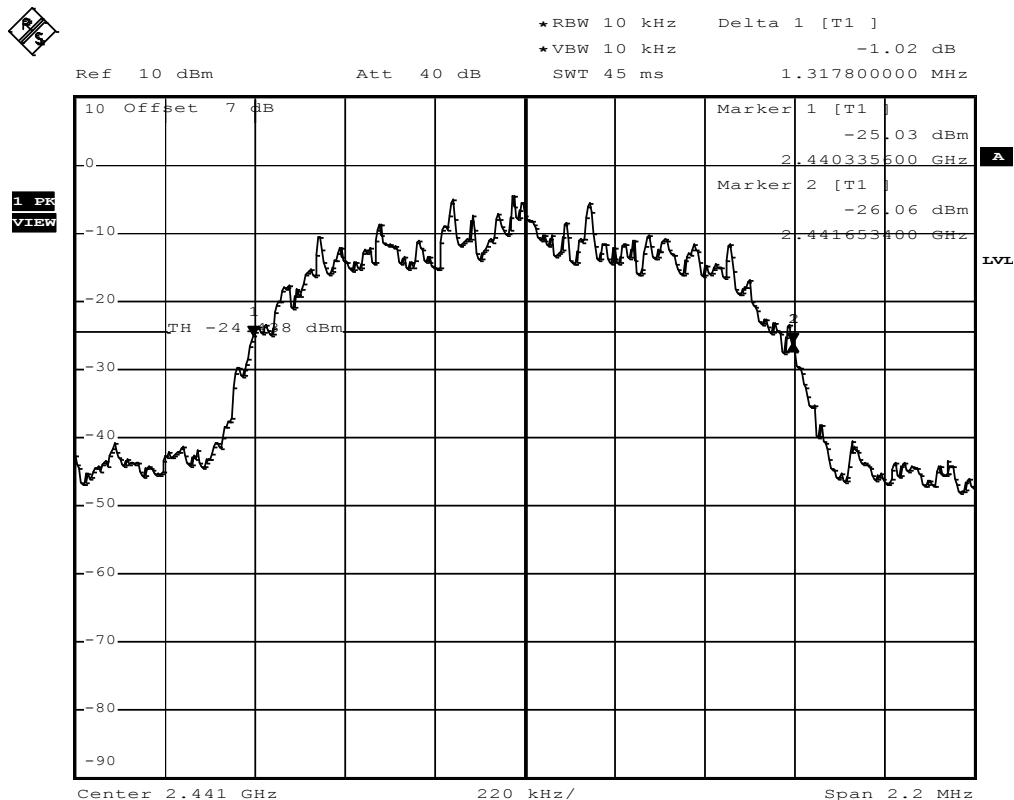


Comment: 20 dB bandwidth: 1309 KHz
Date: 15.AUG.2014 12:42:06

20 dB Bandwidth – 2-DH5-Sngl F_{MID}

FCC part 15.247
20 dB bandwidth

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / GOM-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15 section 247(a)
Comment 1 20 dB bandwidth
Comment 2 Channel.: 39 / 2441 MHz / Pi/4 DQPSK
Comment 3 pass

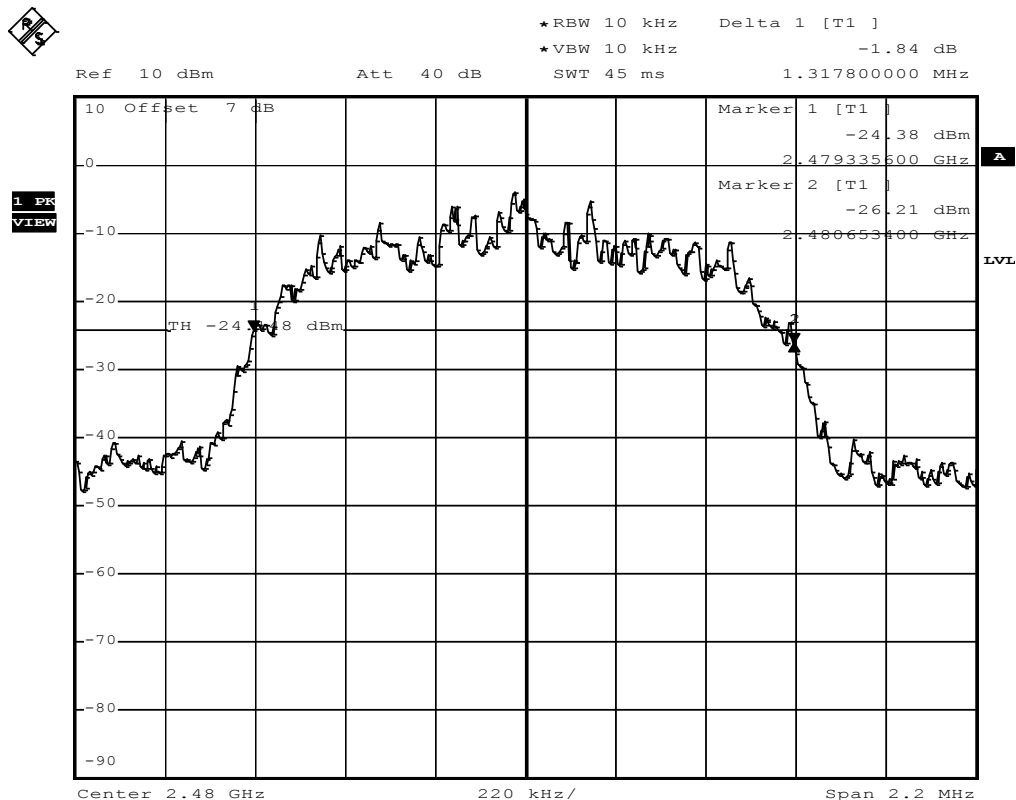


Comment: 20 dB bandwidth: 1317.8 KHz
Date: 15.AUG.2014 12:44:33

20 dB Bandwidth – 2-DH5-Sngl F_{HIGH}

FCC part 15.247
20 dB bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)
Comment 1	20 dB bandwidth
Comment 2	Channel.: 78 / 2480 MHz / Pi/4 DQPSK
Comment 3	pass

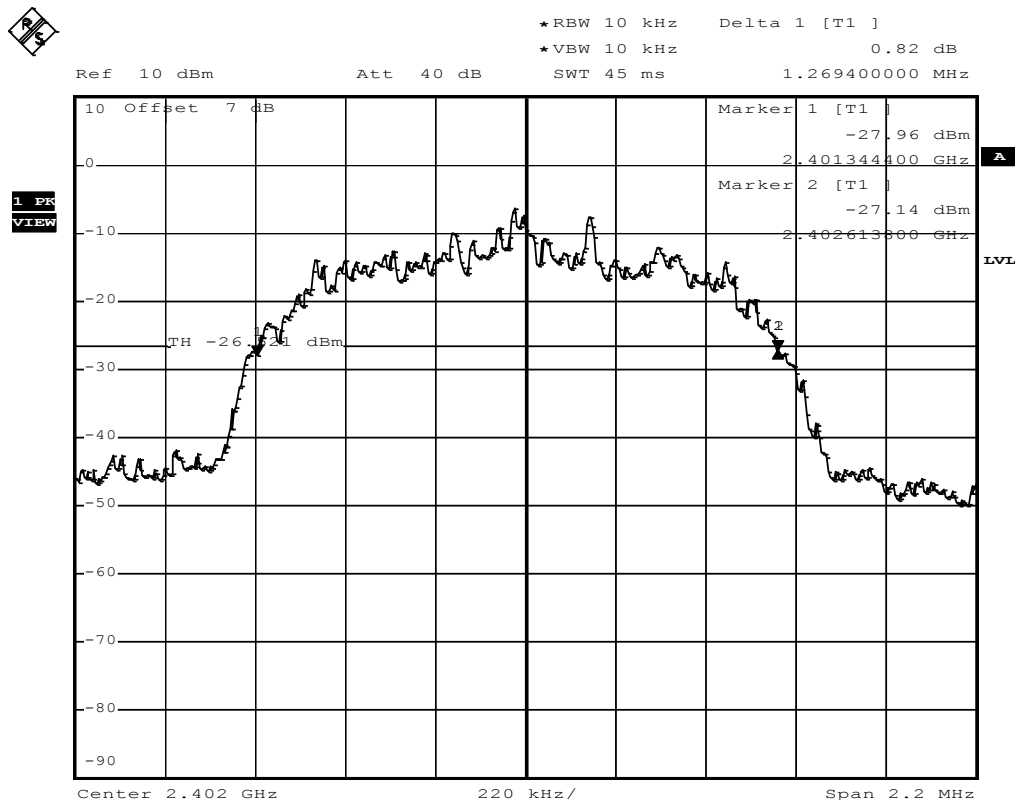


Comment: 20 dB bandwidth: 1317.8 KHz
Date: 15.AUG.2014 12:47:40

20 dB Bandwidth – 3-DH5-Sngl F_{Low}

FCC part 15.247
20 dB bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)
Comment 1	20 dB bandwidth
Comment 2	Channel.: 0 / 2402 MHz / 8 DPSK
Comment 3	pass

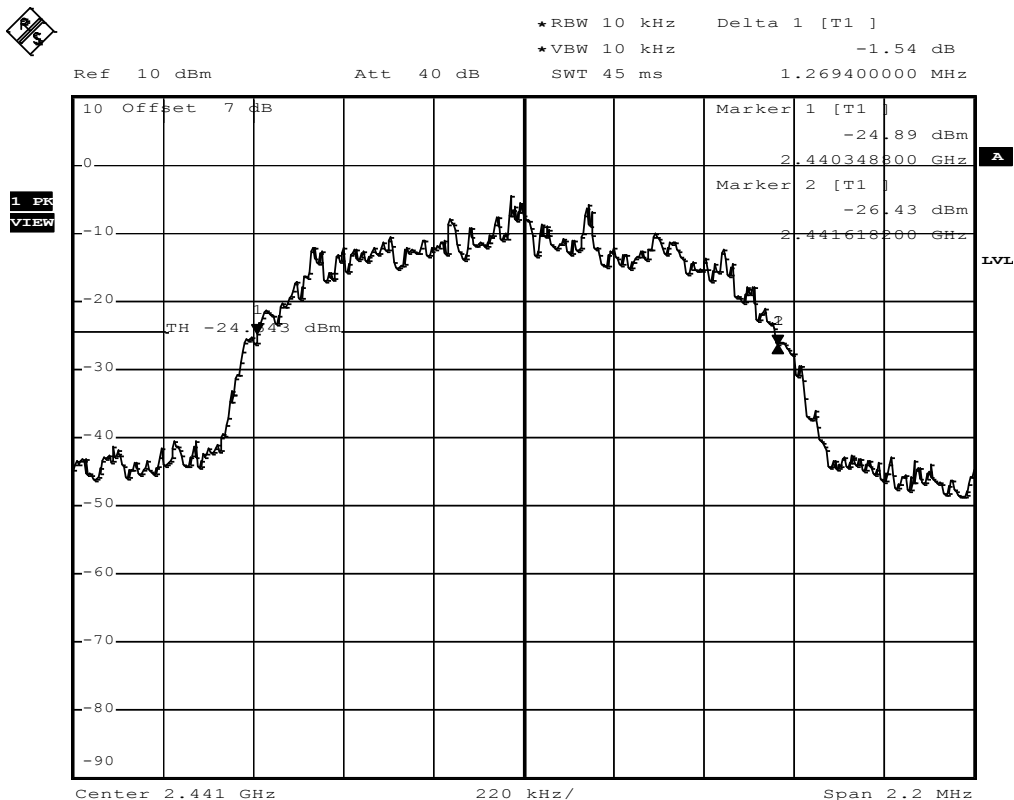


Comment: 20 dB bandwidth: 1269.4 KHz
Date: 15.AUG.2014 12:55:23

20 dB Bandwidth – 3-DH5-Sngl F_{MID}

FCC part 15.247
20 dB bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)
Comment 1	20 dB bandwidth
Comment 2	Channel.: 39 / 2441 MHz / 8 DPSK
Comment 3	pass

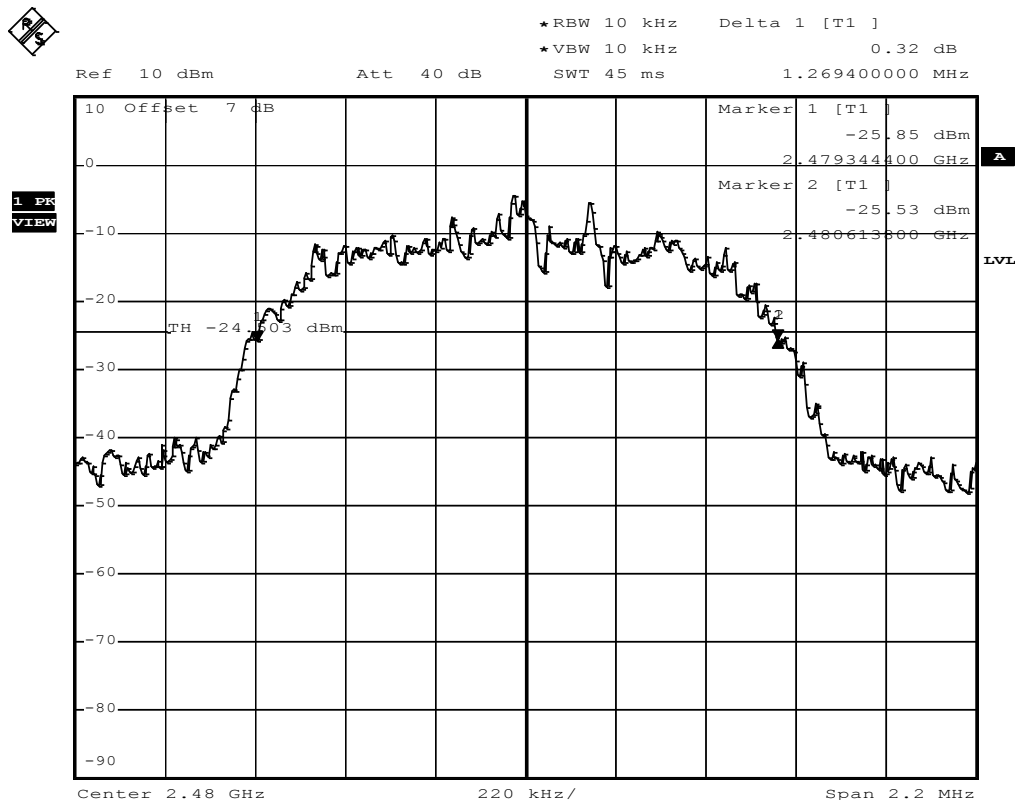


Comment: 20 dB bandwidth: 1269.4 KHz
Date: 15.AUG.2014 12:58:07

20 dB Bandwidth – 3-DH5-Sngl F_{HIGH}

FCC part 15.247
20 dB bandwidth

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)
Comment 1	20 dB bandwidth
Comment 2	Channel.: 78 / 2480 MHz / 8 DPSK
Comment 3	pass



Comment: 20 dB bandwidth: 1269.4 KHz
Date: 15.AUG.2014 12:59:28

Test Report No.: GOM-1406-3920-TFC247BT-Issue02V01

Eurofins Product Service GmbH
Storkower Str. 38c, D-15526 Reichenwalde, Germany

3.3 Test Conditions and Results – Number of hopping frequencies

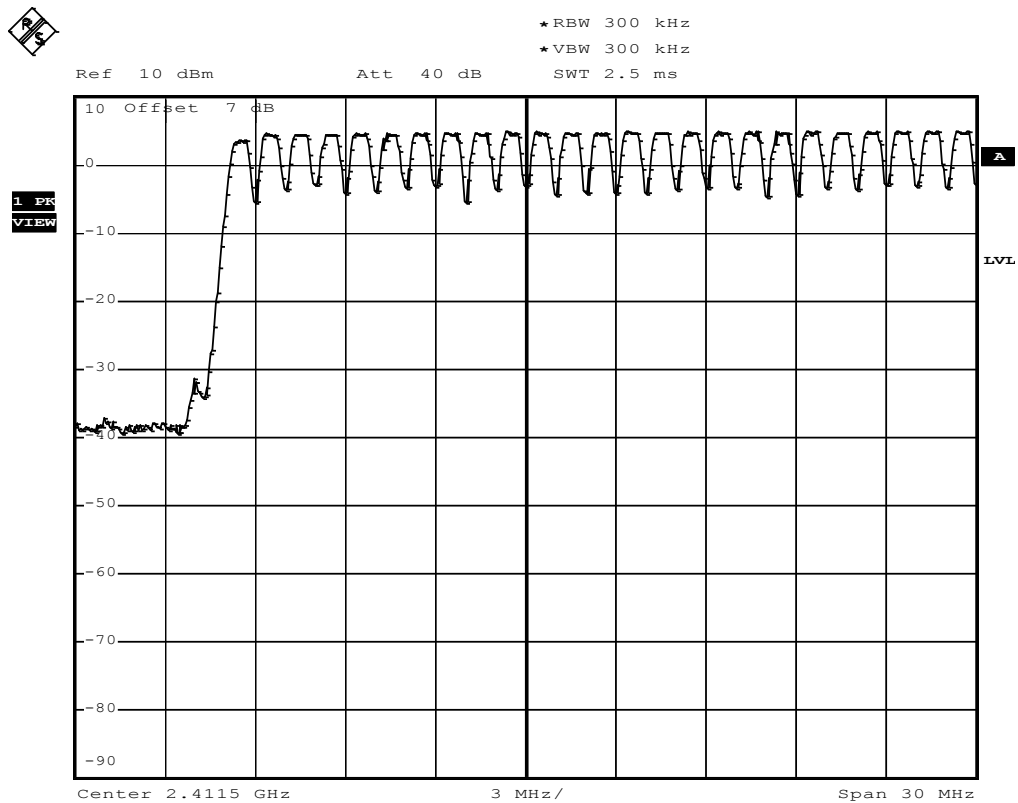
Number of hopping frequencies acc. FCC 15.247 / IC RSS-210		Verdict: PASS
EUT requirement rule parts and clause	Reference	
	FCC 15.247(a)(1)(iii) / IC RSS-210 A8.1	
Test according to measurement reference	Reference Method	
	FCC Public Notice DA 00-705	
Test frequency range	Tested frequencies	
	F _{LOW} - F _{HIGH}	
EUT test mode	DH5-Hop	
Limits		
Limit	Condition	
Number of hopping channels ≥ 15	Output power ≤ 125 mW / 21 dBm	
Number of hopping channels ≥ 75	125 mW / 21 dBm < Output power ≤ 1 W / 30 dBm	
Test setup		
Spectrum Analyzer EUT		
Test procedure		
1. EUT set to test mode (Communication tester is used if needed) 2. Span set to measurement frequency range 3. Detector set to peak and max hold 4. Resolution bandwidth is set small enough to resolve hopping channel emission spectra 5. The number of peaks is counted to determine number of hopping frequencies		
Test results		
Number of hopping frequencies	Limit	Result
79	≥ 15	PASS
Comments:		

Number of hopping frequencies - Range A

FCC part 15.247

Number of hopping frequencies

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)
Comment 1	Number of hopping frequencies
Comment 2	Channel.: 0-24
Comment 3	pass



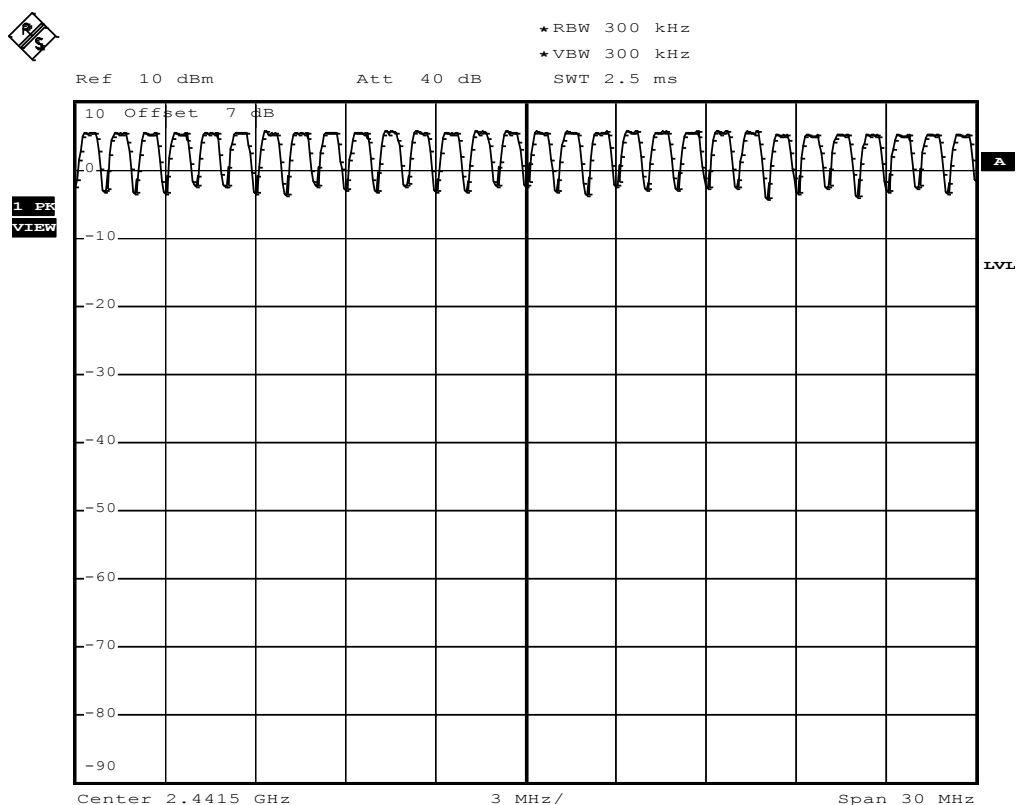
Comment: Number of hopping frequencies
Date: 18.AUG.2014 10:28:09

Number of hopping frequencies - Range B

FCC part 15.247

Number of hopping frequencies

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)
Comment 1	Number of hopping frequencies
Comment 2	Channel.: 25-54
Comment 3	pass



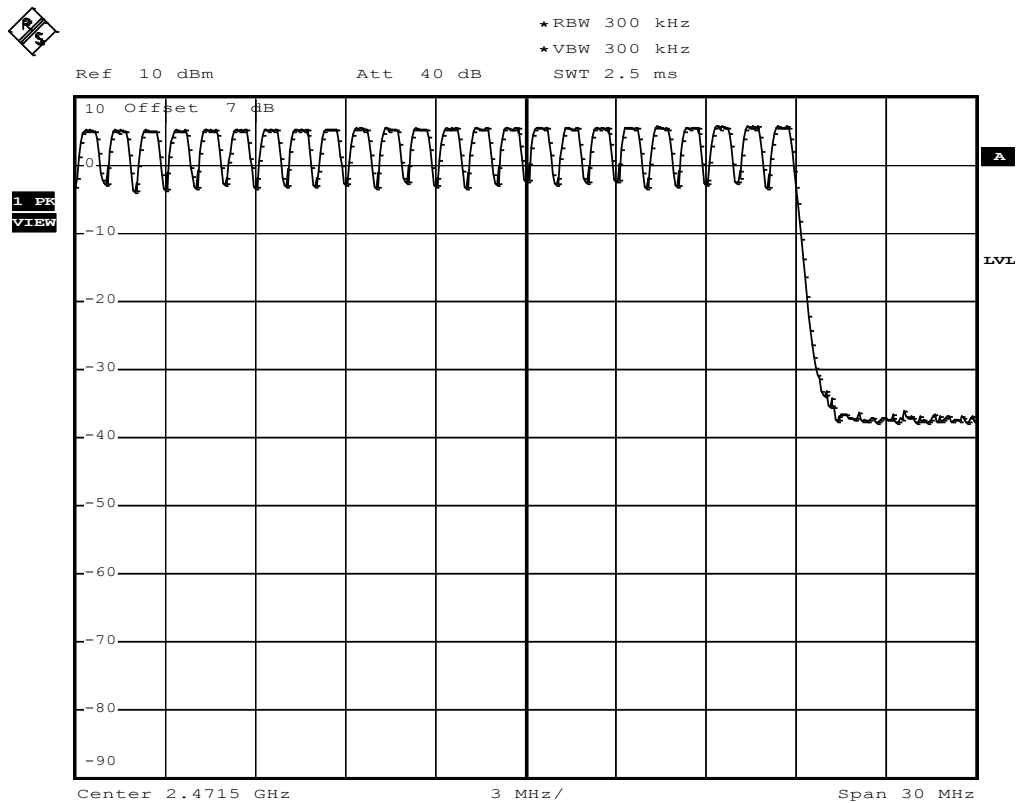
Comment: Number of hopping frequencies
Date: 18.AUG.2014 10:34:59

Number of hopping frequencies - Range C

FCC part 15.247

Number of hopping frequencies

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)
Comment 1	Number of hopping frequencies
Comment 2	Channel.: 55-78
Comment 3	pass



Comment: Number of hopping frequencies
Date: 18.AUG.2014 10:45:33

3.4 Test Conditions and Results – Frequency hopping channel separation

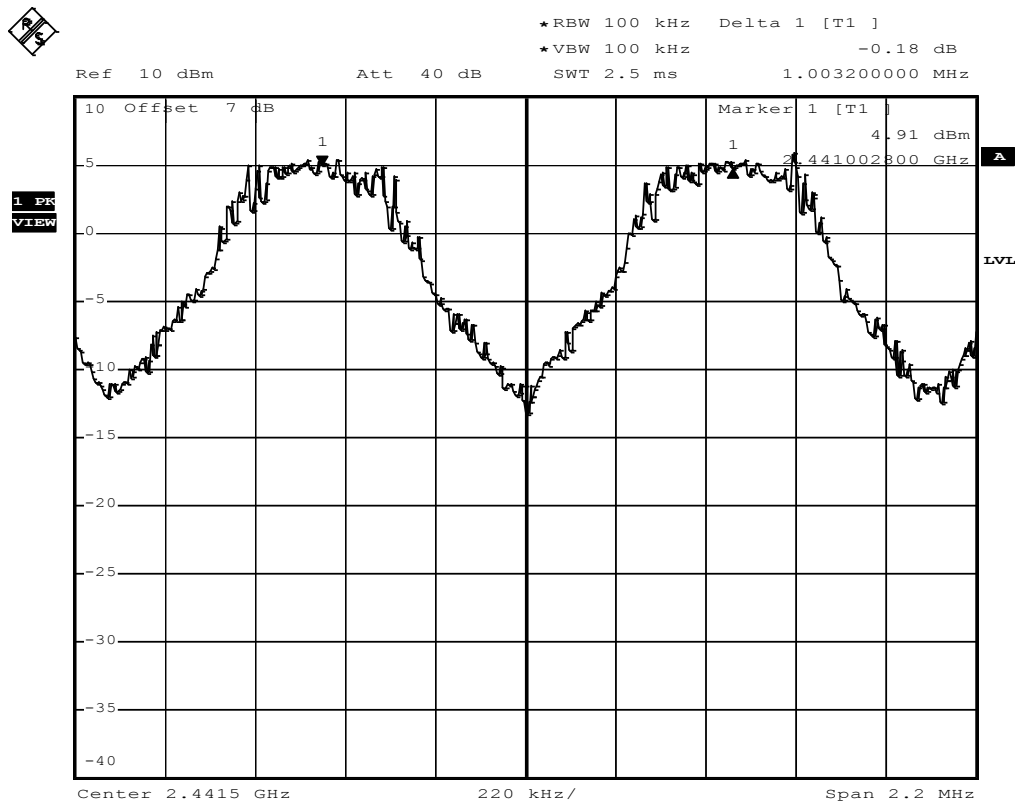
Frequency hopping channel separation acc. FCC 15.247 / IC RSS-210		Verdict: PASS
EUT requirement rule parts and clause	Reference	
	FCC 15.247(a)(1) / IC RSS-210 A8.1	
Test according to measurement reference	Reference Method	
	FCC Public Notice DA 00-705	
Test frequency range	Tested frequencies	
	2441 & 2442 MHz	
EUT test mode	DH5-Hop	
Limits		
Limit	Condition	
≥ 25 kHz or ⅔ of 20 dB bandwidth	Output power ≤ 125 mW / 21 dBm	
≥ 25 kHz or 20 dB bandwidth	125 mW / 21 dBm < Output power ≤ 1 W / 30 dBm	
Test setup		
Spectrum Analyzer EUT		
Test procedure		
1. EUT set to test mode (Communication tester is used if needed) 2. Span set to measurement frequency range 3. Detector set to peak and max hold 4. Resolution bandwidth is set small enough to resolve hopping channel emission spectra 5. The two adjacent channel peaks are marked 6. Channel separation is determined from frequency separation of markers		
Test results		
Channel separation [kHz]	Limit [kHz]	Result
1003	≥ ⅔ · 930.60 = 620.4	PASS
Comments:		

Frequency hopping channel separation

FCC part 15.247

Carrier frequency separation

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(a)(1)
Comment 1	Carrier frequency separation
Comment 2	Channel.: 39/40 / 2441/2442 MHz
Comment 3	Hopping mode



Comment: Limit: > two-thirds of the 20 dB bandwidth ; Result: Pass

Date: 18.AUG.2014 10:23:02

3.5 Test Conditions and Results – Time of occupancy (Dwell Time)

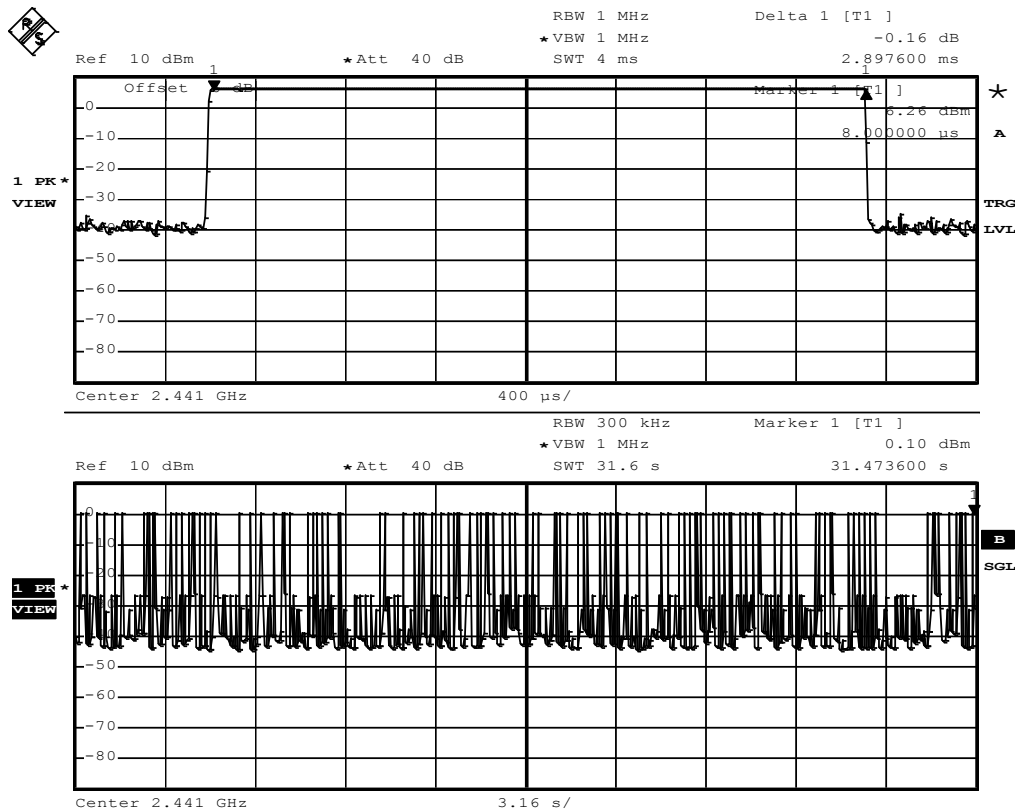
Time of occupancy (Dwell time) acc. FCC 15.247 / IC RSS-210				Verdict: PASS	
EUT requirement rule parts and clause		Reference			
		FCC 15.247(a)(1)(iii) / IC RSS-210 A8.1			
Test according to measurement reference		Reference Method			
		FCC Public Notice DA 00-705			
Test frequency range		Tested frequencies			
		2441 MHz			
EUT test mode		DH5-Hop			
Limits					
Limit					
Time of occupancy ≤ 0.4 s within 0.4 s · Number of hopping channels					
Test setup					
Spectrum Analyzer EUT					
Test procedure					
1. EUT set to test mode (Communication tester is used if needed) 2. Center frequency set to test channel center frequency 3. Span set to zero span and detector to peak and max hold 4. Resolution bandwidth is set to 100kHz and sweep time to observation period 5. Time of occupancy determined from number of peaks multiplied by single hop dwell time					
Test results					
Observation period [s]	No. of hops	Dwell time/hop [s]	Time of occupancy [s]	Limit [s]	Result
31.6	113	0.2898	0.327	≤ 0.4	PASS
Comments:					

Time of occupancy

FCC part 15.247

Time of occupancy inquiry

EUT Bluetooth Speakerphone
Model HFS20
Approval Holder GN Netcom / G0M-1407-4031
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15 section 247(a)
Comment 1 Time of occupancy inquiry
Comment 2 Channel.: 39 / 2441 MHz
Comment 3 113 events * 2.898 ms result: 327.474 ms



Comment: Burst length=2.8976 ms
Date: 19.AUG.2014 17:35:00

3.6 Test Conditions and Results – Maximum peak conducted power

Maximum peak conducted power acc. FCC 15.247 / IC RSS-210		Verdict: PASS
EUT requirement rule parts and clause	Reference	
	FCC 15.247(b)(1) / IC RSS-210 A8.4	
Test according to measurement reference	Reference Method	
	FCC Public Notice DA 00-705	
Test frequency range	Tested frequencies	
	F _{LOW} / F _{MID} / F _{HIGH}	
Measurement mode	Peak	
Maximum antenna gain	-1.41 dBi ⇒ Limit correction = 0 dB	
Limits		
Limit	Condition	
1 W (30 dBm)	Number of hopping channels ≥ 75	
0.125 W (21 dBm)	75 > Number of hopping channels ≥ 15	
The conducted output power limit specified above is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in the table, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.		
Test setup		
Spectrum Analyzer EUT		
Test procedure		
1. EUT set to test mode (Communication tester is used if needed) 2. Center frequency set to test channel center frequency 3. Span set to twice the 20 dB bandwidth and detector to peak and max hold 4. Resolution bandwidth is set to 3 MHz 5. Peak conducted power is determined from peak of spectrum envelope		

Test results								
Channel	Frequency [MHz]	Voltage	Mode	Peak power [dbm]	Peak power [W]	Limit [dBm]	Margin [dB]	Result
F _{LOW}	2402	3.7 VDC	DH5-Sngl	3.5	0.002	30	-26.50	PASS
F _{MID}	2441	3.7 VDC	DH5-Sngl	4.7	0.003	30	-25.30	PASS
F _{HIGH}	2480	3.7 VDC	DH5-Sngl	4.8	0.003	30	-25.20	PASS
F _{LOW}	2402	3.7 VDC	2DH5-Sngl	0.8	0.001	30	-29.20	PASS
F _{MID}	2441	3.7 VDC	2DH5-Sngl	2.9	0.002	30	-27.10	PASS
F _{HIGH}	2480	3.7 VDC	2DH5-Sngl	3.2	0.002	30	-26.80	PASS
F _{LOW}	2402	3.7 VDC	3DH5-Sngl	1.4	0.001	30	-28.60	PASS
F _{MID}	2441	3.7 VDC	3DH5-Sngl	3.4	0.002	30	-26.60	PASS
F _{HIGH}	2480	3.7 VDC	3DH5-Sngl	3.9	0.002	30	-26.10	PASS
Comments:								

3.7 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-Powerline			
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.					

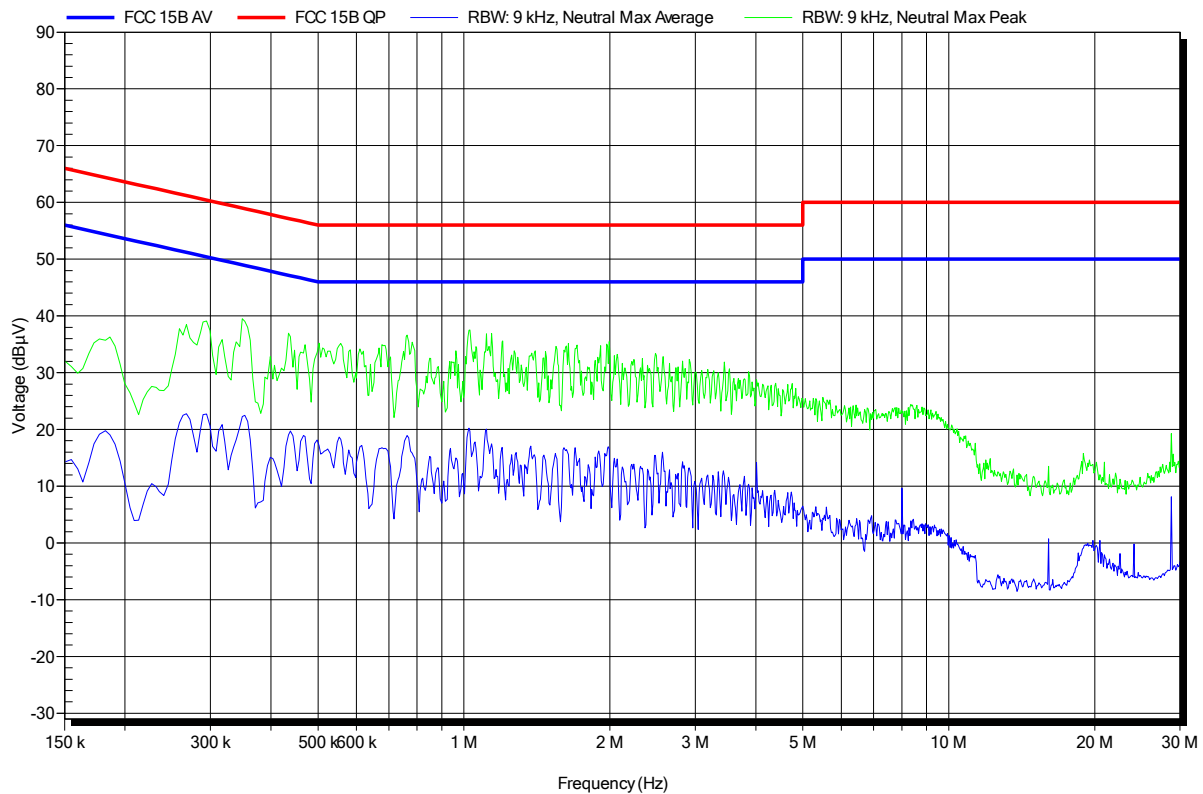
Conducted Emissions

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

Project number: G0M-1406-3920

Manufacturer: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Klein
 Test Conditions: Tnom: 23°C, Unom: 3.7V DC (battery)
 LISN: ESH2-Z5 N
 Mode: charging
 Test Date: 2014-08-14
 Note:

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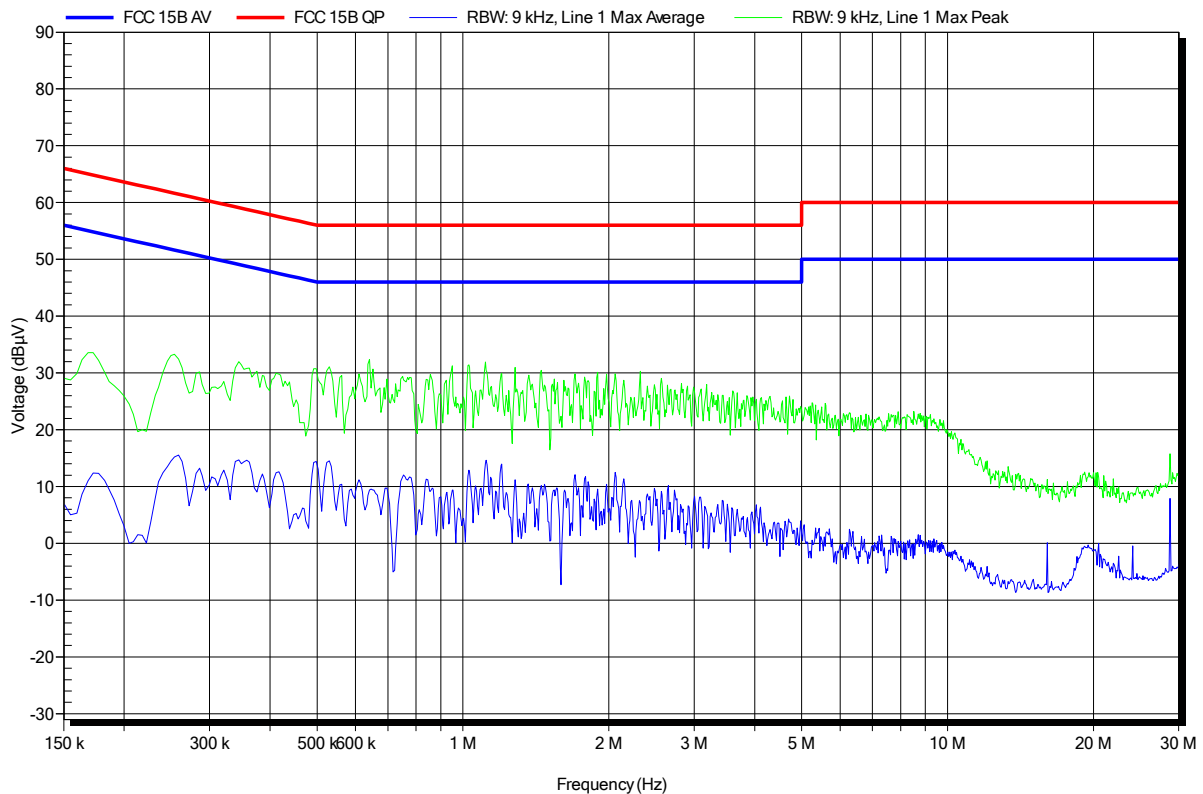


Conducted Emissions
EMI voltage test in the ac-mains according to FCC 15B

Project number: G0M-1406-3920

Manufacturer: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Klein
 Test Conditions: Tnom: 23°C, Unom: 3.7V DC (battery)
 LISN: ESH2-Z5 L
 Mode: charging
 Test Date: 2014-08-14
 Note:

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3.8 Test Conditions and Results – Band edge compliance

Band-edge compliance acc. FCC 15.247 / IC RSS-210					Verdict: PASS	
EUT requirement rule parts and clause			Reference			
			FCC 15.247(d) / IC RSS-210 A8.5			
Test according to measurement reference			Reference Method			
			FCC Public Notice DA 00-705			
Test frequency range			Tested frequencies			
			F _{LOW} / F _{HIGH}			
Measurement mode			Peak			
Limits						
Limit				Condition		
≤ -20 dB/100 kHz				Peak power measurement detector = Peak		
≤ -30 dB/100 kHz				Peak power measurement detector = RMS		
Test setup						
Spectrum Analyzer EUT						
Test procedure						
1. EUT set to test mode (Communication tester is used if needed) 2. Span set around lower band edge and detector is set to peak and max hold 3. Resolution bandwidth is set to 100 kHz 4. Markers are set to peak emission levels within frequency band and outside frequency band 5. Band edge attenuation is determined from level difference						
Test results						
Channel	Frequency [MHz]	Mode	Level [dBc]	Limit [dBc]	Margin [dB]	Result
F _{LOW}	2402	DH5-Sngl	-44.2	-20	-24.20	PASS
F _{HIGH}	2480	DH5-Sngl	-48.3	-20	-28.30	PASS
F _{LOW}	2402	DH5-Hop	-45.8	-20	-25.80	PASS
F _{HIGH}	2480	DH5-Hop	-47.3	-20	-27.30	PASS
F _{LOW}	2402	2DH5-Sngl	-37.6	-20	-17.60	PASS
F _{HIGH}	2480	2DH5-Sngl	-44.0	-20	-24.00	PASS
F _{LOW}	2402	2DH5-Hop	-43.1	-20	-23.10	PASS
F _{HIGH}	2480	2DH5-Hop	-43.8	-20	-23.80	PASS
F _{LOW}	2402	3DH5-Sngl	-39.0	-20	-19.00	PASS

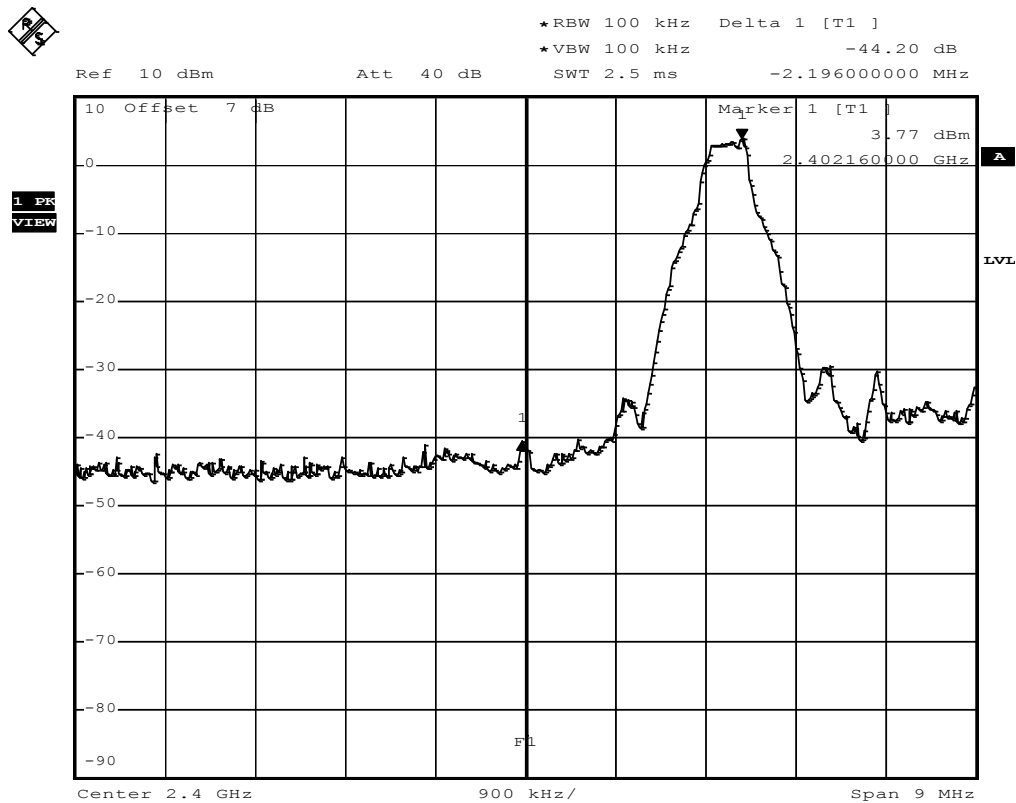
F _{HIGH}	2480	3DH5-Sngl	-45.7	-20	-25.70	PASS
F _{LOW}	2402	3DH5-Hop	-40.9	-20	-20.90	PASS
F _{HIGH}	2480	3DH5-Hop	-43.4	-20	-23.40	PASS
Comments:						

Band-edge compliance – DH5-Sngl F_{Low}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 0 / 2402 MHz / GFSK
Comment 3	Single frequency mode



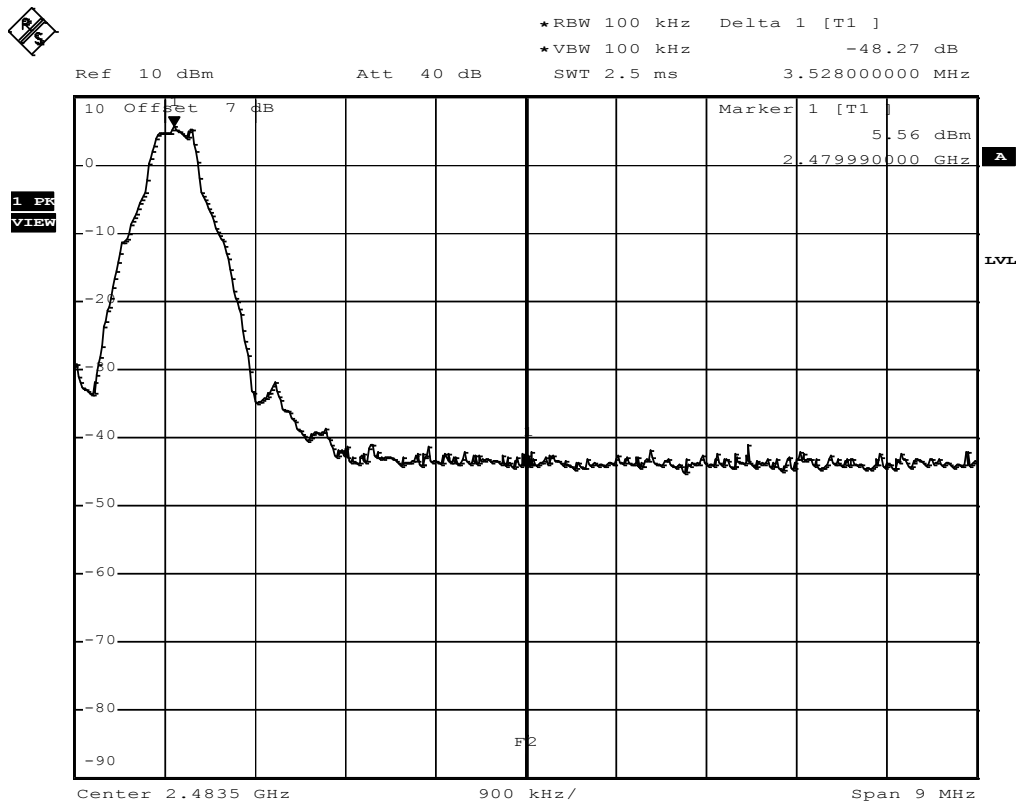
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.AUG.2014 13:07:00

Band-edge compliance – DH5-Sngl F_{HIGH}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 78 / 2480 MHz / DH5
Comment 3	Single frequency mode



Comment: Limit: Marker Delta value >20 dB; Result: PASS

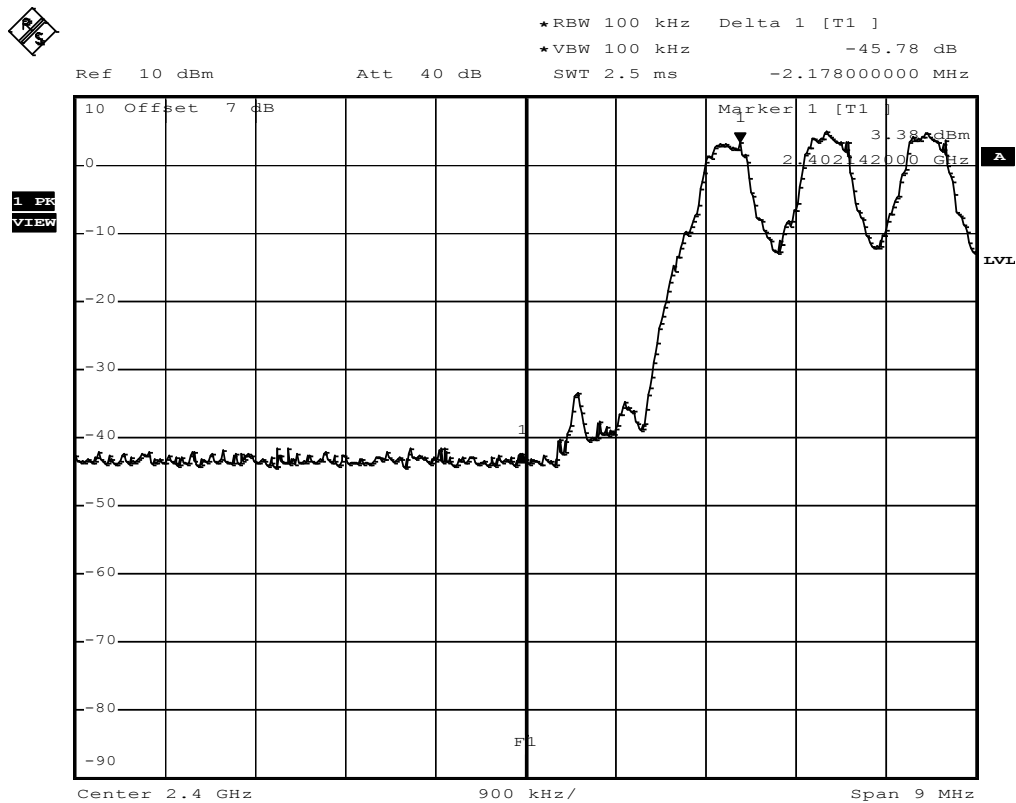
Date: 15.AUG.2014 13:52:08

Band-edge compliance – DH5-Hop F_{LOW}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 0 / 2402 MHz DH5
Comment 3	Hopping mode



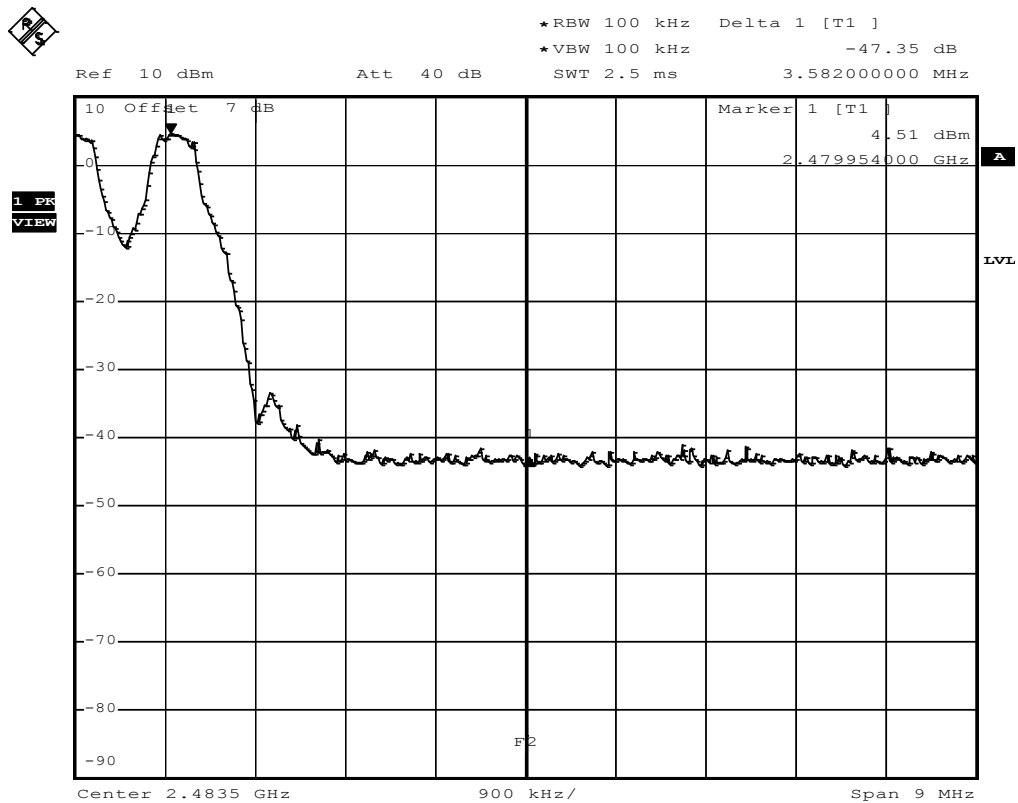
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Date: 15.AUG.2014 14:11:34

Band-edge compliance – DH5-Hop F_{HIGH}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 78 / 2480 MHz DH5
Comment 3	Hopping mode



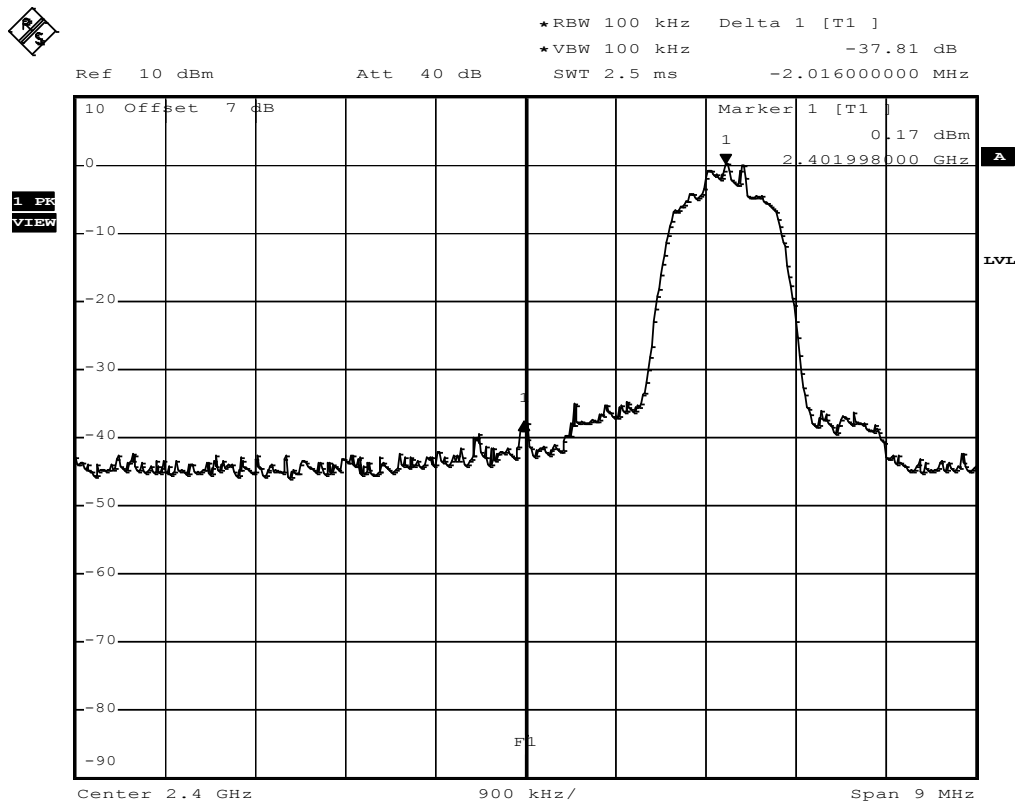
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.AUG.2014 14:28:31

Band-edge compliance – 2-DH5-Sngl F_{LOW}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 0 / 2402 MHz / 2-DH5
Comment 3	Single frequency mode



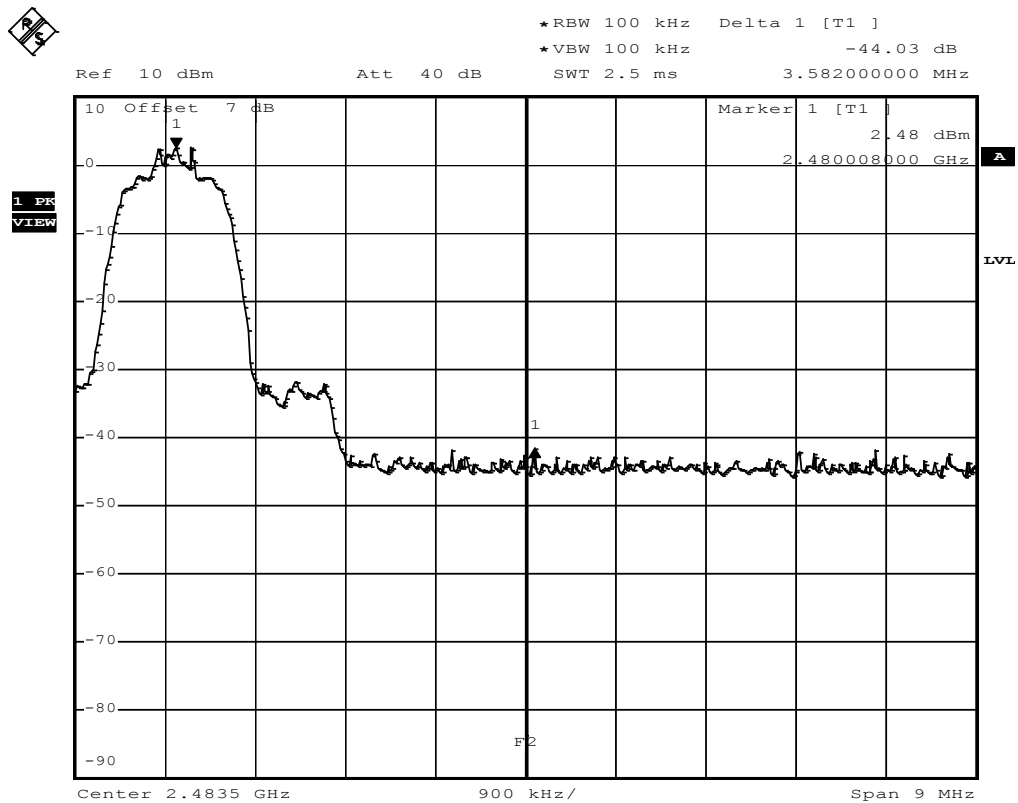
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.AUG.2014 13:41:18

Band-edge compliance – 2-DH5-Sngl F_{HIGH}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 78 / 2480 MHz / 2-DH5
Comment 3	Single frequency mode



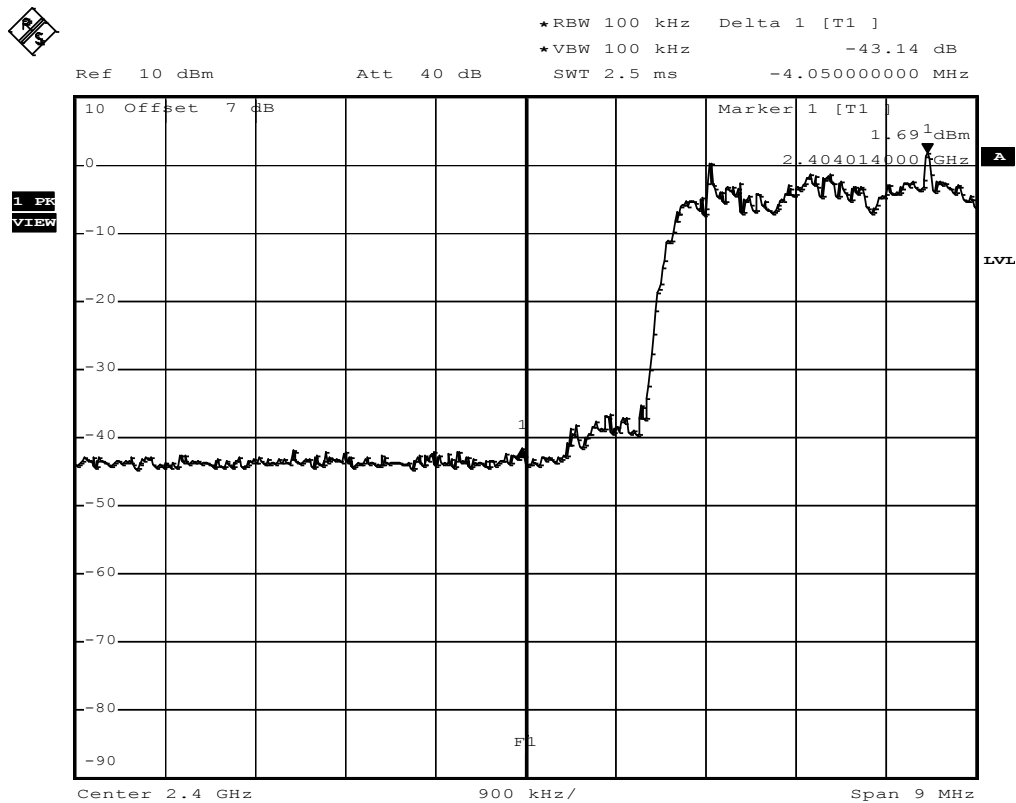
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.AUG.2014 13:54:11

Band-edge compliance – 2-DH5-Hop F_{LOW}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 0 / 2402 MHz 2-DH5
Comment 3	Hopping mode



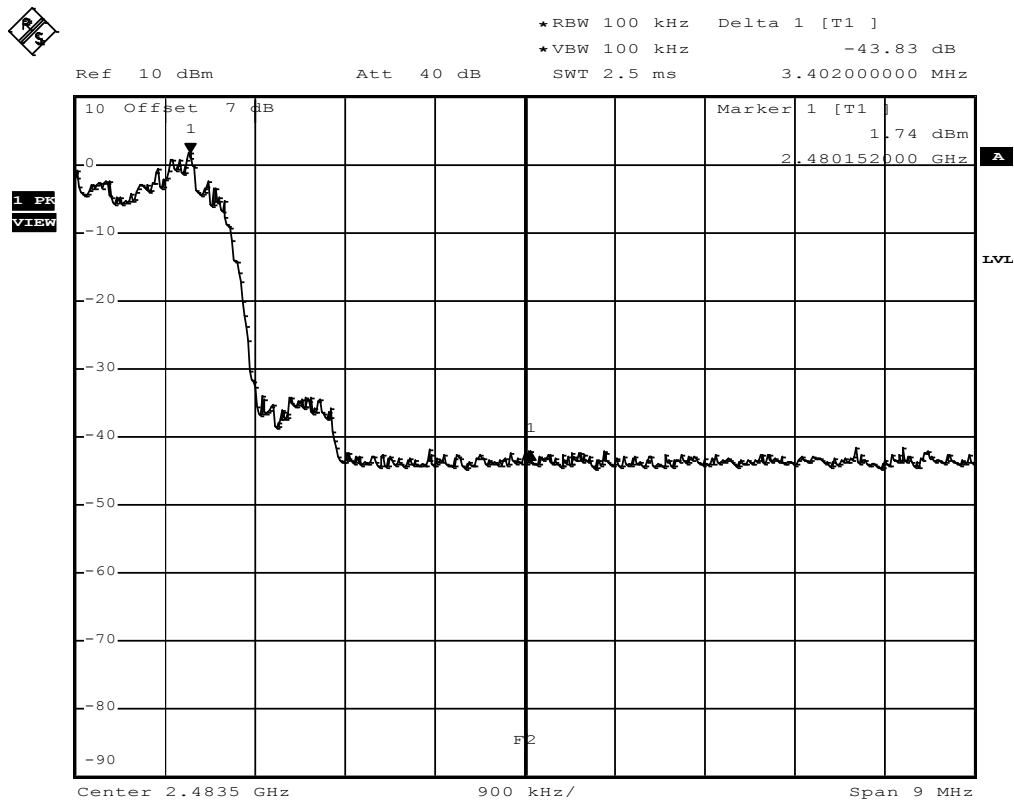
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.AUG.2014 14:15:15

Band-edge compliance – 2-DH5-Hop F_{HIGH}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 78 / 2480 MHz 2-DH5
Comment 3	Hopping mode



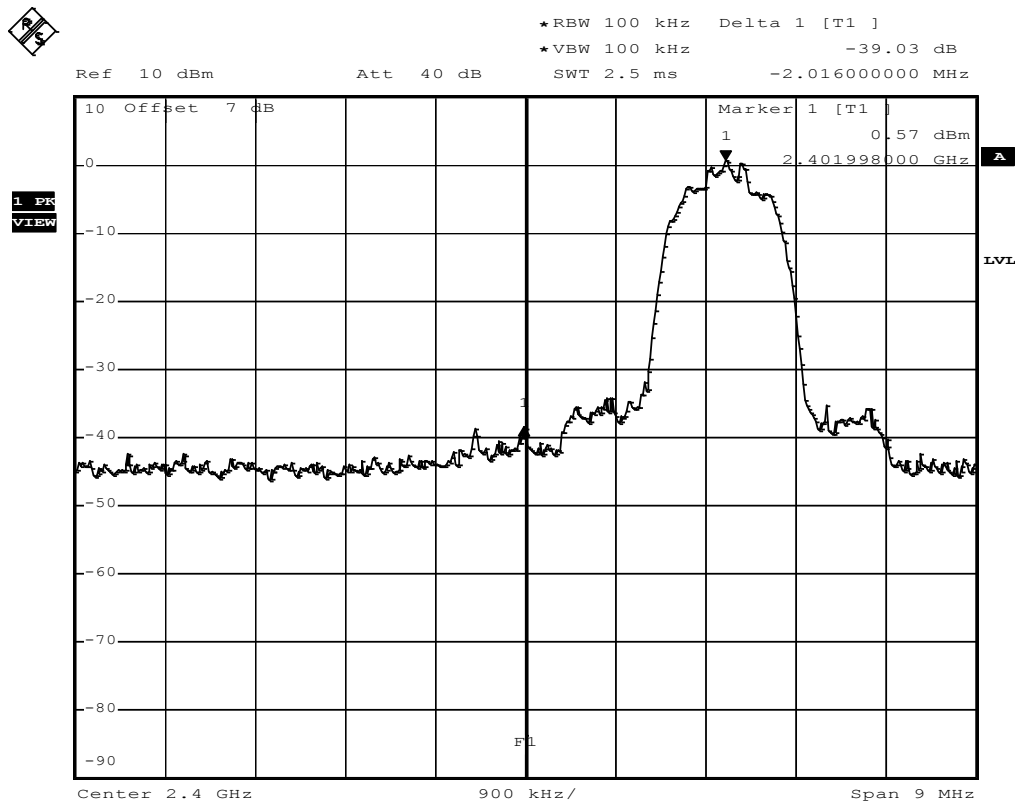
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.AUG.2014 14:24:49

Band-edge compliance – 3-DH5-Sngl F_{LOW}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 0 / 2402 MHz / 3-DH5
Comment 3	Single frequency mode



Comment: Limit: Marker Delta value >20 dB; Result: PASS

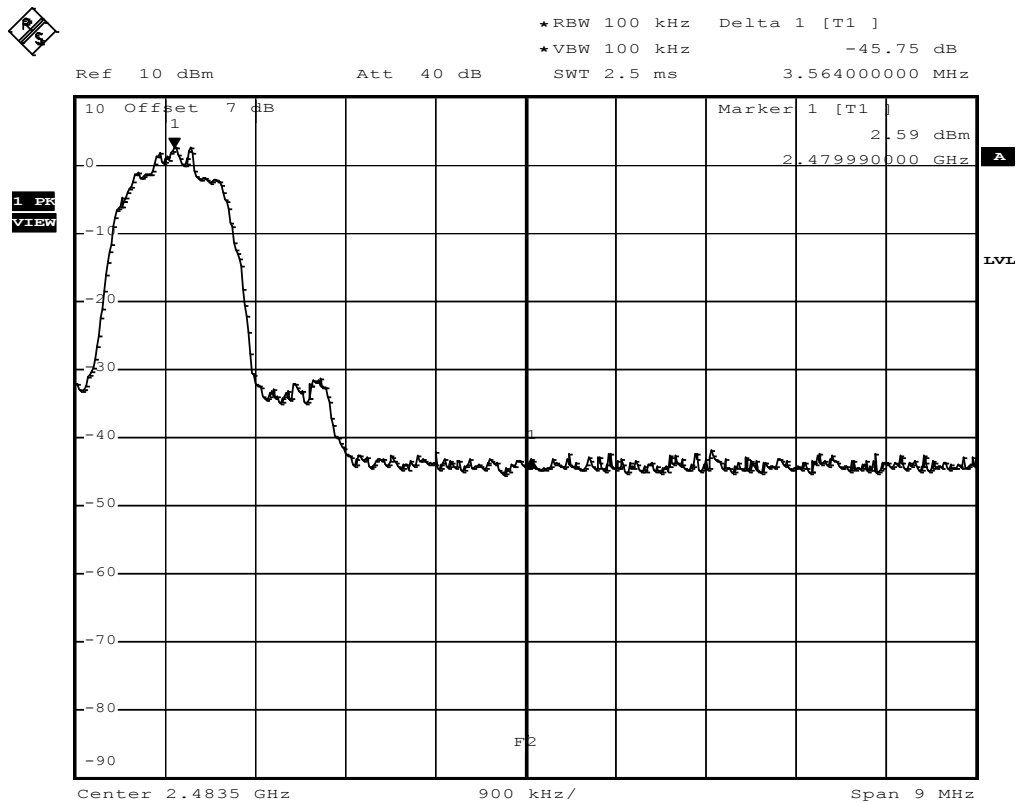
Date: 15.AUG.2014 13:45:07

Band-edge compliance – 3-DH5-Sngl F_{HIGH}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 78 / 2480 MHz / 3-DH5
Comment 3	Single frequency mode



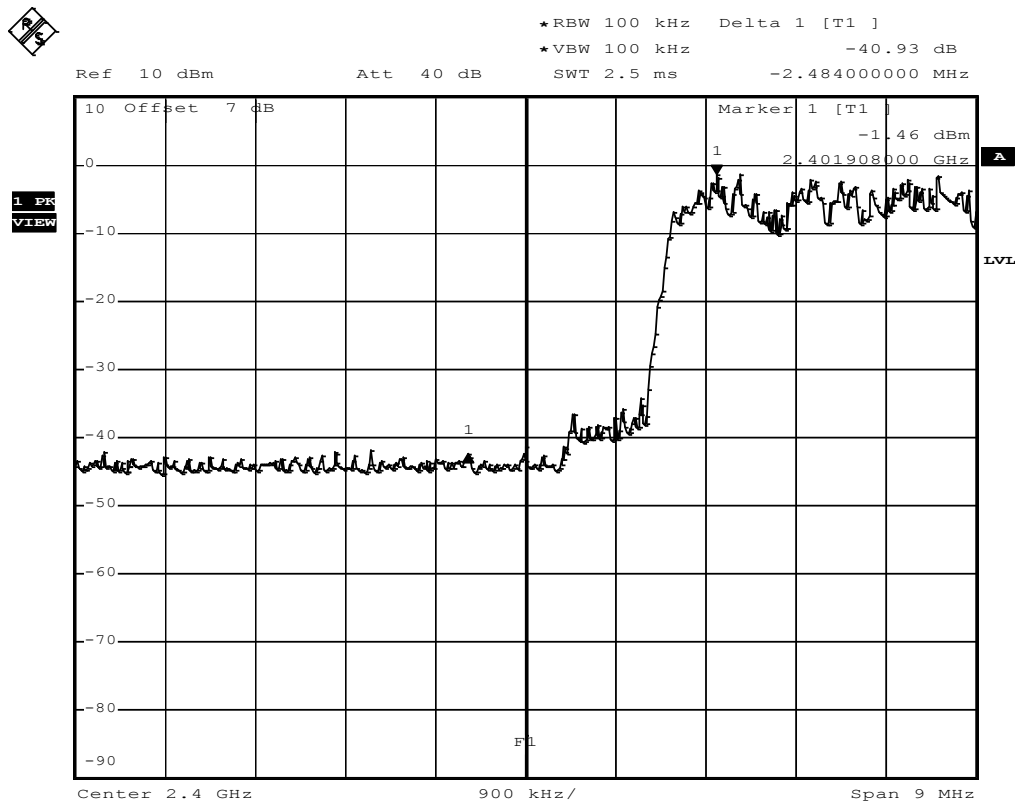
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.AUG.2014 13:47:25

Band-edge compliance – 3-DH5-Hop F_{LOW}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 0 / 2402 MHz 3-DH5
Comment 3	Hopping mode



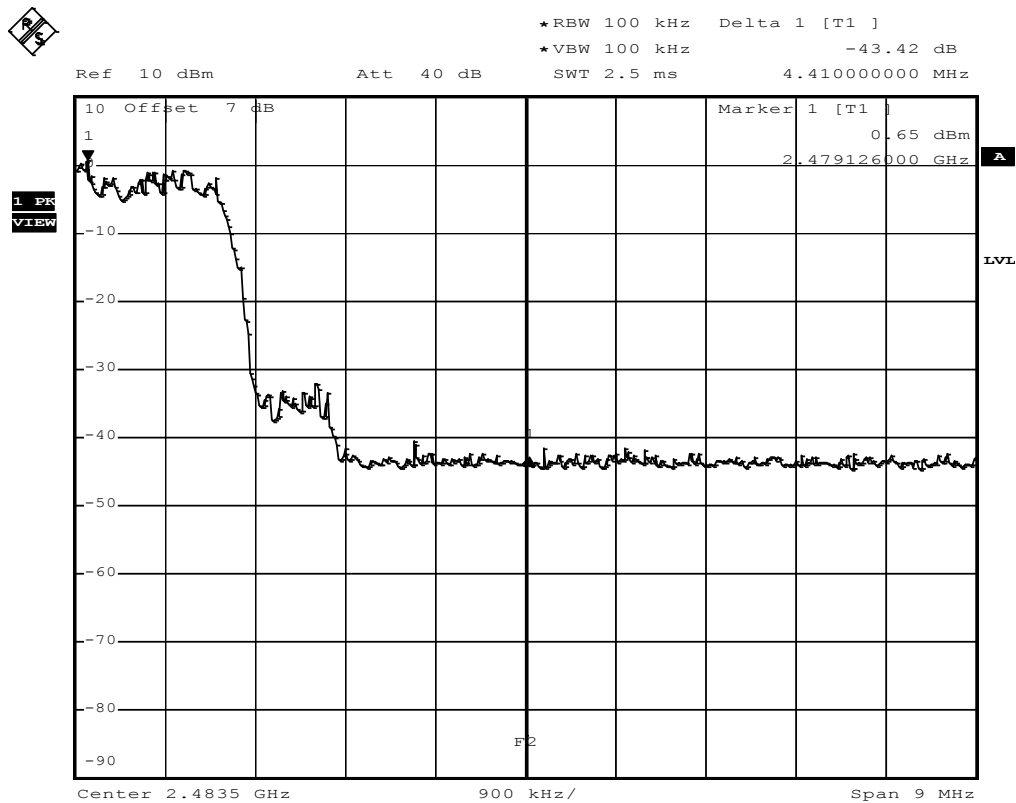
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.AUG.2014 14:17:58

Band-edge compliance – 3-DH5-Hop F_{HIGH}

FCC part 15.247

Band-edge compliance of RF conducted emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 78 / 2480 MHz 3-DH5
Comment 3	Hopping mode



Comment: Limit: Marker Delta value >20 dB; Result: PASS

Date: 15.AUG.2014 14:22:29

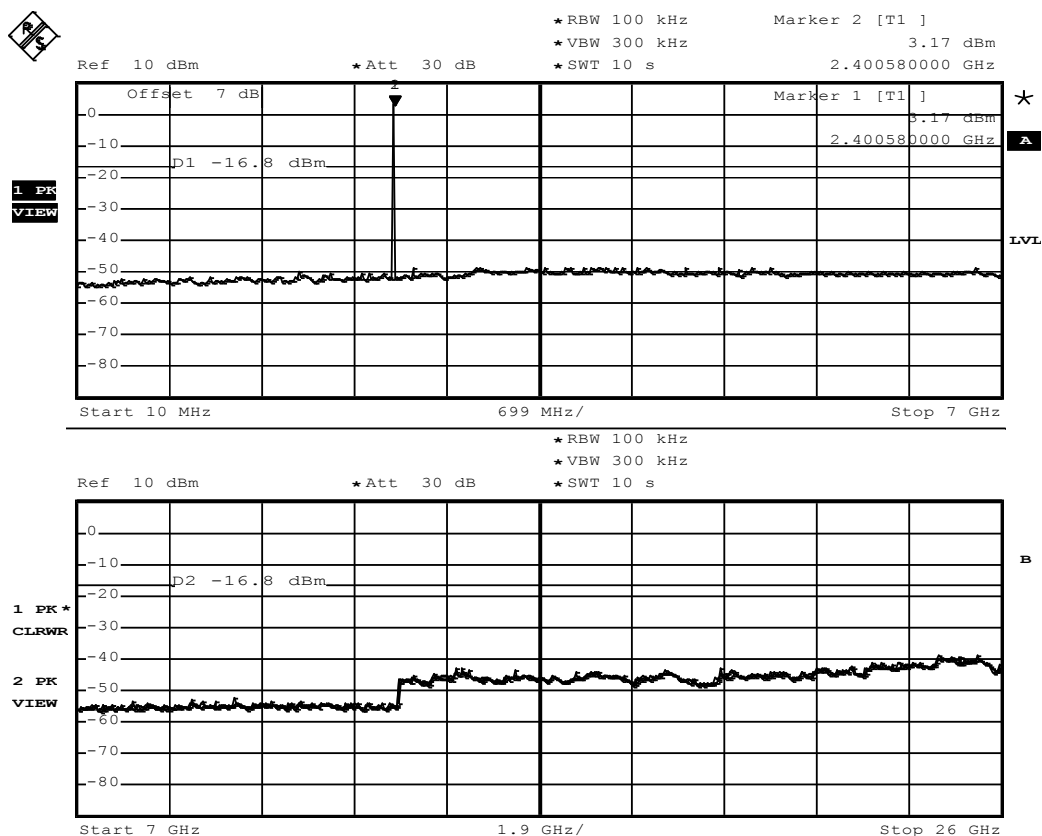
3.9 Test Conditions and Results – Conducted spurious emissions

Conducted spurious emissions acc. FCC 15.247 / IC RSS-210							Verdict: PASS	
EUT requirement rule parts and clause			Reference					
			FCC 15.247(d) / IC RSS-210 A8.5					
Test according to measurement reference			Reference Method					
			FCC Public Notice DA 00-705					
Test frequency range			Tested frequencies					
			10 MHz – 10 th Harmonic					
Measurement mode			Peak					
Limits								
Limit				Condition				
≤ -20 dB/100 kHz				Peak power measurement detector = Peak				
≤ -30 dB/100 kHz				Peak power measurement detector = RMS				
Test setup								
Spectrum Analyzer EUT								
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 is set to 100 kHz and detector to peak and max hold 4. Markers are set to peak emission levels within frequency band 5. Emission level is determined by second marker on emission peak 6. Attenuation is determined from level difference								
Test results								
Channel	Frequency [MHz]	Mode	Emission [MHz]	Emission Level [dbm]	Peak power [dBm]	Limit [dBm]	Margin [dB]	Result
F _{LOW}	2402	DH5-Sngl	no significant spurious emissions					PASS
F _{MID}	2441	DH5-Sngl	no significant spurious emissions					PASS
F _{HIGH}	2480	DH5-Sngl	no significant spurious emissions					PASS
F _{LOW}	2402	3DH5-Sngl	no significant spurious emissions					PASS
F _{MID}	2441	3DH5-Sngl	no significant spurious emissions					PASS
F _{HIGH}	2480	3DH5-Sngl	no significant spurious emissions					PASS
Comments:								

Conducted spurious emissions – DH5-Sngl F_{Low}

FCC part 15.247 (d)
Spurious Emissions

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / G0M-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15.247 (d)
Comment 1 Spurious Emissions conducted
Comment 2 Channel : 2402 MHz
Comment 3 DH5

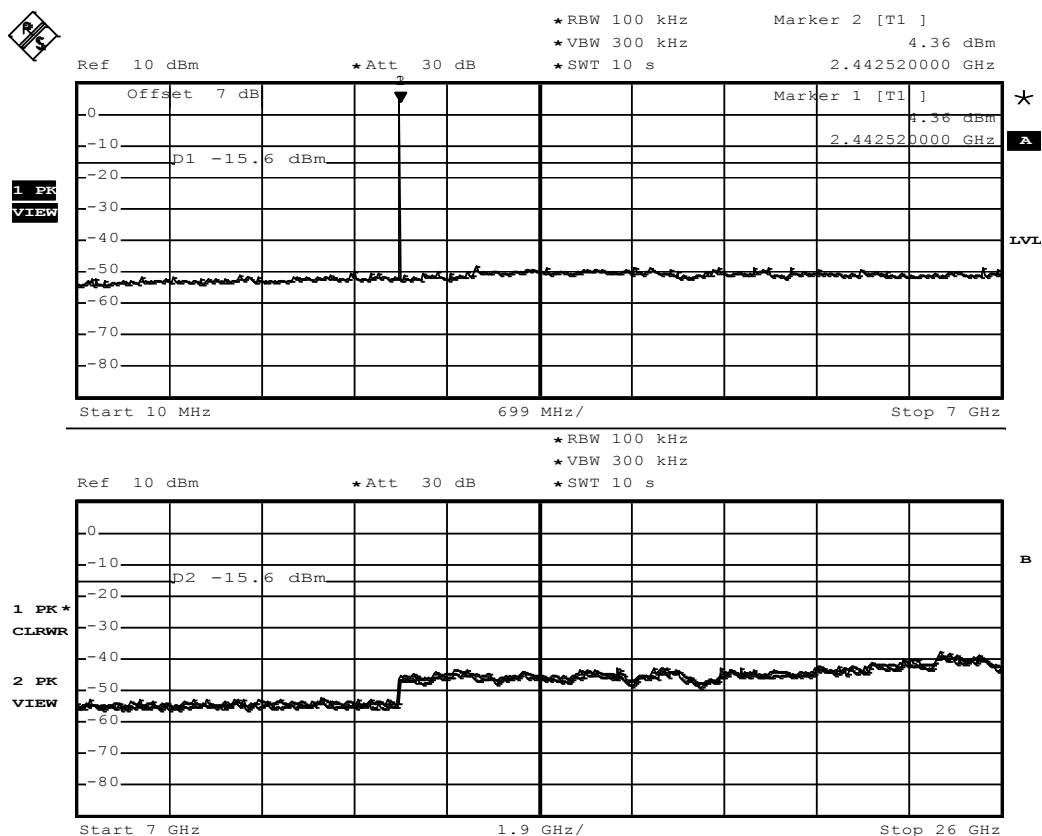


Date: 18.AUG.2014 12:44:23

Conducted spurious emissions – DH5-Sngl F_{MID}

FCC part 15.247 (d)
Spurious Emissions

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / G0M-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15.247 (d)
Comment 1 Spurious Emissions conducted
Comment 2 Channel : 2441 MHz
Comment 3 DH5

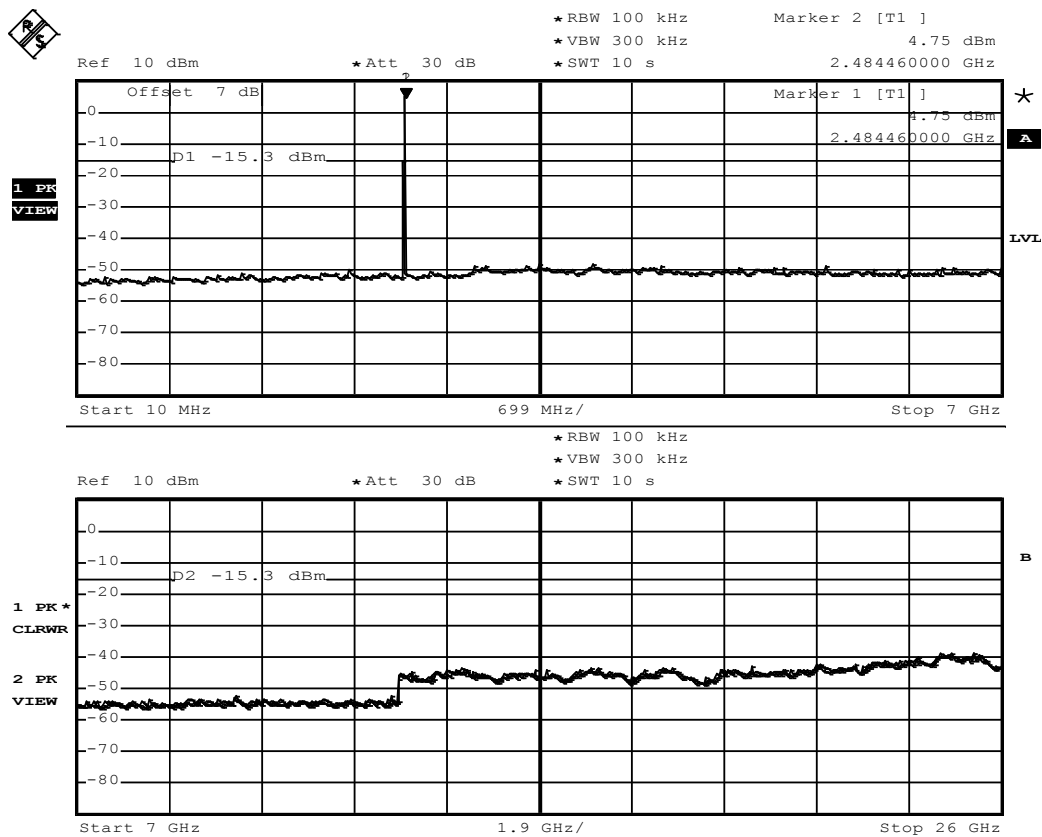


Date: 18.AUG.2014 12:50:51

Conducted spurious emissions – DH5-Sngl F_{HIGH}

FCC part 15.247 (d)
Spurious Emissions

EUT	Bluetooth headset
Model	OTE20
Approval Holder	GN Netcom / GOM-1406-3920
Temperature / Voltage	Tnom / Vnom
Test Site / Operator	Eurofins Product Service GmbH / Mr. Jahn
Test Specification	FCC part 15.247 (d)
Comment 1	Spurious Emissions conducted
Comment 2	Channel : 2480 MHz
Comment 3	DH5

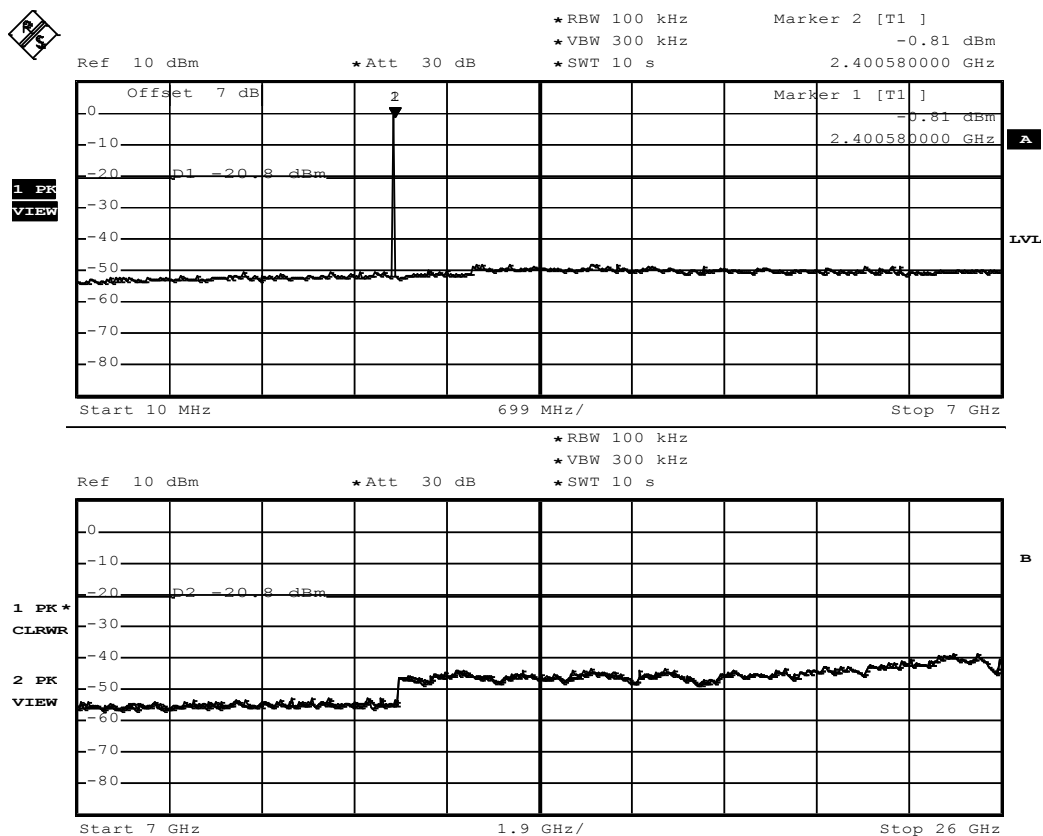


Date: 18.AUG.2014 12:53:59

Conducted spurious emissions – 3-DH5-Sngl F_{Low}

FCC part 15.247 (d)
Spurious Emissions

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / G0M-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15.247 (d)
Comment 1 Spurious Emissions conducted
Comment 2 Channel : 2402 MHz
Comment 3 3-DH5

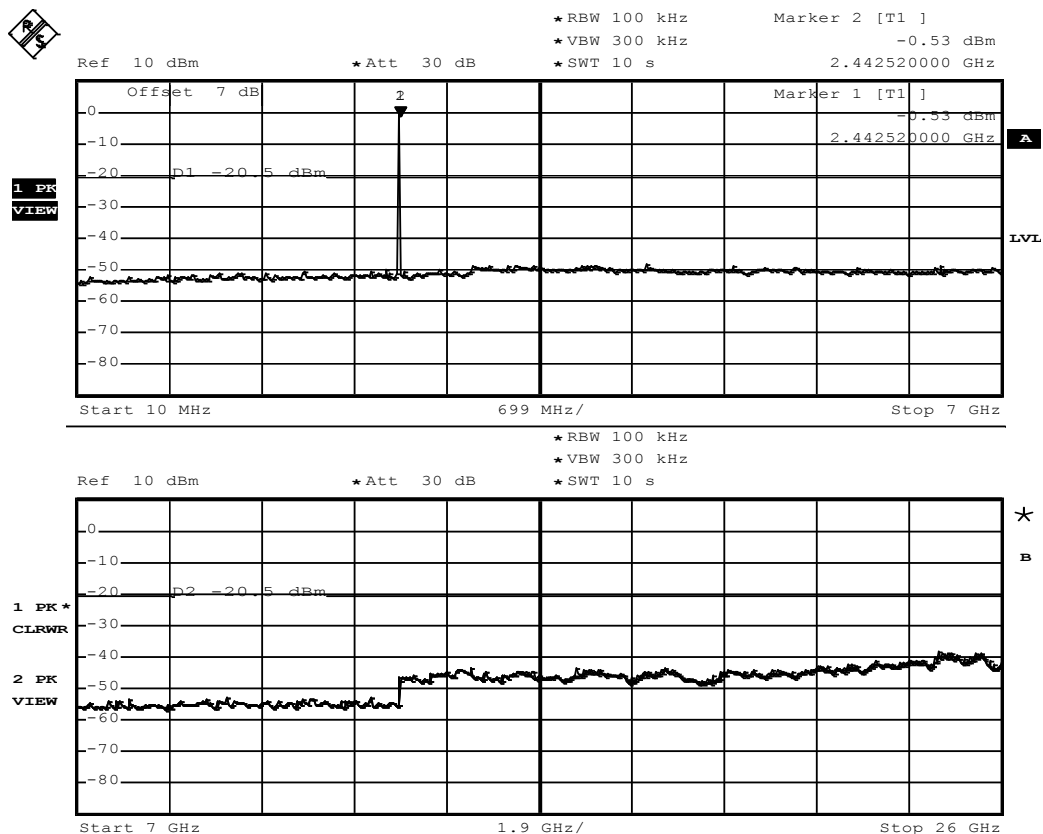


Date: 18.AUG.2014 13:05:01

Conducted spurious emissions – 3-DH5-Sngl F_{MID}

FCC part 15.247 (d)
Spurious Emissions

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / G0M-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15.247 (d)
Comment 1 Spurious Emissions conducted
Comment 2 Channel : 2441 MHz
Comment 3 3-DH5

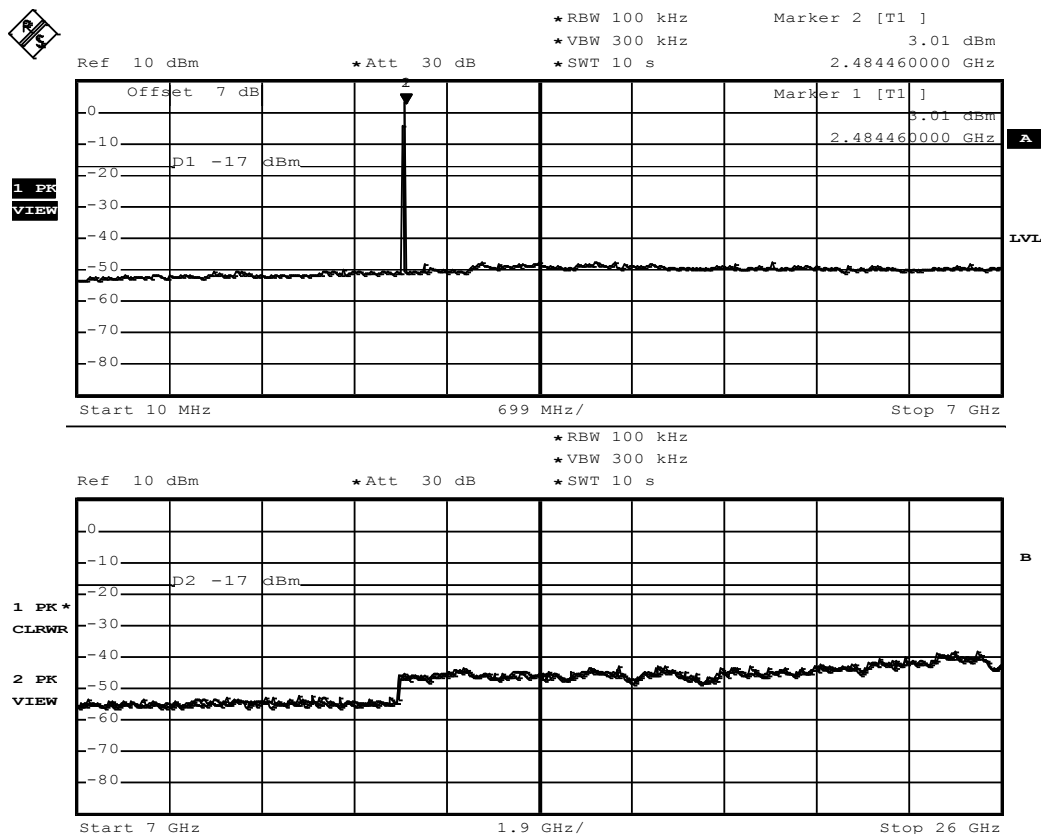


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Conducted spurious emissions – 3-DH5-Sngl F_{HIGH}

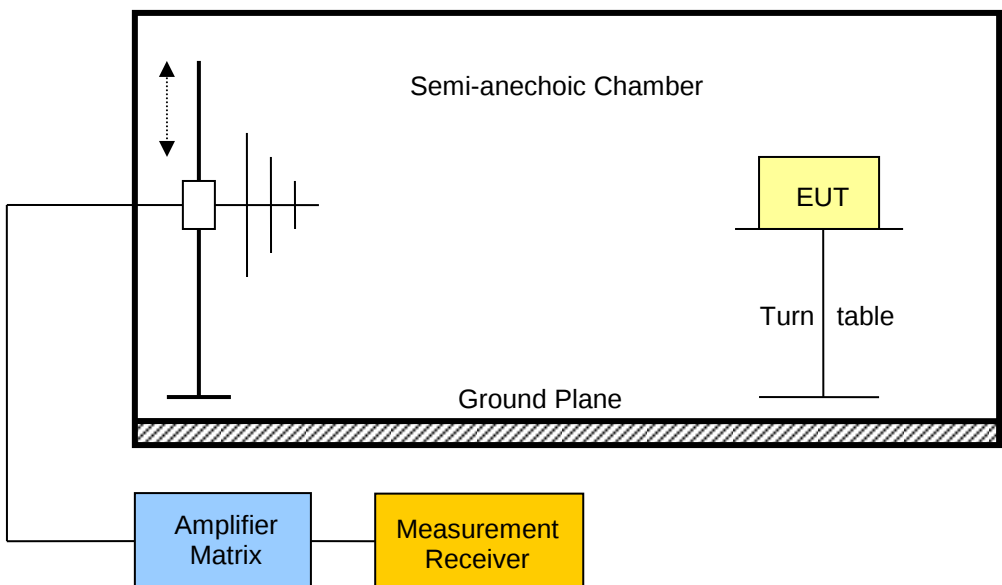
FCC part 15.247 (d)
Spurious Emissions

EUT Bluetooth headset
Model OTE20
Approval Holder GN Netcom / G0M-1406-3920
Temperature / Voltage Tnom / Vnom
Test Site / Operator Eurofins Product Service GmbH / Mr. Jahn
Test Specification FCC part 15.247 (d)
Comment 1 Spurious Emissions conducted
Comment 2 Channel : 2480 MHz
Comment 3 3-DH5



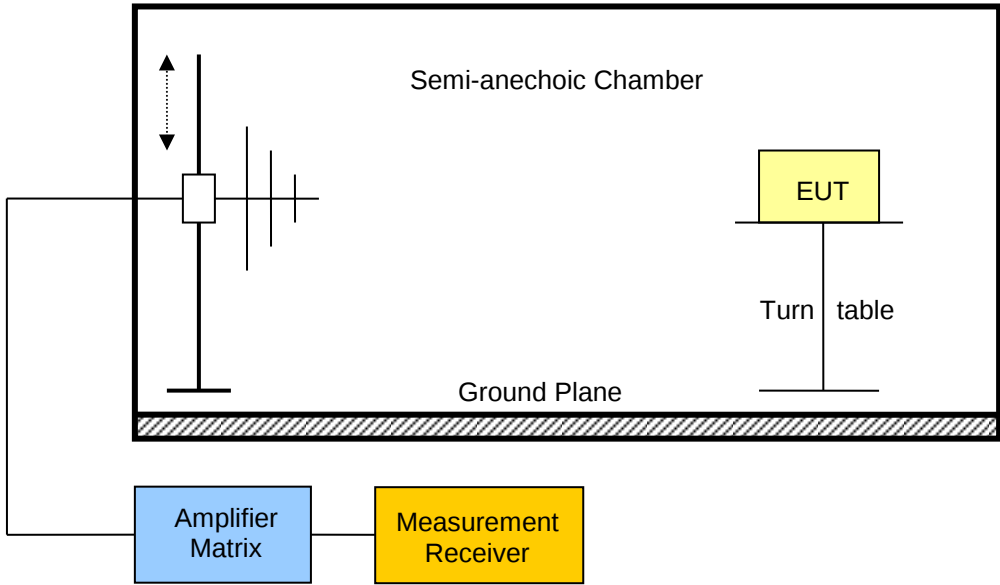
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3.10 Test Conditions and Results – Transmitter radiated emissions

Transmitter radiated emissions acc. FCC 47 CFR 15.247 / IC RSS-210				Verdict: PASS
Test according referenced standards	Reference Method			
	FCC 15.247(d) / IC RSS-210 A8.5			
Test according to measurement reference	Reference Method			
	FCC Public Notice DA 00-705 / ANSI C63.4			
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									
- EUT set to test mode (Communication tester is used if needed) - Span it set according to measurement range - 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 - Markers are set to peak emission levels within restricted bands									
Test results – DH5									
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Limit dist. [m]*	Margin [dB]
F _{LOW}	2402	DH5-Sngl	4800	51.04	pk	hor	74.00	3	-22.96
F _{LOW}	2402	DH5-Sngl	4800	51.00	pk	ver	74.00	3	-23.00
F _{MID}	2441	DH5-Sngl	4882	52.34	pk	hor	74.00	3	-21.66
F _{MID}	2441	DH5-Sngl	4882	45.63	avg	hor	54.00	3	-08.37
F _{MID}	2441	DH5-Sngl	4882	51.49	pk	ver	74.00	3	-22.51
F _{MID}	2441	DH5-Sngl	4882	45.53	avg	ver	54.00	3	-08.47
F _{HIGH}	2480	DH5-Sngl	2483.5	52.67	pk	hor	74.00	3	-21.33
F _{HIGH}	2480	DH5-Sngl	2483.5	38.57	RMS	hor	54.00	3	-15.43
F _{HIGH}	2480	DH5-Sngl	4952	53.68	pk	hor	74.00	3	-20.32
F _{HIGH}	2480	DH5-Sngl	4960	53.87	pk	ver	74.00	3	-20.13
F _{HIGH}	2480	DH5-Sngl	4960	47.77	avg	ver	54.00	3	-06.23
Test results – 3-DH5									
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Limit dist. [m]*	Margin [dB]
F _{LOW}	2402	3-DH5-Sngl	4800	48.44	pk	hor	74.00	3	-25.56
F _{LOW}	2402	3-DH5-Sngl	4800	46.65	pk	ver	74.00	3	-27.35
F _{MID}	2441	3-DH5-Sngl	4880	50.68	pk	hor	74.00	3	-23.32
F _{MID}	2441	3-DH5-Sngl	4880	51.30	pk	ver	74.00	3	-22.70
F _{HIGH}	2480	3-DH5-Sngl	4952	50.99	pk	ver	74.00	3	-23.01
F _{HIGH}	2480	3-DH5-Sngl	4960	49.48	pk	hor	74.00	3	-24.52
Comments: * Physical distance between EUT and measurement antenna.									

3.11 Test Conditions and Results – Receiver radiated emissions

Receiver radiated emissions acc. IC RSS-210				Verdict: PASS
Test according referenced standards	Reference Method			
	IC RSS-210 A8.5			
Test according to measurement reference	Reference Method			
	ANSI C63.4			
Test frequency range	Tested frequencies			
	30 MHz – 3 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]	Emission Level [μ V/m]	Det.	Limit [μ V/m]	Margin [μ V/m]
Scan	2402 - 2480	7424	48.5	266.07	pk	500.00	-233.93
Comments: * Physical distance between EUT and measurement antenna. ** Emission level corresponds to ambient noise floor							

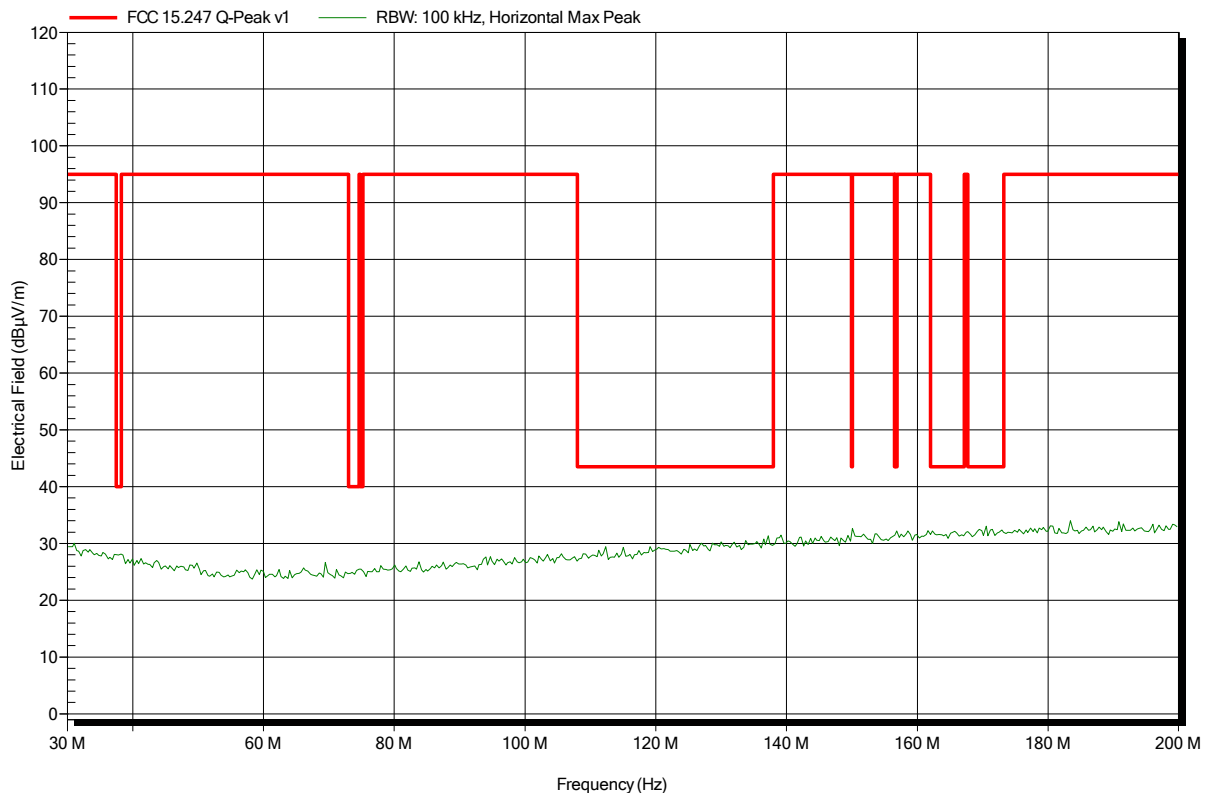
ANNEX A Transmitter radiated spurious emissions

Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; DH5 Ch 0
Test Date:	2014-08-19
Note:	worst case

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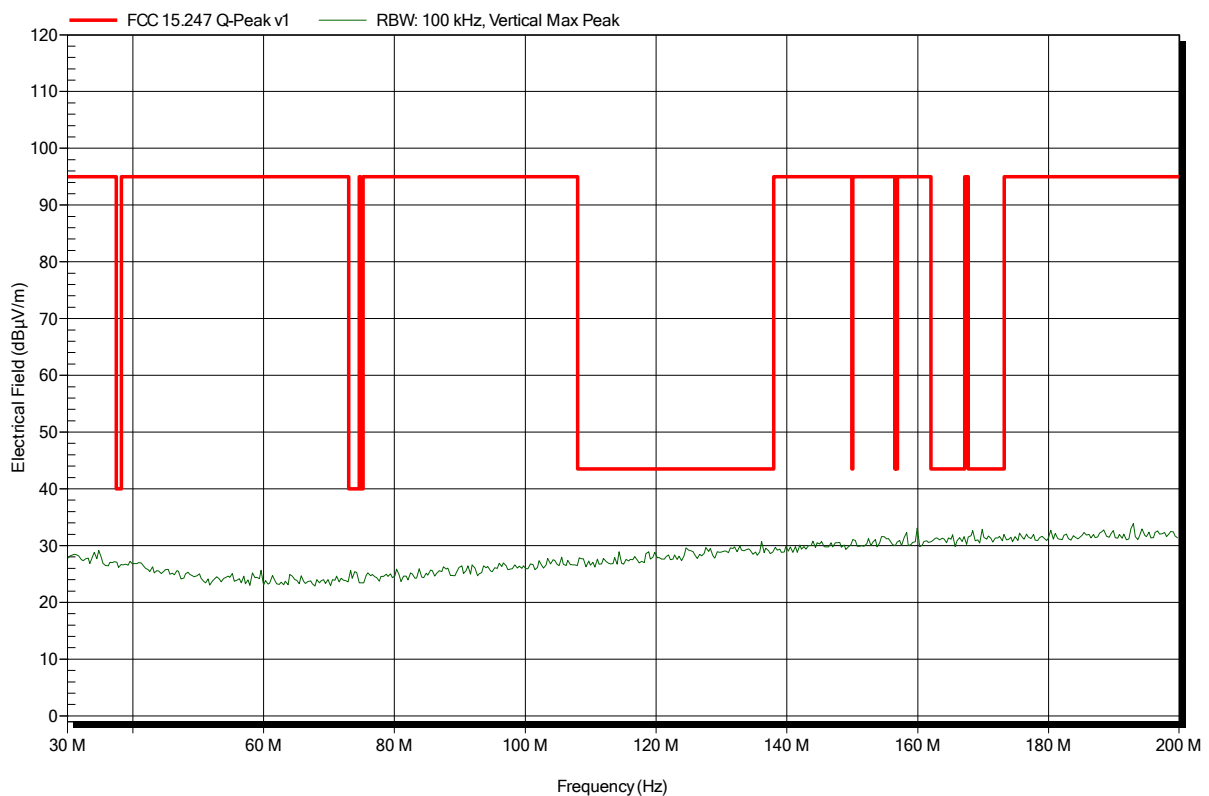


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; DH5 Ch 0
Test Date:	2014-08-19
Note:	worst case

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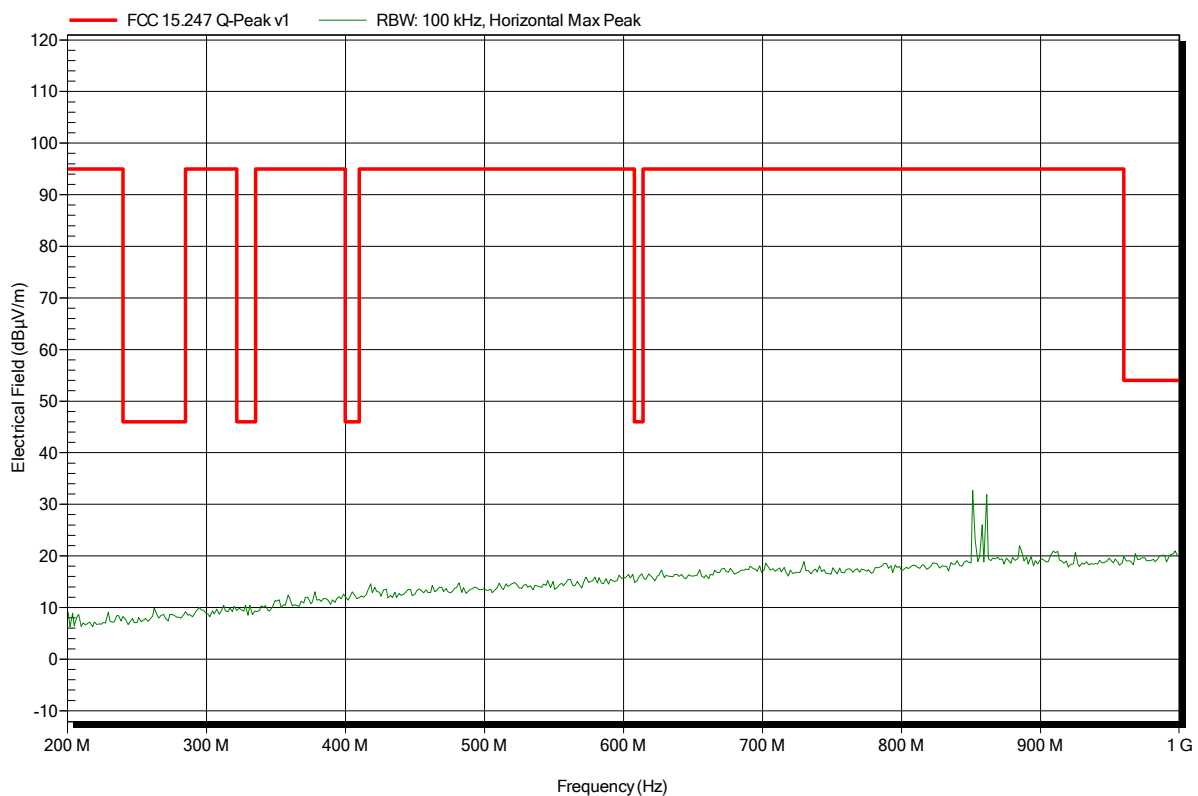


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; DH5 Ch 0
Test Date:	2014-08-19
Note:	worst case

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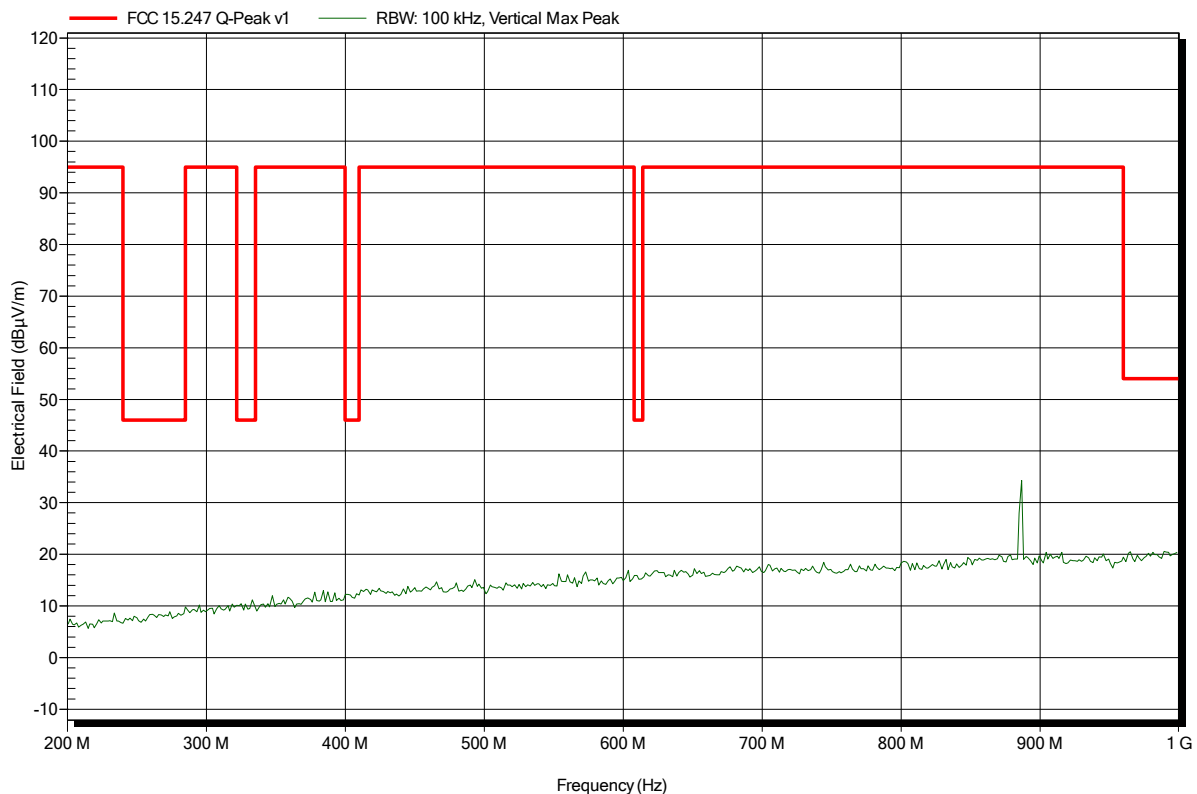


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; DH5 Ch 0
Test Date:	2014-08-19
Note:	worst case

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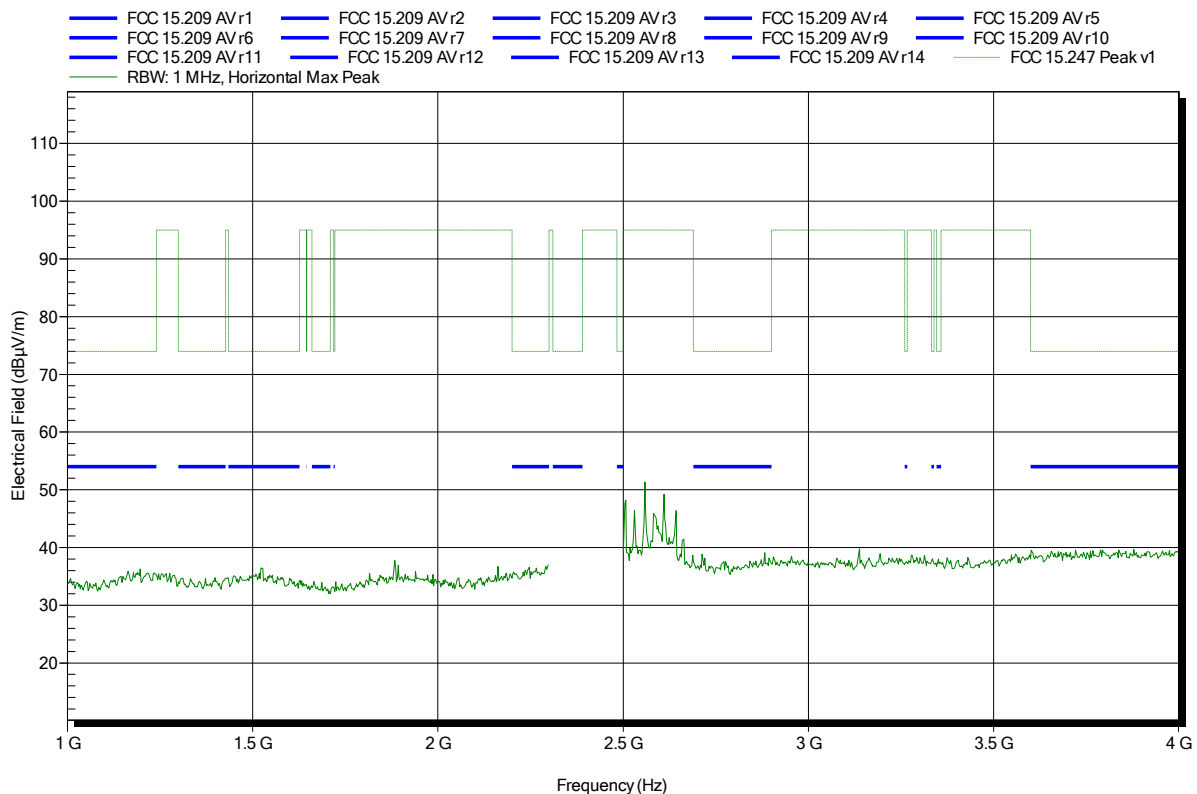


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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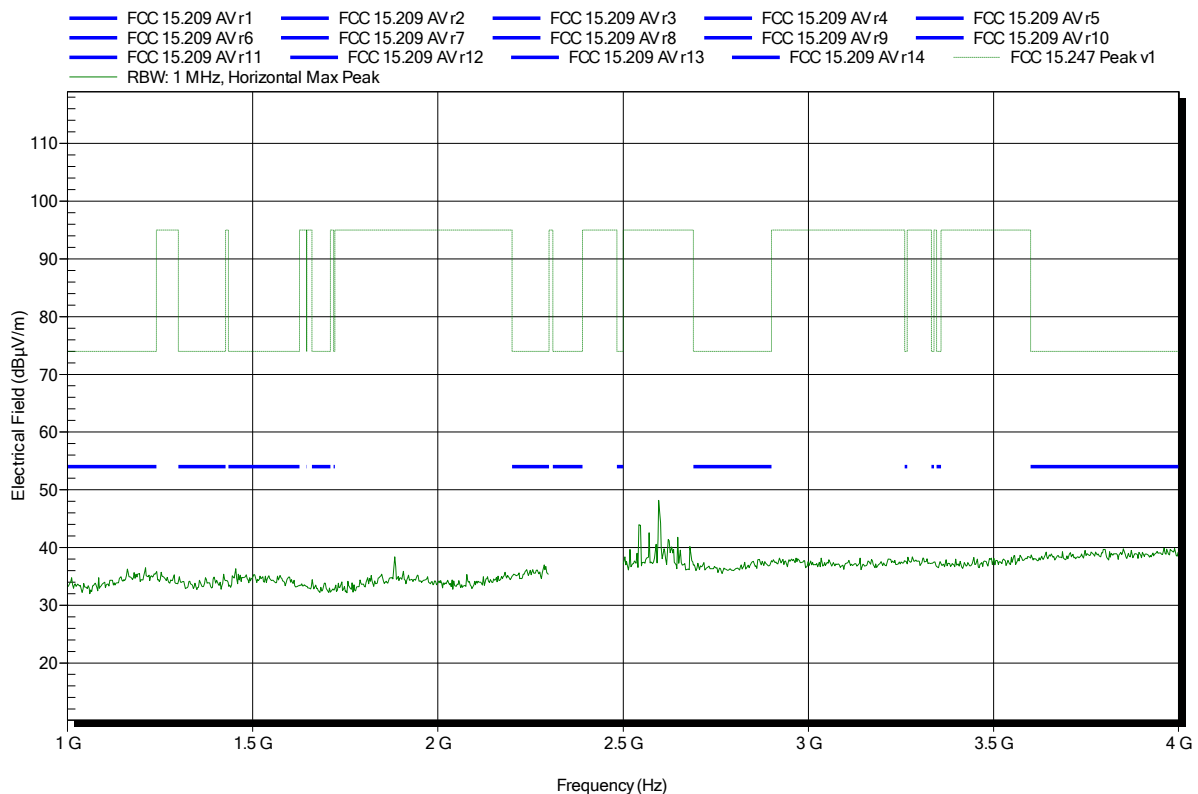


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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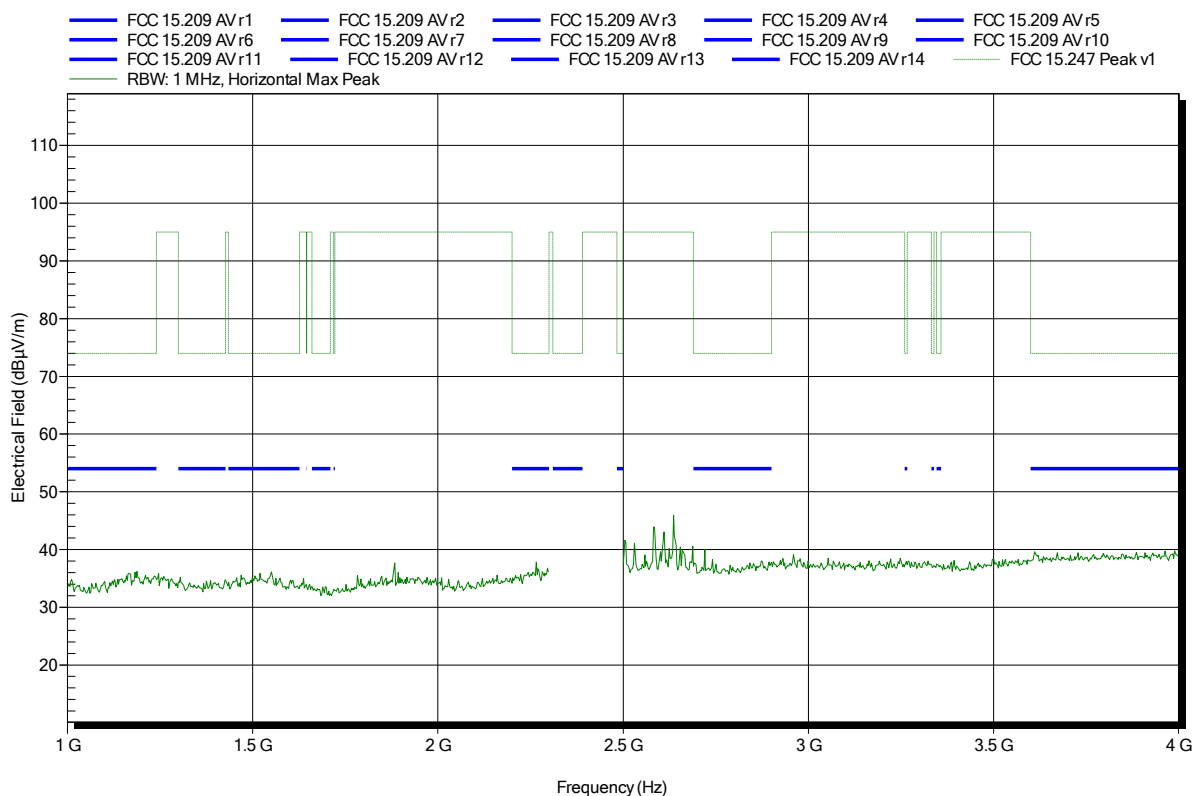


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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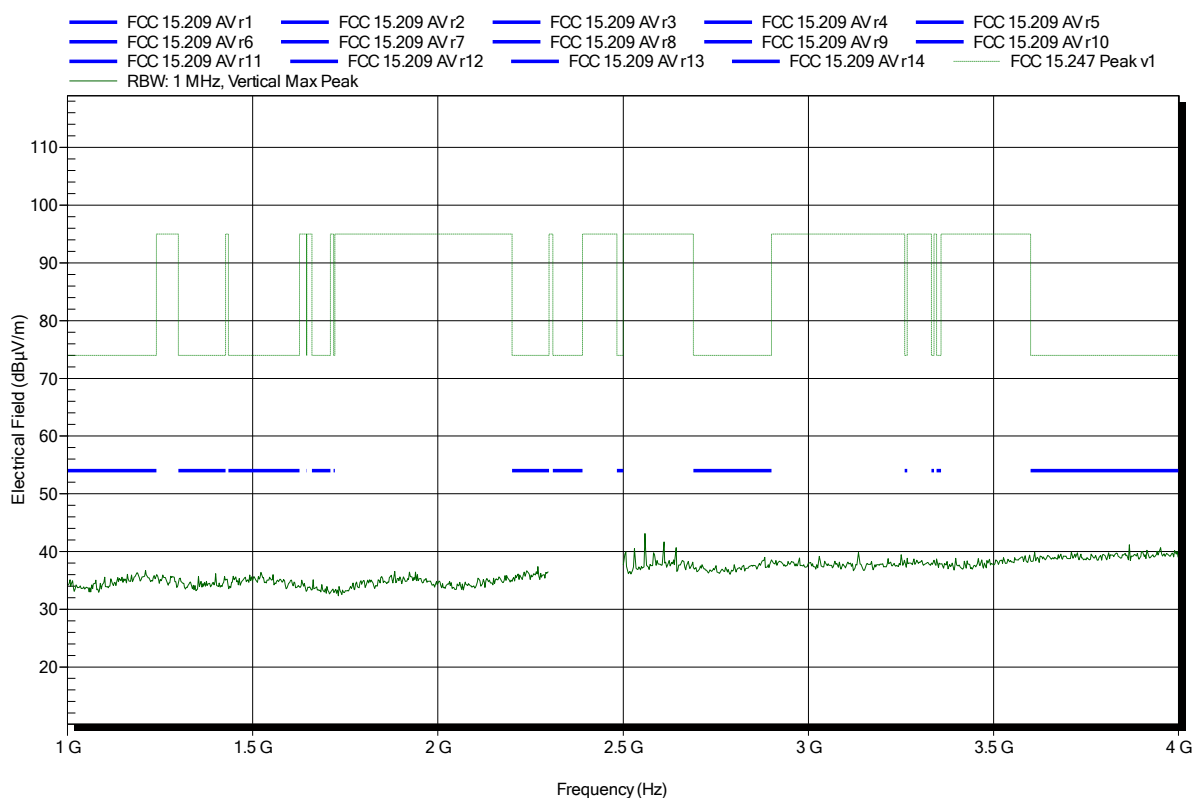


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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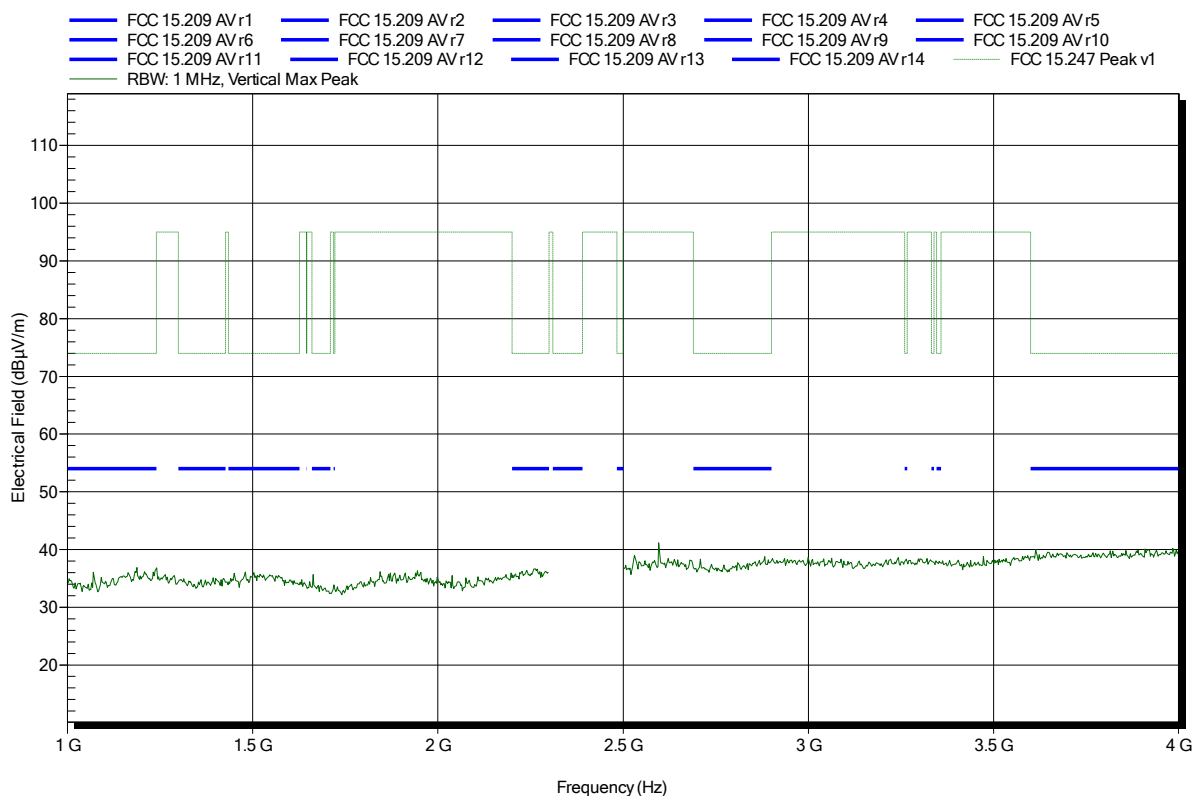


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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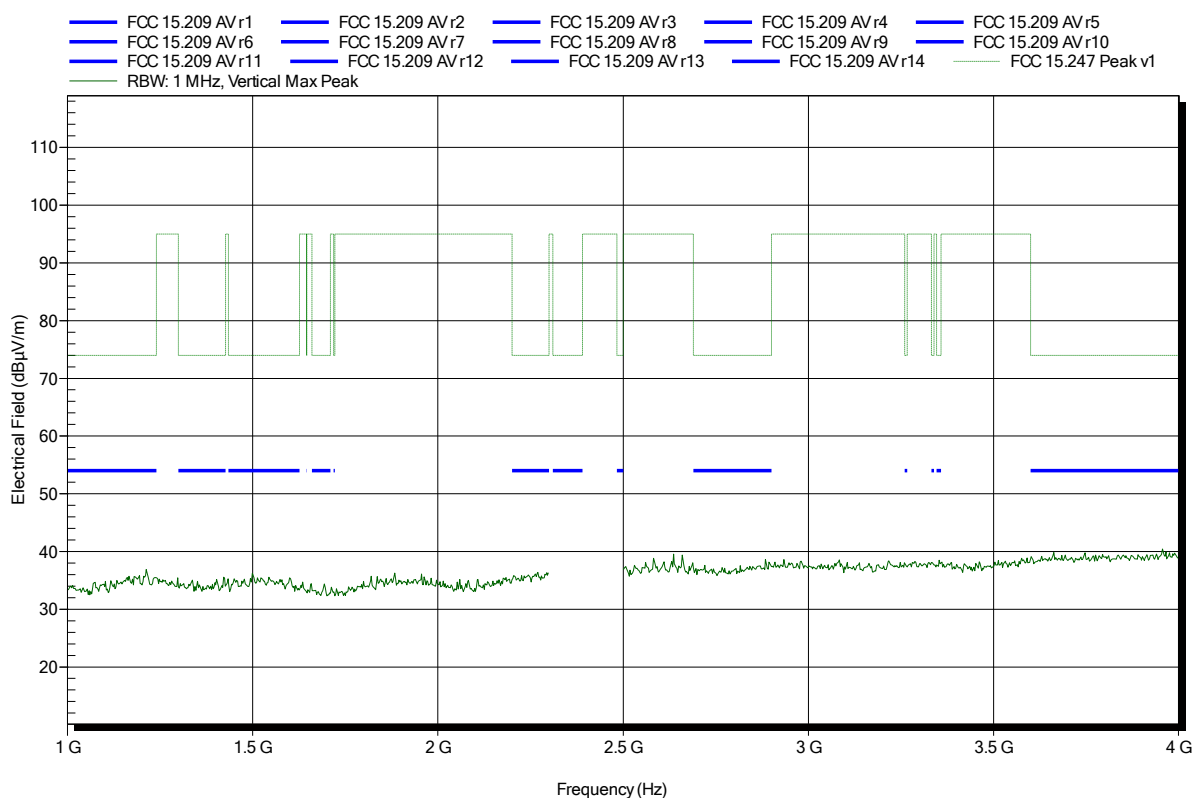


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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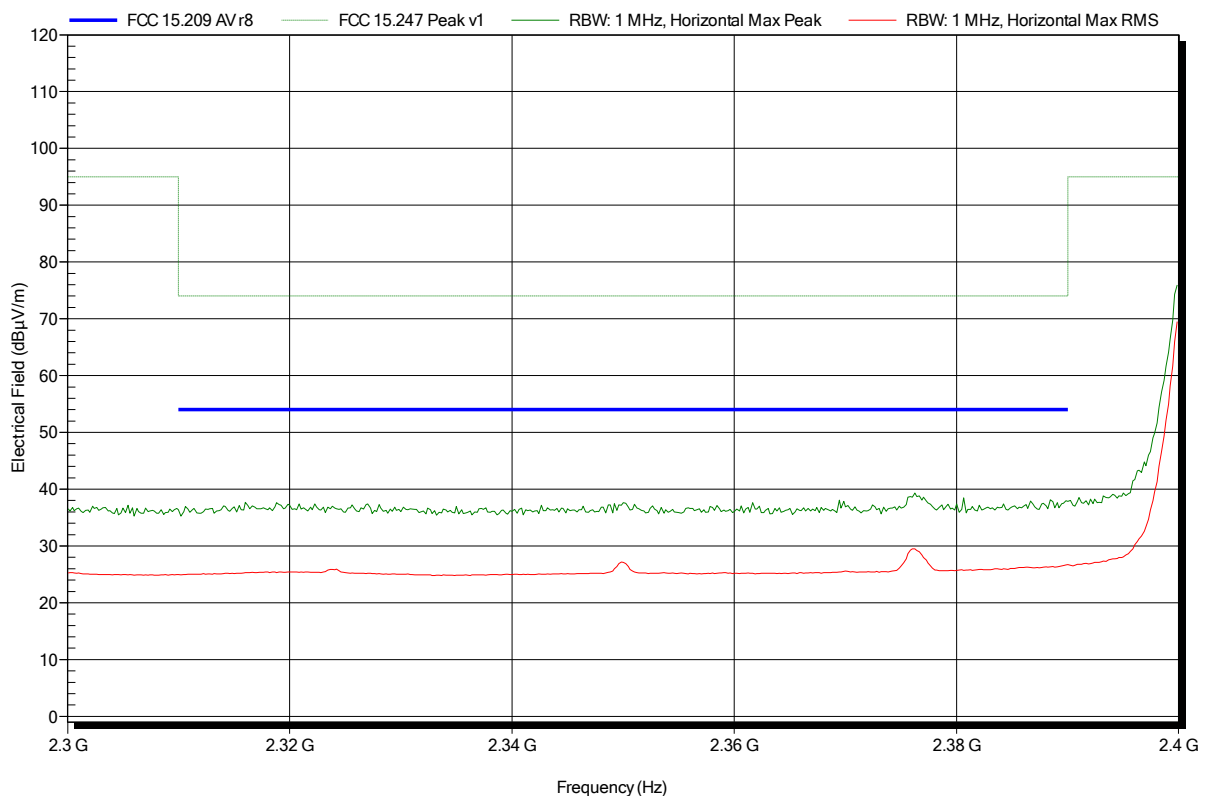


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DH5 Ch 0
Test Date:	2014-08-19
Note:	lower bandedge

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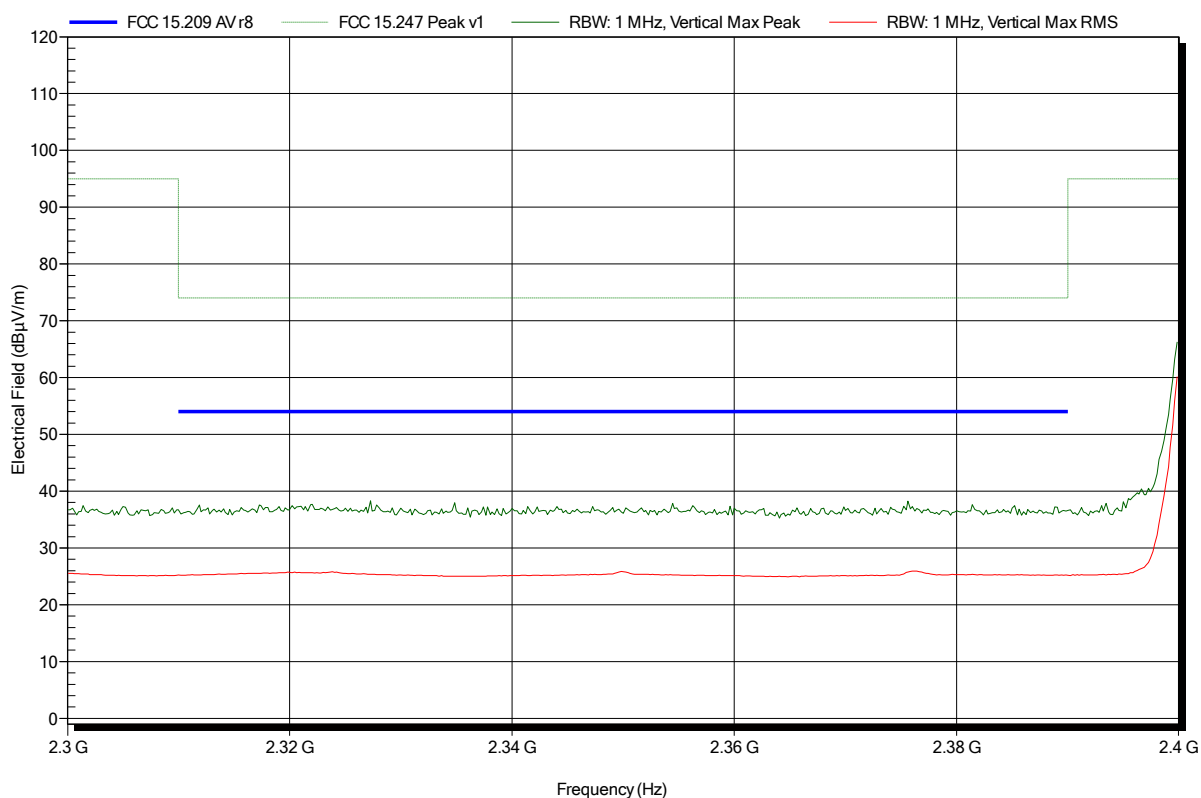


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 0
 Test Date: 2014-08-19
 Note: lower bandedge

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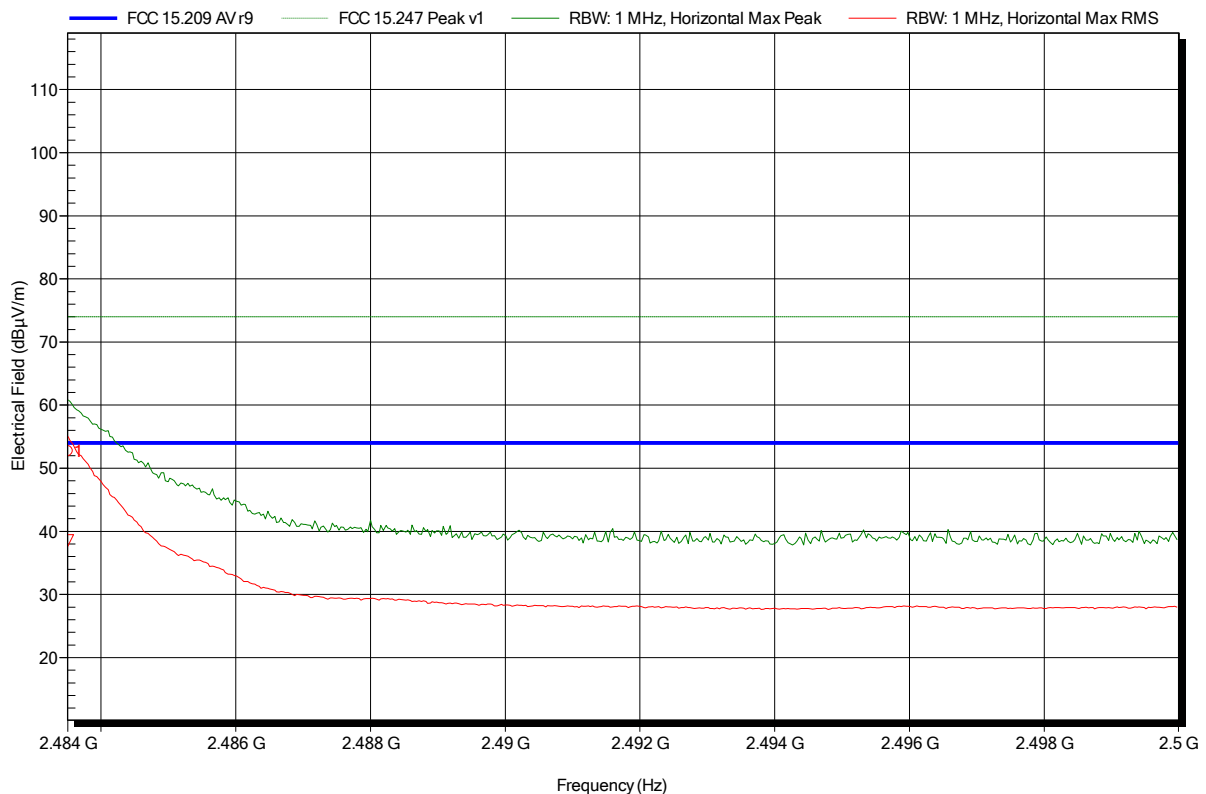


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note: upper bandedge

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Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	52.67 dBµV/m	74 dBµV/m	-21.33 dB	Pass

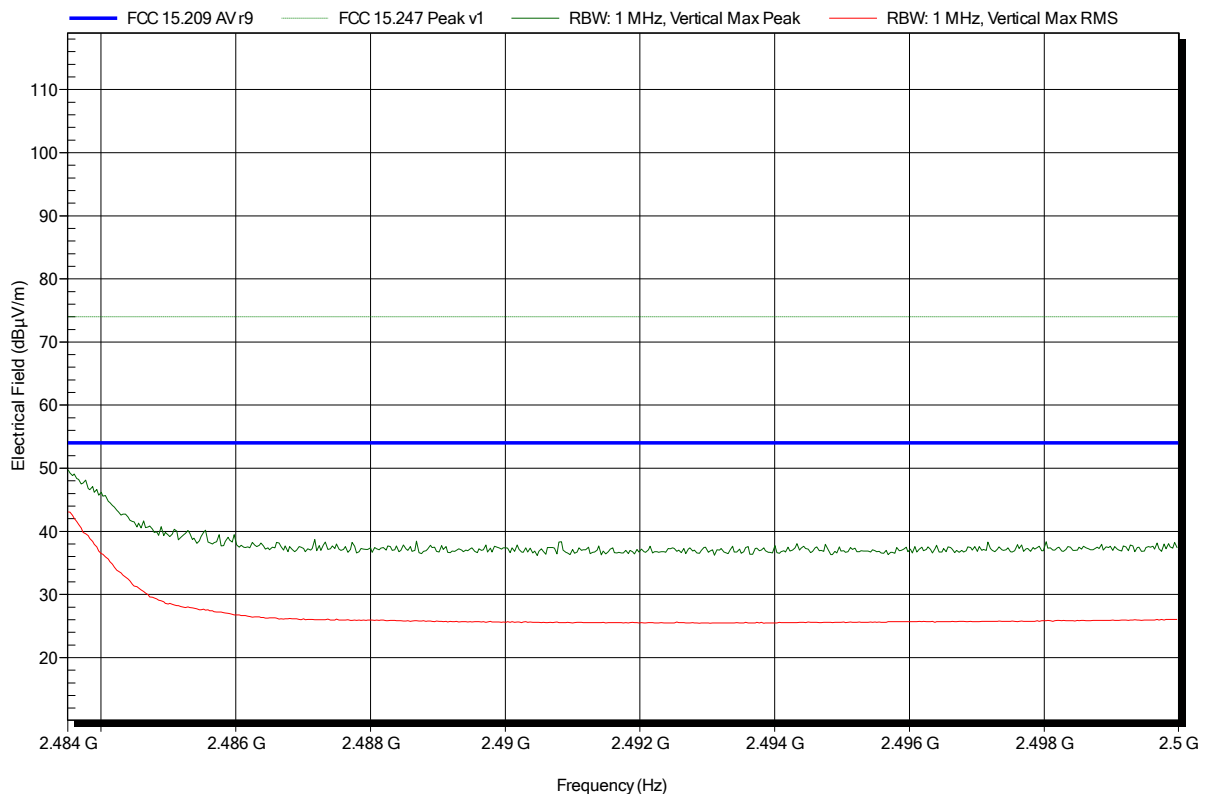
Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.4835 GHz	38.57 dBµV/m	54 dBµV/m	-15.43 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DH5 Ch 78
Test Date:	2014-08-19
Note:	upper bandedge

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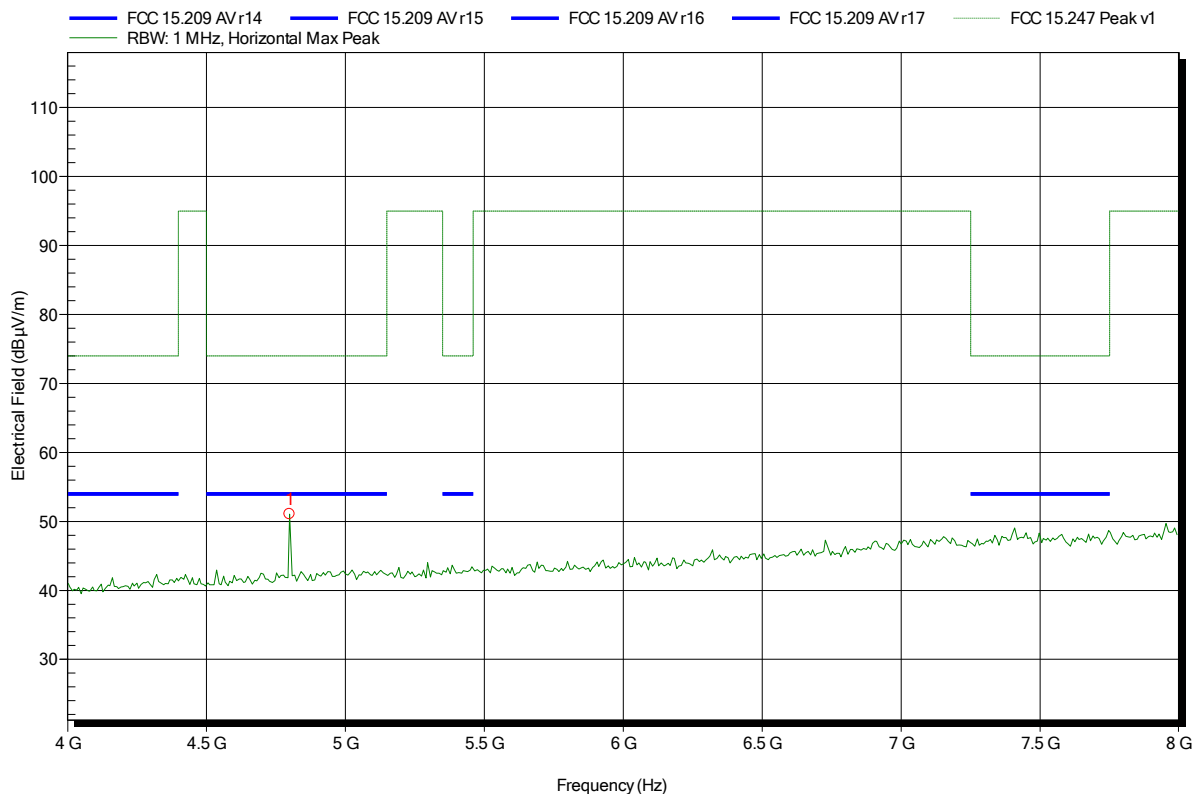


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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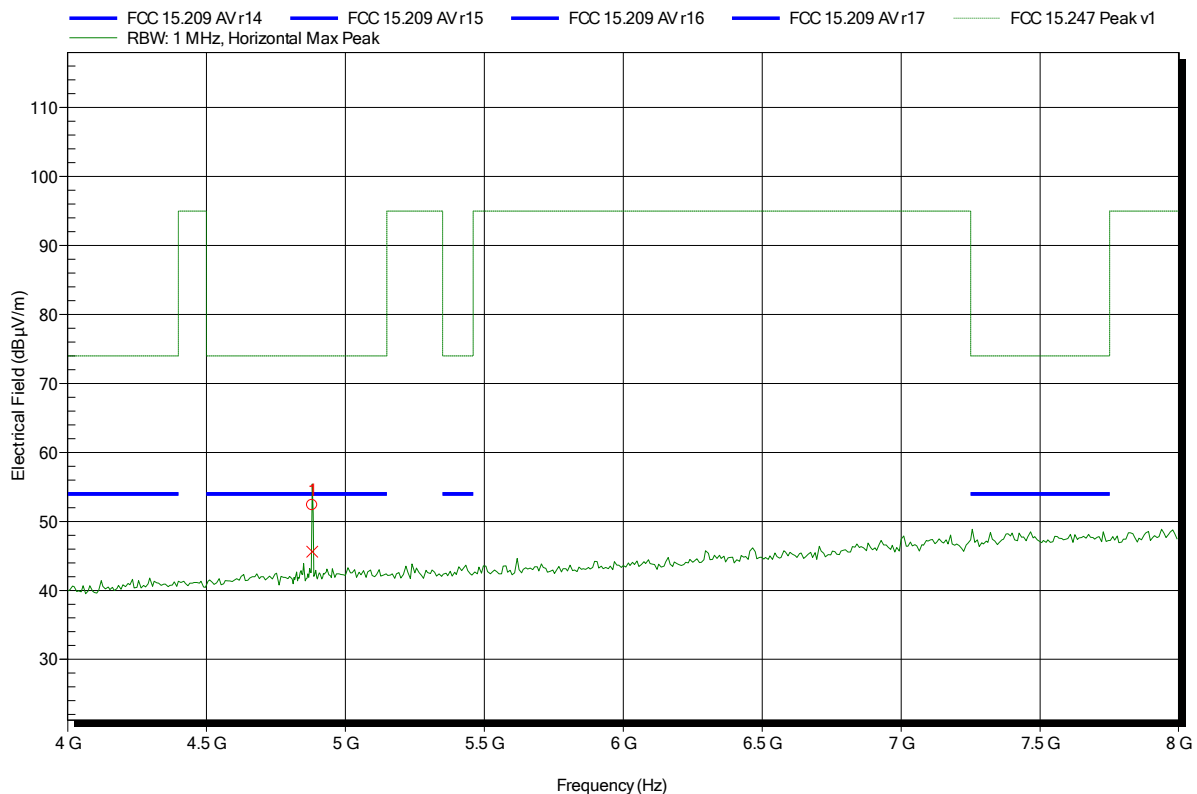
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.8 GHz	51.04 dBµV/m	74 dBµV/m	-22.96 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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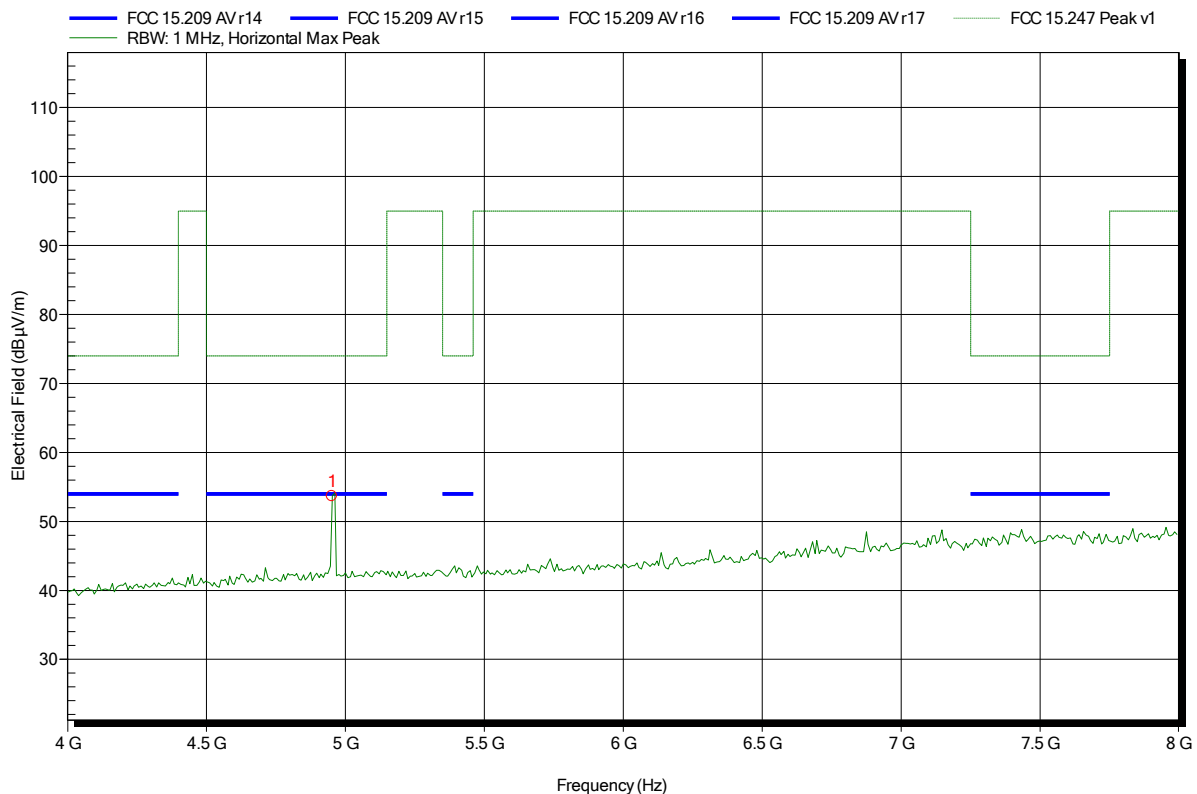
Frequency 4.882 GHz	Peak 52.34 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -21.66 dB	Peak Status Pass
Frequency 4.882 GHz	Average 45.63 dBµV/m	Average Limit 54 dBµV/m	Average Difference -8.37 dB	Average Status Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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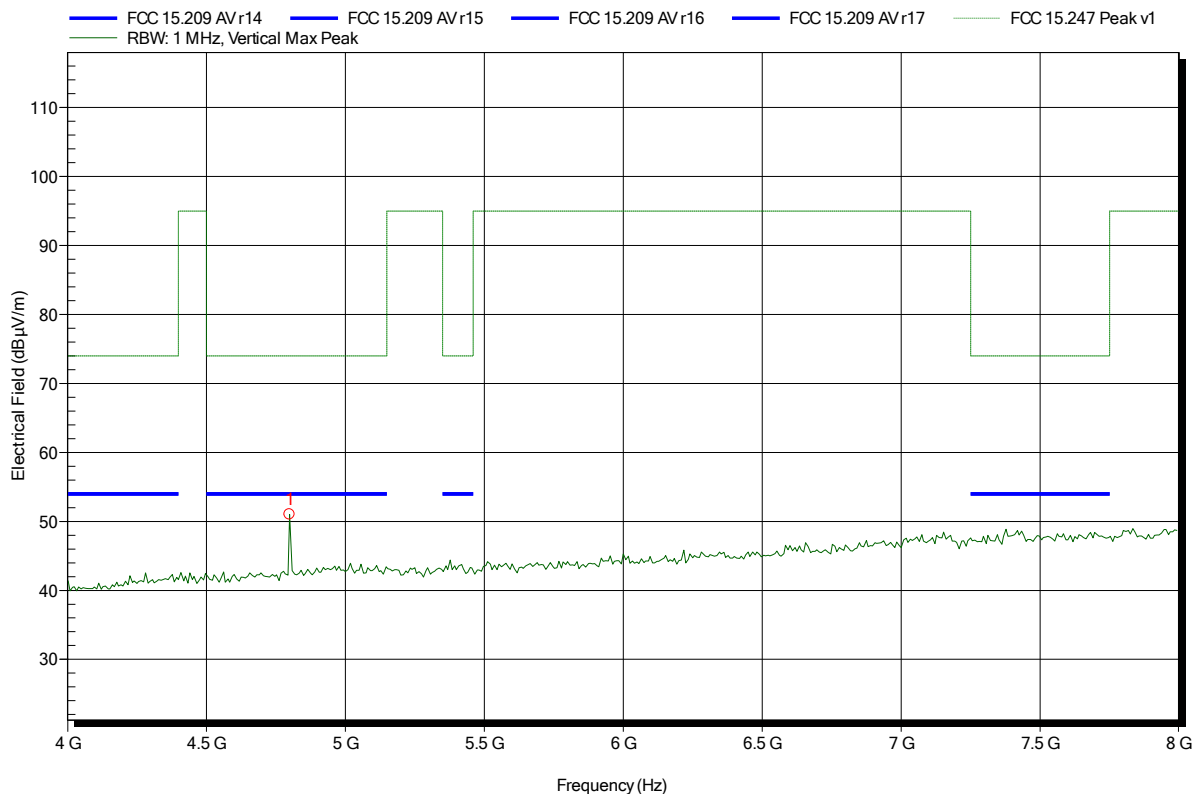
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.952 GHz	53.68 dBµV/m	74 dBµV/m	-20.32 dB	Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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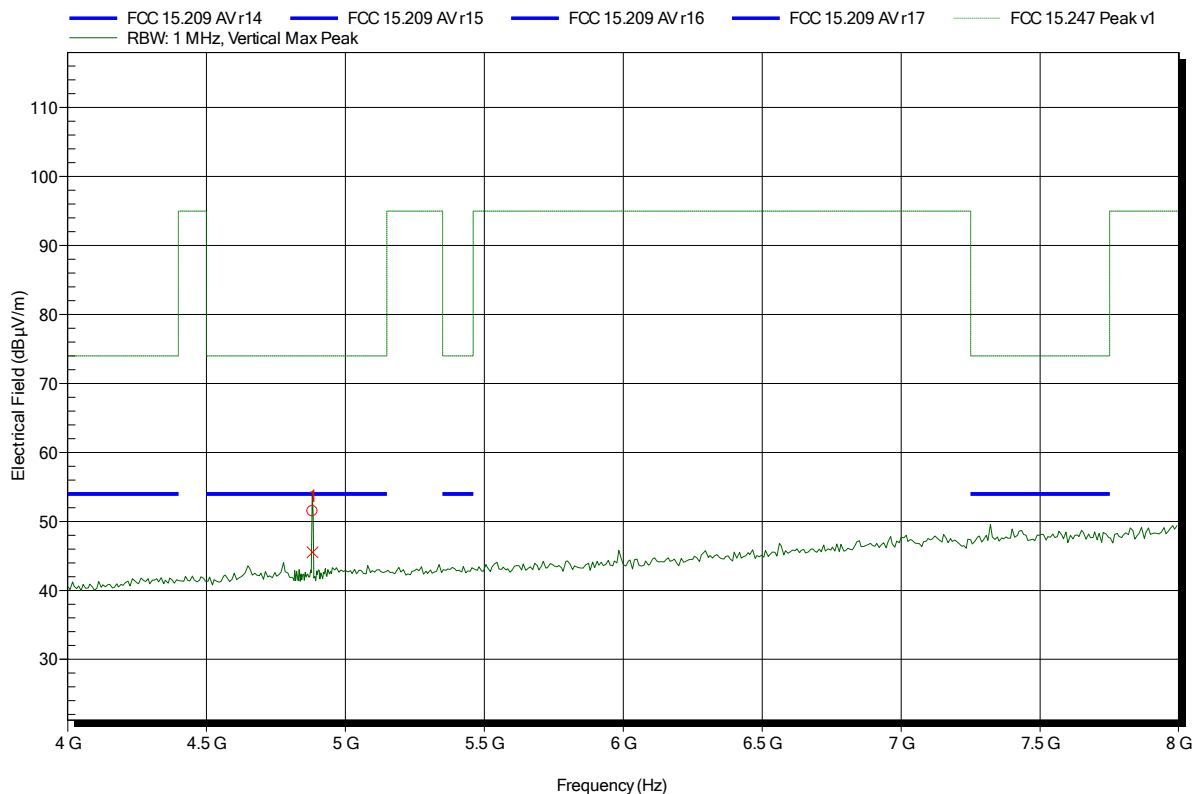
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.8 GHz	51 dBµV/m	74 dBµV/m	-23 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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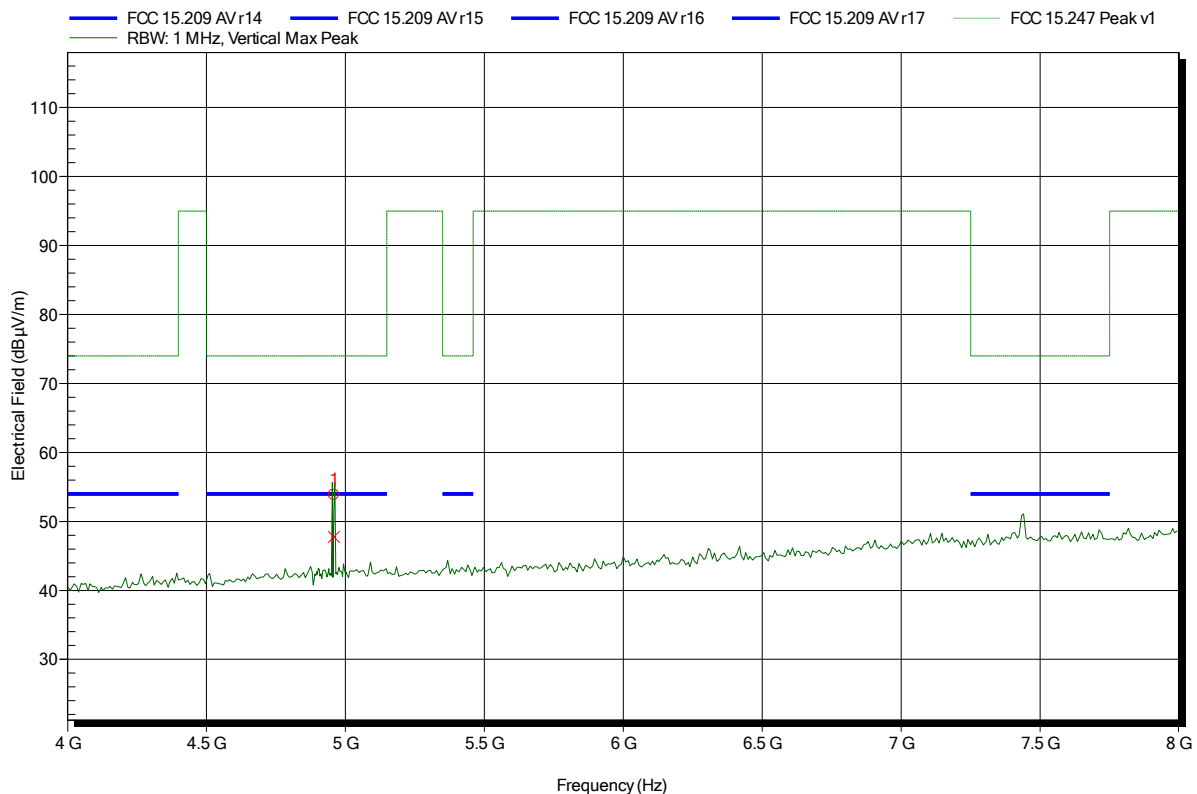
Frequency 4.882 GHz	Peak 51.49 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -22.51 dB	Peak Status Pass
Frequency 4.882 GHz	Average 45.53 dBµV/m	Average Limit 54 dBµV/m	Average Difference -8.47 dB	Average Status Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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Frequency 4.96 GHz	Peak 53.87 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -20.13 dB	Peak Status Pass
Frequency 4.96 GHz	Average 47.77 dBµV/m	Average Limit 54 dBµV/m	Average Difference -6.23 dB	Average Status Pass

Test Report No.: G0M-1406-3920-TFC247BT-Issue02V01

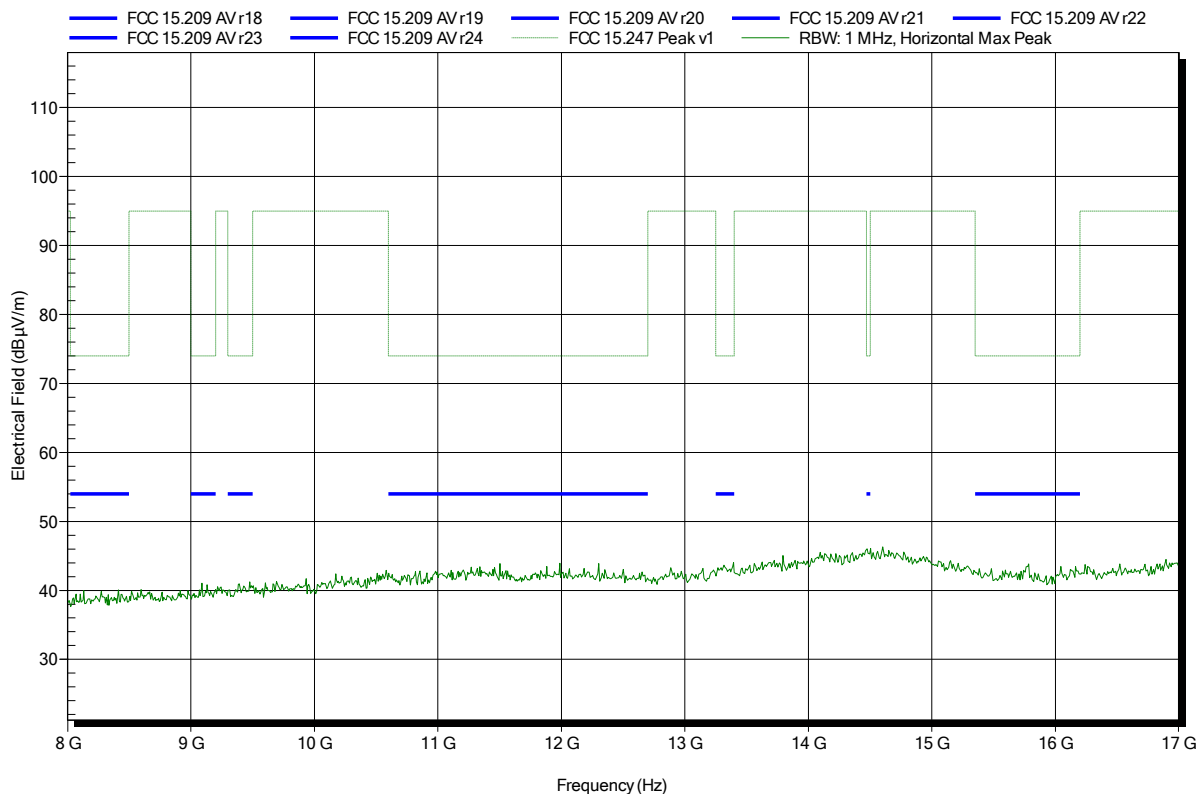
Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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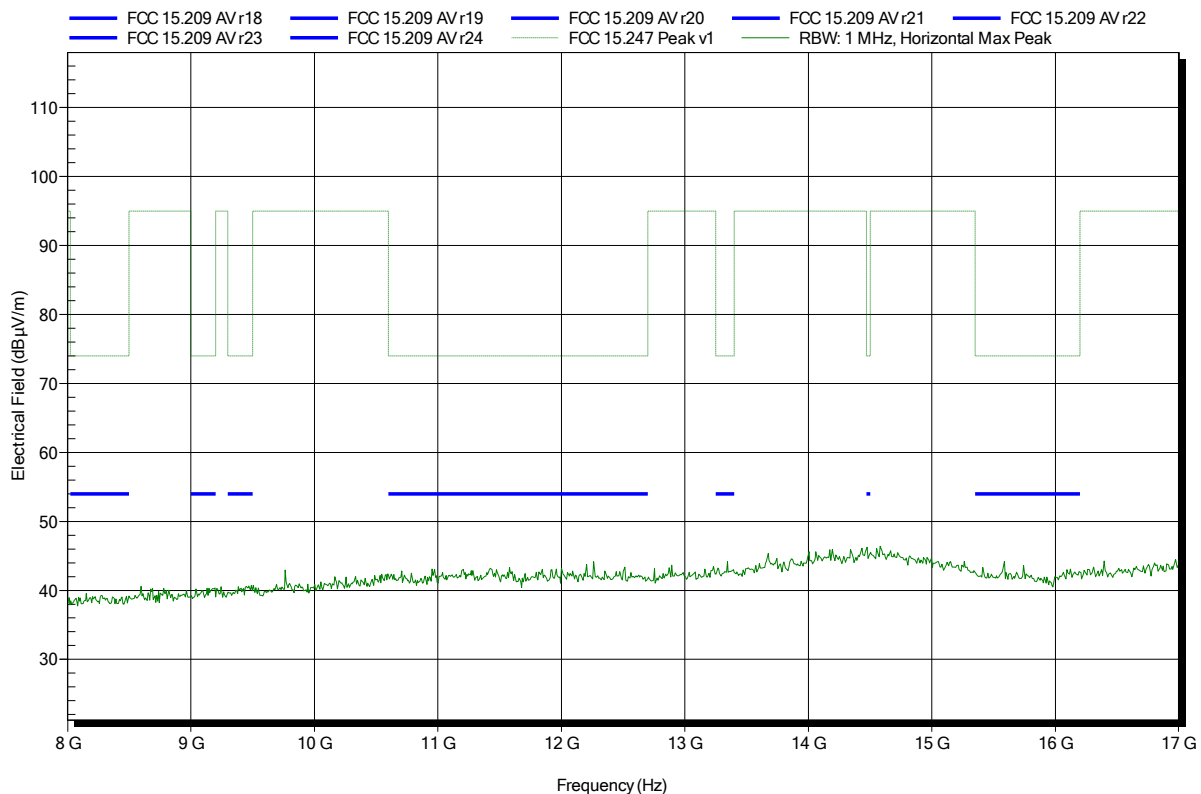


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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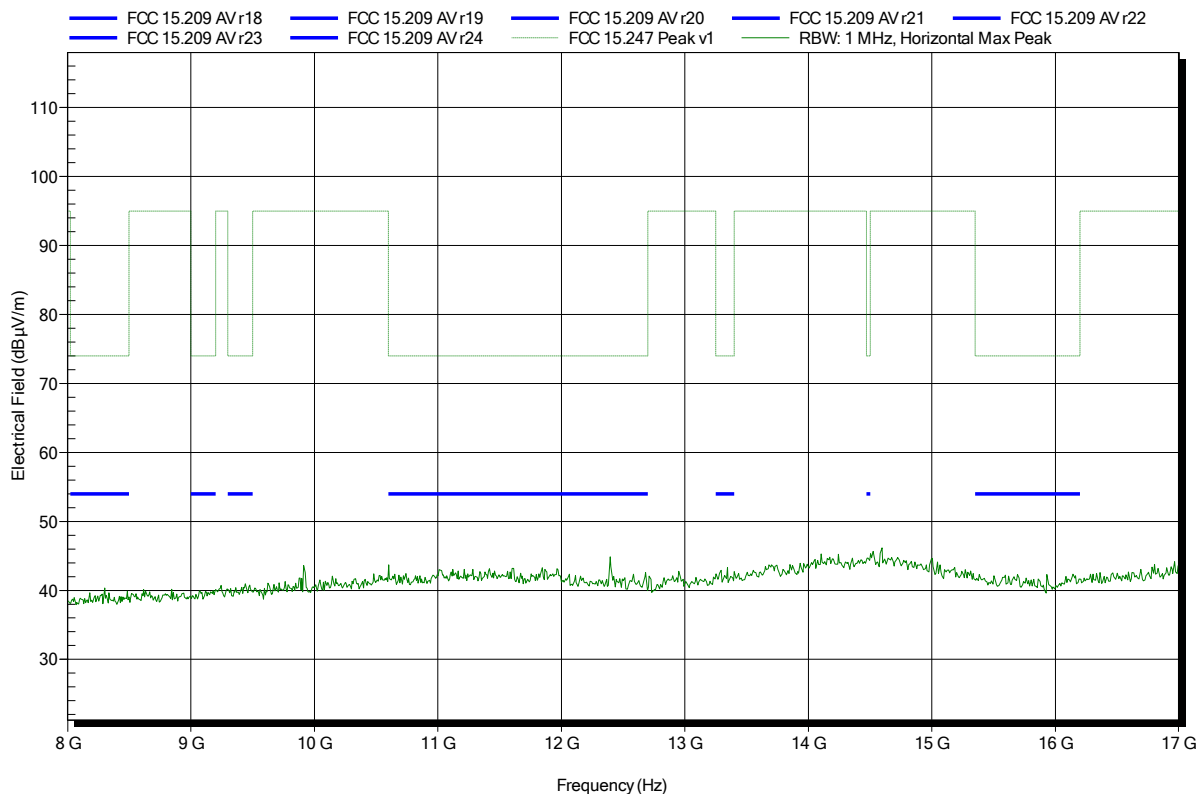


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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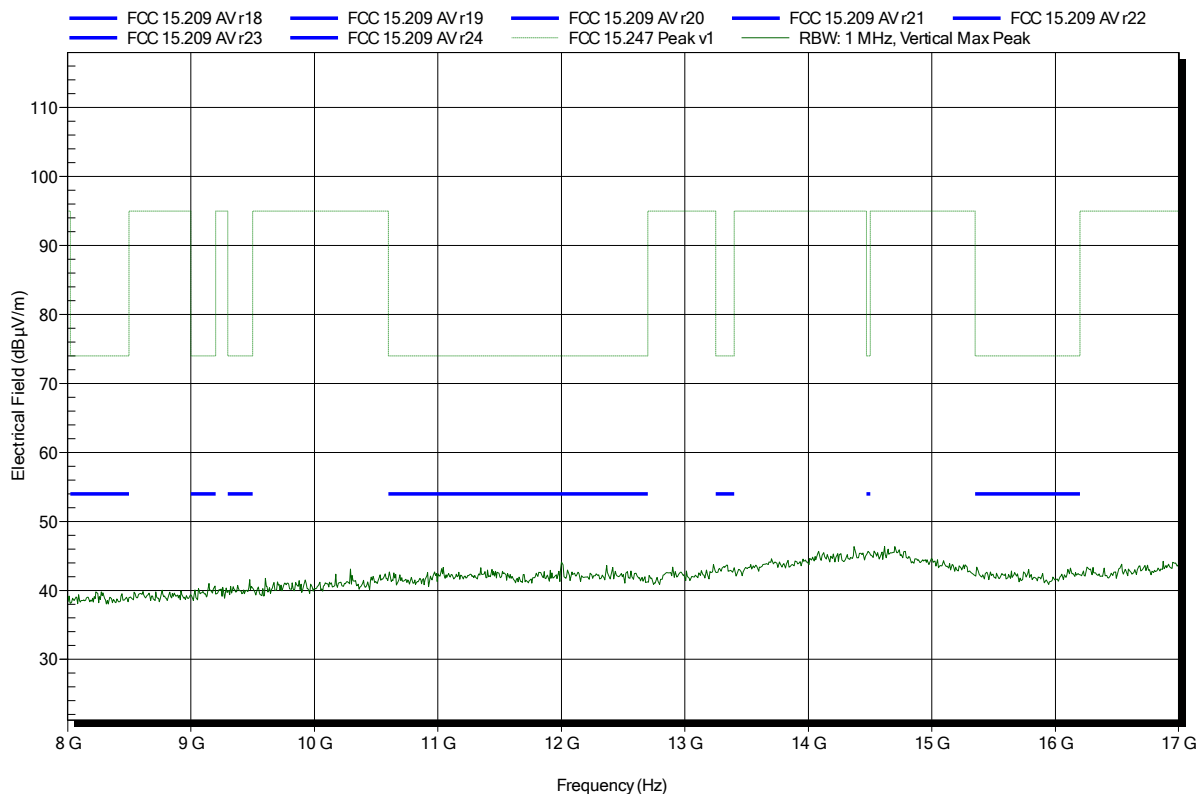


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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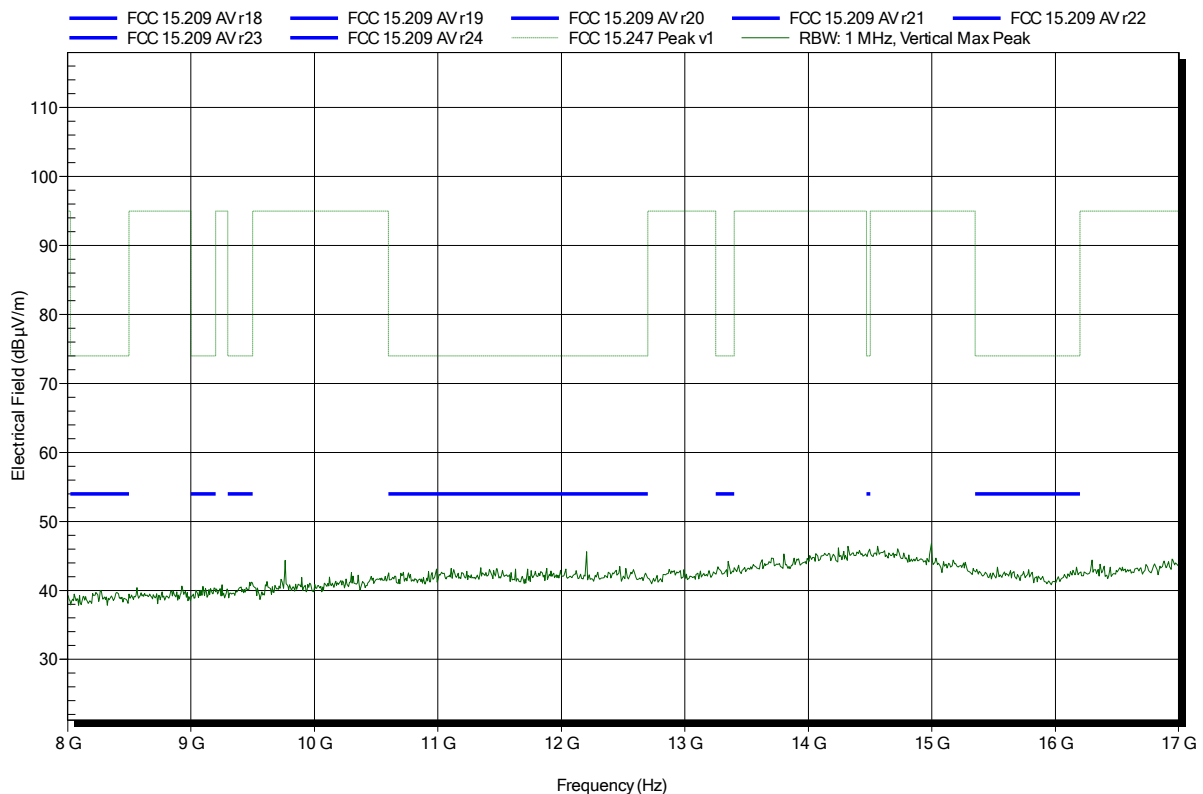


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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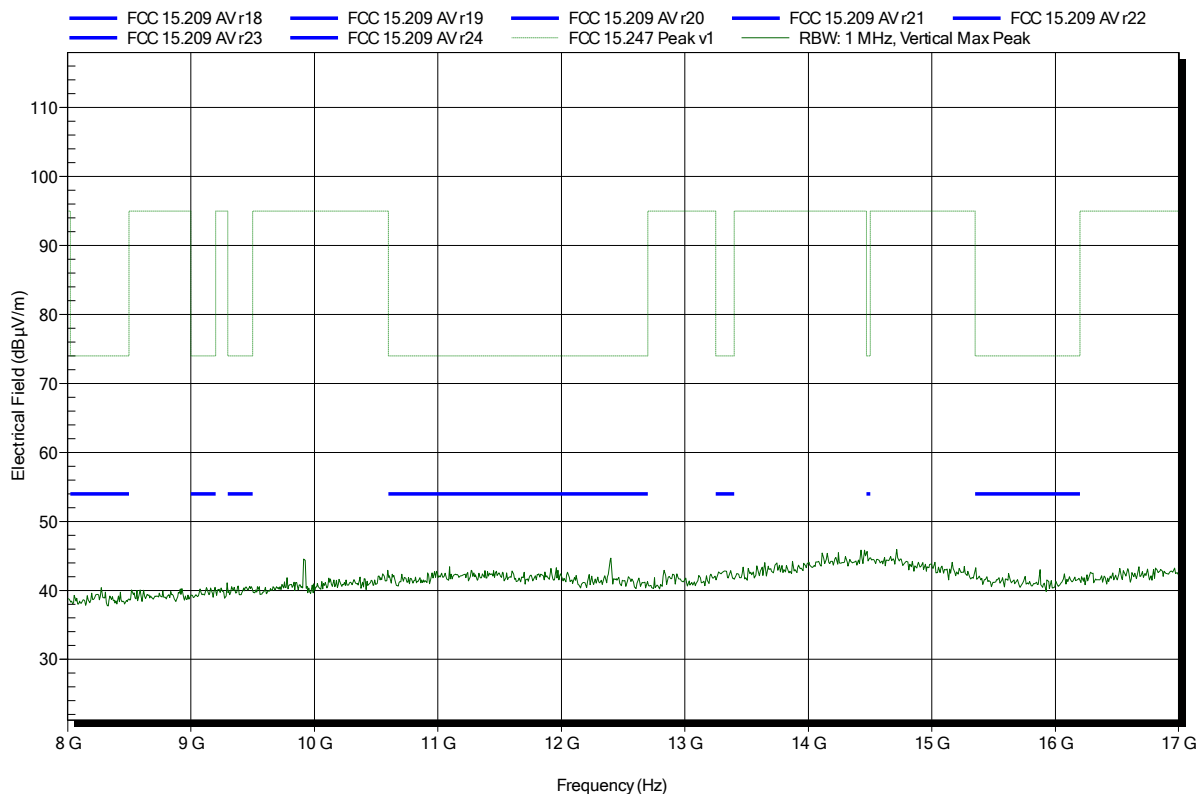


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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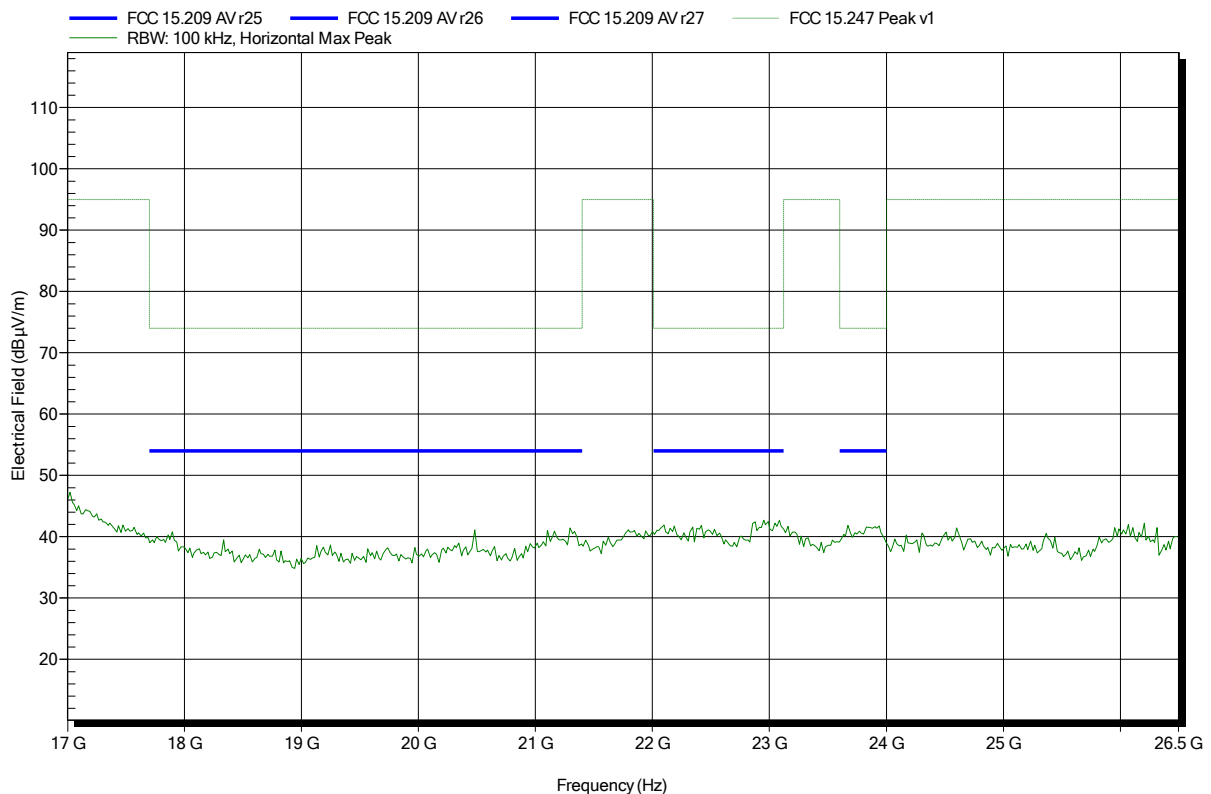


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HL 025, Horizontal
 Measurement distance: 1 m
 Mode: TX; DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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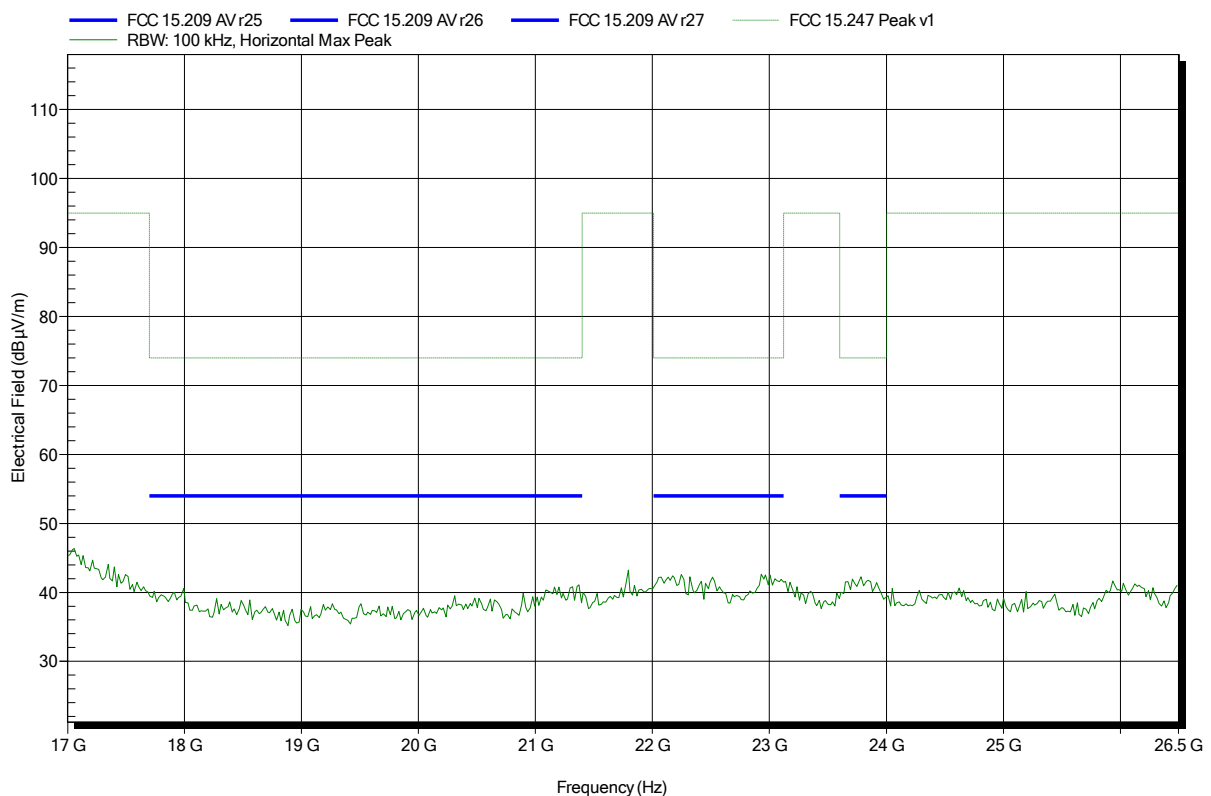


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HL 025, Horizontal
 Measurement distance: 1 m
 Mode: TX; DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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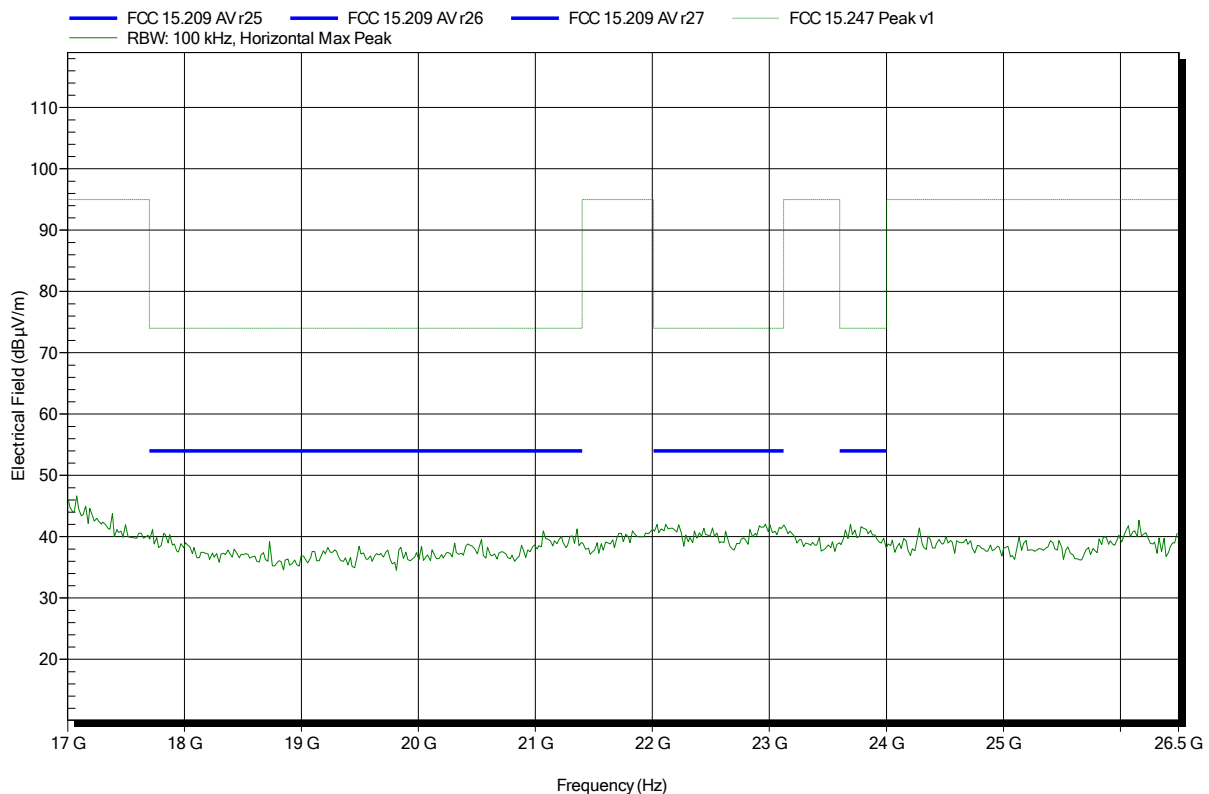


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HL 025, Horizontal
 Measurement distance: 1 m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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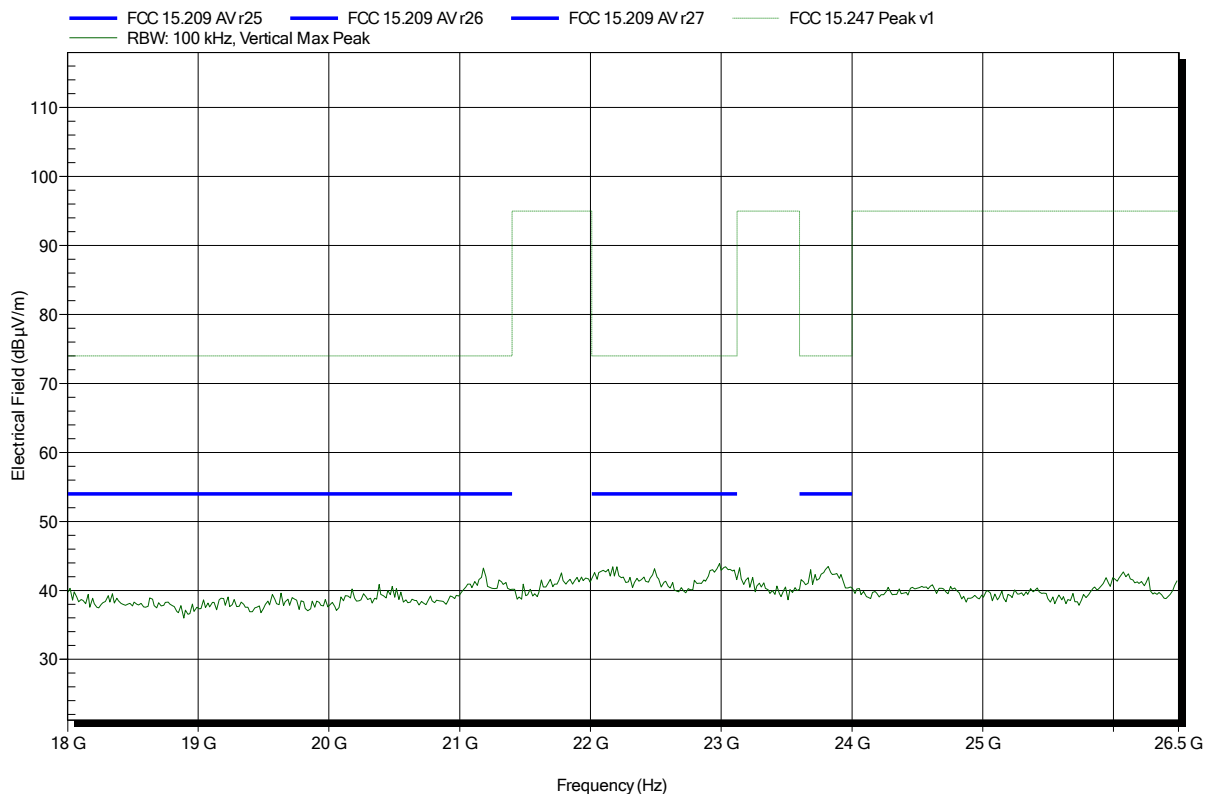


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m
Mode:	TX; DH5 Ch 0
Test Date:	2014-08-19
Note:	

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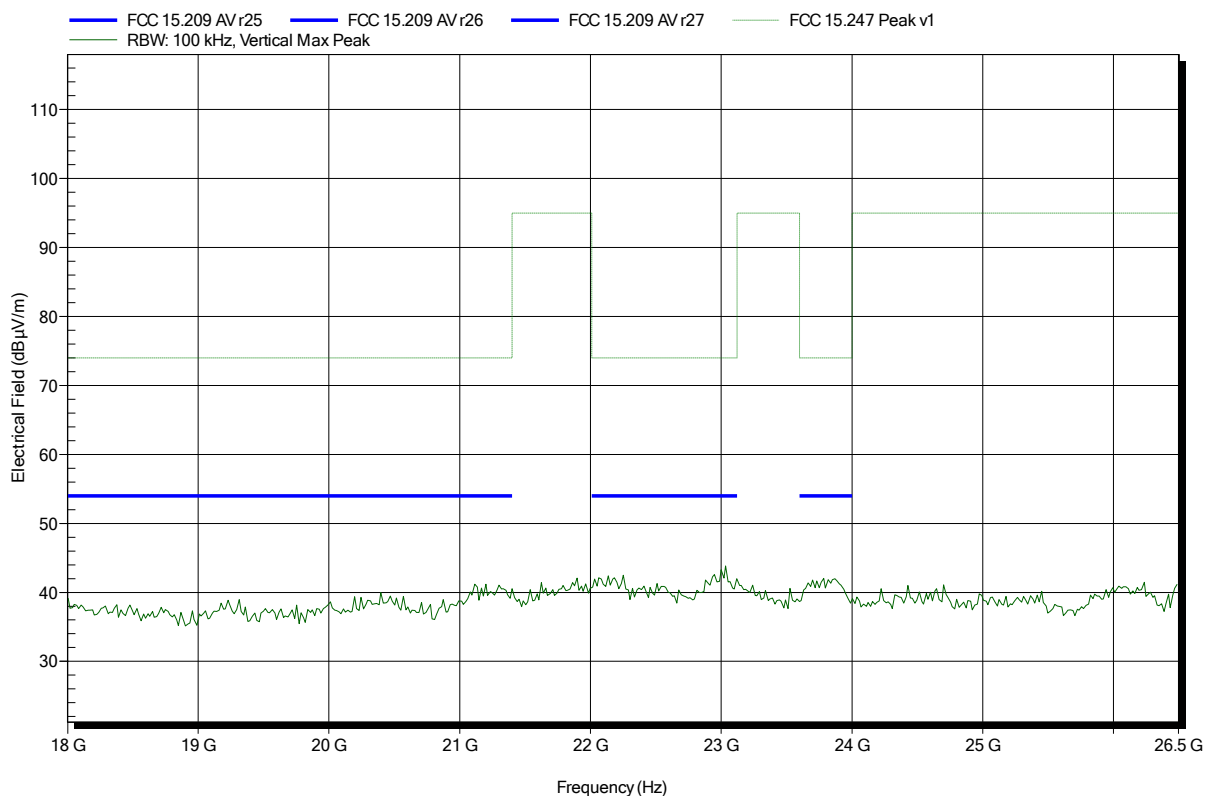


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HL 025, Vertical
 Measurement distance: 1 m
 Mode: TX; DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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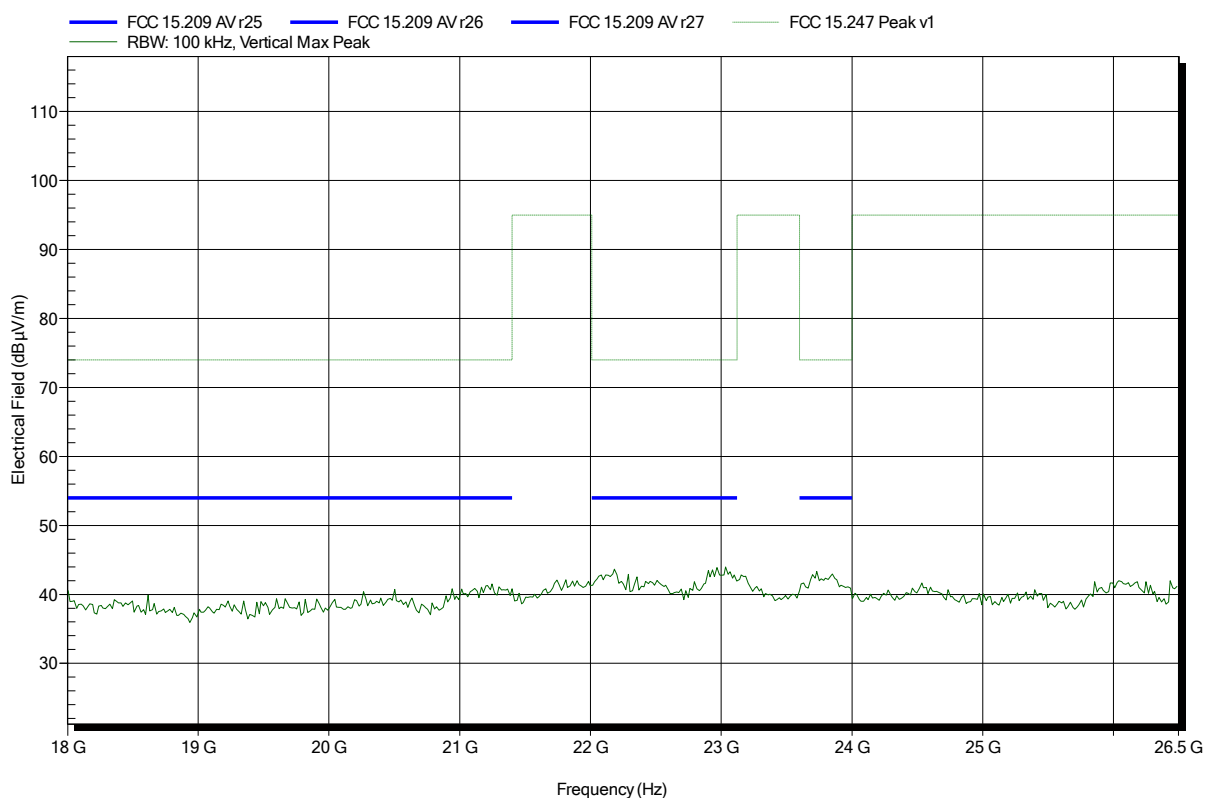


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HL 025, Vertical
 Measurement distance: 1 m
 Mode: TX; DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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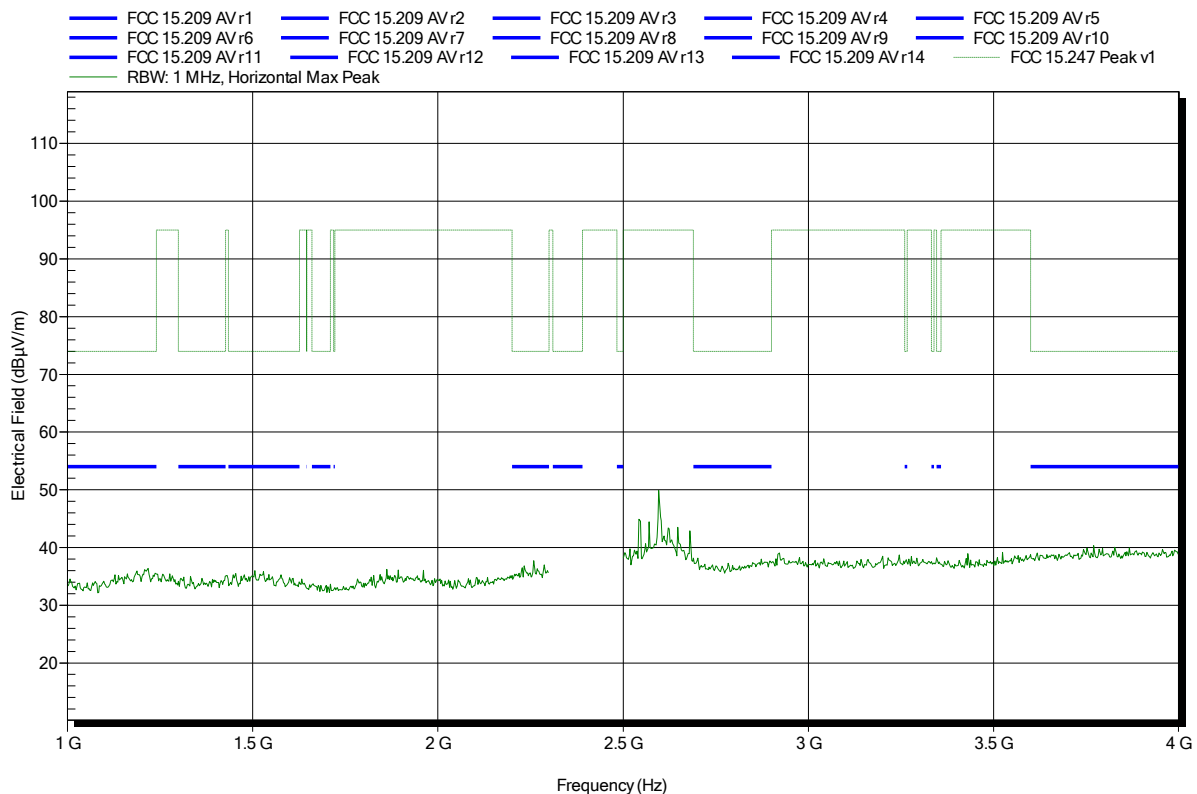


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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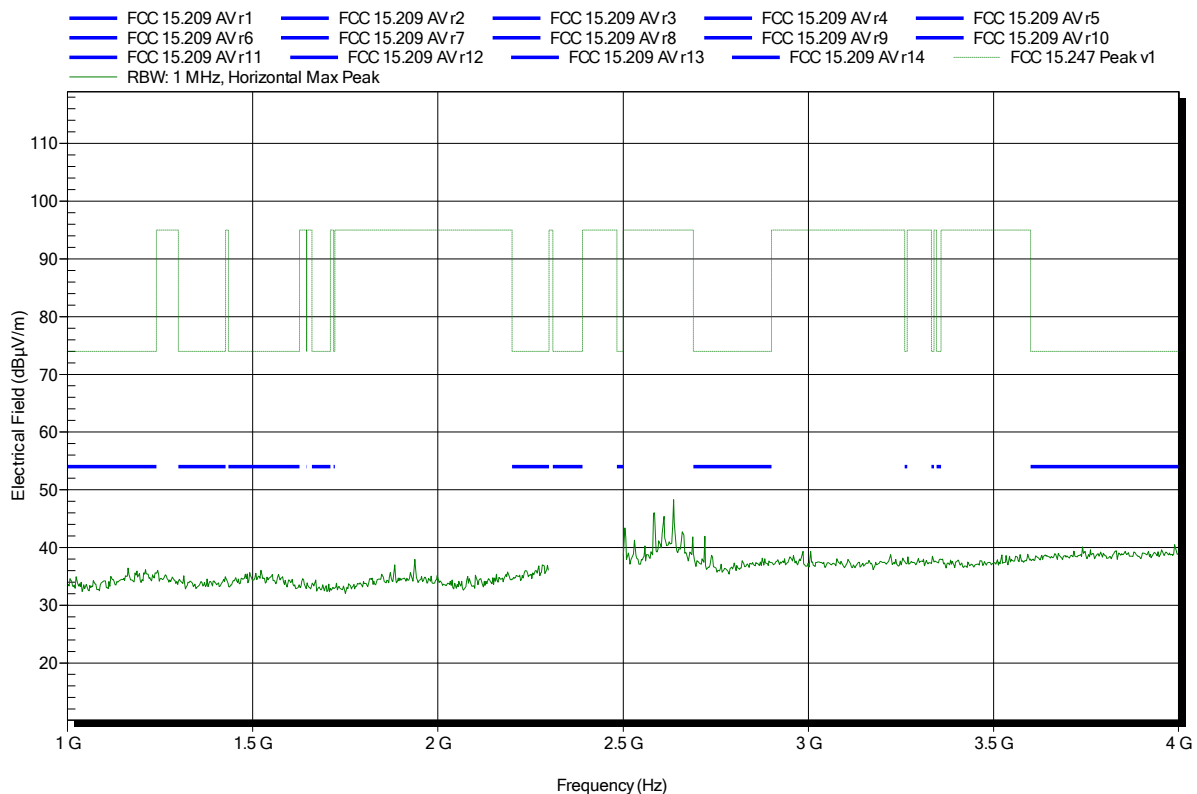


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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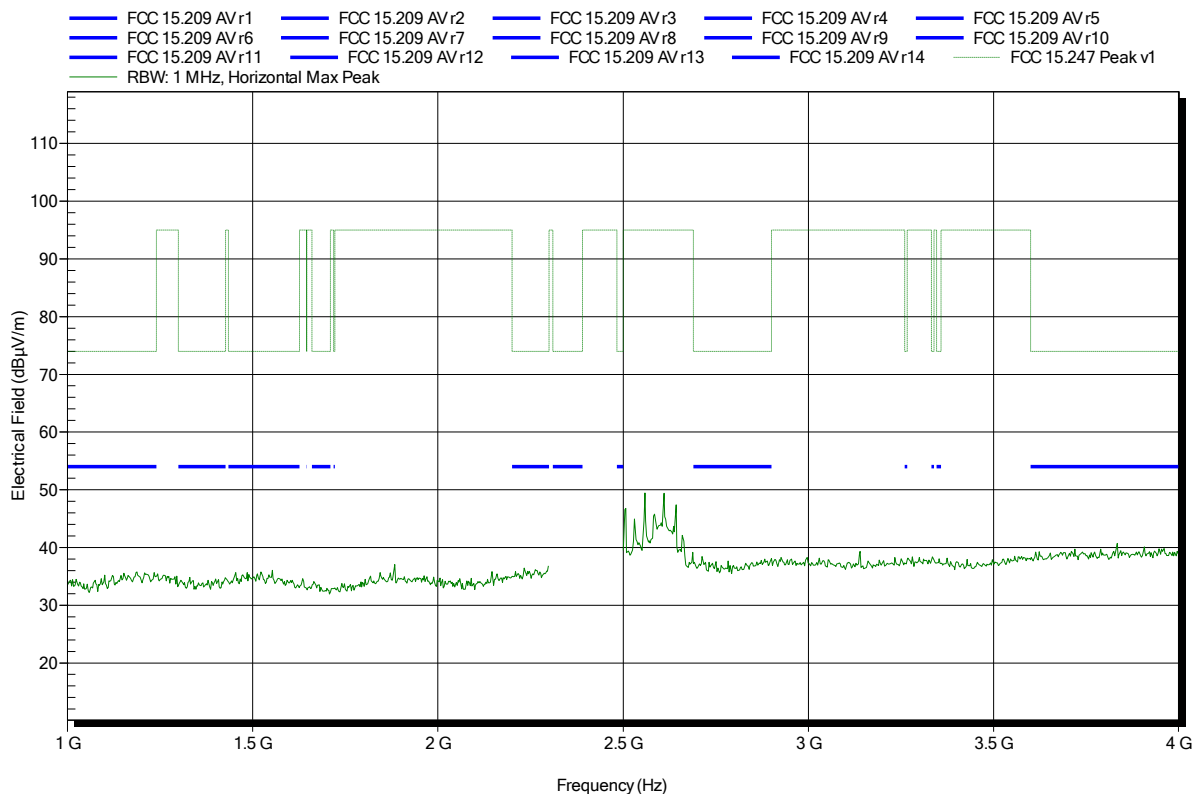


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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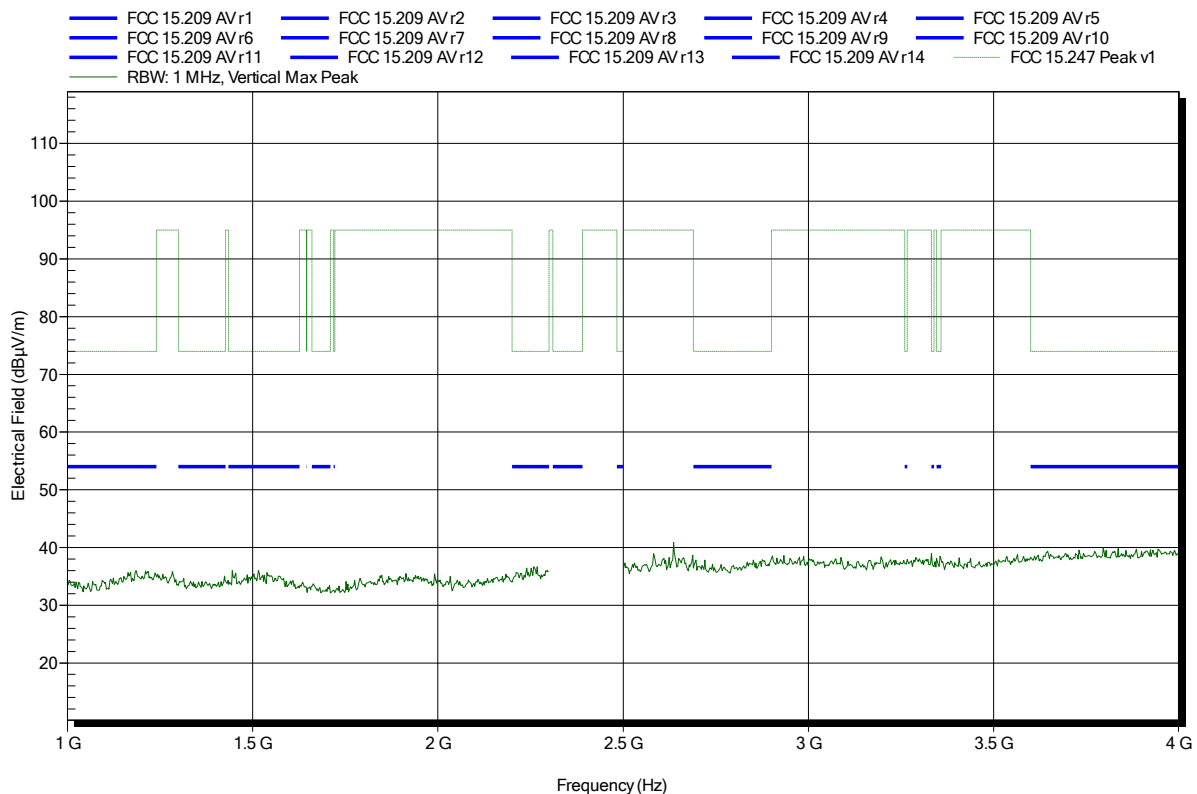


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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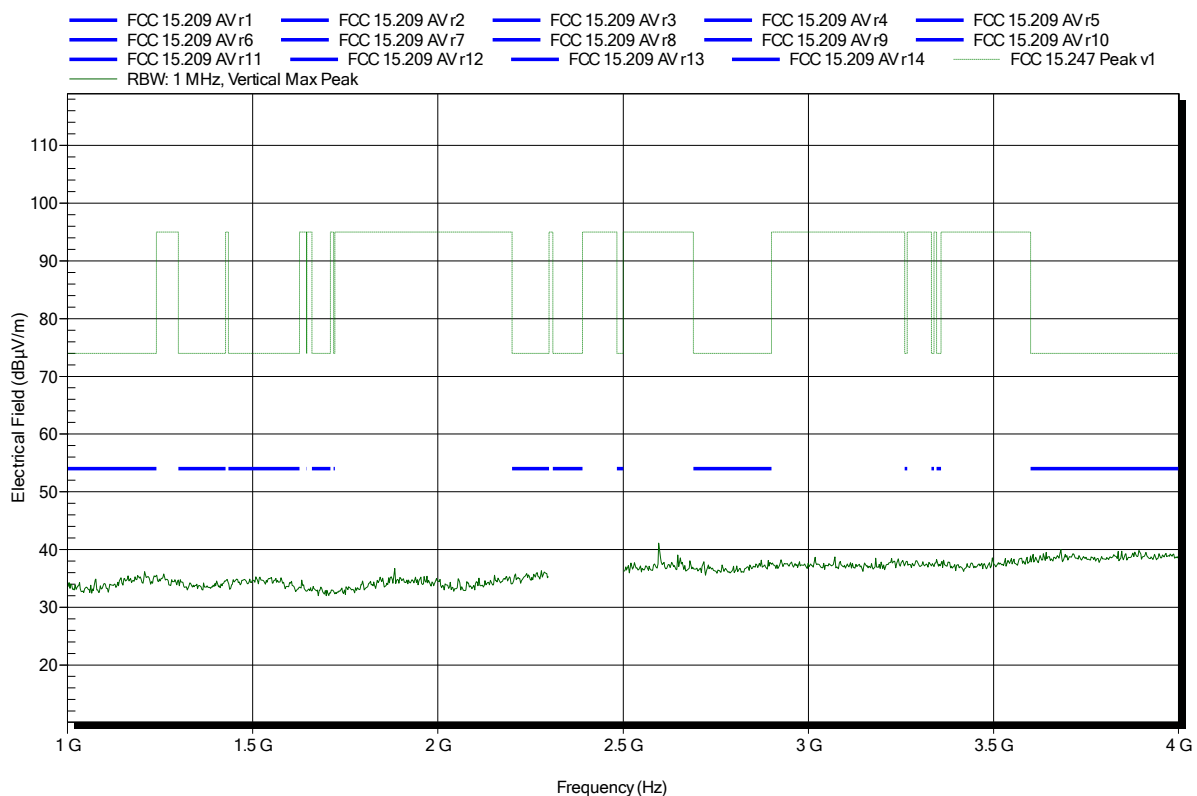


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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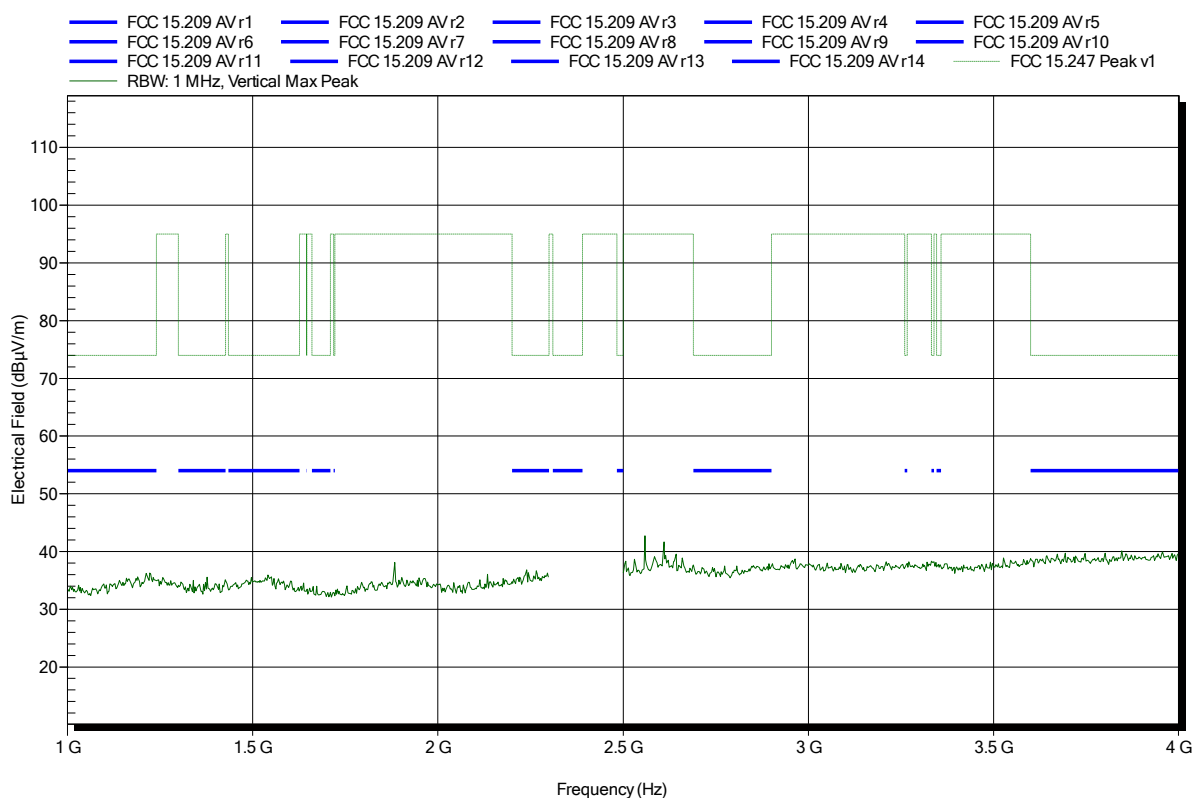


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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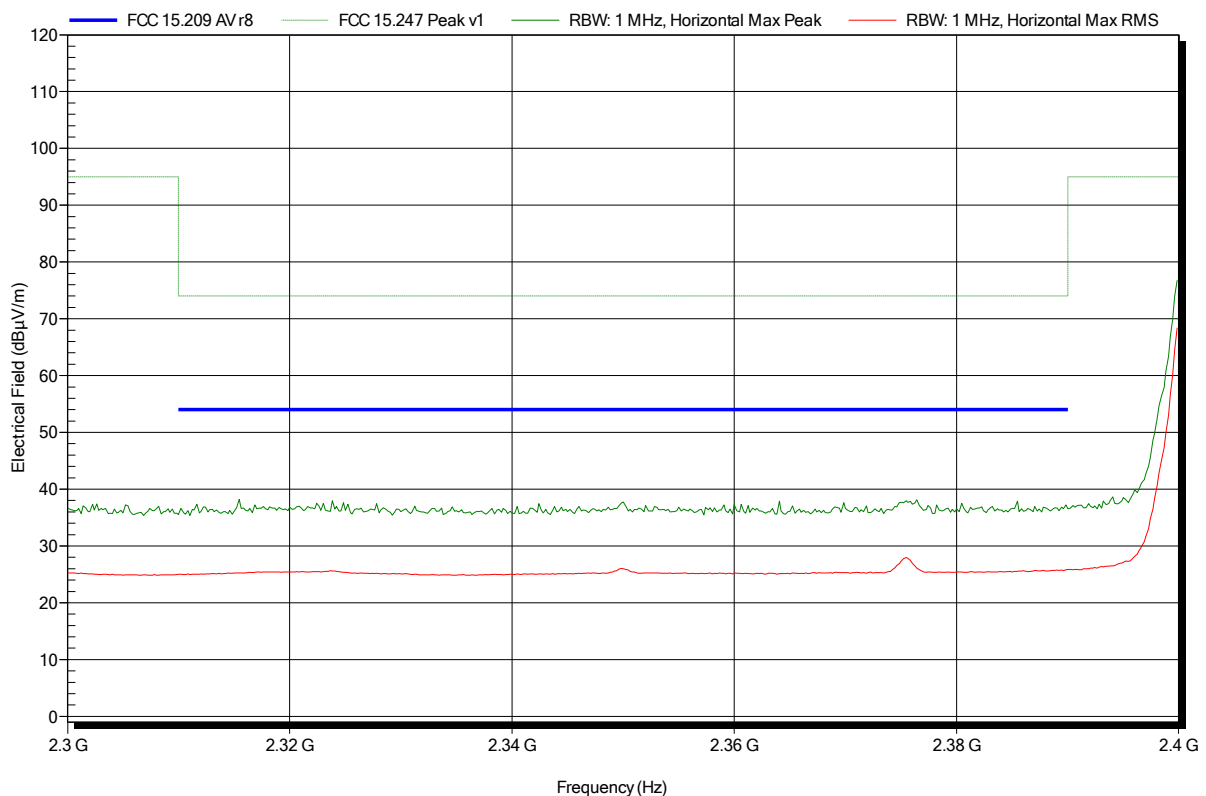


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 0
 Test Date: 2014-08-19
 Note: lower bandedge

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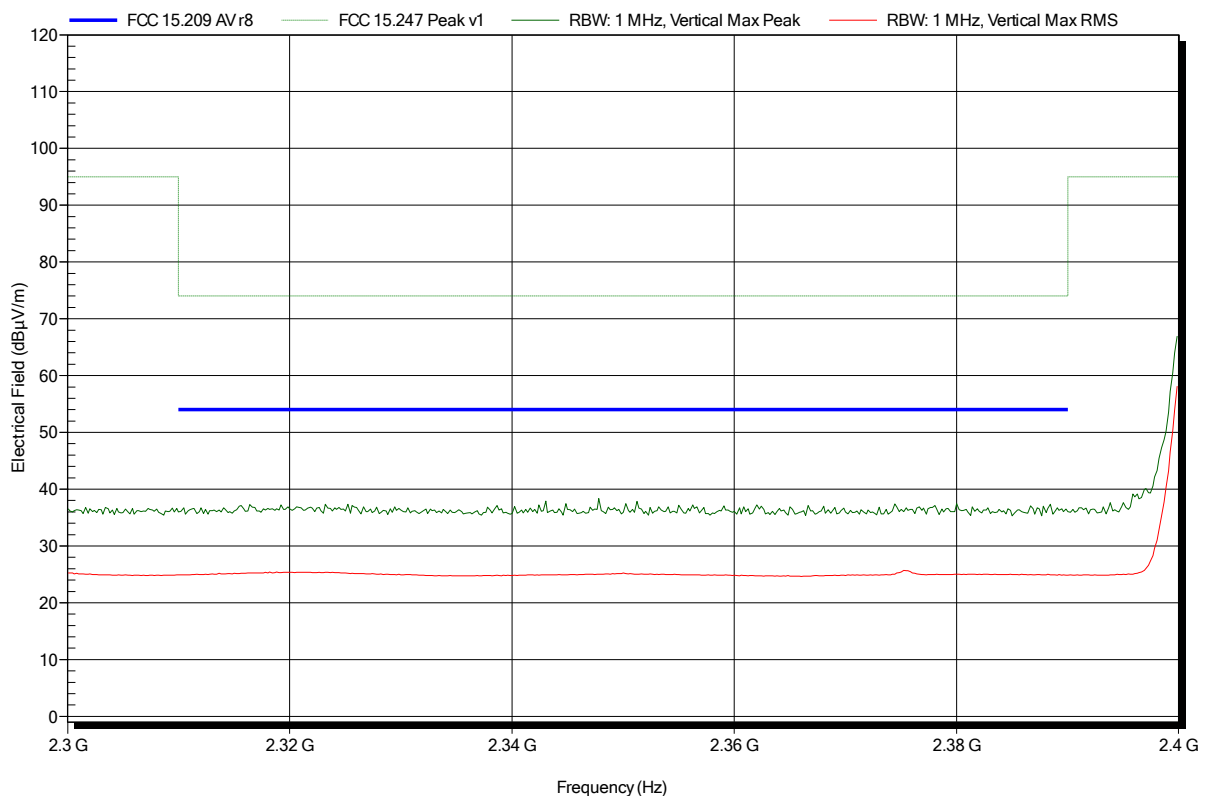


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; 3-DH5 Ch 0
Test Date:	2014-08-19
Note:	lower bandedge

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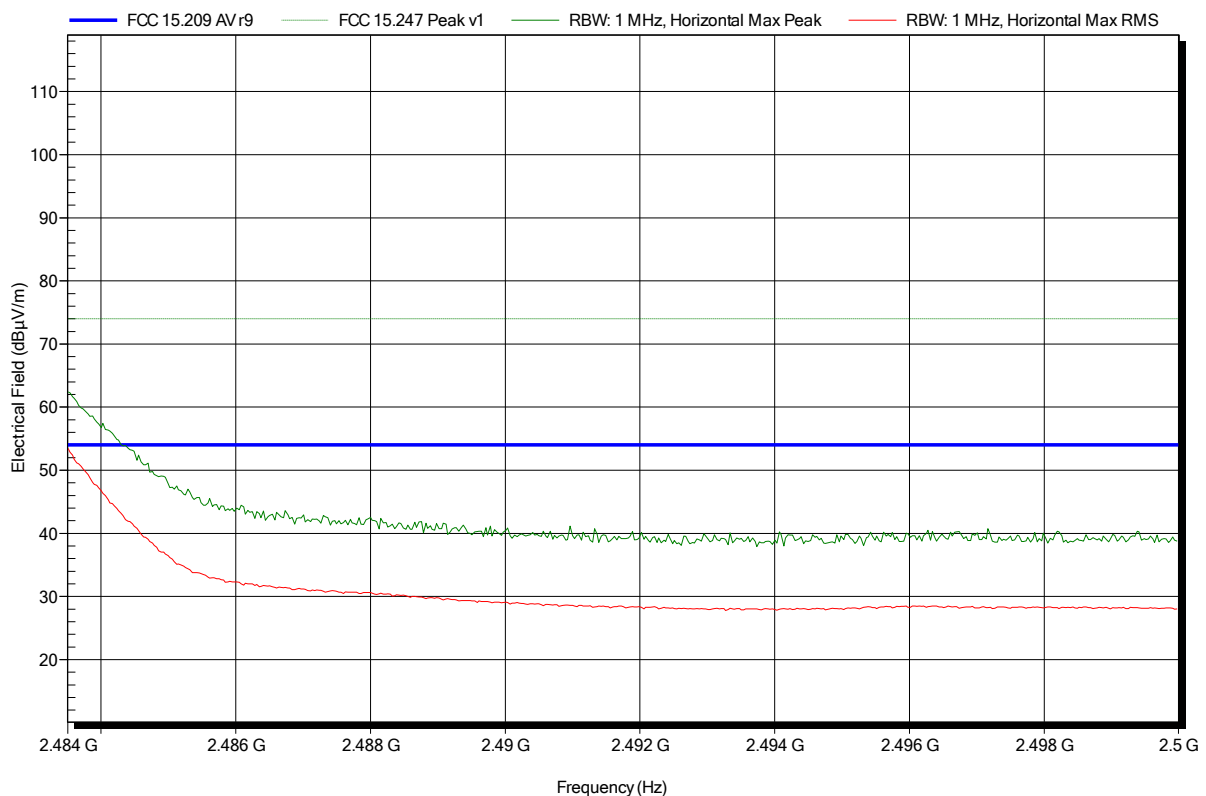


Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 78
 Test Date: 2014-08-19
 Note: upper bandedge

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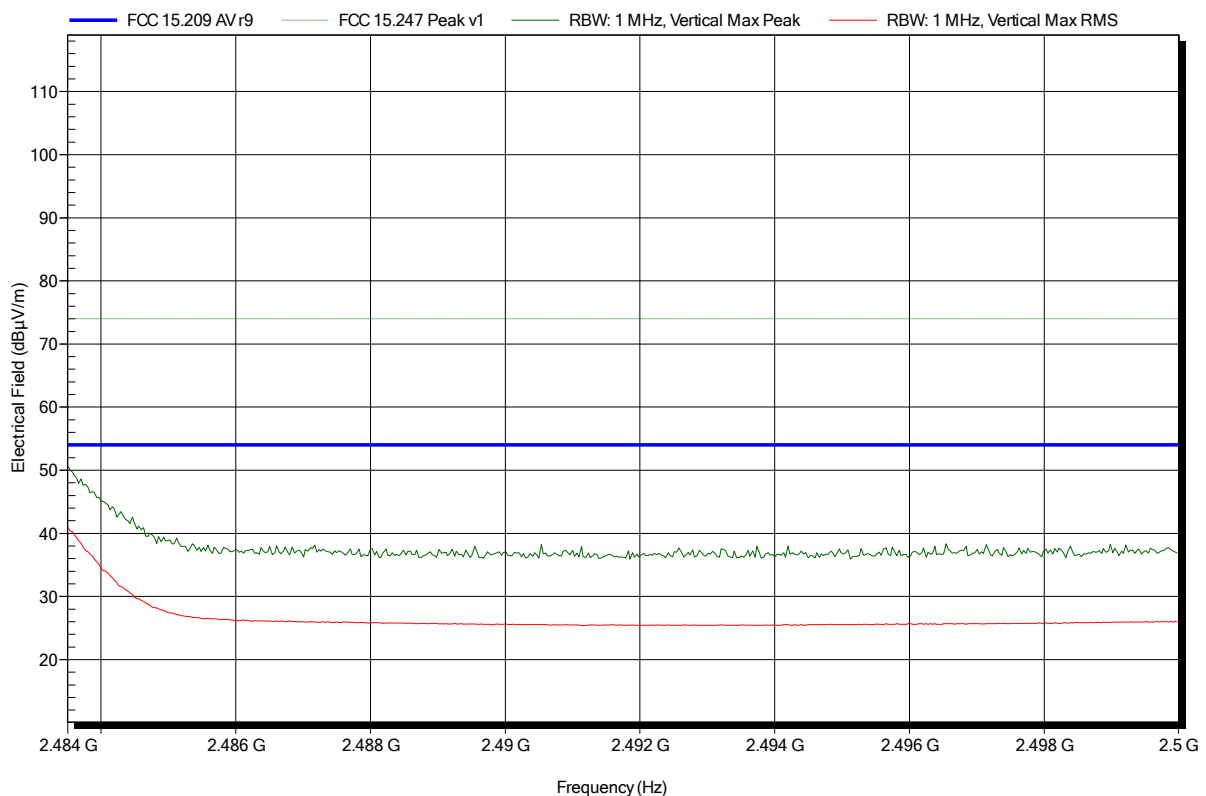


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 78
 Test Date: 2014-08-19
 Note: upper bandedge

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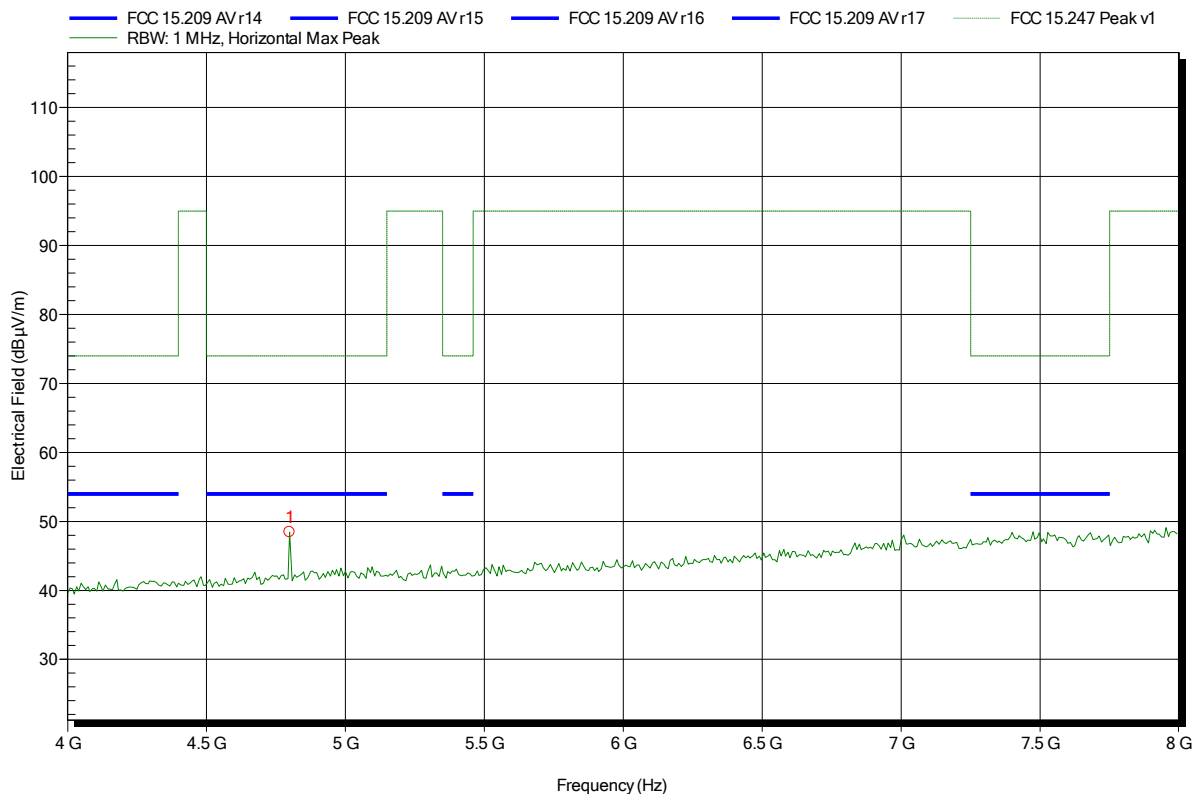


Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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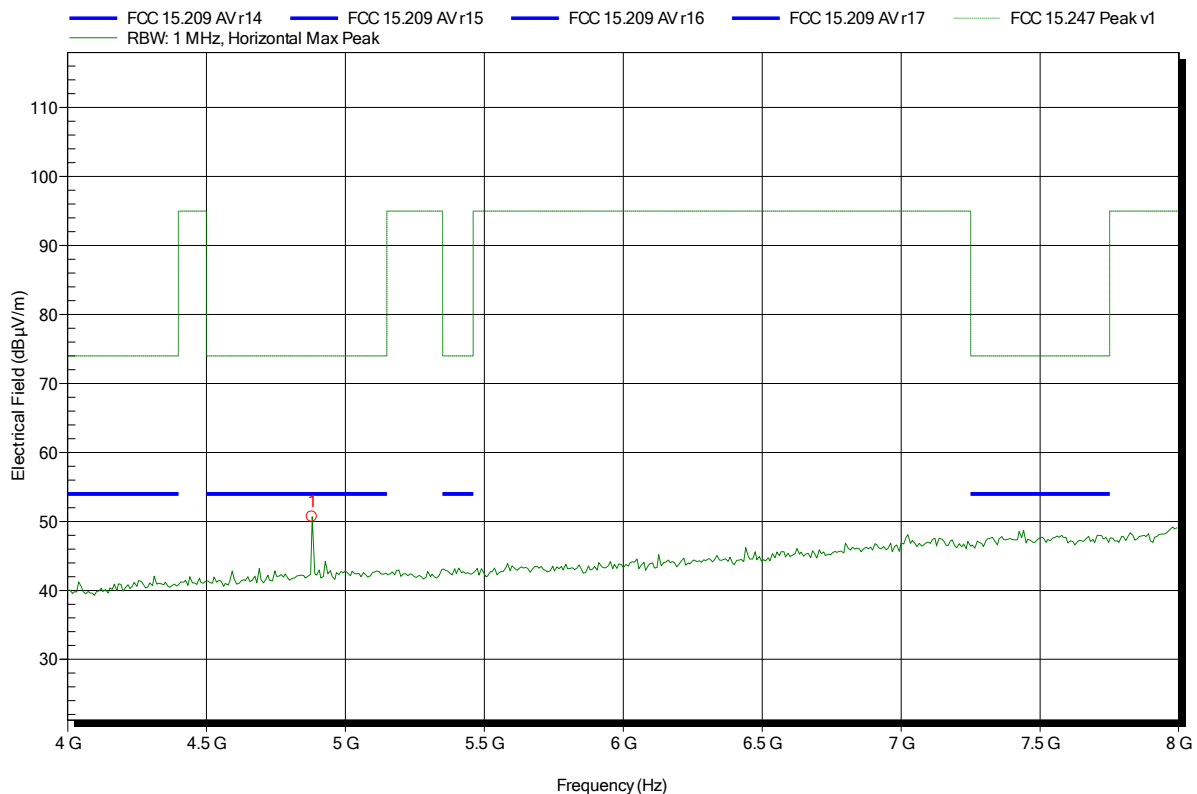
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.8 GHz	48.44 dBµV/m	74 dBµV/m	-25.56 dB	Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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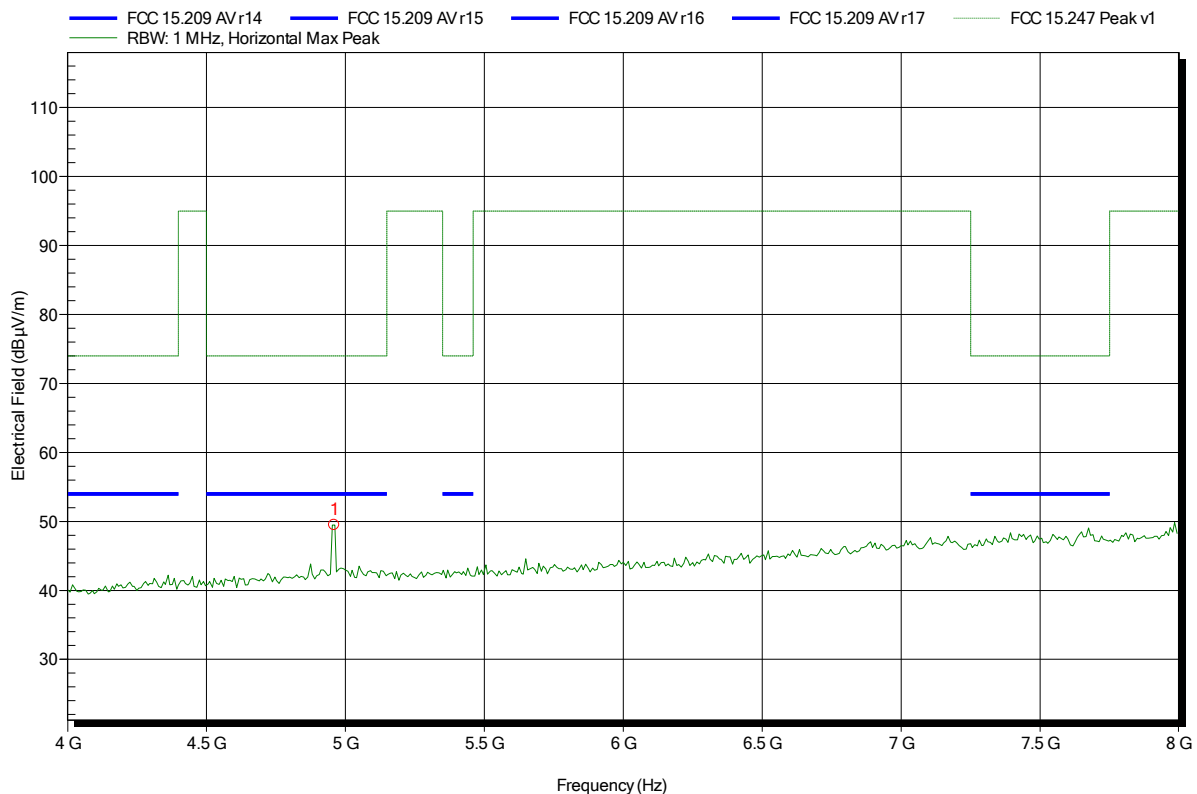
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.88 GHz	50.68 dBµV/m	74 dBµV/m	-23.32 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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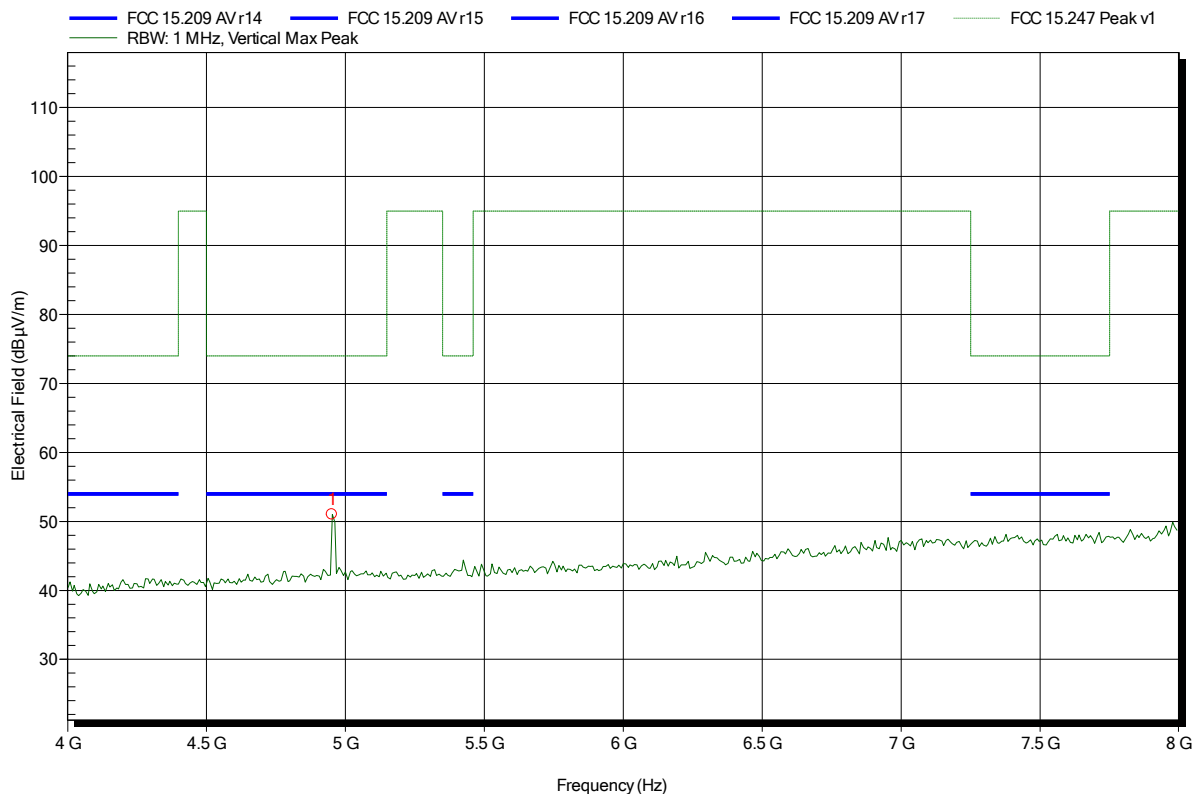
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.96 GHz	49.48 dBµV/m	74 dBµV/m	-24.52 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 78
 Test Date: 2014-08-19
 Note:

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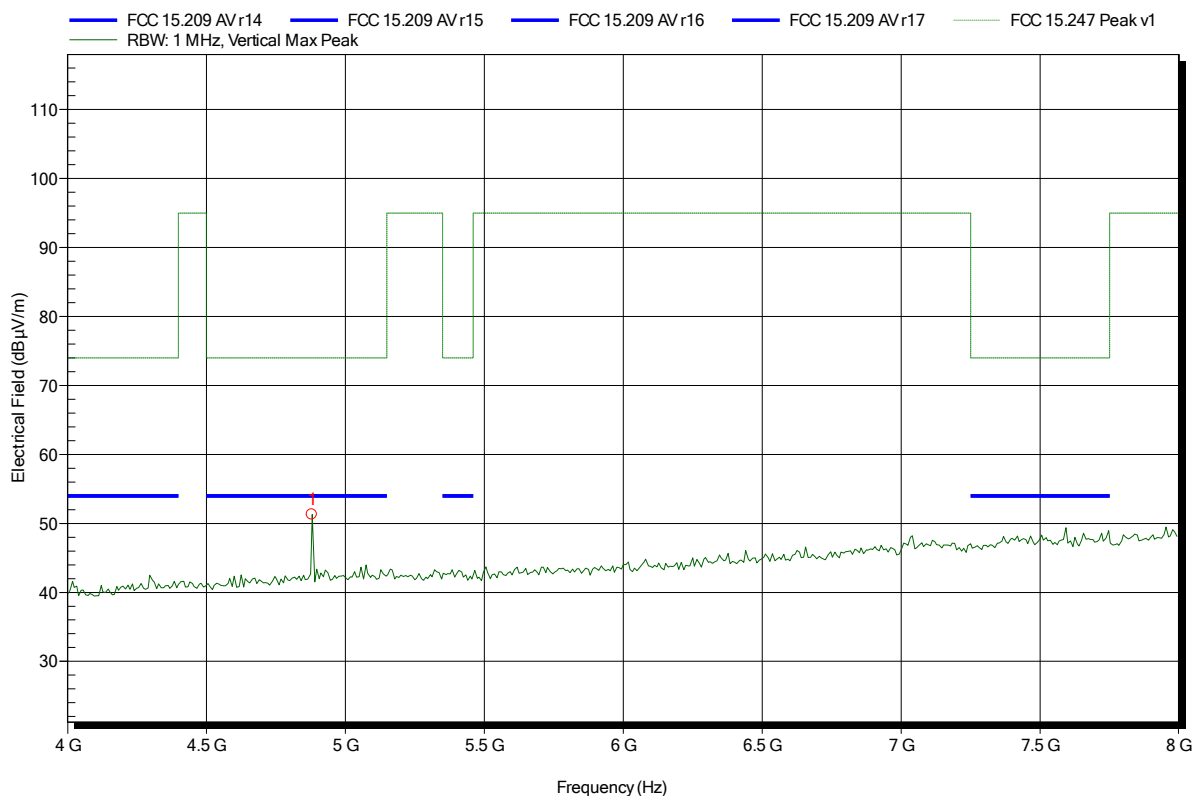
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.952 GHz	50.99 dBµV/m	74 dBµV/m	-23.01 dB	Pass

Spurious emissions according to FCC 15.247

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 39
 Test Date: 2014-08-19
 Note:

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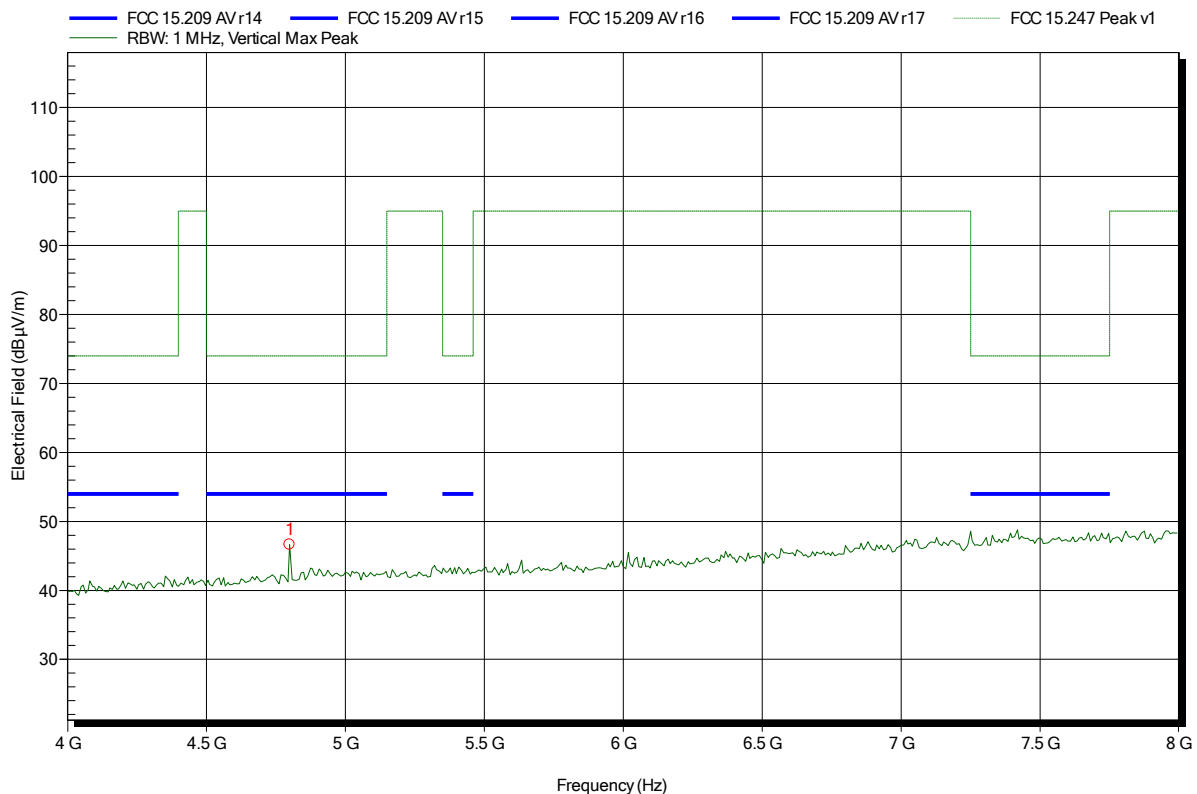
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.88 GHz	51.3 dBµV/m	74 dBµV/m	-22.7 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: TX; 3-DH5 Ch 0
 Test Date: 2014-08-19
 Note:

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Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.8 GHz	46.65 dBµV/m	74 dBµV/m	-27.35 dB	Pass

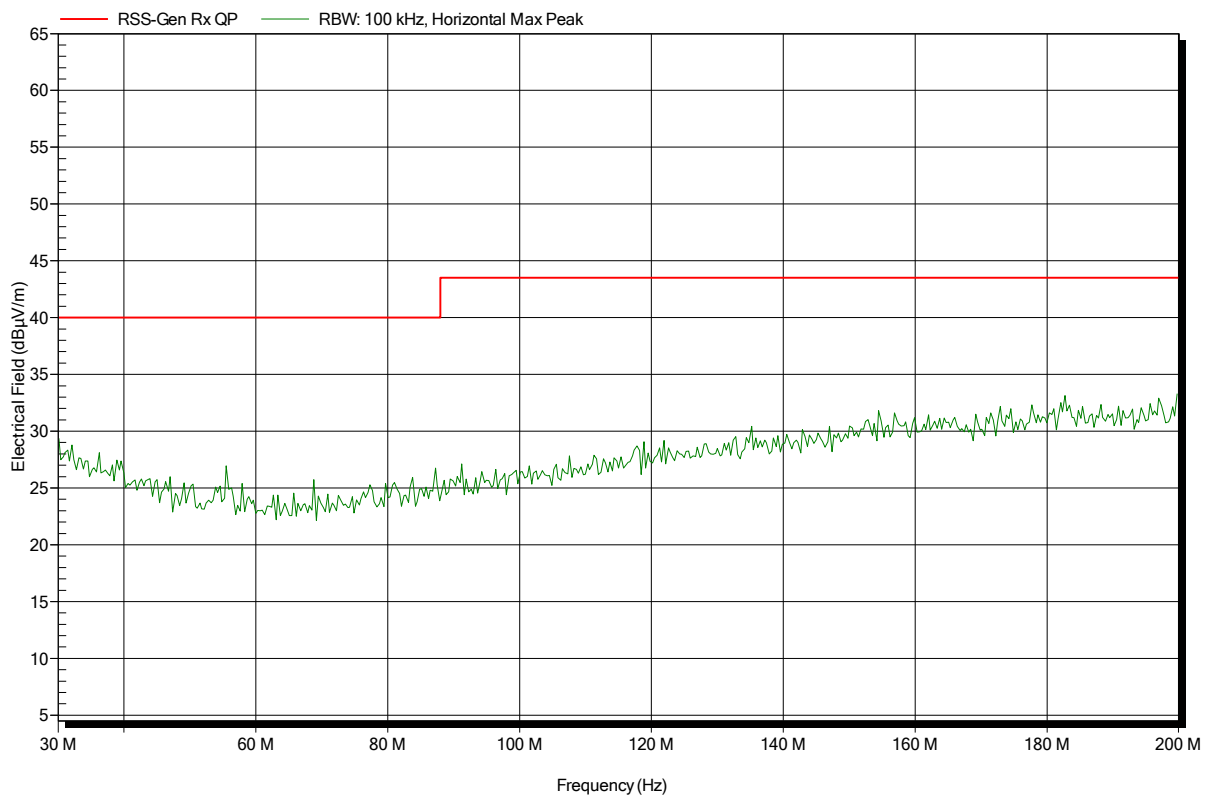
ANNEX B Receiver radiated spurious emissions

Spurious emissions according to RSS-Gen

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HK 116, Horizontal
 Measurement distance: 3 m
 Mode: RX; Rx Bluetooth Rx Scan Mode
 Test Date: 2014-08-19
 Note:

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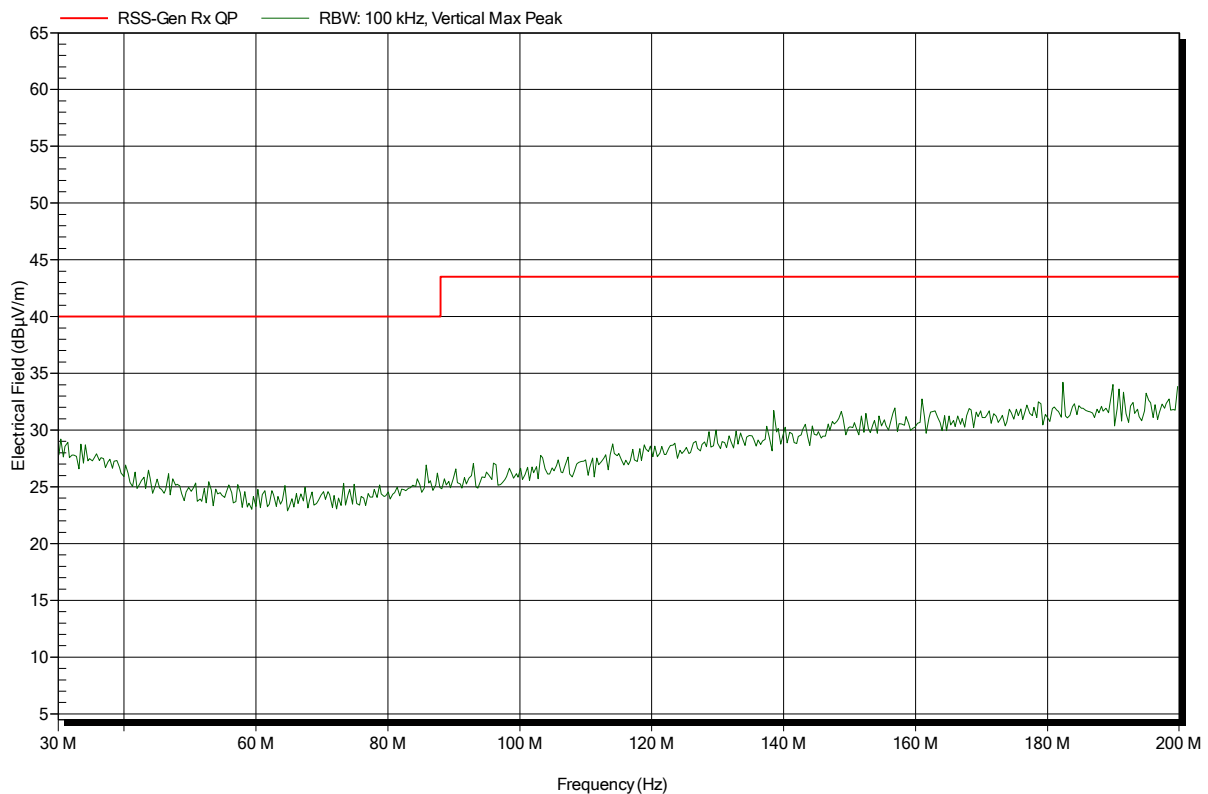


Spurious emissions according to RSS-Gen

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HK 116, Vertical
 Measurement distance: 3 m
 Mode: RX; Rx Bluetooth Rx Scan Mode
 Test Date: 2014-08-19
 Note:

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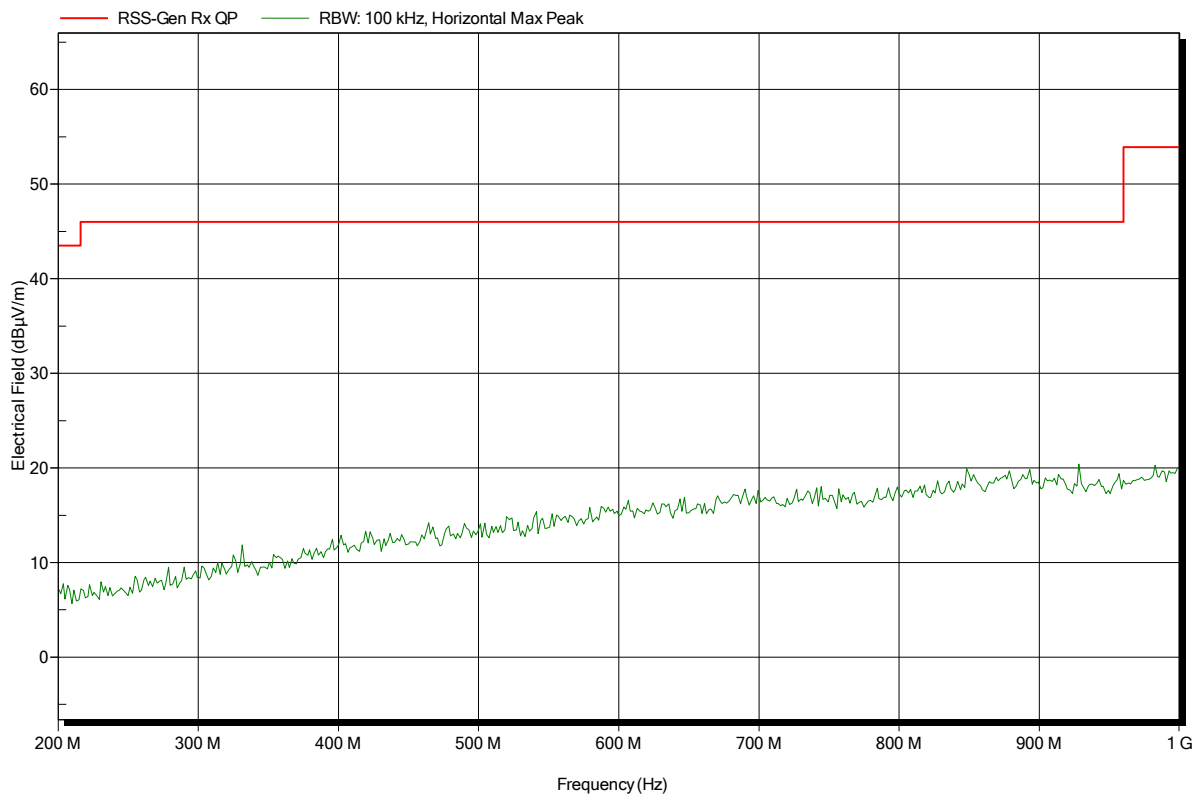


Spurious emissions according to RSS-Gen

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HL 223, Horizontal
 Measurement distance: 3 m
 Mode: RX; Rx Bluetooth Rx Scan Mode
 Test Date: 2014-08-19
 Note:

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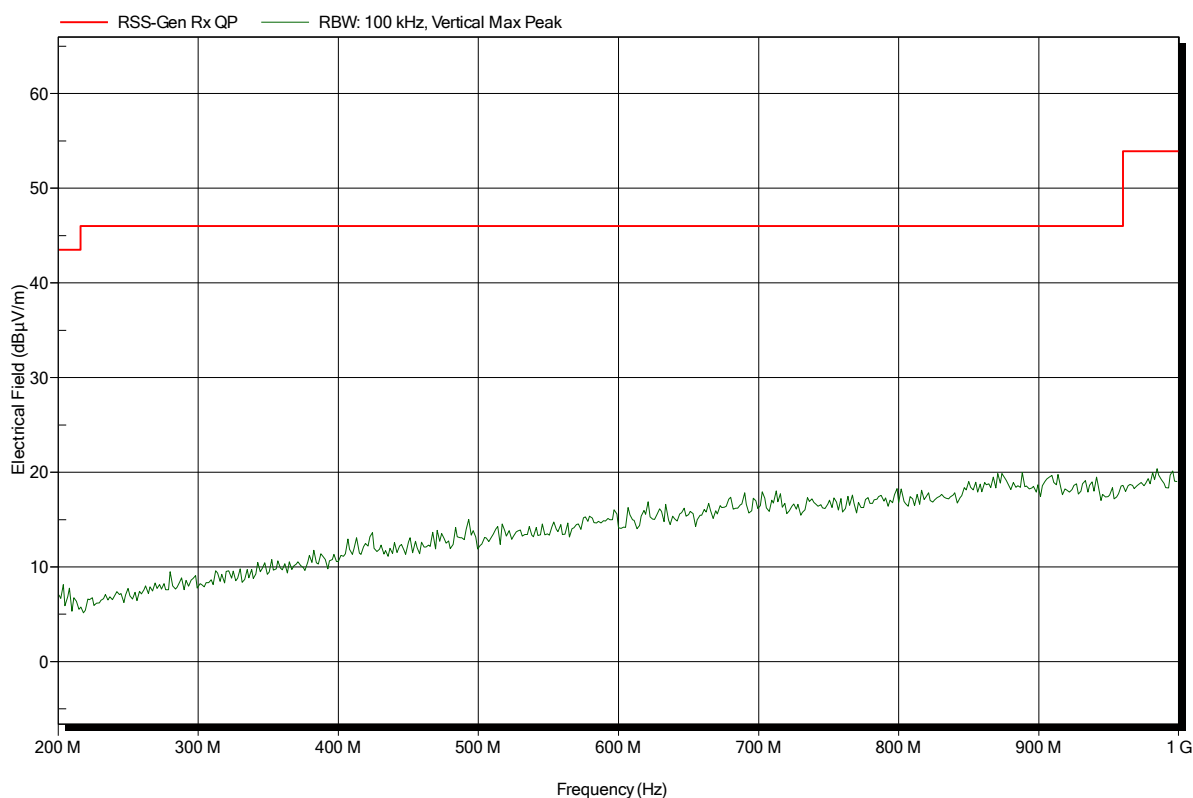


Spurious emissions according to RSS-Gen

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Rohde & Schwarz HL 223, Vertical
 Measurement distance: 3 m
 Mode: RX; Rx Bluetooth Rx Scan Mode
 Test Date: 2014-08-19
 Note:

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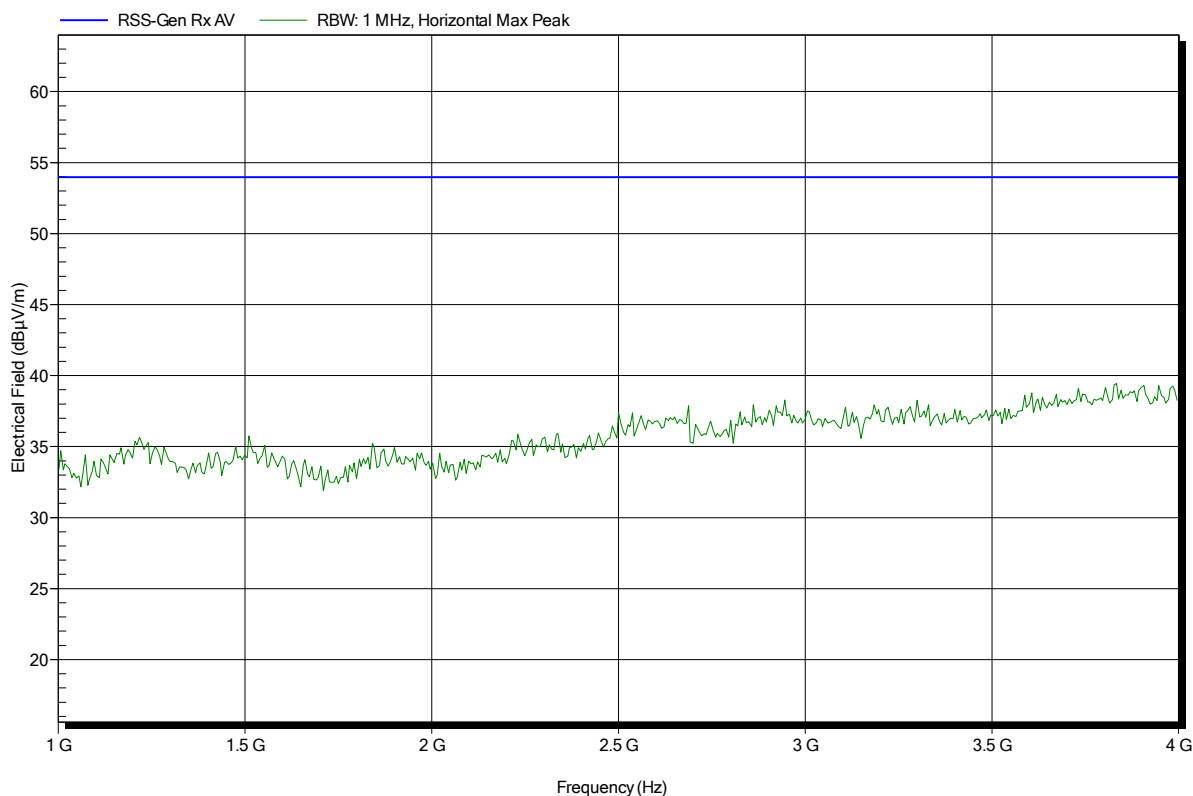


Spurious emissions according to RSS-Gen

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: RX; Rx Bluetooth Rx Scan Mode
 Test Date: 2014-08-19
 Note:

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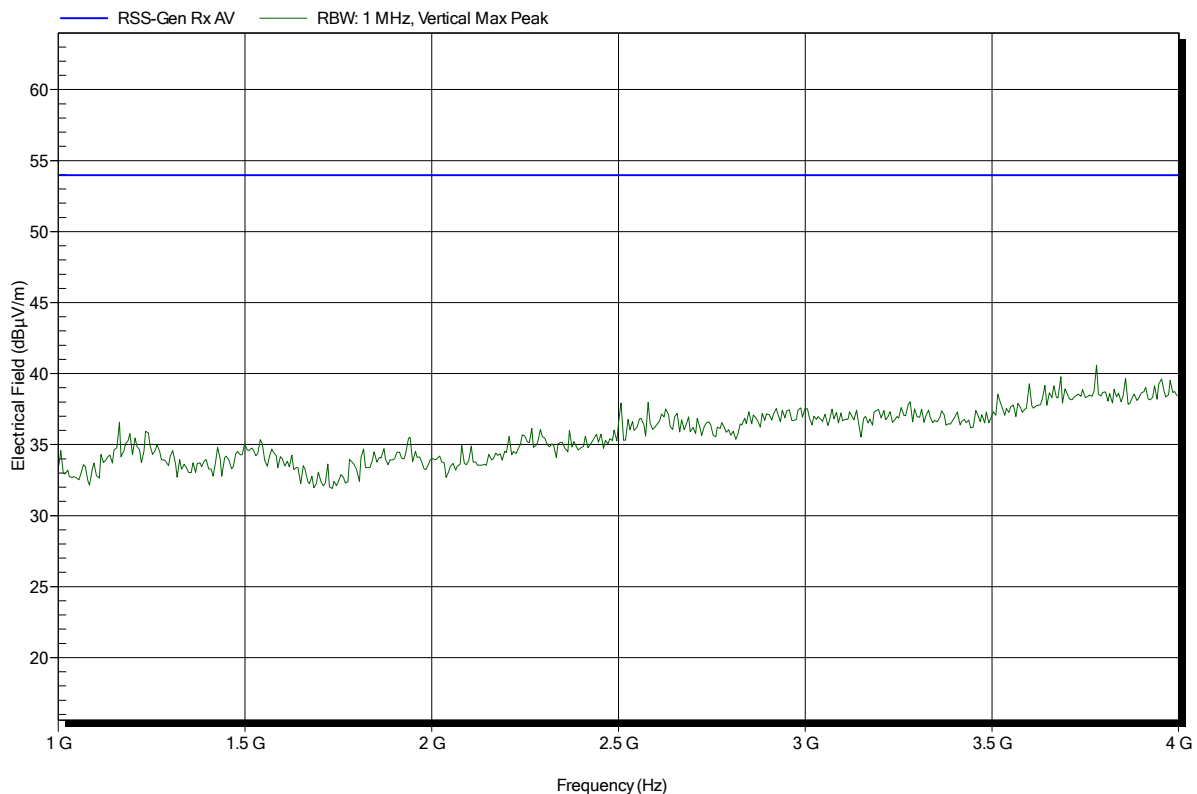


Spurious emissions according to RSS-Gen

Project number: GOM-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; Rx Bluetooth Rx Scan Mode
Test Date:	2014-08-19
Note:	

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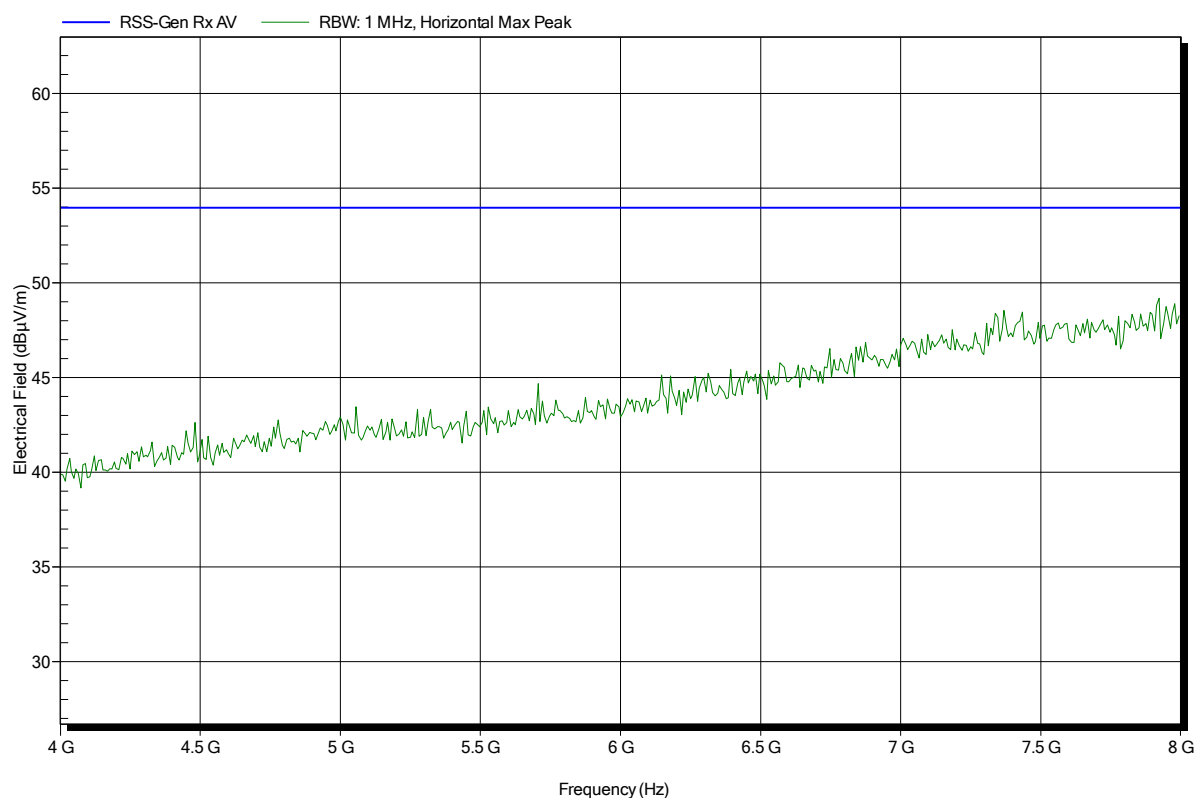


Spurious emissions according to RSS-Gen

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 3 m
 Mode: RX; Rx Bluetooth Rx Scan Mode
 Test Date: 2014-08-19
 Note:

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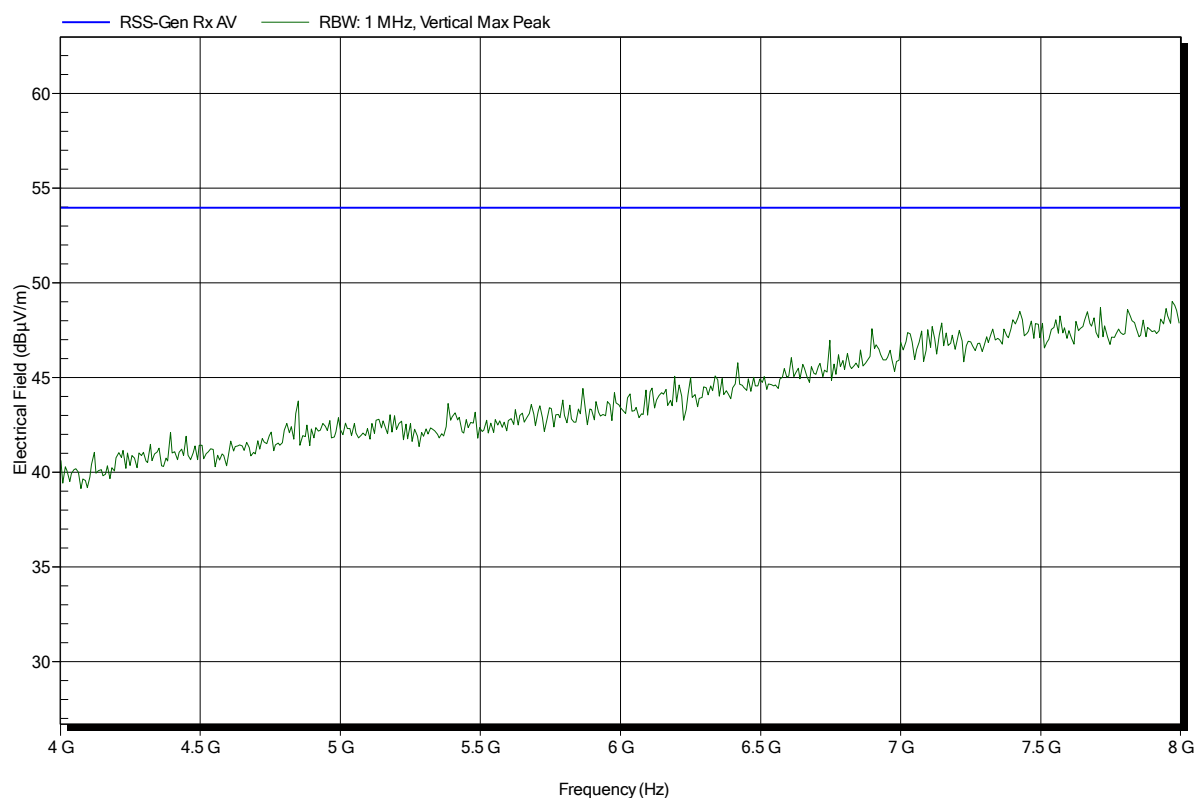


Spurious emissions according to RSS-Gen

Project number: GOM-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: RX; Rx Bluetooth Rx Scan Mode
 Test Date: 2014-08-19
 Note:

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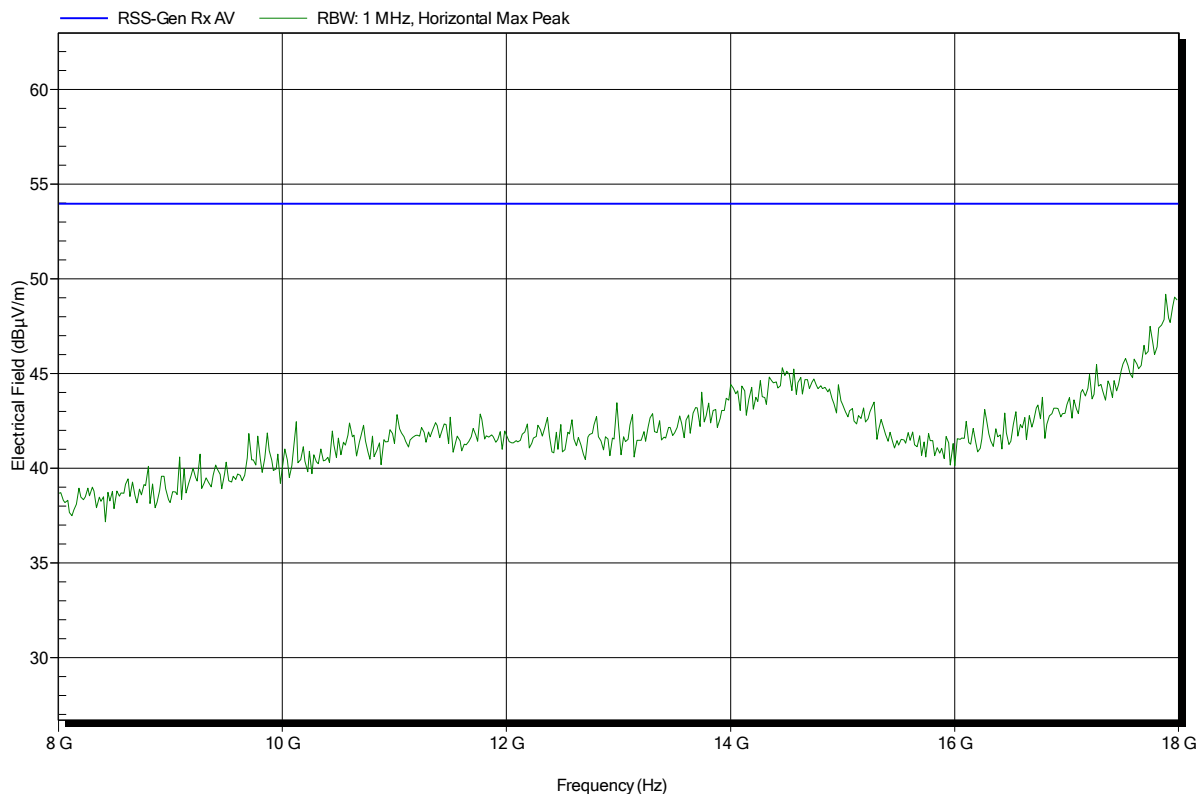


Spurious emissions according to RSS-Gen

Project number: GOM-1406-3920

Applicant:	GN Netcom A/S
EUT Name:	Bluetooth headset
Model:	Jabra / OTE20
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 22°C, Vnom: 3.7V DC (battery)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; Rx Bluetooth Rx Scan Mode
Test Date:	2014-08-19
Note:	

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Spurious emissions according to RSS-Gen

Project number: G0M-1406-3920

Applicant: GN Netcom A/S
 EUT Name: Bluetooth headset
 Model: Jabra / OTE20
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Test Conditions: Tnom: 22°C, Vnom: 3.7V DC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3 m
 Mode: RX; Rx Bluetooth Rx Scan Mode
 Test Date: 2014-08-19
 Note:

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