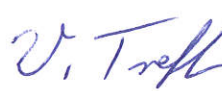


RADIO REPORT FCC 47 CFR Part 15C ISED Canada RSS-247 Digital transmission systems operating within the 2400 – 2483.5 MHz band	
Report Reference No	G0M-1903-8127-TFC247WF-V02
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	    DAkkS - Registration number : D-PL-12092-01-03 (ISED) ISED Testing Laboratory site: 3470A-2 DAkkS - Registration number : D-PL-12092-01-04 (FCC) FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	peiker Consumer Electronics Evolution GmbH
Address	Gartenstraße 25 61352 Bad Homburg GERMANY
Test Specification	According to FCC/ISED rules
Standard	47 CFR Part 15C RSS-247, Issue 2, 2017-02 RSS-Gen, Issue 5, 2018-04
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	Audio Communication Device
Model(s)	C3
Additional Model(s)	None
Brand Name(s)	None
Hardware Version(s)	1.00
Software Version(s)	1.00
FCC-ID	2ANUYC3
IC	23265-C3
Test Result	PASSED

Possible test case verdicts:		
required by standard but not tested	N/T	
not required by standard	N/R	
not applicable to EUT	N/A	
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	2019-03-25	
Report:		
Compiled by	Wilfried Treffke	
Tested by (+ signature) (Responsible for Test)	Wilfried Treffke	
Approved by (+ signature) (Head of Lab)	Christian Weber	
Date of Issue	2019-12-17	
Total number of pages	90	
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:		
There are two antennas. (Antenna 1 and Antenna 2) Antenna 1 is used for Bluetooth and Wifi (for transmit and receive mode). Antenna 2 is used for Wifi only for receive mode. (Antenna diversity)		

VERSION HISTORY

Version History			
Version	Issue Date	Remarks	Revised By
01	2019-08-28	Initial Release	
02	2019-12-17	Replaced document: G0M-1903-8127-TFC247WF-V01 Replaced by: G0M-1903-8127-TFC247WF-V02 Reason: Typo because of the result table of Occupied Bandwidth	W. Treffke

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
BPSK	Binary Phase Shift Keying
DSSS	Direct Sequence Spread Spectrum
EUT	Equipment Under Test
FCC	Federal Communications Commission
HT	High Throughput
IEEE 802.11	MAC and PHY Layer for WiFi
ISED	Innovation, Science and Economic Development Canada
OFDM	Orthogonal Frequency Division Multiplexing
QAM	Quadrature Amplitude Modulation
QPSK	Quadrature Phase Shift Keying
RBW	Resolution bandwidth
RMS	Root mean square
VBW	Video bandwidth
V _{NOM}	Nominal supply voltage

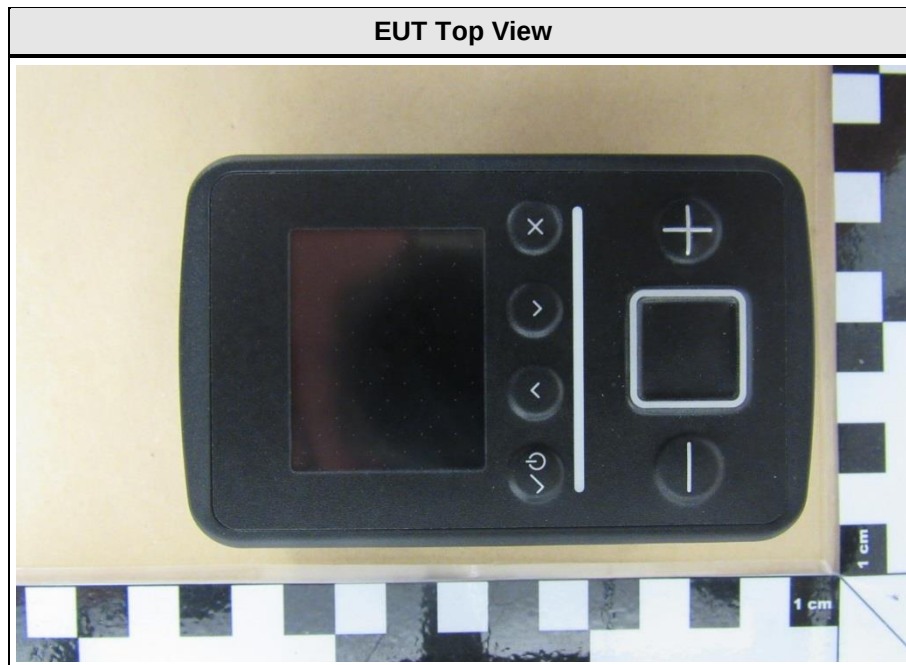
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1 Equipment (Test Item) Under Test

Description	Audio Communication Device	
Model	C3	
Additional Model(s)	None	
Brand Name(s)	None	
Serial Number(s)	991018	
Hardware Version(s)	1.00	
Software Version(s)	1.00	
PMN	CEEMesh	
HVIN	C3	
FVIN	1.x.x	
HMN	CEEMesh	
FCC-ID	2ANUYC3	
IC	23265-C3	
Equipment type	End Product	
Radio type	Transceiver	
Assigned frequency bands	2400 - 2483.5 MHz	
Radio technology	IEEE 802.11 b/g/n (HT20 + HT40)	
Modulation	BPSK, QPSK, 16-QAM, 32-QAM	
Number of antenna ports	2	
Radio Module	Type	WiLink™ 8 single band combo 2x2 MIMO Wi-Fi®, Bluetooth® & Bluetooth Smart module
	Model	WL1835MOD
	Manufacturer	Texas Instruments
	HW Version	Unspecified
	SW Version	Unspecified
Antenna 1 (used for Bluetooth and Wifi for transmit and receive mode)	Type	Integrated
	Model	C3_1 (PCB antenna)
	Manufacturer	peiker Consumer Electronics Evolution GmbH
	Gain	2.5 dBi (customer declaration)
Antenna 2 (used for Wifi, only for receive mode antenna diversity)	Type	Integrated
	Model	C3_1 (PCB antenna)
	Manufacturer	peiker Consumer Electronics Evolution GmbH
	Gain	2.5 dBi (customer declaration)
Supply Voltage	V _{NOM}	3.7 VDC (battery)
Operating Temperature	T _{NOM}	25 °C
AC/DC-Adaptor	Model	None
	Vendor	None
	Input	None
	Output	None
Manufacturer	peiker Consumer Electronics Evolution GmbH Gartenstraße 25 61352 Bad Homburg GERMANY	

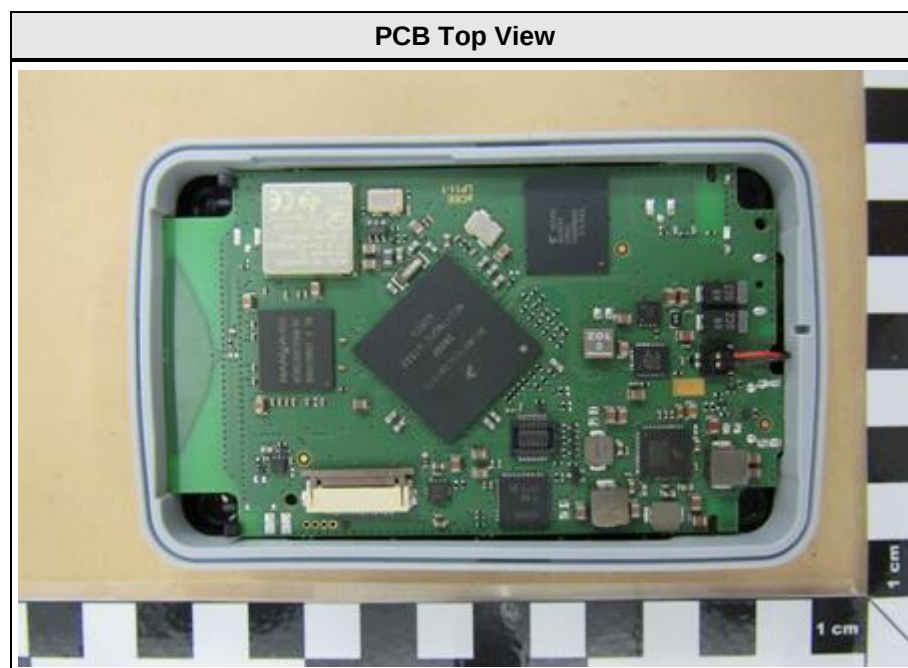
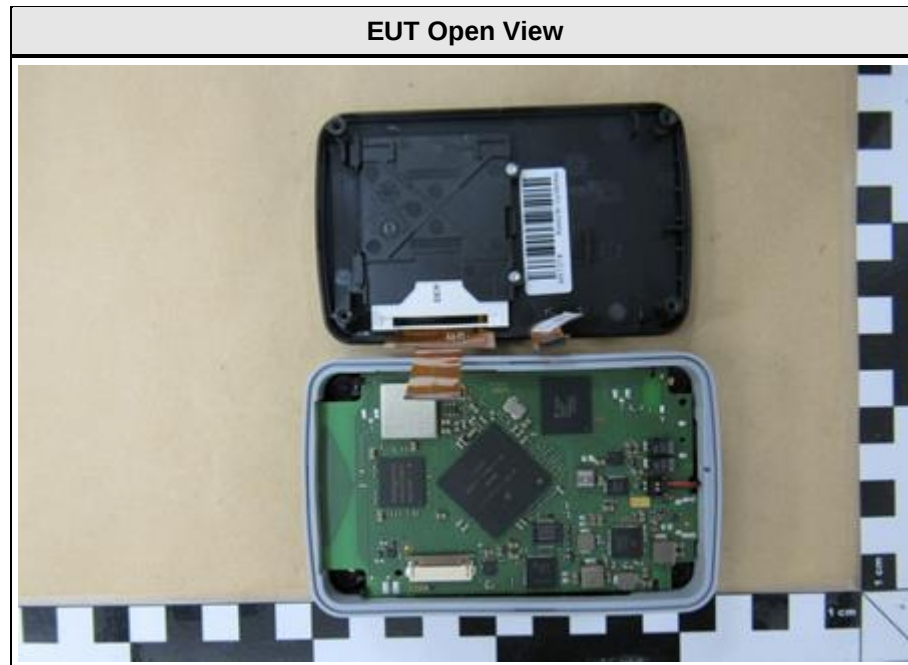
1.1 Photos – Equipment External



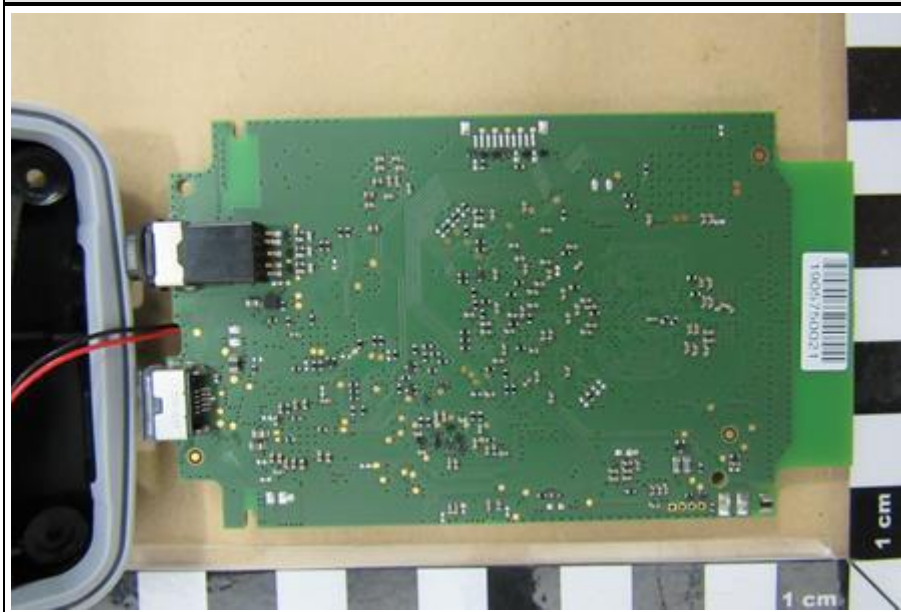
EUT Connector View



1.2 Photos – Equipment Internal

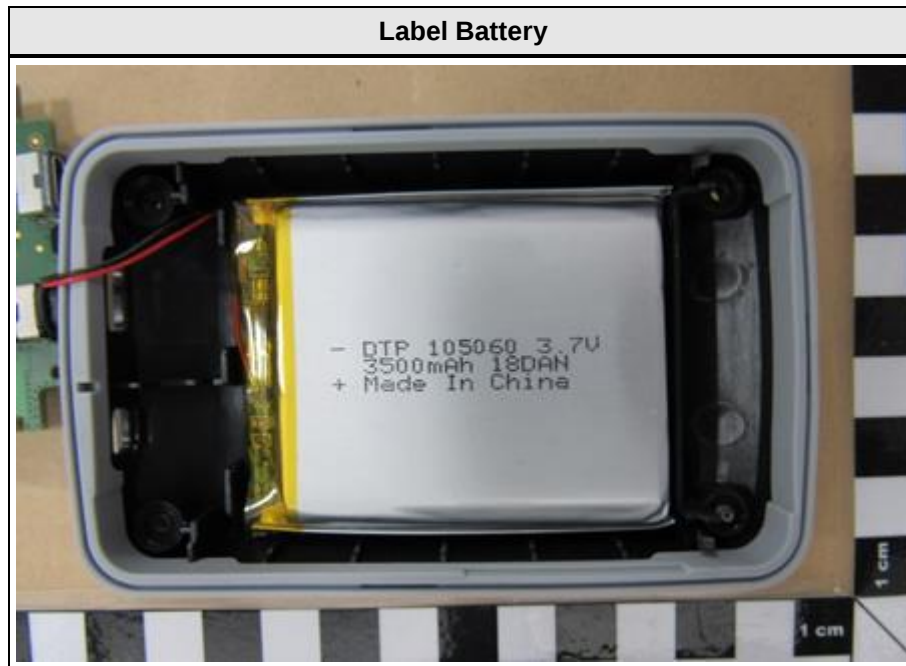


PCB Bottom View

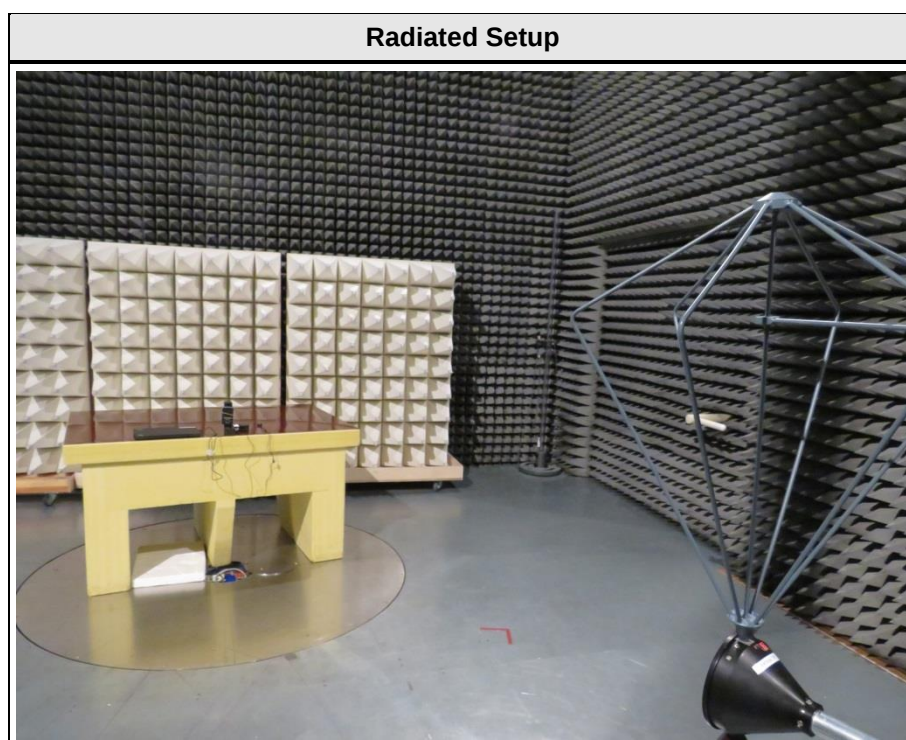
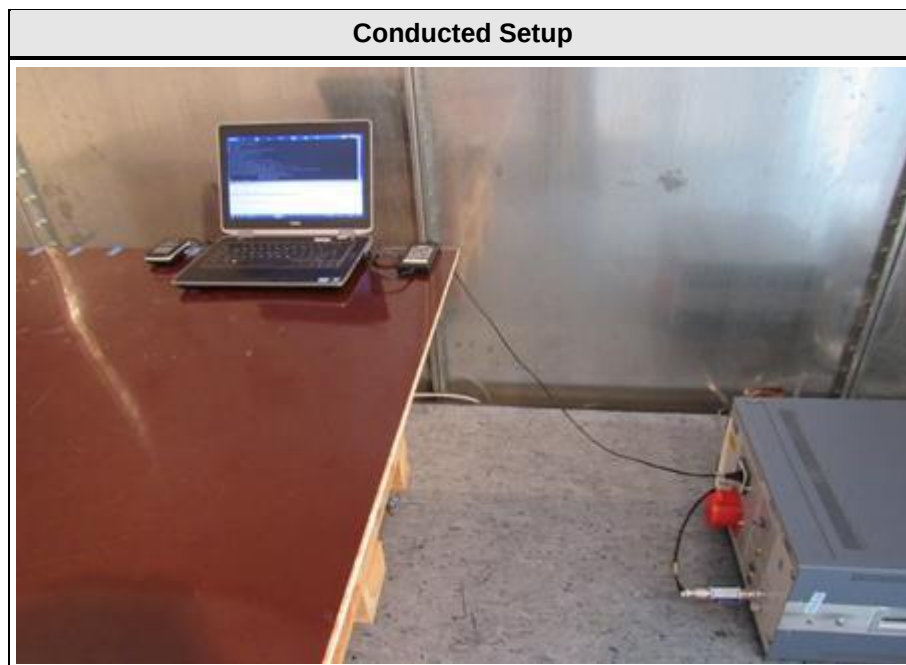


RF Module





1.3 Photos – Test Setup



1.4 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
AE	Laptop	Dell	Latitude E6420	S/N HPJ4R1
AE	Power Supply	Dell	FA65NE0-00	S/N RX929
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
SFT	Software			
Comment:				

1.5 Test mode duty cycle

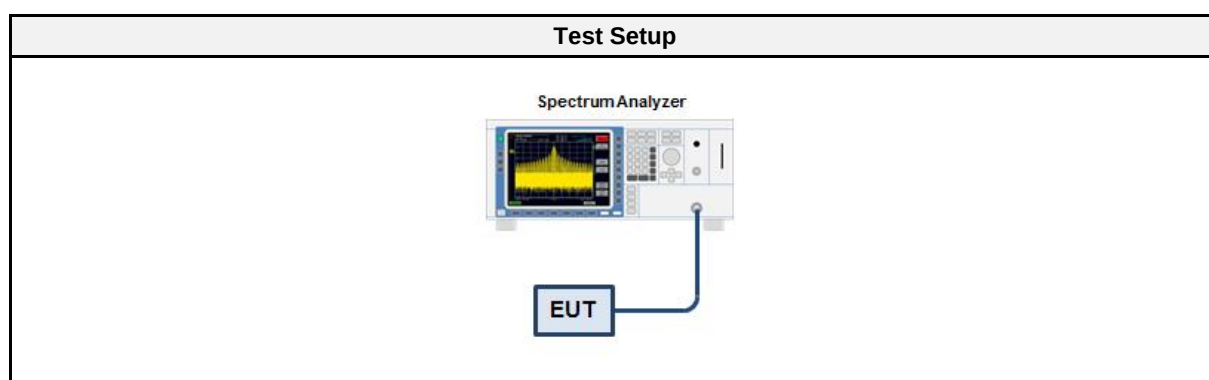
1.5.1 Information

Test Information	
Measurement Method	ANSI C63.10 11.6

1.5.2 Requirements

Requirements	
Duty cycle	Duty cycle correction
$\geq 98 \%$	No correction required
$< 98 \%$	Correction required ($10 \times \log_{10}(1/DC)$)

1.5.3 Setup



1.5.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2018-12	2019-12

1.5.5 Procedure

Test Procedure
1. EUT set to test mode 2. Span is set to zero span 3. Detector set to peak 4. Sweep time is set long enough to capture at least 5 bursts 5. Envelope peak value of emission spectrum is selected 6. The maximum burst duration T_{ON} is measured using two markers set to the start and the end of the longest burst 7. The minimum idle duration T_{OFF} is measured using two markers set to the start and the end of the shortest idle period 8. The duty cycle is calculated by $DC = T_{ON} / (T_{ON} + T_{OFF})$ 9. The duty cycle correction is calculated by $DC = 10 \times \log_{10}(T_{ON} / (T_{ON} + T_{OFF}))$

1.5.6 Results

Duty Cycle Results		
Mode	Duty Cycle	Correction Factor [dB]
OFDM	100	0
HT40	100	0

1.6 Test Modes

Mode	Description
OFDM (IEEE 802.11g)	Mode = Transmit Modulation = BPSK Spreading = OFDM Bandwidth = 20 MHz Duty cycle = 100% Power setting = 16125 (software setting) Data rate = 6 Mbps
HT40 (IEEE 802.11n)	Mode = Transmit Modulation = BPSK Spreading = OFDM Bandwidth = 40 MHz Duty cycle = 100% Power setting (1 Simultaneous Tx) = 16125 (software setting) Data rate (1 Simultaneous Tx) = 13 Mbps MCS (1 Simultaneous Tx) = 0
Receive	Mode = Receive
Comment: The above settings were found as worst case during pre-tests.	

1.7 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx / Rx	1	2412
F2	Tx / Rx	3	2422
F3	Tx / Rx	6	2437
F4	Tx / Rx	9	2452
F5	Tx / Rx	11	2462

1.8 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 dB μ V. 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:

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

Net:

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

Limit:

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

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

2 Result Summary

FCC 47 CFR Part 15C, ISED RSS-247				
Product Standard Reference	Requirement	Reference Method	Result	Remarks
ISED RSS-Gen, Issue 5 (section 6.6)	Occupied Bandwidth	ANSI C63.10-2013	N/R	Informational only
FCC § 15.247(a)(2) ISED RSS-247, Issue 2 (section 5.2)	6 dB Bandwidth	ANSI C63.10-2013	N/T	
FCC § 15.247(b)(1) ISED RSS-247, Issue 2 (section 5.4)	Maximum peak conducted power	ANSI C63.10-2013	N/T	
FCC § 15.247(e) ISED RSS-247, Issue 2 (section 5.2)	Power spectral density	ANSI C63.10-2013	N/T	
FCC § 15.207 ISED RSS-247, Issue 2 (section 3.1)	AC power line conducted emissions	ANSI C63.10-2013	PASS	
FCC § 15.247(d) ISED RSS-247, Issue 2 (section 5.5)	Band edge compliance	ANSI C63.10-2013	N/T	
FCC § 15.247(d) ISED RSS-247, Issue 2 (section 5.5)	Conducted spurious emissions	ANSI C63.10-2013	N/T	
FCC § 15.247(d) FCC § 15.209 ISED RSS-Gen, Issue 5 (section 6.13)	Transmitter radiated spurious emissions	ANSI C63.10-2013	PASS	
ISED RSS-247, Issue 2 (section 3.1)	Receiver radiated spurious emissions	ANSI C63.10-2013	PASS	
Comment:				

Possible Test Case Verdicts	
PASS	Test object does meet the requirements
FAIL	Test object does not meet the requirements
N/T	Required by standard but not tested
N/R	Not required by standard for the test object

3 Test Conditions and Results

3.1 Test Conditions and Results - Occupied bandwidth

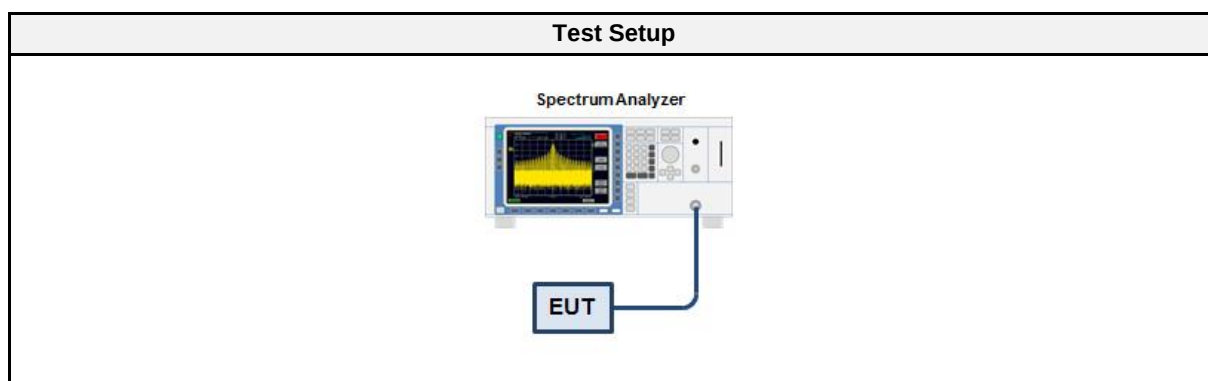
3.1.1 Information

Test Information	
Reference	ISED RSS-Gen, Issue 5 (section 6.6)
Measurement Method	ANSI C63.10 6.9.3
Operator	Wilfried Treffke
Date	2019-04-18

3.1.2 Limits

Limits
None (Informational only)

3.1.3 Setup



3.1.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2018-12	2019-12

3.1.5 Procedure

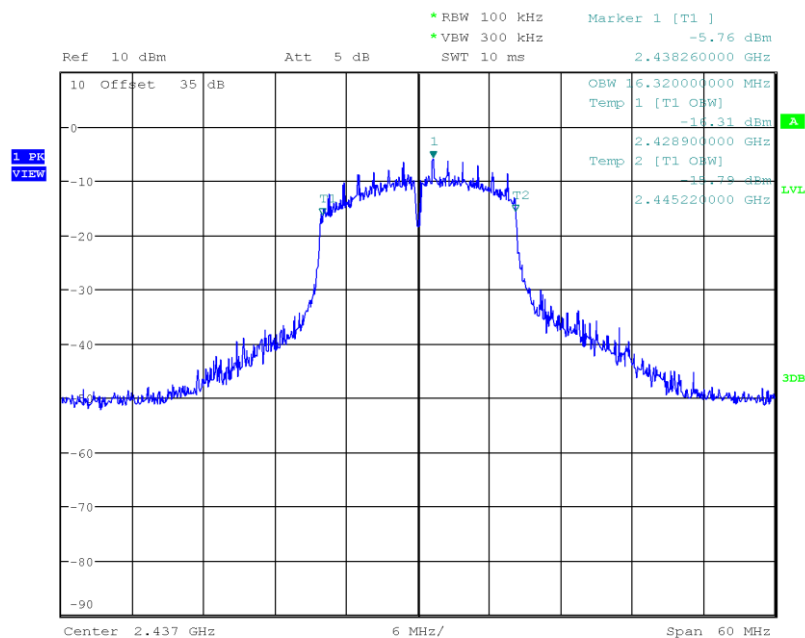
Test Procedure
1. EUT transmitter is activated in test mode under normal conditions 2. The spectrum analyzer is set to peak detection and maximum hold with a span twice the emission spectrum 3. The resolution bandwidth is set to the range of 1 % to 5 % of the occupied bandwidth 4. The occupied bandwidth is measured with the build-in analyzer function

3.1.6 Results

Test Results		
Mode	Frequency [MHz]	Bandwidth [MHz]
OFDM	2437	16.32
HT40	2422	32.00
comment	Max value for Occupied bandwidth is recorded	

Occupied Bandwidth

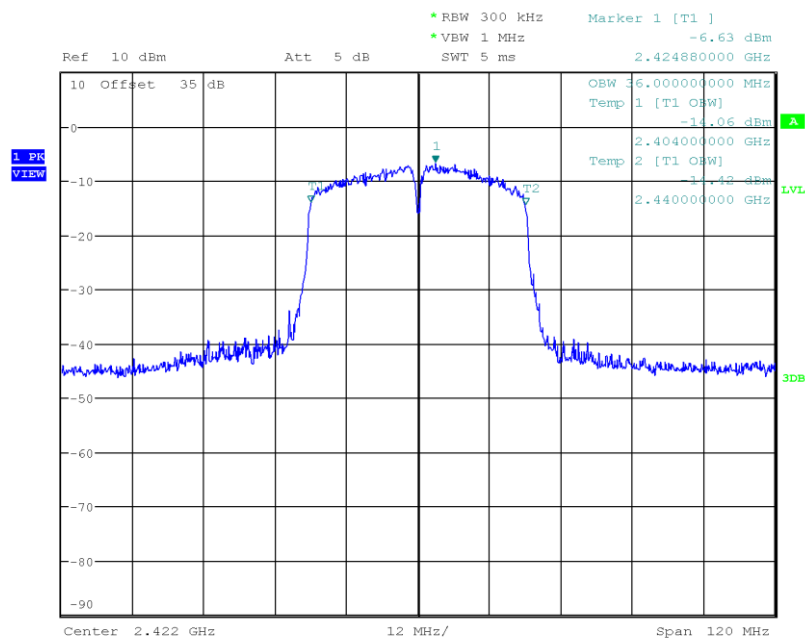
Project Number: G0M-1903-8127
 Applicant: peiker Consumer Electronics Evolution GmbH
 Model Description: Audio Communication Device
 Model: C3
 Test Sample ID: 23476
 Reference Method: ANSI C63.10:2013, Section 6.9.3
 Operational Mode: IEEE 802.11 g, Channel: 6, 2437
 Operating Conditions: Tnom/Vnom
 Operator: Wilfried Treffke
 Test Site: Eurofins Product Service GmbH
 Test Date: 2019-04-18
 Occupied Bandwidth [MHz]: 16.320



Date: 18.APR.2019 08:45:27

Occupied Bandwidth

Project Number: G0M-1903-8127
 Applicant: peiker Consumer Electronics Evolution GmbH
 Model Description: Audio Communication Device
 Model: C3
 Test Sample ID: 23476
 Reference Method: ANSI C63.10:2013, Section 6.9.3
 Operational Mode: IEEE 802.11 n HT40, Channel: 3, 2422
 Operating Conditions: Tnom/Vnom
 Operator: Wilfried Treffke
 Test Site: Eurofins Product Service GmbH
 Test Date: 2019-04-18
 Occupied Bandwidth [MHz]: 36.000



Date: 18.APR.2019 08:51:02

3.2 Test Conditions and Results - AC powerline conducted emissions

3.2.1 Information

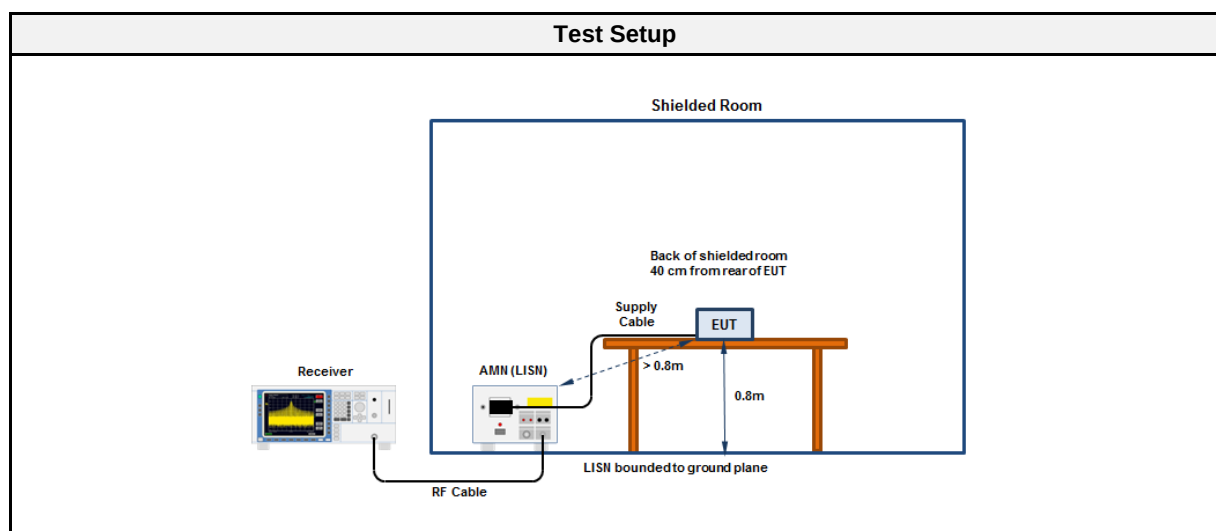
Test Information	
Reference	FCC § 15.207; ISED RSS-247, Issue 2 (section 3.1)
Measurement Method	ANSI C63.10 6.2
Operator	Wilfried Treffke
Date	2019-04-17

3.2.2 Limits

Limits		
Frequency [MHz]	Quasi-Peak [dBμV]	Average [dBμV]
0.15 - 0.5	66 - 56*	56 - 46*
0.5 - 5	56	46
5 - 30	60	50

* Limit decreases linearly with the logarithm of the frequency

3.2.3 Setup



3.2.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	RadiMation	2016.1.10

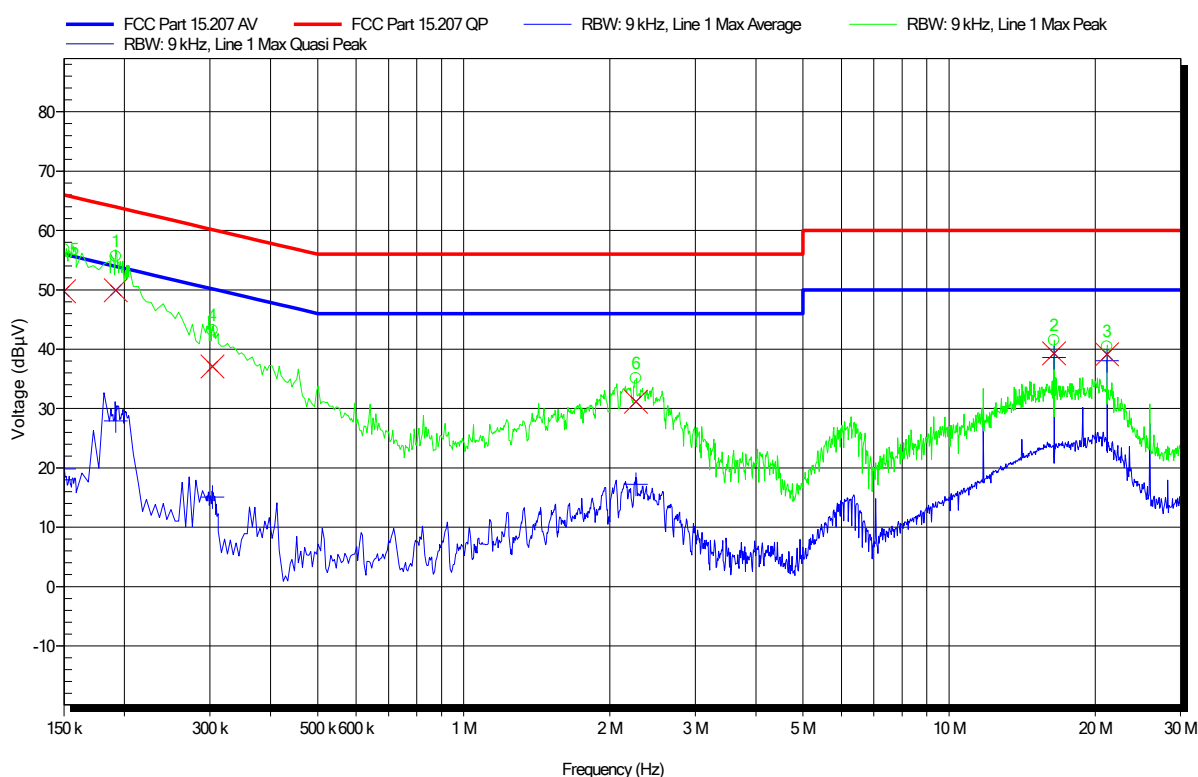
Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Receiver	R&S	ESU 26	EF00241	2017-07	2019-07
LISN	R&S	ESH3-Z5	EF00036	2017-01	2019-07

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

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Mr. Treffke
Test Conditions: Tnom: 22°C, Unom: 120 VAC
LISN: ESH3-Z5 L
Mode: IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-17
Note:

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Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
1	191.85 kHz	49.95 dBμV	63.96 dBμV	-14.01 dB	Pass
2	16.465 MHz	39.3 dBμV	60 dBμV	-20.7 dB	Pass
3	21.169 MHz	39.11 dBμV	60 dBμV	-20.89 dB	Pass
4	303.45 kHz	37.07 dBμV	60.15 dBμV	-23.08 dB	Pass
5	150 kHz	49.76 dBμV	66 dBμV	-16.24 dB	Pass
6	2.265 MHz	31.16 dBμV	56 dBμV	-24.84 dB	Pass

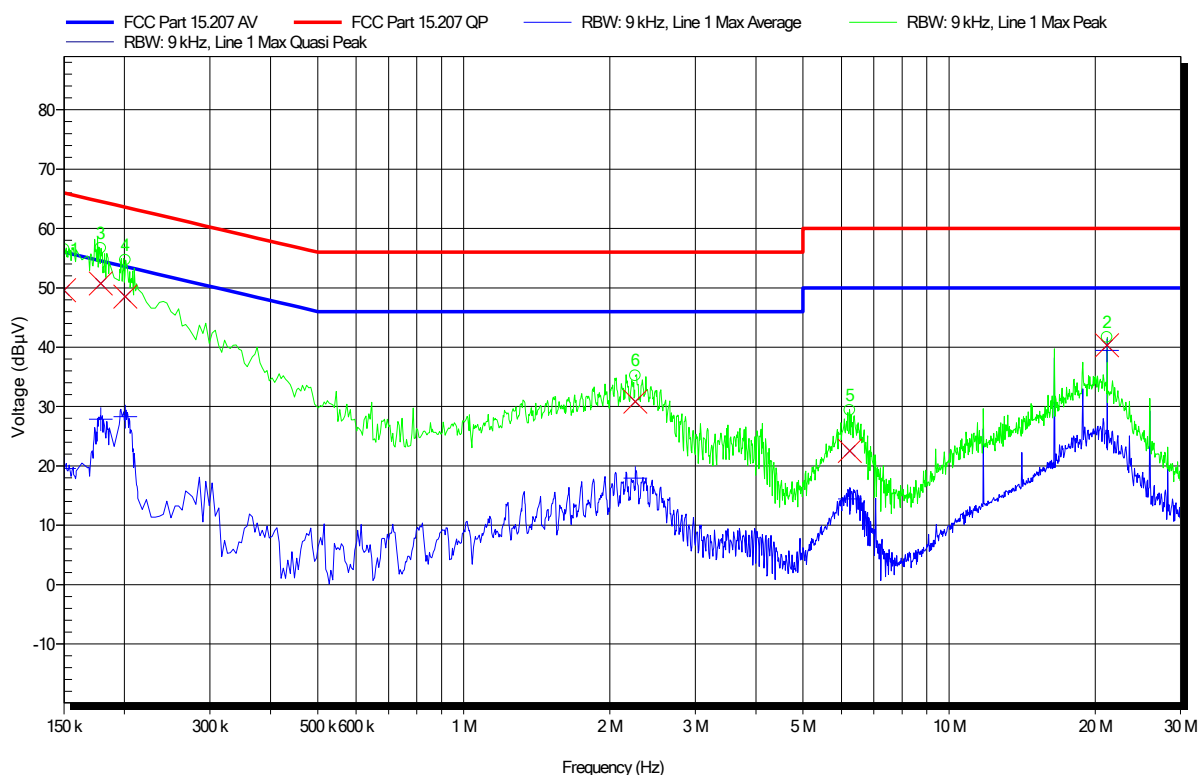
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status
1	191.85 kHz	27.91 dBμV	53.96 dBμV	-26.04 dB	Pass
2	16.465 MHz	38.61 dBμV	50 dBμV	-11.39 dB	Pass
3	21.169 MHz	38.06 dBμV	50 dBμV	-11.94 dB	Pass
4	303.45 kHz	15.09 dBμV	50.15 dBμV	-35.06 dB	Pass
5	150 kHz	19.84 dBμV	56 dBμV	-36.16 dB	Pass
6	2.265 MHz	17.22 dBμV	46 dBμV	-28.78 dB	Pass

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

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Treffke
 Test Conditions: Tnom: 22°C, Unom: 120 VAC
 LISN: ESH3-Z5 N
 Mode: IEEE802.11.g; 6Mbps; 2412 MHz
 Test Date: 2019-04-17
 Note:

Index 131



Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
1	150 kHz	49.61 dBμV	66 dBμV	-16.39 dB	Pass
2	21.169 MHz	40.31 dBμV	60 dBμV	-19.69 dB	Pass
3	178.8 kHz	50.75 dBμV	64.54 dBμV	-13.8 dB	Pass
4	200.85 kHz	48.52 dBμV	63.58 dBμV	-15.06 dB	Pass
5	6.248 MHz	22.5 dBμV	60 dBμV	-37.5 dB	Pass
6	2.256 MHz	30.82 dBμV	56 dBμV	-25.18 dB	Pass

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status
1	150 kHz	19.57 dBμV	56 dBμV	-36.43 dB	Pass
2	21.169 MHz	39.47 dBμV	50 dBμV	-10.53 dB	Pass
3	178.8 kHz	27.85 dBμV	54.54 dBμV	-26.69 dB	Pass
4	200.85 kHz	28.28 dBμV	53.58 dBμV	-25.3 dB	Pass
5	6.248 MHz	14.44 dBμV	50 dBμV	-35.56 dB	Pass
6	2.256 MHz	17.92 dBμV	46 dBμV	-28.08 dB	Pass

3.3 Test Conditions and Results - Transmitter radiated emissions

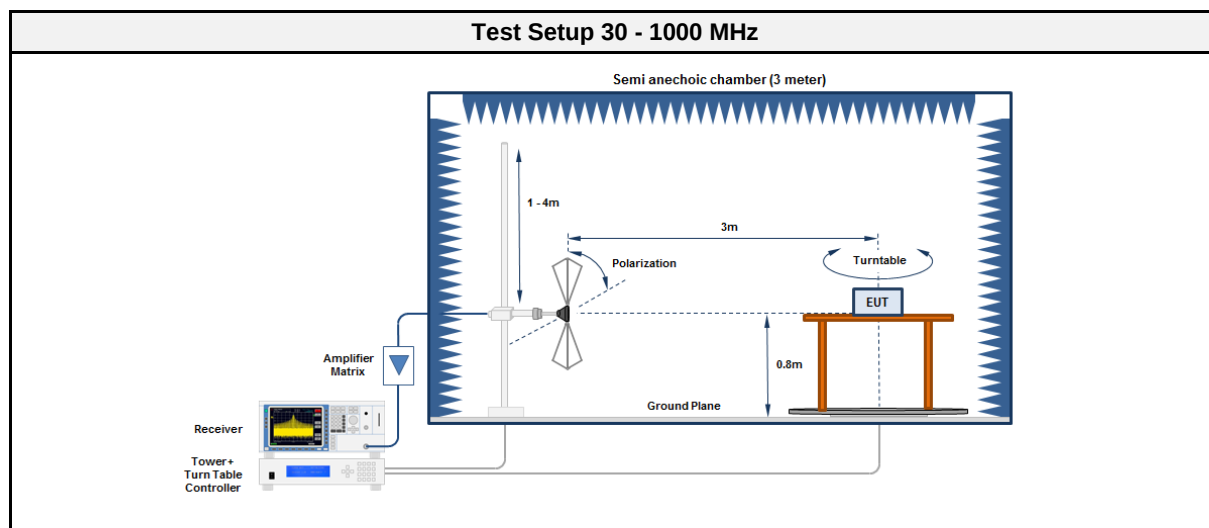
3.3.1 Information

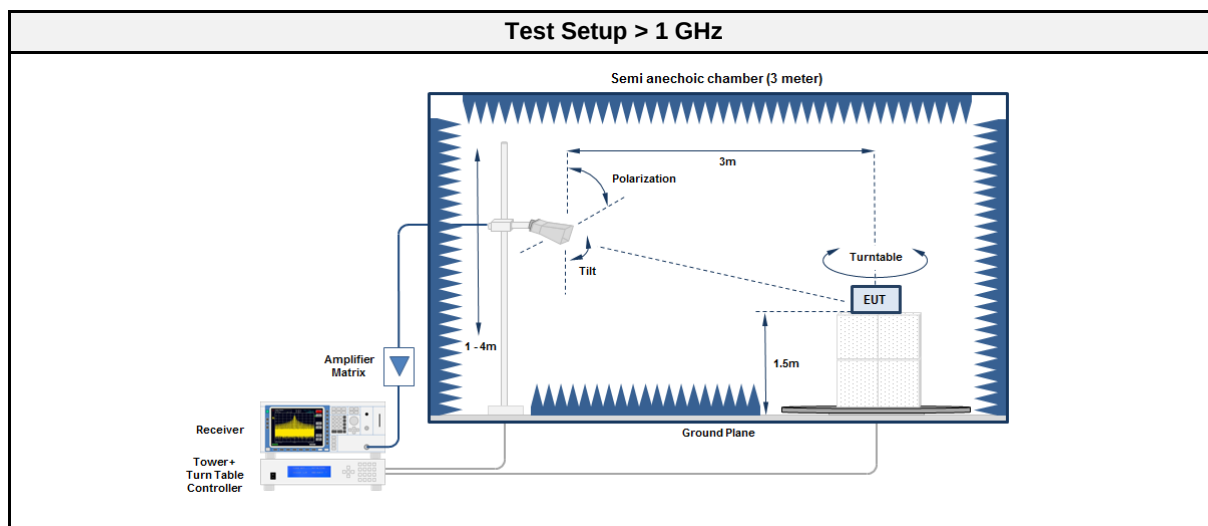
Test Information	
Reference	FCC § 15.247(d); FCC § 15.209; ISSED RSS-Gen, Issue 5 (section 6.13)
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6, 11.12
Operator	Wilfried Treffke
Date	2019-04-15

3.3.2 Limits

Limits			
Frequency [MHz]	Detector	Field strength [$\mu\text{V/m}$]	Measurement distance [m]
0.009 - 0.09	Average	2400/F[kHz]	300
0.09 - 0.110	Quasi-Peak	2400/F[kHz]	300
0.110 - 0.490	Average	2400/F[kHz]	300
0.490 - 1.705	Quasi-Peak	24000/F[kHz]	30
1.705 - 30.0	Quasi-Peak	30	30
30 - 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
>1000	Average	500	3

3.3.3 Setup





3.3.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	RadiMation	2015.2.4

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2018-07	2021-07
Measurement Receiver	R&S	ESU 26	EF00887	2018-08	2019-08
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2018-08	2019-08
Antenna	R&S	HK 116	EF00030	2016-04	2019-04
Antenna	R&S	HL 223	EF00187	2016-05	2019-05

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2018-07	2021-07
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2018-08	2019-08
Antenna	Schwarzbeck	BBHA 9120D	EF00018	2016-09	2019-09
Antenna	Amplifier Research	AT4560	EF01152	2018-10	2019-10

3.3.5 Procedure

Test Procedure < 30 MHz	
1.	EUT is placed on a non conducting support at the center of a turn table 0.8 m above the ground
2.	EUT set to test mode
3.	The EUT is rotated through 360°
4.	The emissions are measured with peak detector and max hold
5.	All significant emissions are measured again using the corresponding final detector

Test Procedure 30 - 1000 MHz						
1.	EUT is placed on a non conducting support at the center of a turn table 0.8 m above the ground					
2.	EUT set to test mode					
3.	The receiver is set to peak detection with max hold					
4.	The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m					
5.	All significant emissions are measured again using the corresponding final detector					

Test Procedure > 1 GHz						
1.	EUT is placed on a non conducting support at the center of a turn table 1.5 m above the ground					
2.	EUT set to test mode					
3.	The receiver is set to peak detection with max hold					
4.	The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m					
5.	All significant emissions are measured again using the corresponding final detector					

3.3.6 Results

Test Results - OFDM						
Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
2412	241.026	30.58	pk	hor	46.00	-15.42
2412	2389.9	66.43	pk	hor	74.00	-07.57
2412	2389.9	48.10	RMS	hor	54.00	-05.90
2412	2389.9	58.20	pk	ver	74.00	-15.80
2412	4821	41.42	pk	ver	74.00	-32.58
2437	4872	40.81	pk	ver	74.00	-33.19
2437	4878	41.14	pk	hor	74.00	-32.86
2462	2483.6	69.15	pk	hor	74.00	-04.85
2462	2483.6	60.51	pk	ver	74.00	-13.49
2462	2483.9	62.46	pk	ver	74.00	-11.54
2462	4923	41.62	pk	hor	74.00	-32.38
2462	4929	39.85	pk	ver	74.00	-34.15

Test Results - HT40						
Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
2422	2389.9	55.99	pk	ver	74.00	-18.01
2422	2483.6	59.03	pk	hor	74.00	-14.97
2422	3732.7	36.07	pk	hor	74.00	-37.93
2422	3732.7	36.42	pk	ver	74.00	-37.58
2437	2483.5	68.58	pk	hor	74.00	-05.42
2437	2483.5	56.54	pk	ver	74.00	-17.46
2437	3732.7	35.49	pk	hor	74.00	-38.51
2452	2483.6	70.05	pk	ver	74.00	-03.95
2452	2500	72.68	pk	hor	95.00	-22.32
2452	2500	58.52	pk	ver	74.00	-15.48
2452	2856	36.16	pk	hor	74.00	-37.84
2452	4923	38.64	pk	ver	74.00	-35.36

3.4 Test Conditions and Results - Receiver radiated emissions

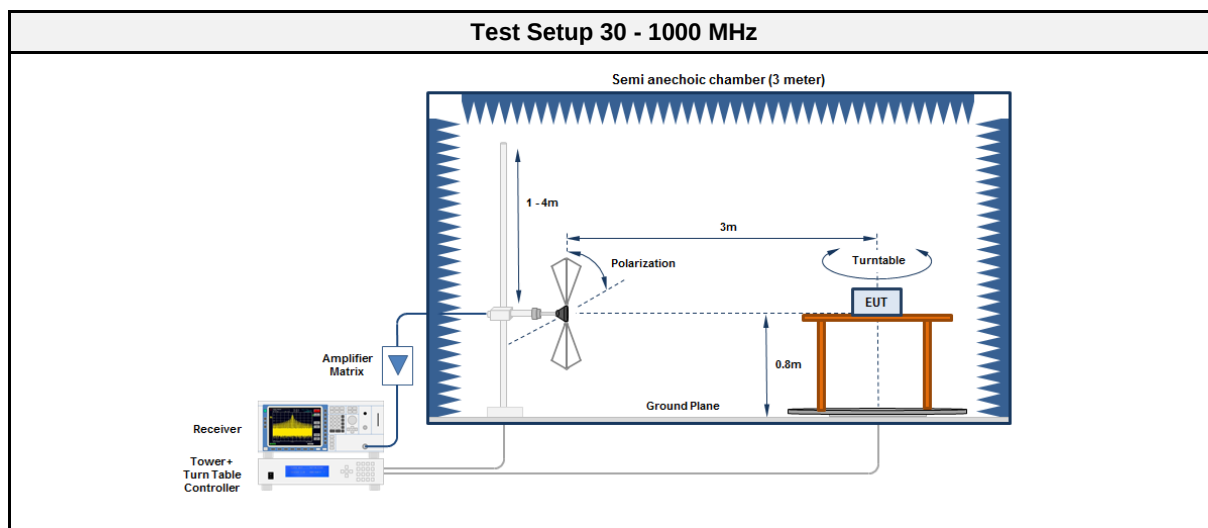
3.4.1 Information

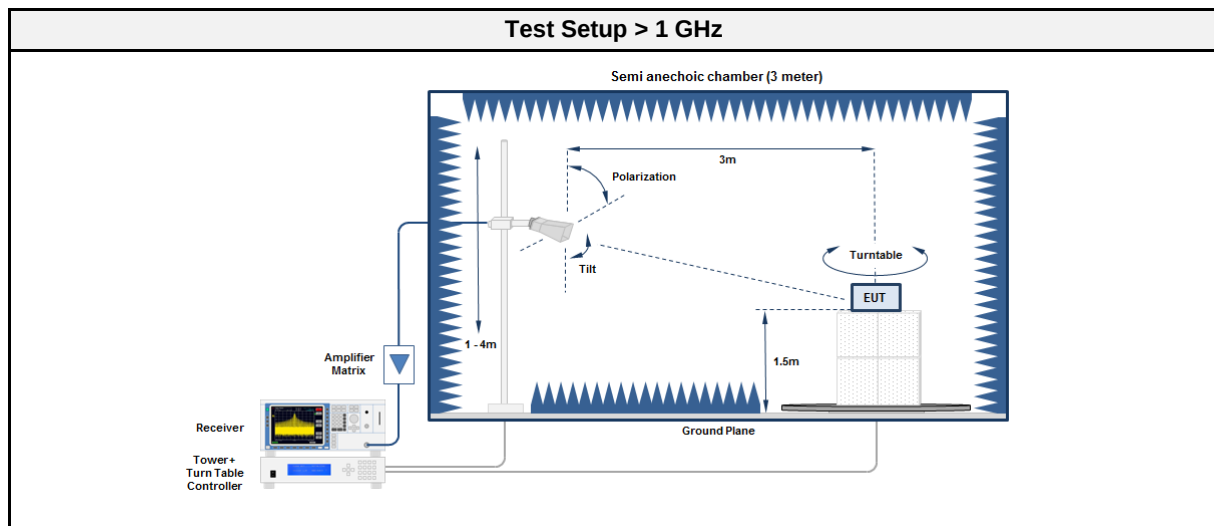
Test Information	
Reference	ISED RSS-247, Issue 2 (section 3.1)
Measurement Method	ANSI C63.10 6.5, 6.6, 11.12
Operator	Wilfried Treffke
Date	2019-04-16

3.4.2 Limits

Limits			
Frequency [MHz]	Detector	Field strength [dB μ V/m]	Measurement distance [m]
30 - 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
>1000	Average	500	3

3.4.3 Setup





3.4.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	RadiMation	2015.2.4

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2018-07	2021-07
Measurement Receiver	R&S	ESU 26	EF00887	2018-08	2019-08
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2018-08	2019-08
Antenna	R&S	HK 116	EF00030	2016-04	2019-04
Antenna	R&S	HL 223	EF00187	2016-05	2019-05

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2018-07	2021-07
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2018-08	2019-08
Antenna	Schwarzbeck	BBHA 9120D	EF00018	2016-09	2019-09

3.4.5 Procedure

Test Procedure 30 - 1000 MHz	
1. EUT is placed on a non conducting support at the center of a turn table 0.8 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector	

Test Procedure > 1 GHz

1. EUT is placed on a non conducting support at the center of a turn table 1.5 m above the ground
2. EUT set to test mode
3. The receiver is set to peak detection with max hold
4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m
5. All significant emissions are measured again using the corresponding final detector

3.4.6 Results

Test Results

Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
2437	533.333	27.00	pk	ver	46.00	-19.00
2437	884.431	21.14	pk	hor	46.00	-24.86
2437	884.431	14.98	qpk	hor	46.00	-31.02
2437	885.897	28.87	pk	ver	46.00	-17.13
2437	898.718	20.79	pk	hor	46.00	-25.21
2437	898.718	14.83	qpk	hor	46.00	-31.17
2437	3736	35.68	pk	ver	53.98	-18.30

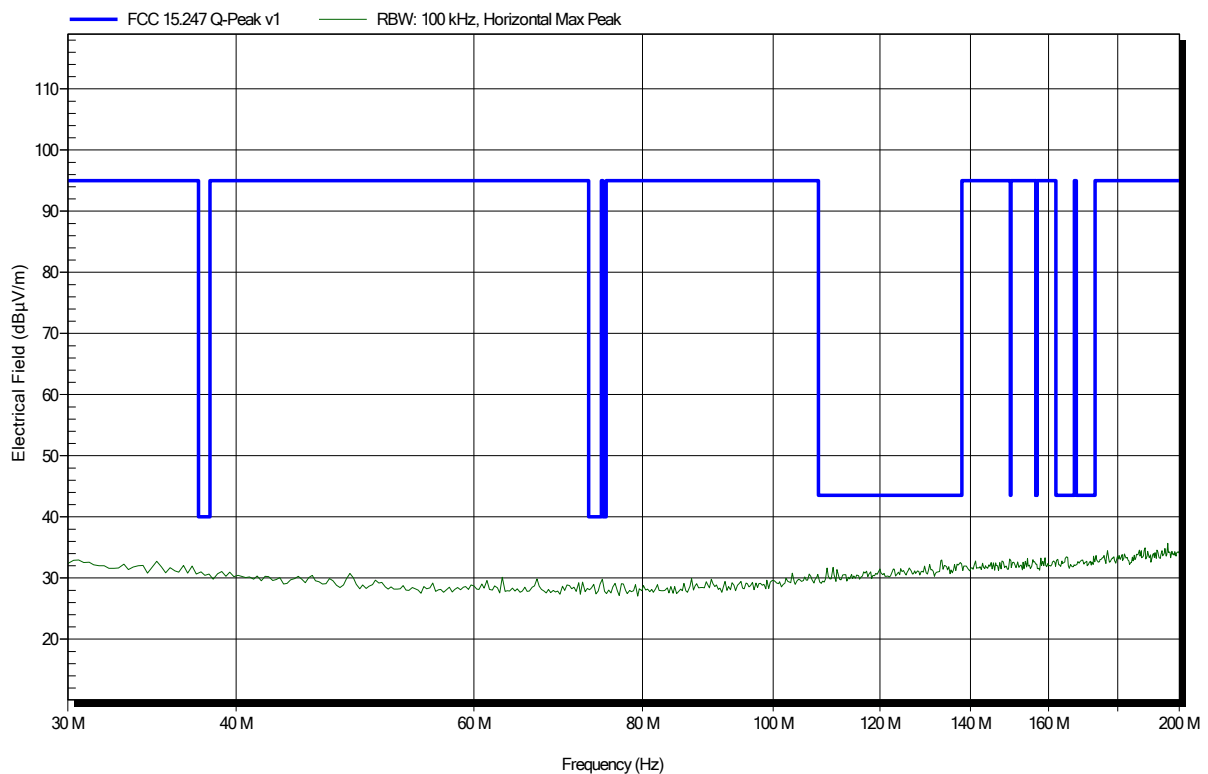
ANNEX A Transmitter spurious emissions

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Wilfried Treffke
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Rohde & Schwarz HK 116, Horizontal
 Measurement distance: 3 m
 Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
 Test Date: 2019-04-15
 Note:

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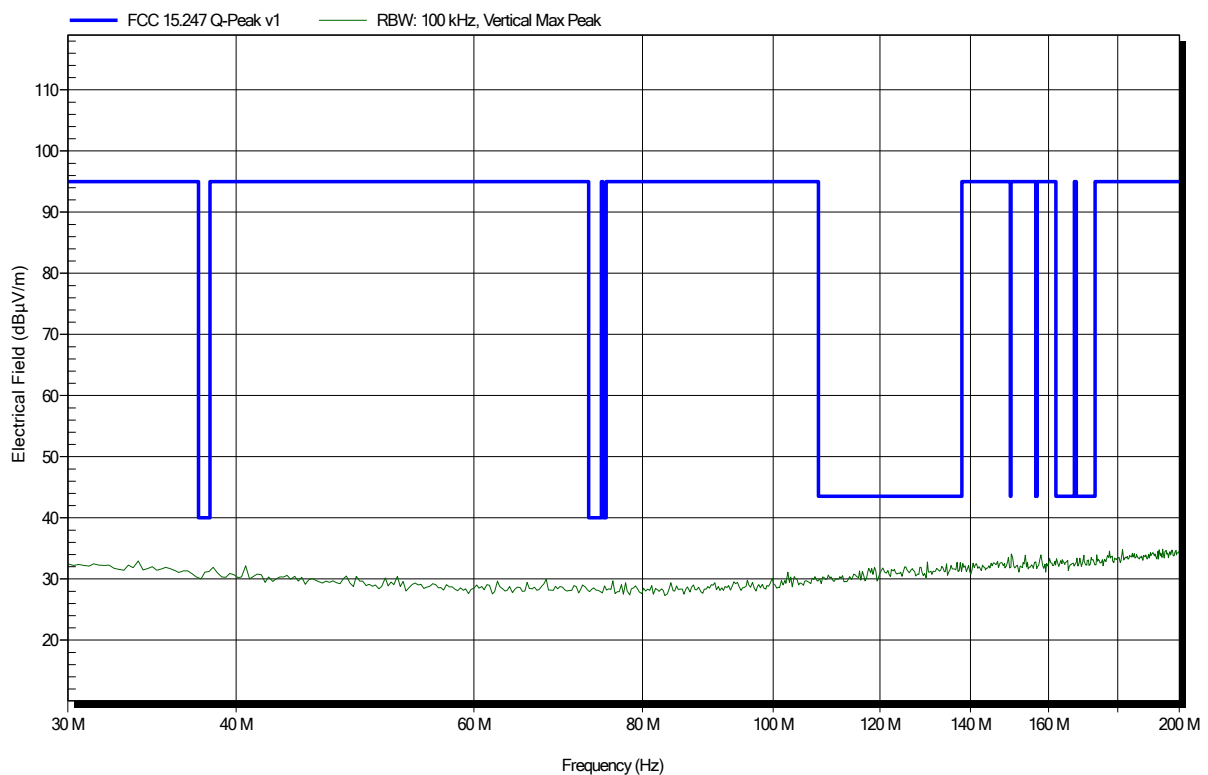


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Rohde & Schwarz HK 116, Vertical
Measurement distance: 3 m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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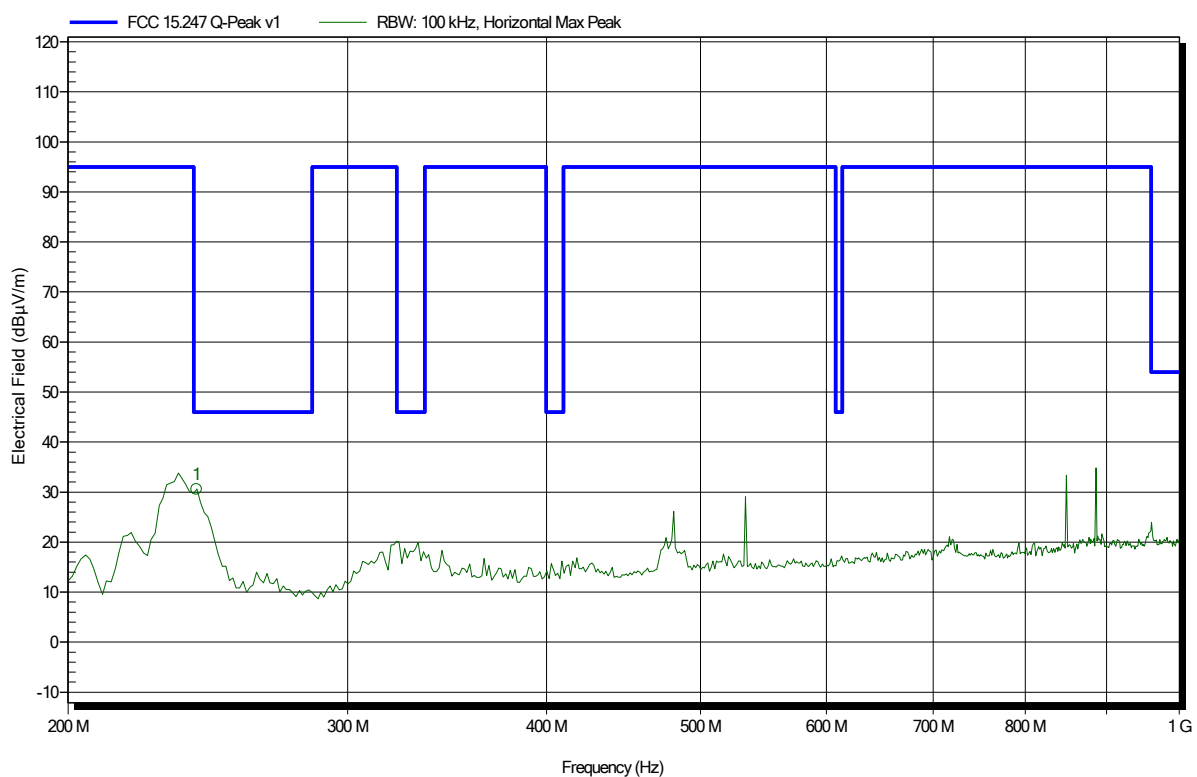


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Rohde & Schwarz HL 223, Horizontal
Measurement distance: 3 m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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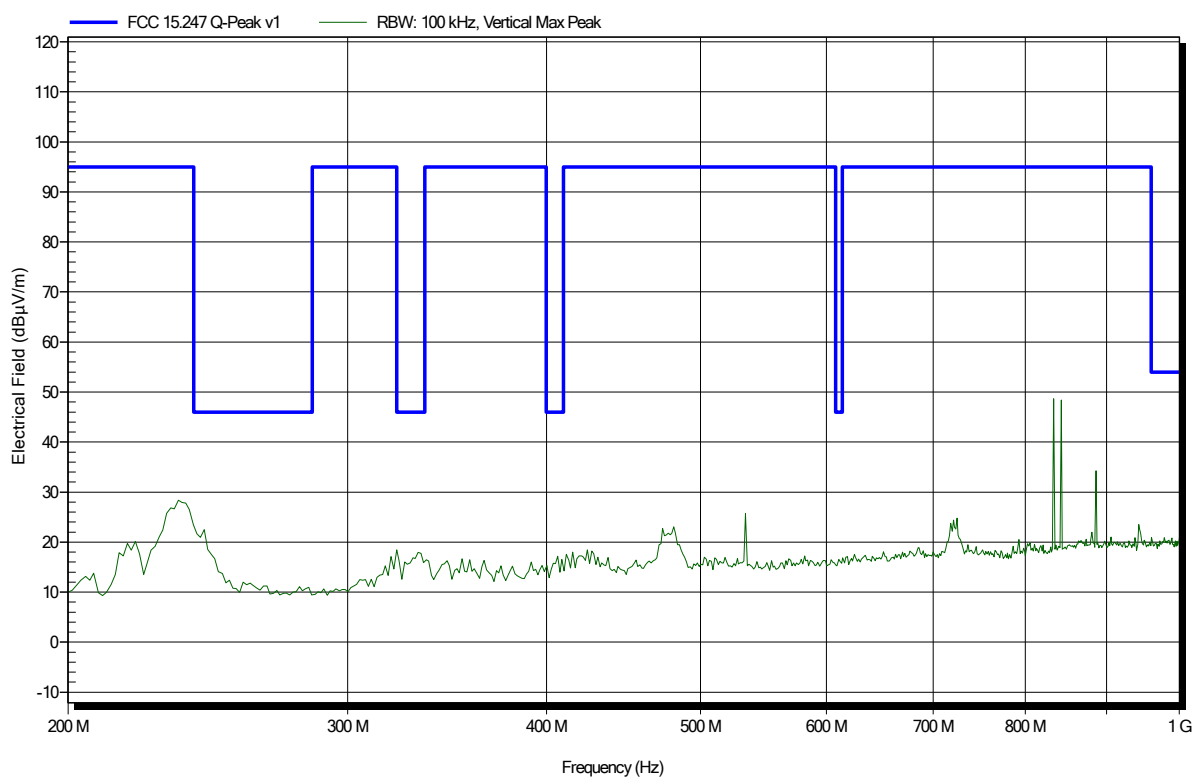


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Rohde & Schwarz HL 223, Vertical
Measurement distance: 3 m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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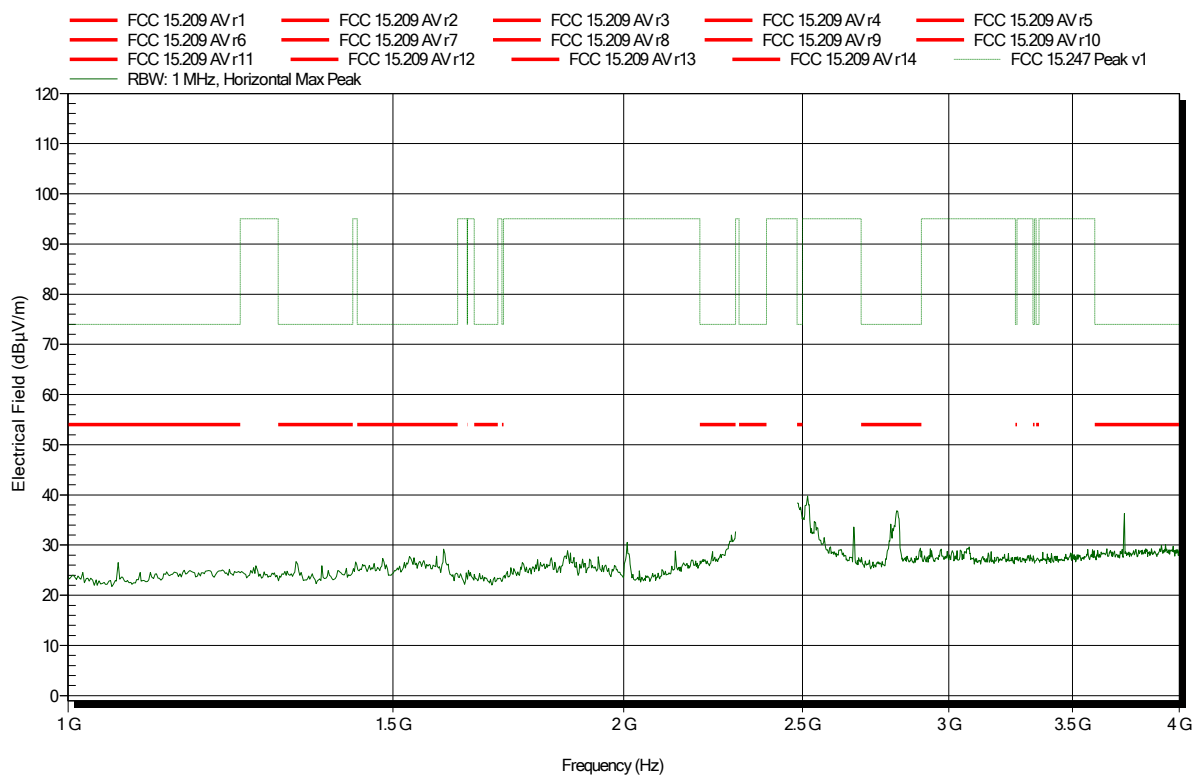


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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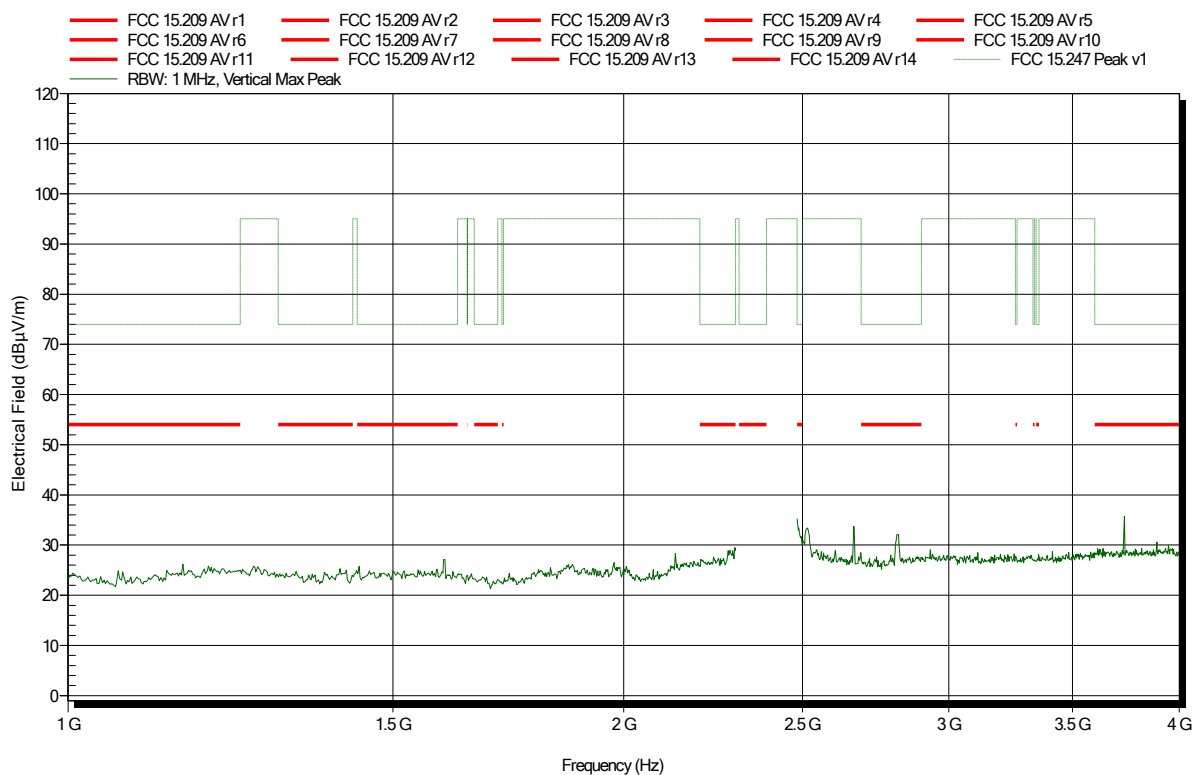


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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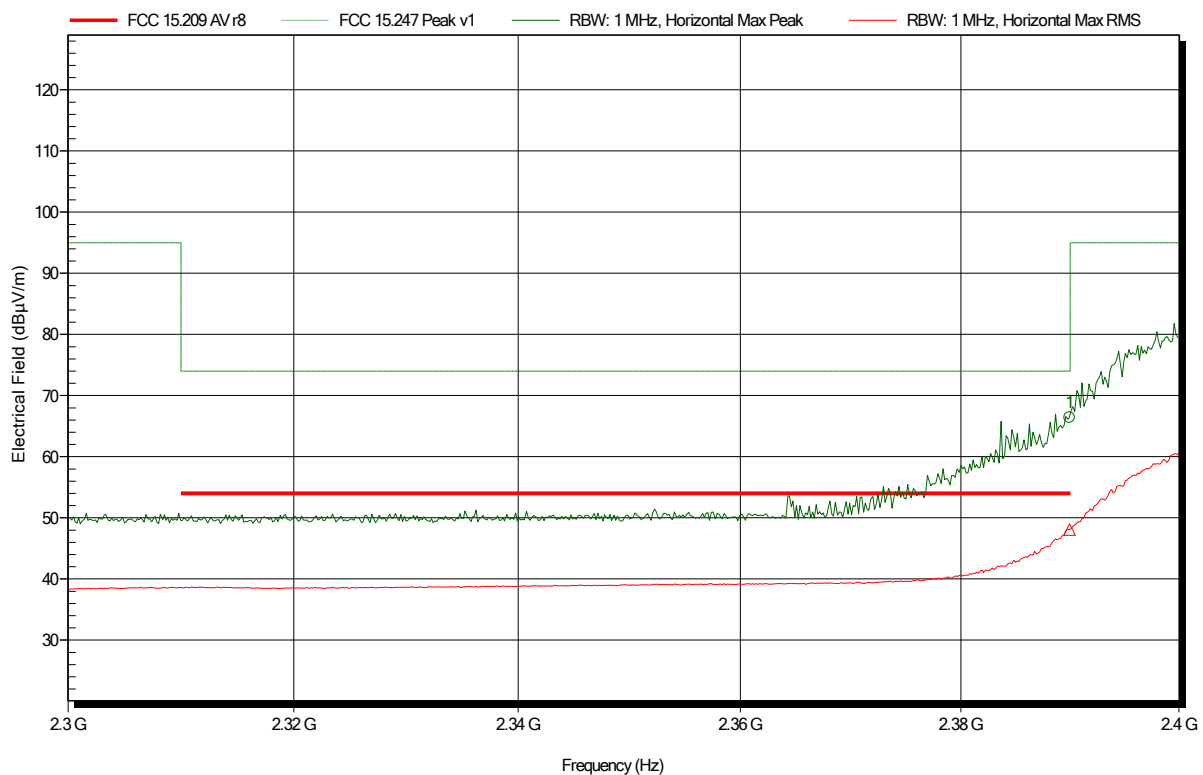


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Wilfried Treffke
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
 Test Date: 2019-04-15
 Note: lower bandedge

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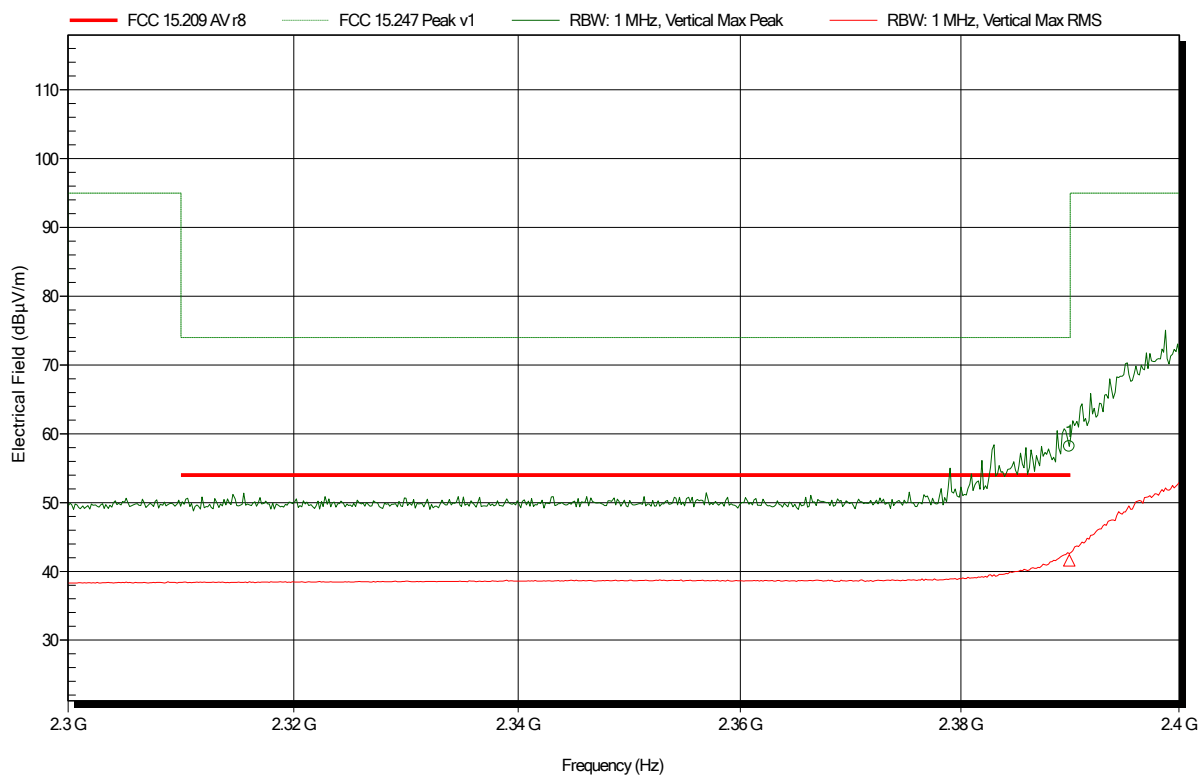
Frequency 2.3899 GHz	Peak 66.43 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -7.57 dB	Peak Status Pass
Frequency 2.3899 GHz	RMS 48.1 dBµV/m	RMS Limit 54 dBµV/m	RMS Difference -5.9 dB	RMS Status Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note: lower bandedge

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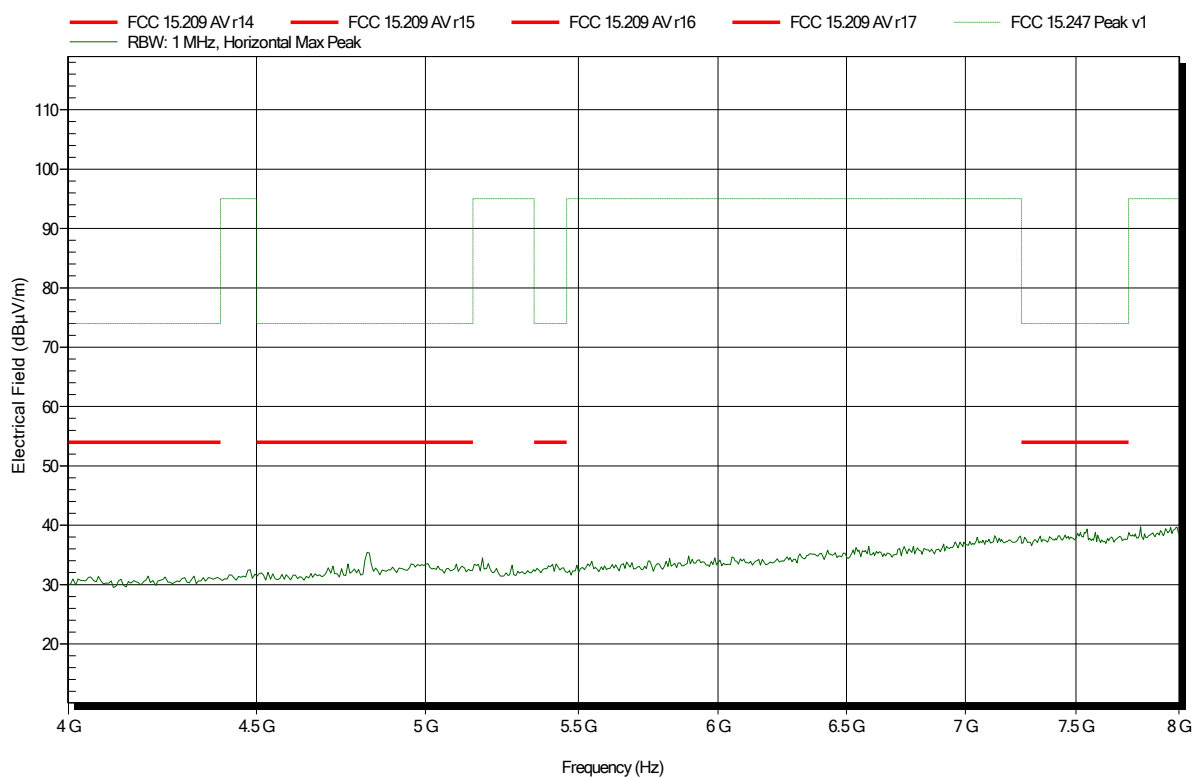
Frequency 2.3899 GHz	Peak 58.2 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -15.8 dB	Peak Status Pass
Frequency 2.3899 GHz	RMS 41.62 dBµV/m	RMS Limit 54 dBµV/m	RMS Difference -12.38 dB	RMS Status Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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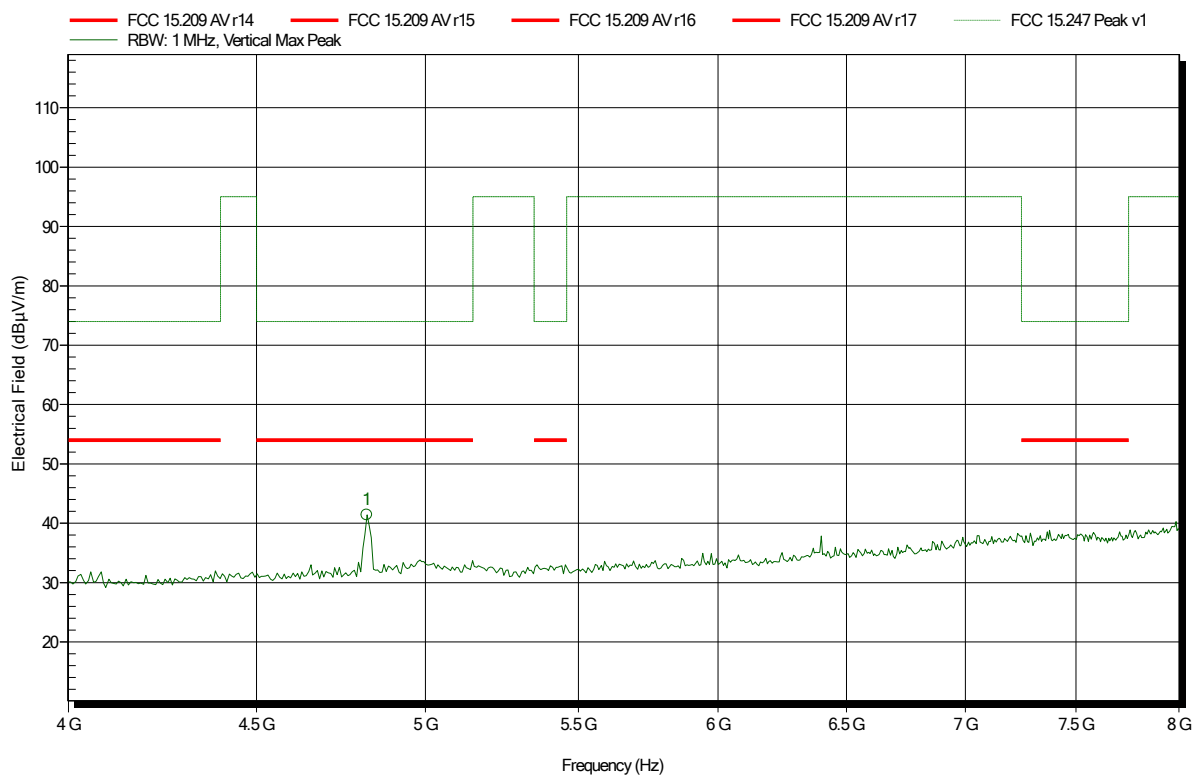


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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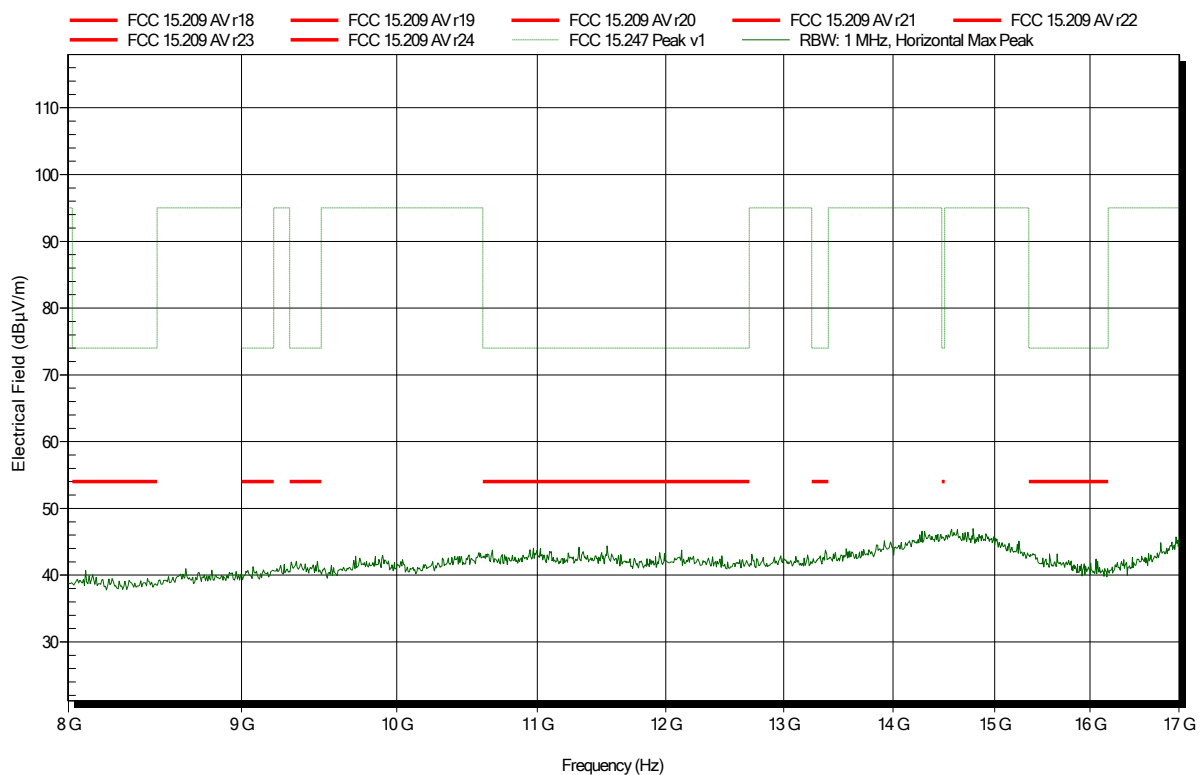
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.821 GHz	41.42 dBµV/m	74 dBµV/m	-32.58 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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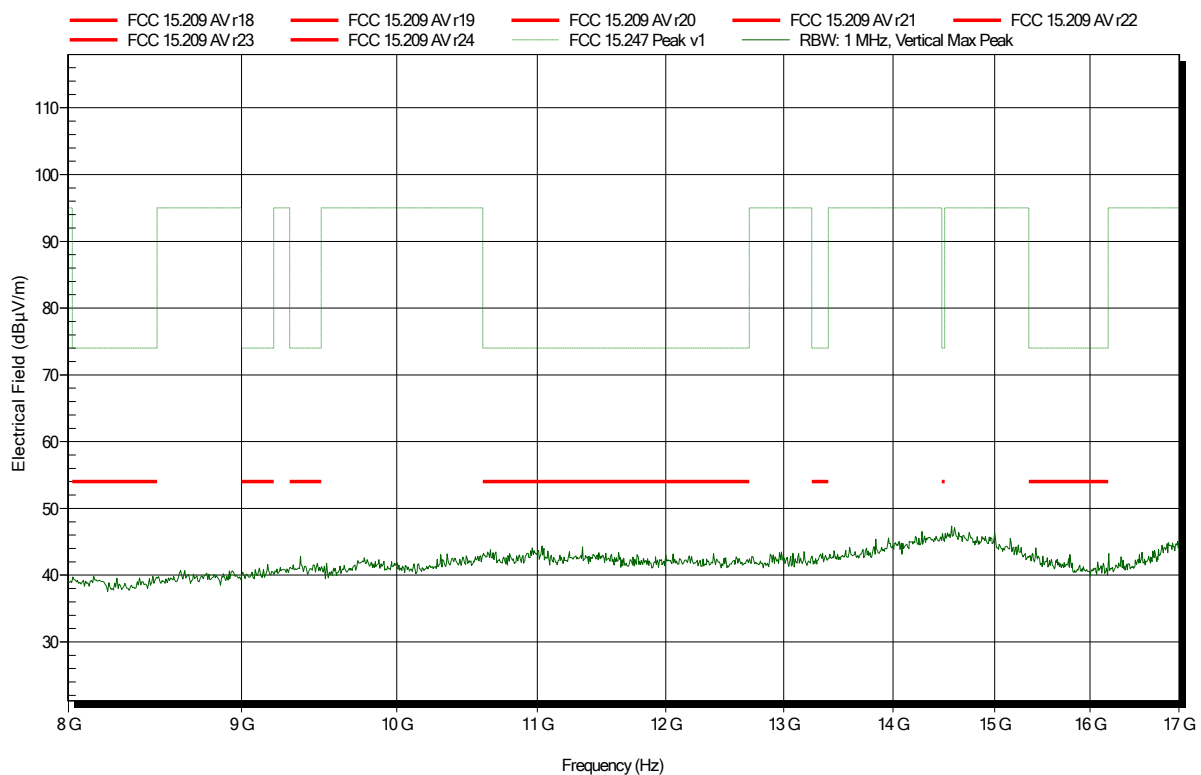


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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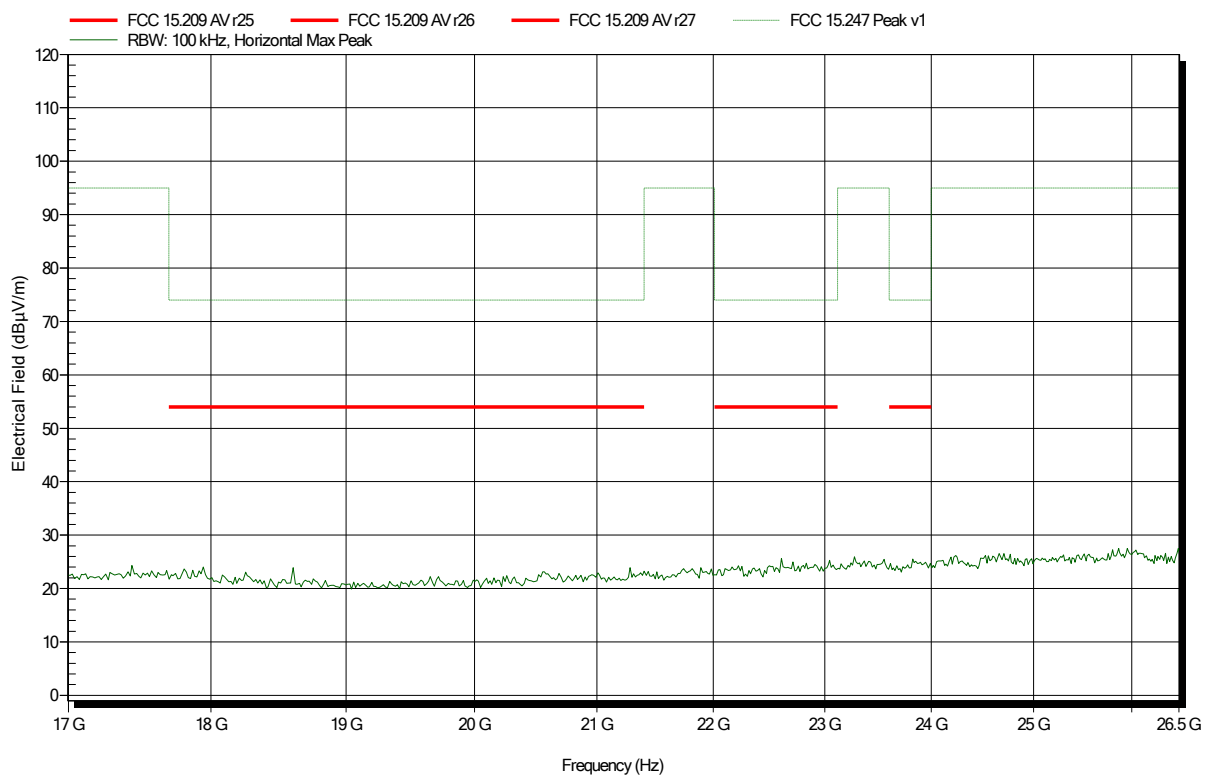


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Amplifier Research AT4560, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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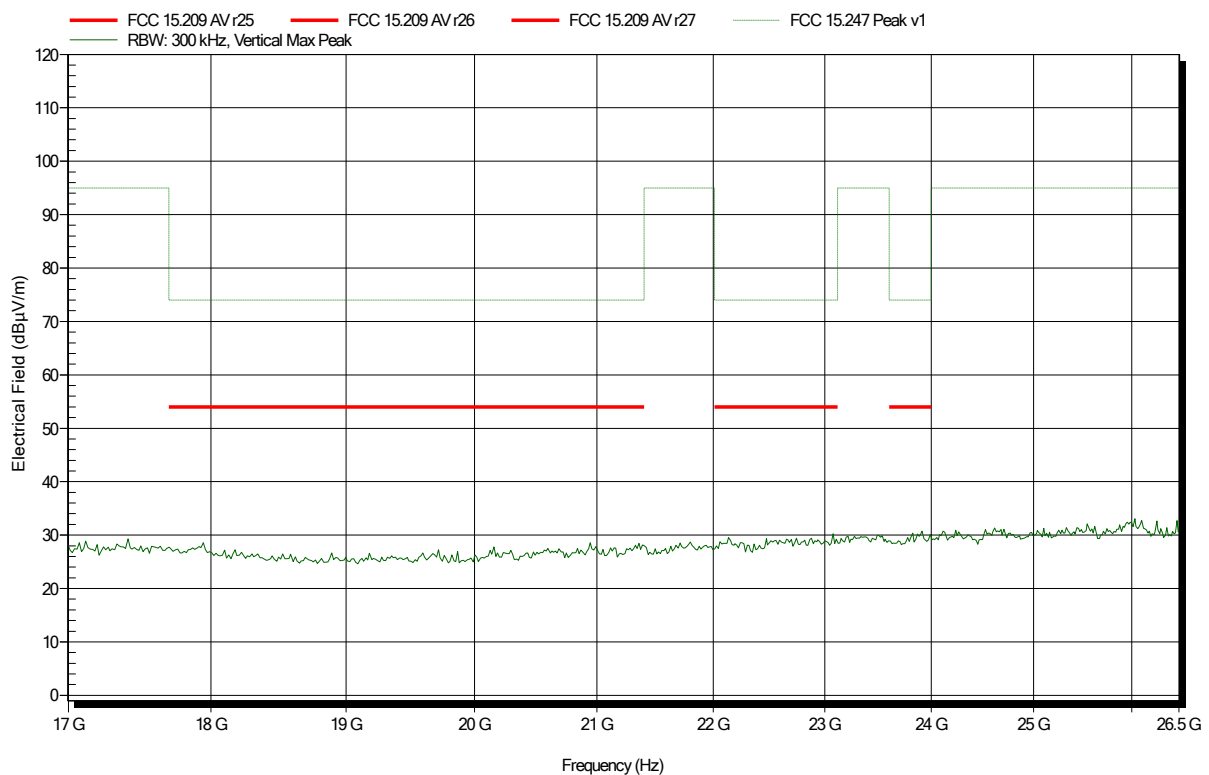


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Amplifier Research AT4560, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2412 MHz
Test Date: 2019-04-15
Note:

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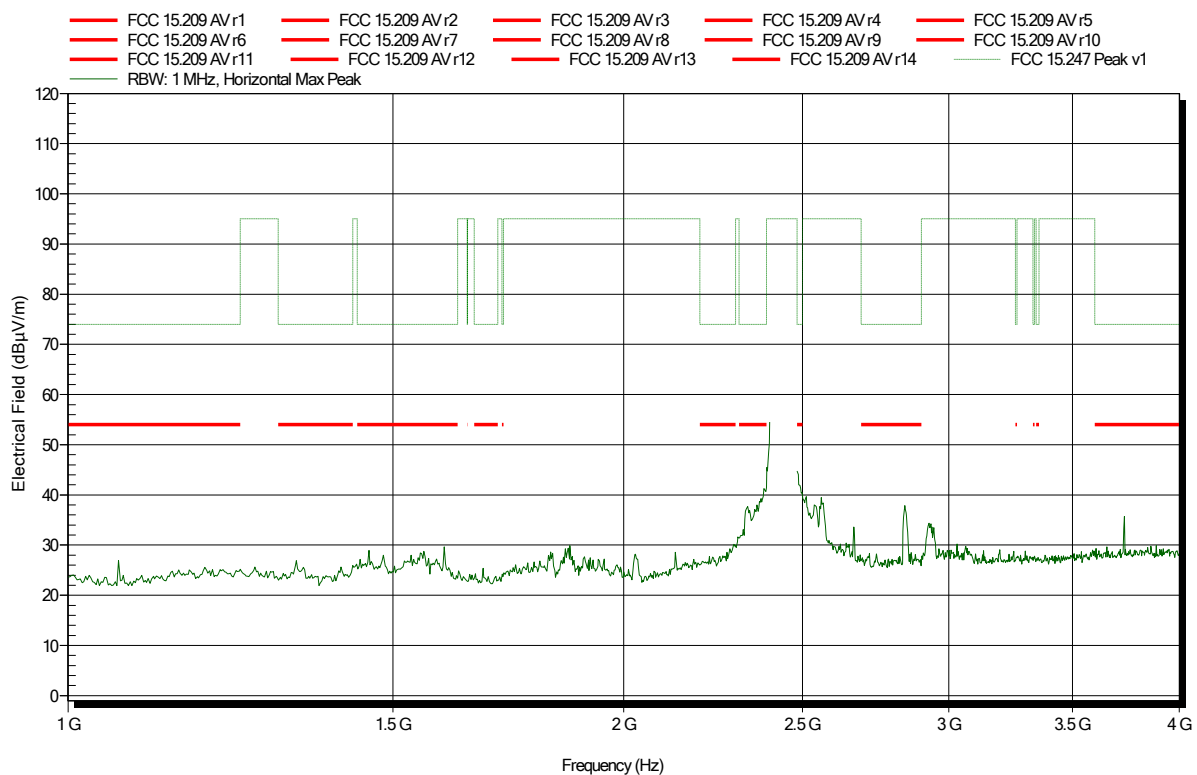


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2437 MHz
Test Date: 2019-04-15
Note:

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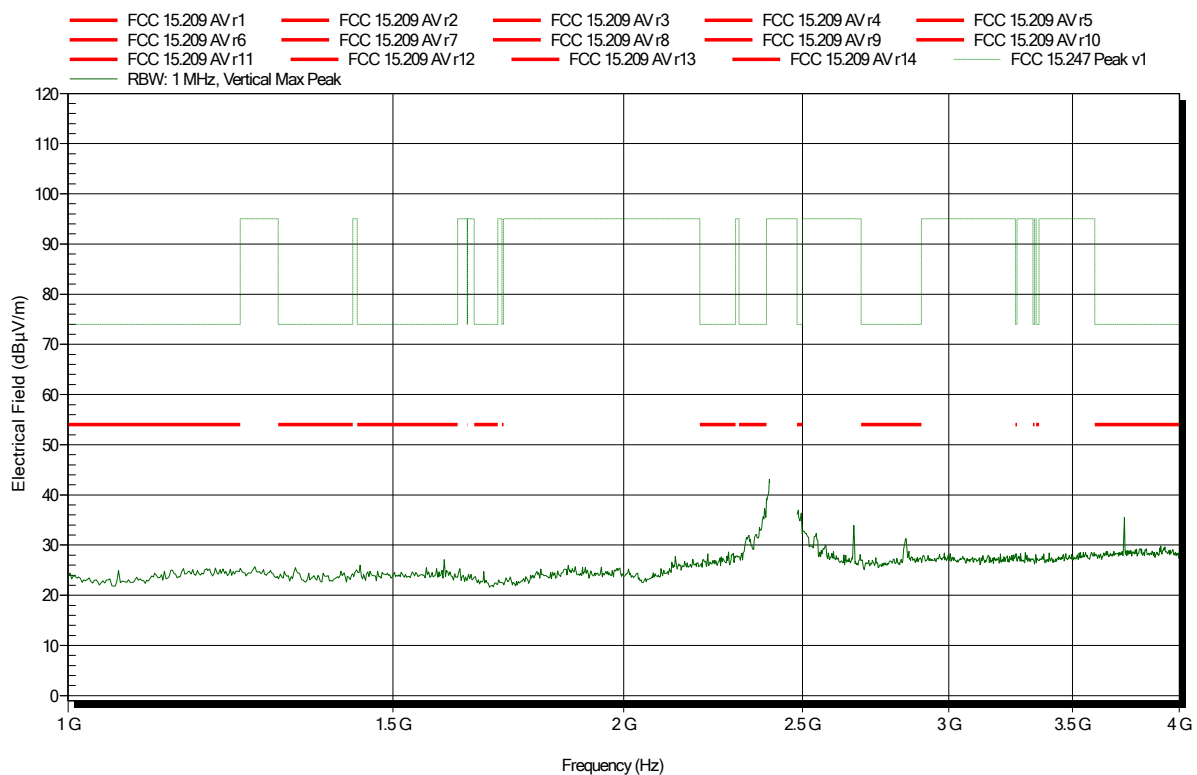


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2437 MHz
Test Date: 2019-04-15
Note:

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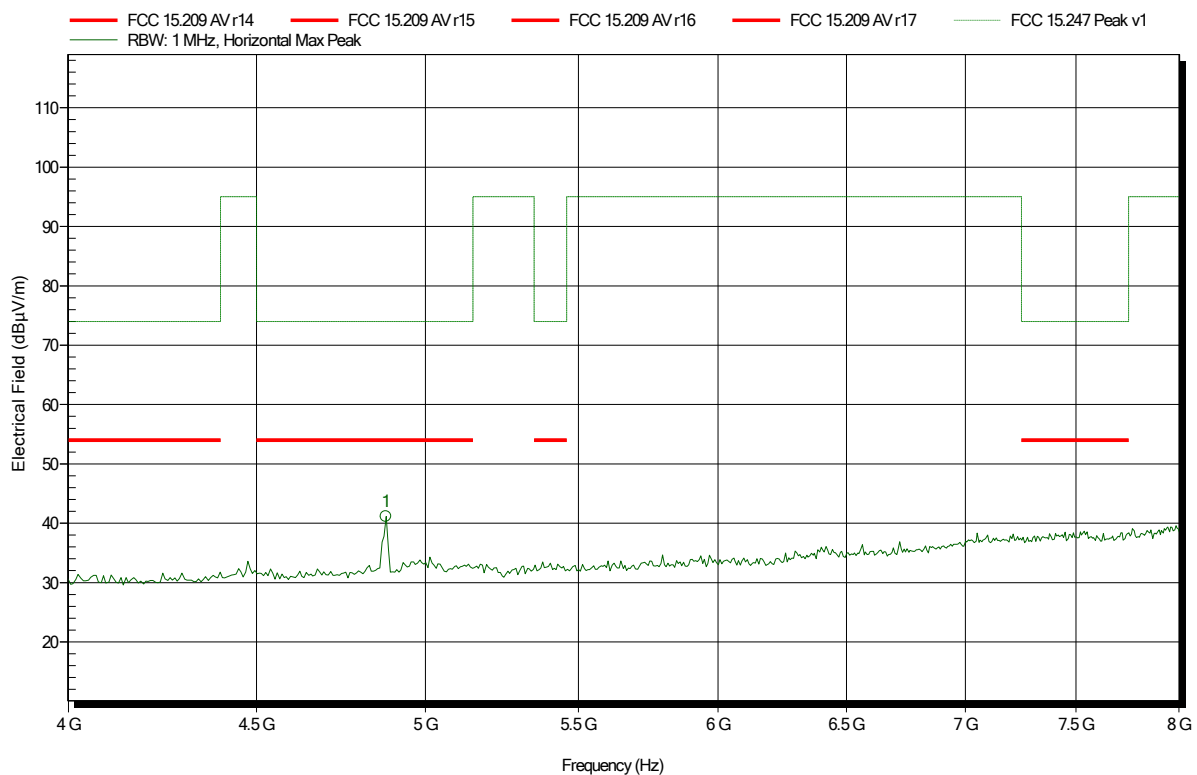


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2437 MHz
Test Date: 2019-04-15
Note:

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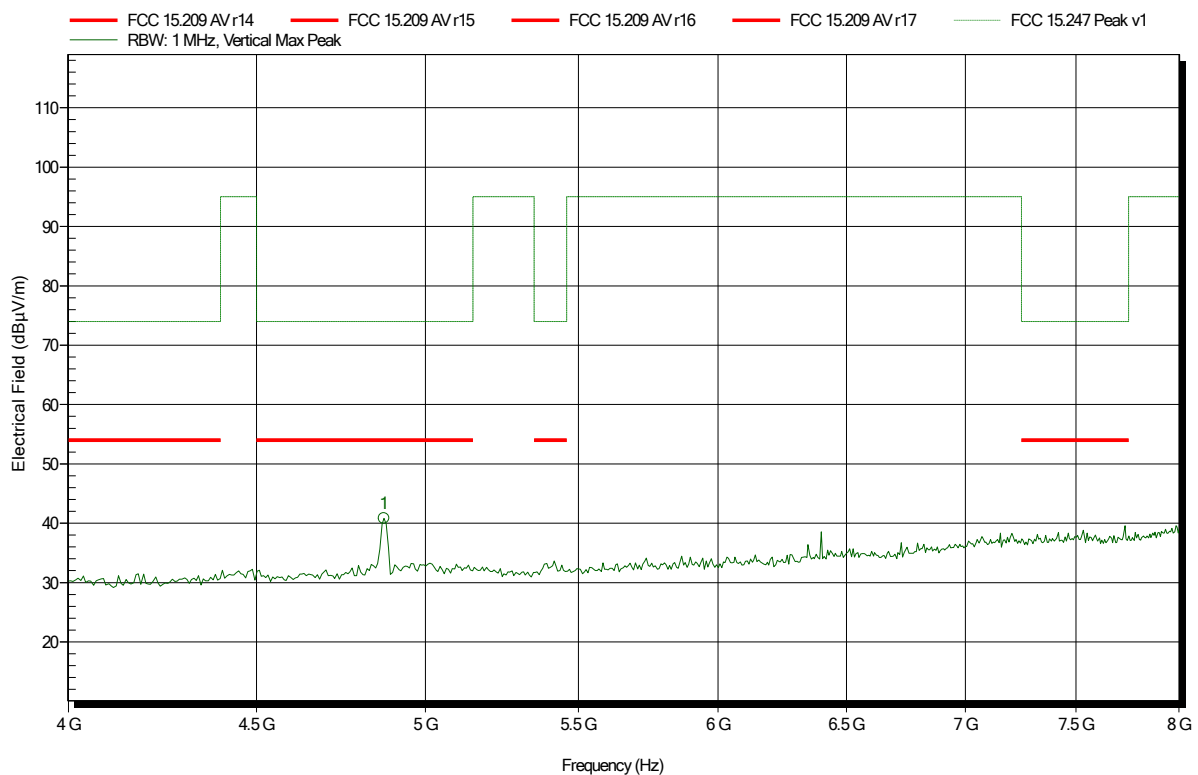
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.878 GHz	41.14 dBµV/m	74 dBµV/m	-32.86 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Wilfried Treffke
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.g; 6 Mbps; 2437 MHz
 Test Date: 2019-04-15
 Note:

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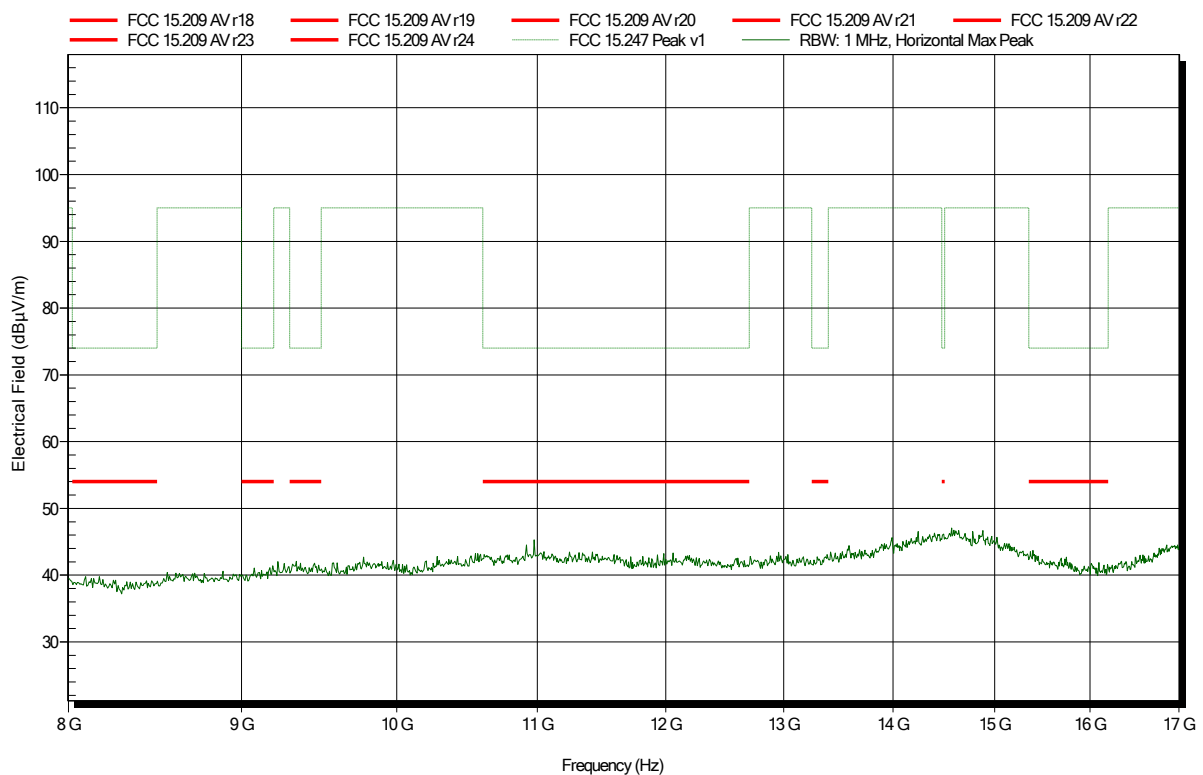
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.872 GHz	40.81 dBμV/m	74 dBμV/m	-33.19 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2437 MHz
Test Date: 2019-04-15
Note:

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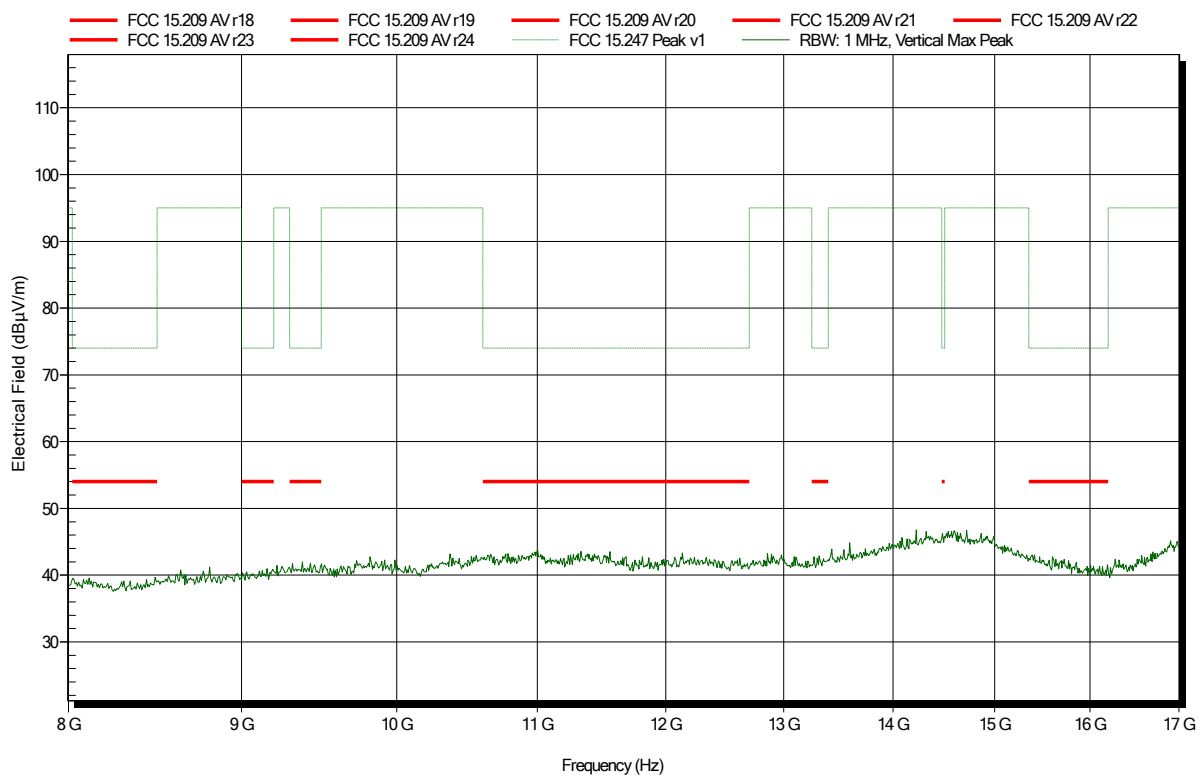


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Wilfried Treffke
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.g; 6 Mbps; 2437 MHz
 Test Date: 2019-04-15
 Note:

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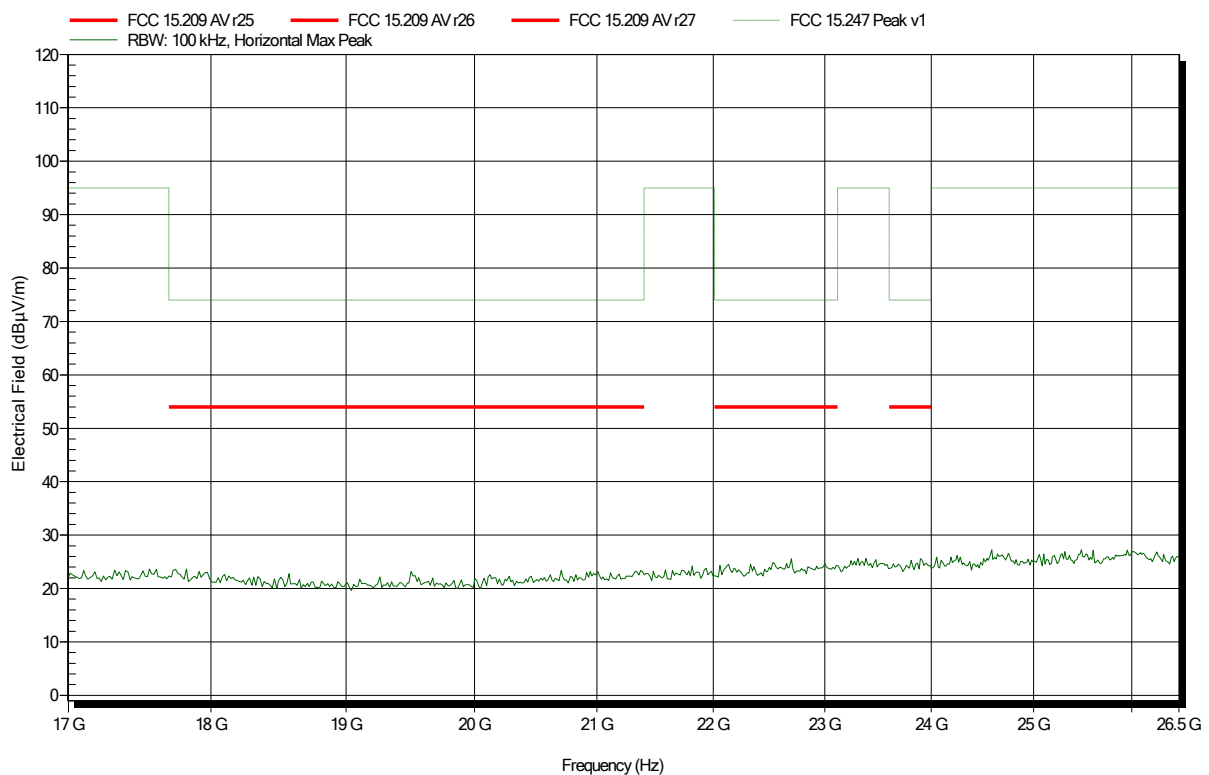


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Amplifier Research AT4560, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2437 MHz
Test Date: 2019-04-15
Note:

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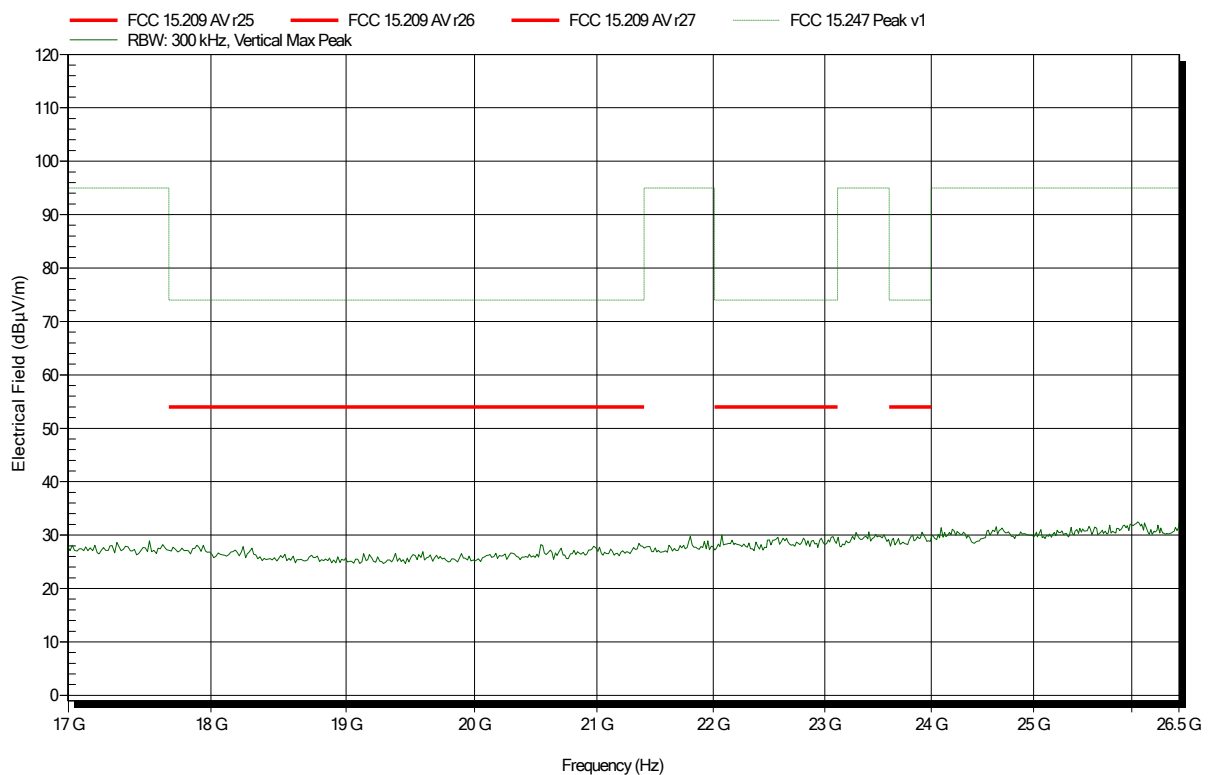


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Amplifier Research AT4560, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2437 MHz
Test Date: 2019-04-15
Note:

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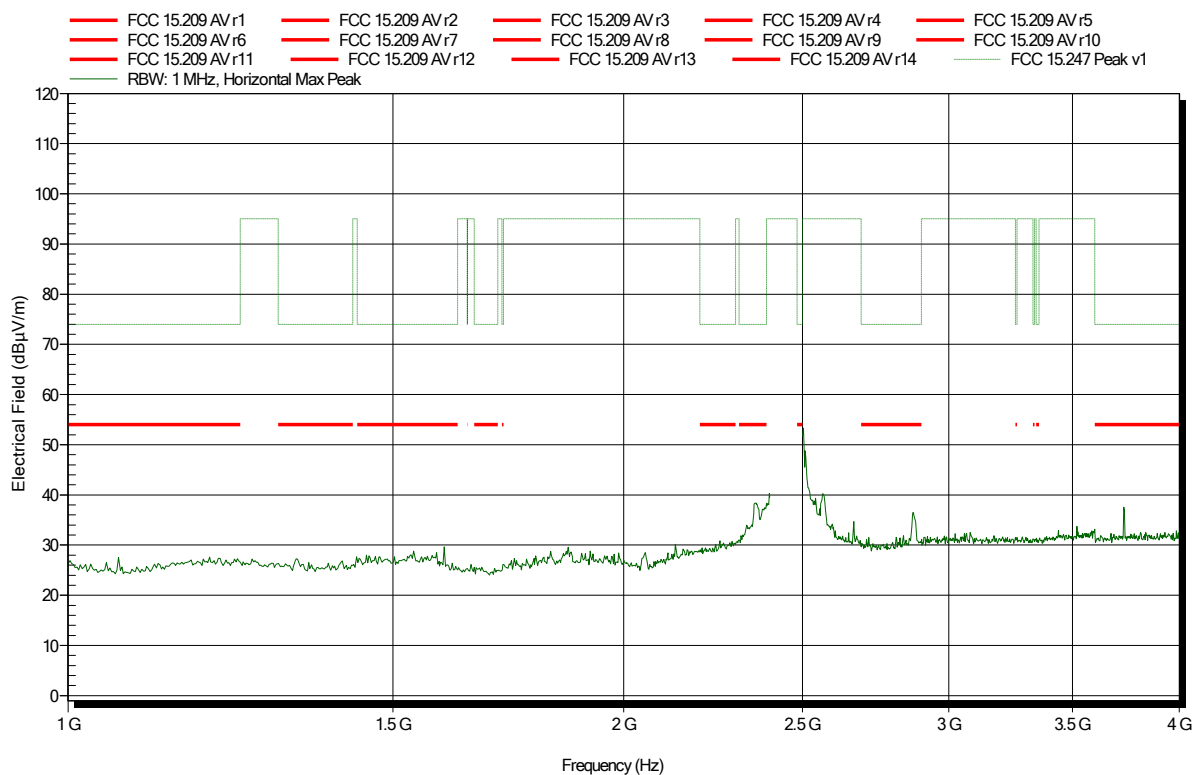


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
Test Date: 2019-04-15
Note:

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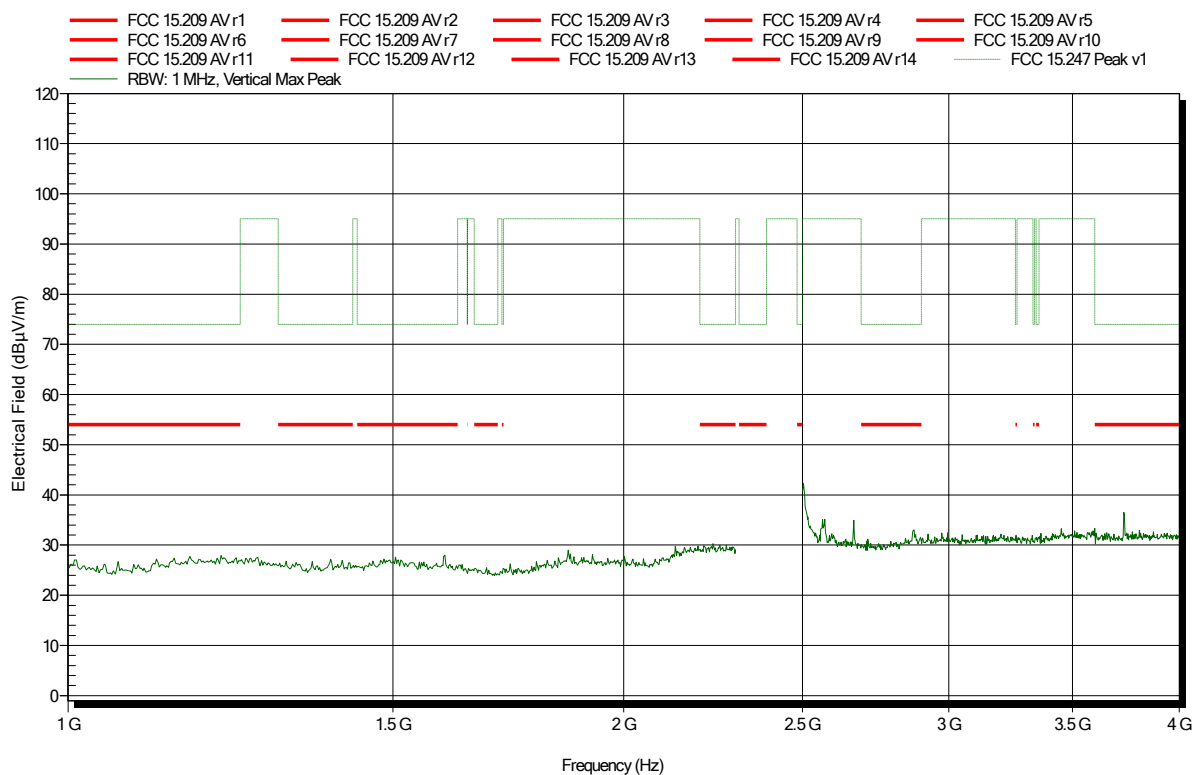


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
Test Date: 2019-04-15
Note:

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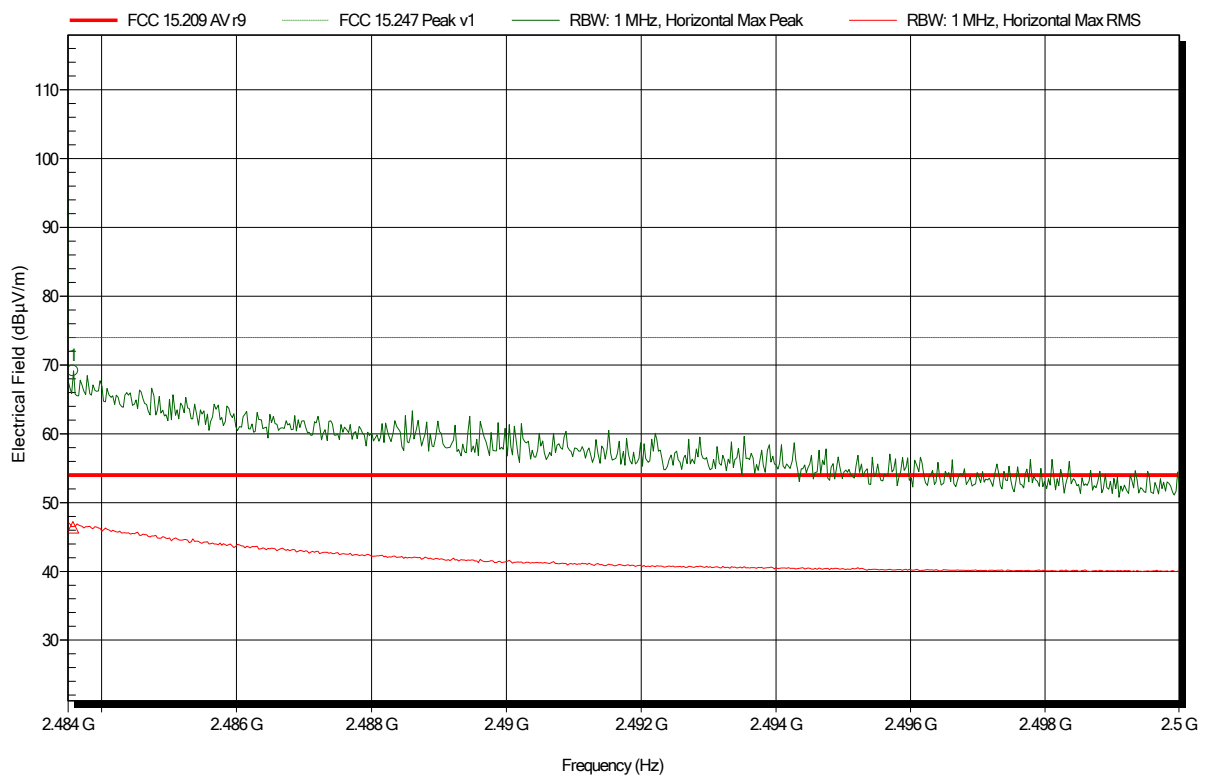


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Wilfried Treffke
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
 Test Date: 2019-04-15
 Note: upper bandedge

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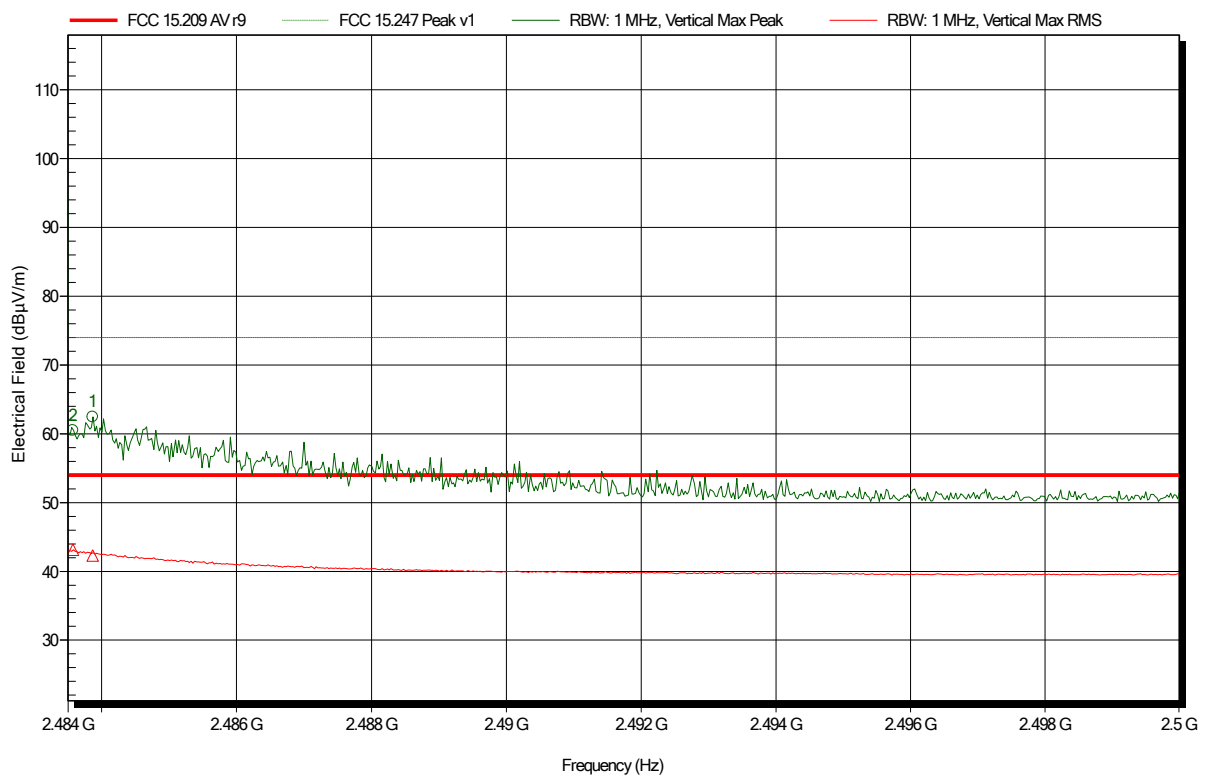
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4836 GHz	69.15 dBµV/m	74 dBµV/m	-4.85 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
Test Date: 2019-04-15
Note: upper bandedge

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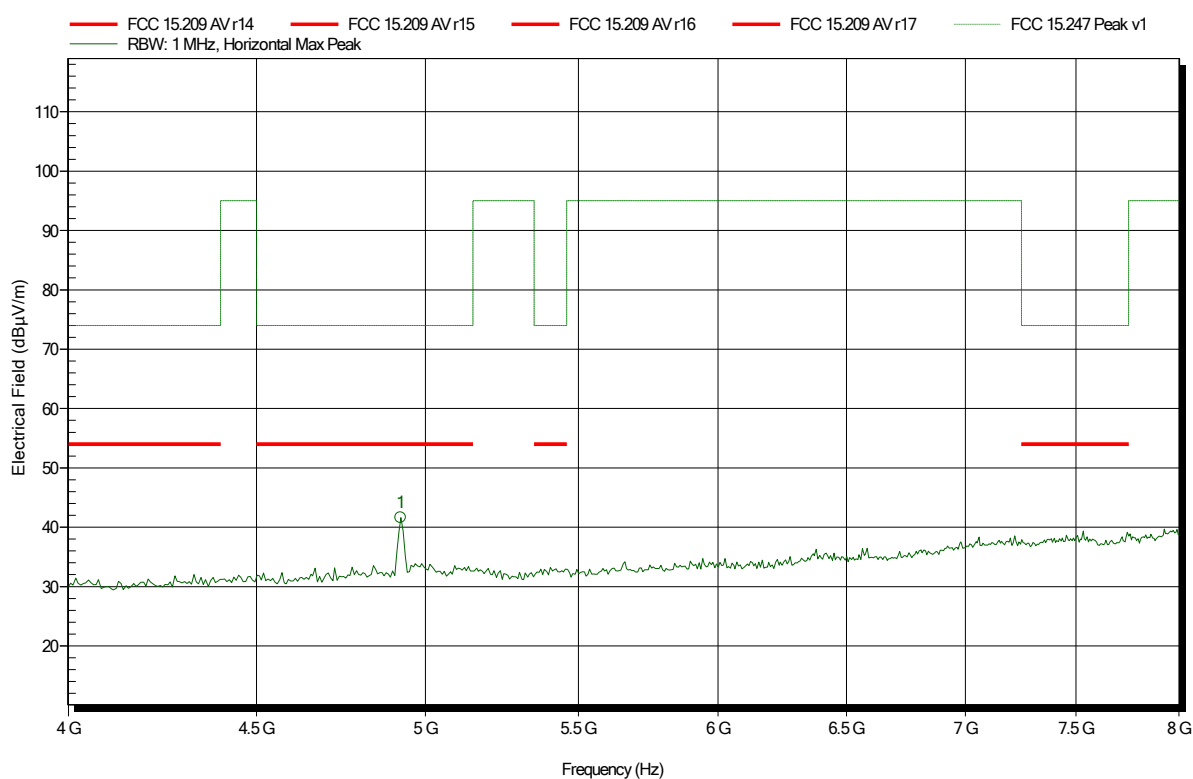
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4836 GHz	60.51 dBµV/m	74 dBµV/m	-13.49 dB	Pass
2.4839 GHz	62.46 dBµV/m	74 dBµV/m	-11.54 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Wilfried Treffke
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
 Test Date: 2019-04-15
 Note:

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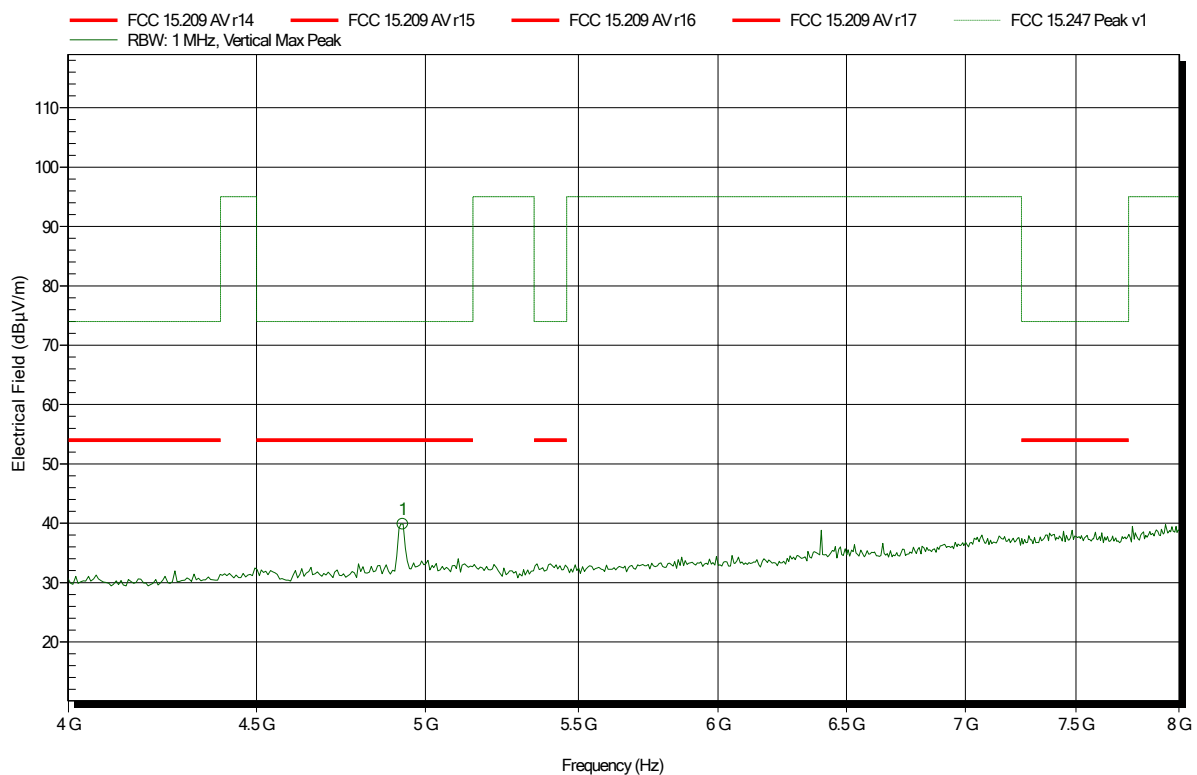
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.923 GHz	41.62 dBµV/m	74 dBµV/m	-32.38 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
Test Date: 2019-04-15
Note:

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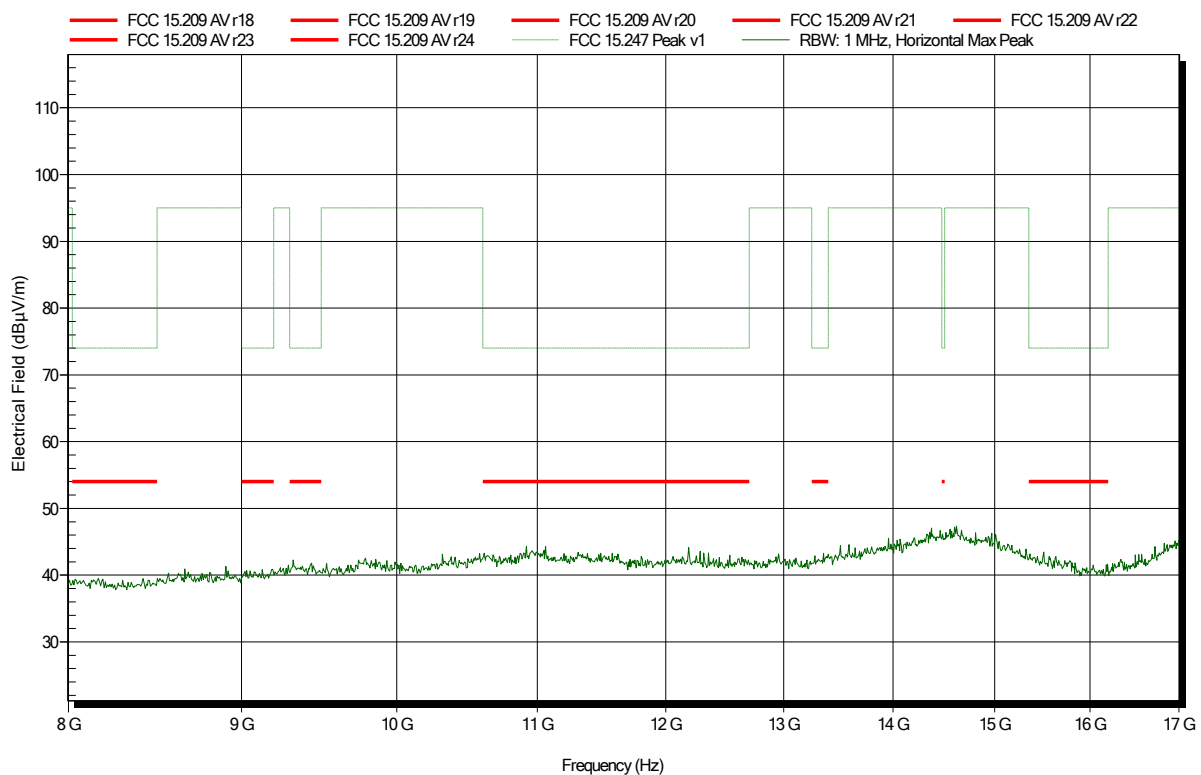
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.929 GHz	39.85 dBµV/m	74 dBµV/m	-34.15 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
Test Date: 2019-04-15
Note:

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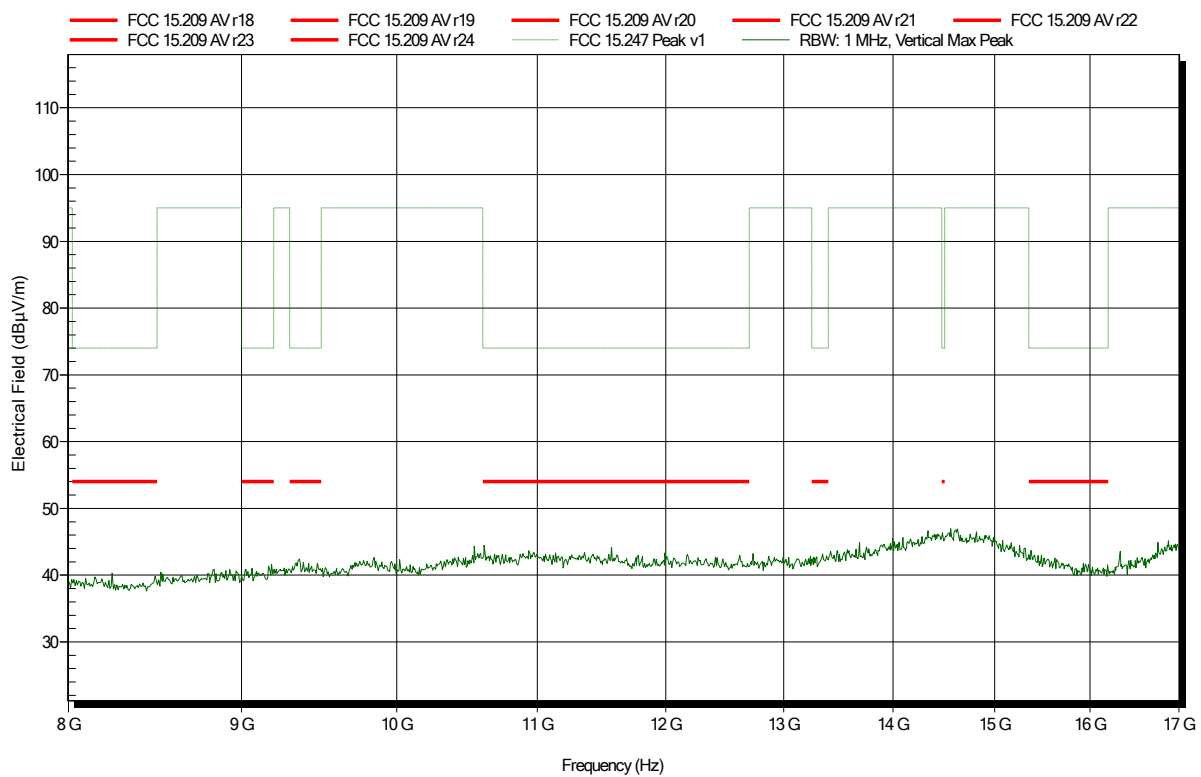


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
Test Date: 2019-04-15
Note:

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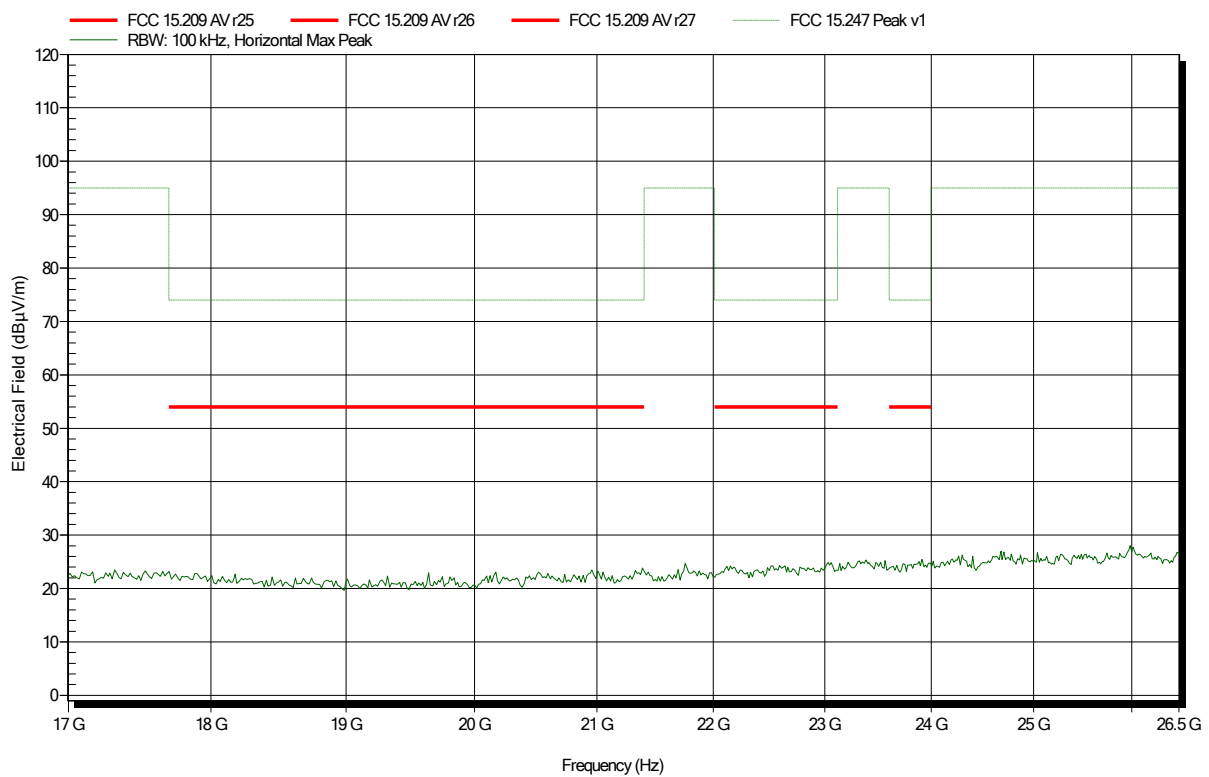


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Amplifier Research AT4560, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
Test Date: 2019-04-15
Note:

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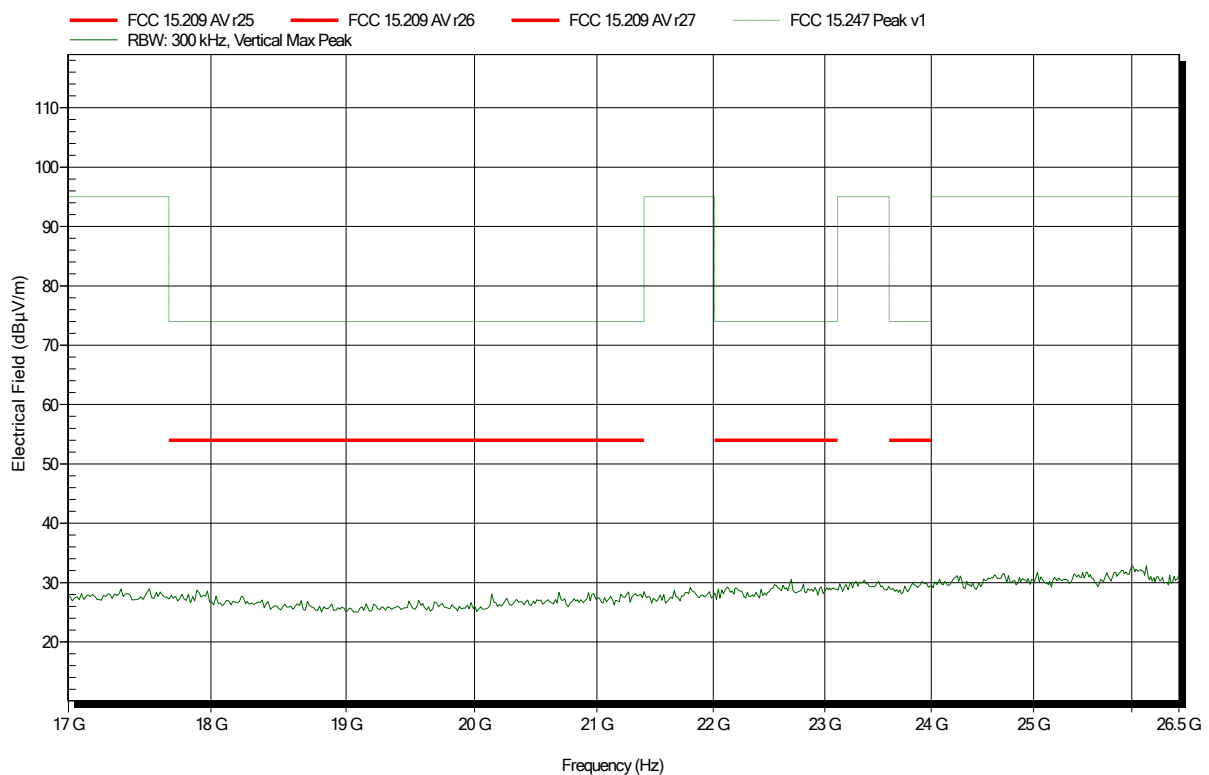


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Wilfried Treffke
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Amplifier Research AT4560, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.g; 6 Mbps; 2462 MHz
Test Date: 2019-04-15
Note:

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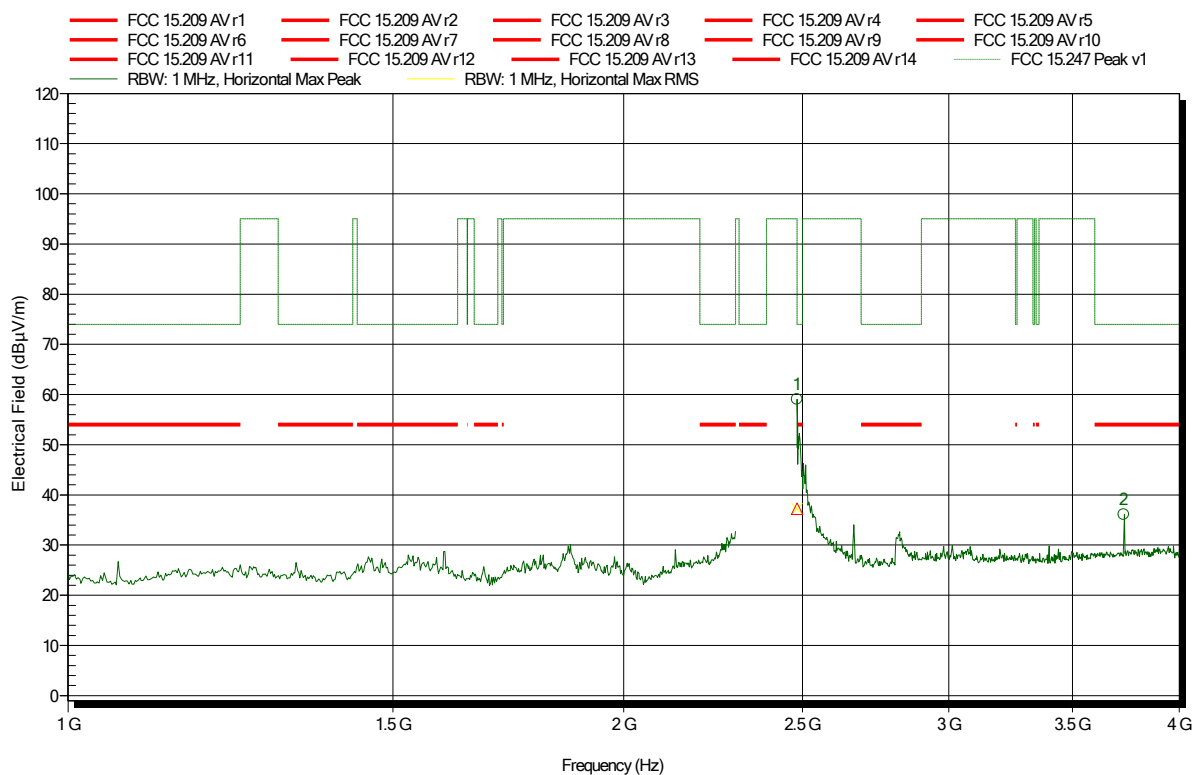


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.n; MCS0; HT40; 2422 MHz
 Test Date: 2019-04-16
 Note:

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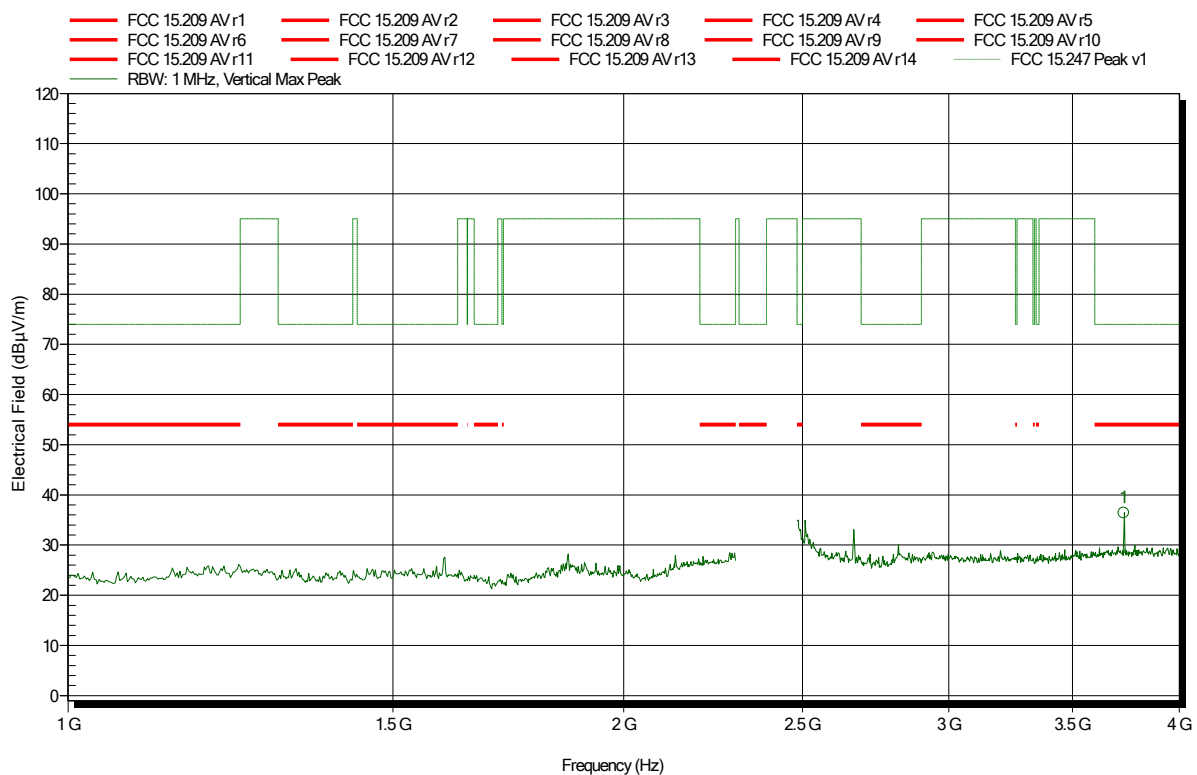
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4836 GHz	59.03 dBµV/m	74 dBµV/m	-14.97 dB	Pass
3.7327 GHz	36.07 dBµV/m	74 dBµV/m	-37.93 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2422 MHz
Test Date: 2019-04-16
Note:

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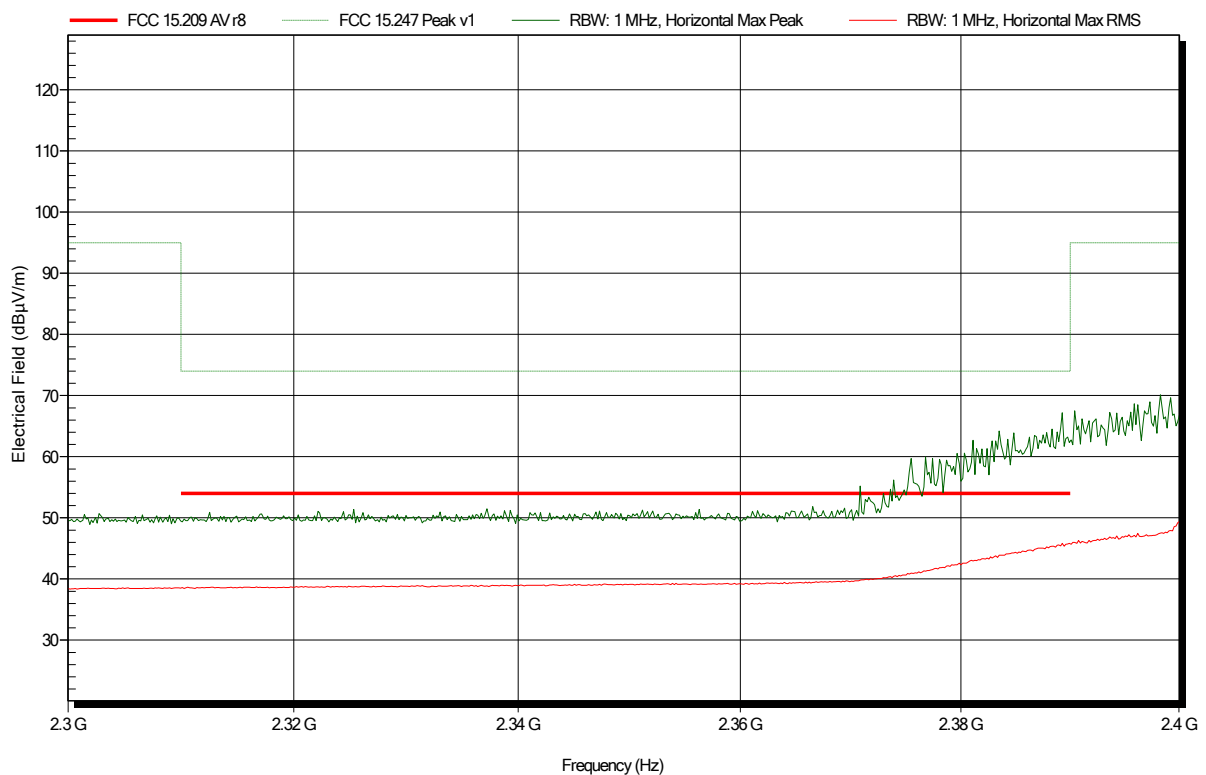
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
3.7327 GHz	36.42 dBµV/m	74 dBµV/m	-37.58 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2422 MHz
Test Date: 2019-04-16
Note: lower bandedge

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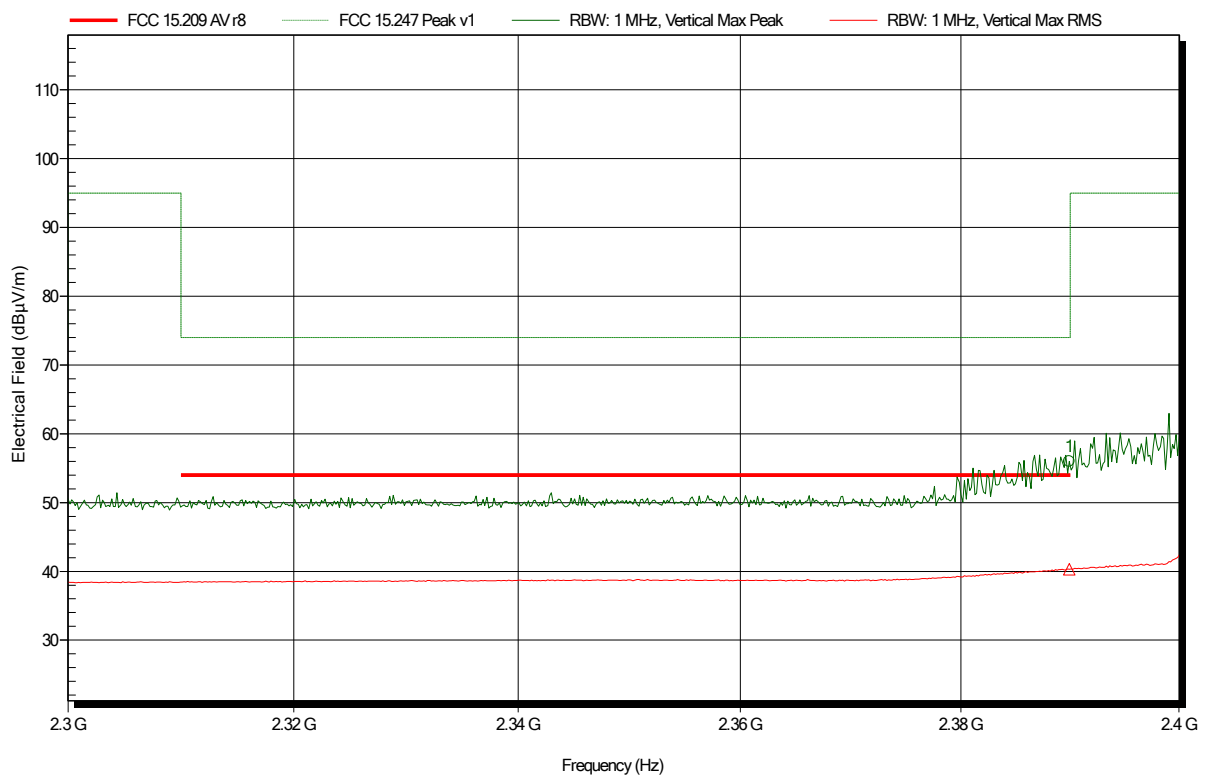


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2422 MHz
Test Date: 2019-04-16
Note: lower bandedge

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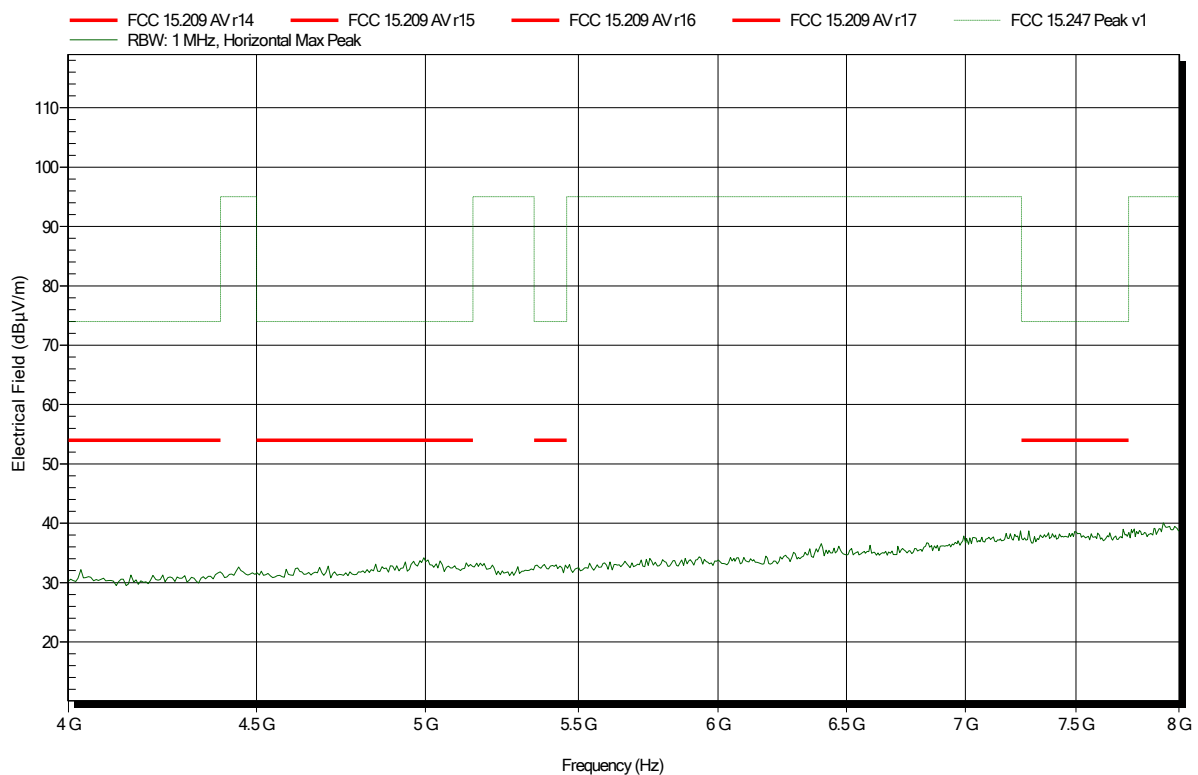
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3899 GHz	55.99 dBµV/m	74 dBµV/m	-18.01 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2422 MHz
Test Date: 2019-04-16
Note:

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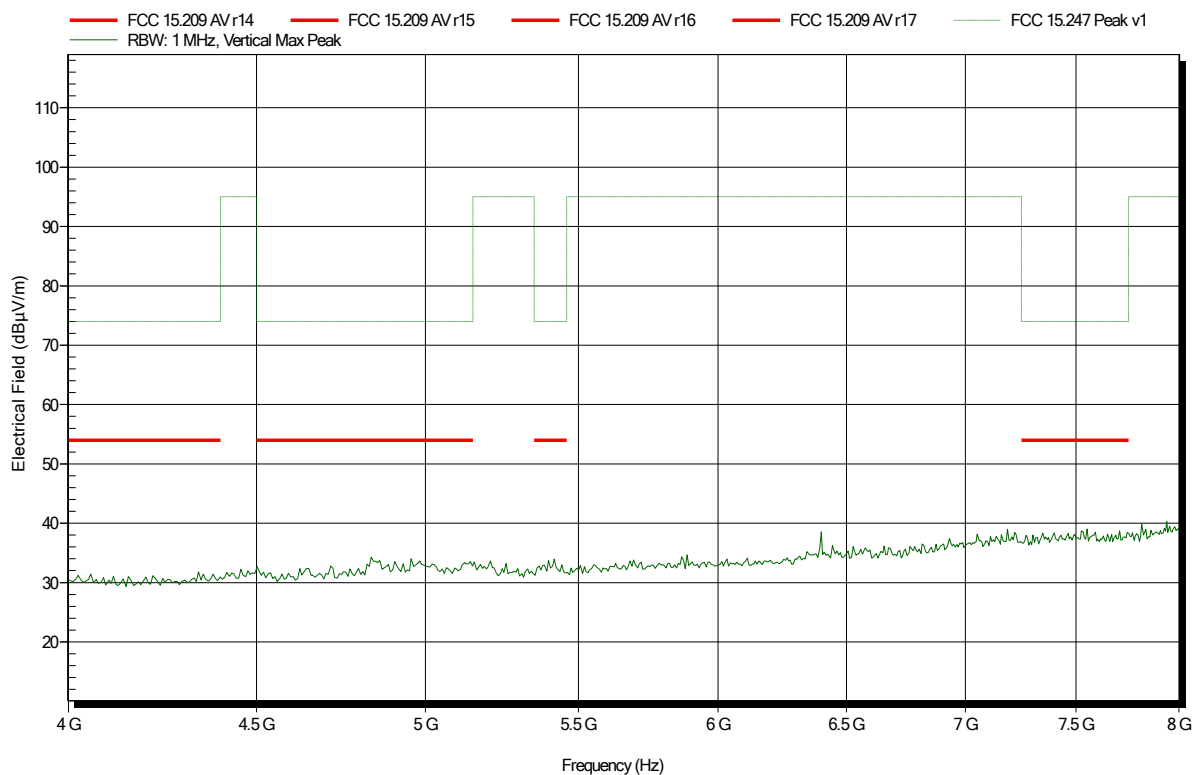


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2422 MHz
Test Date: 2019-04-16
Note:

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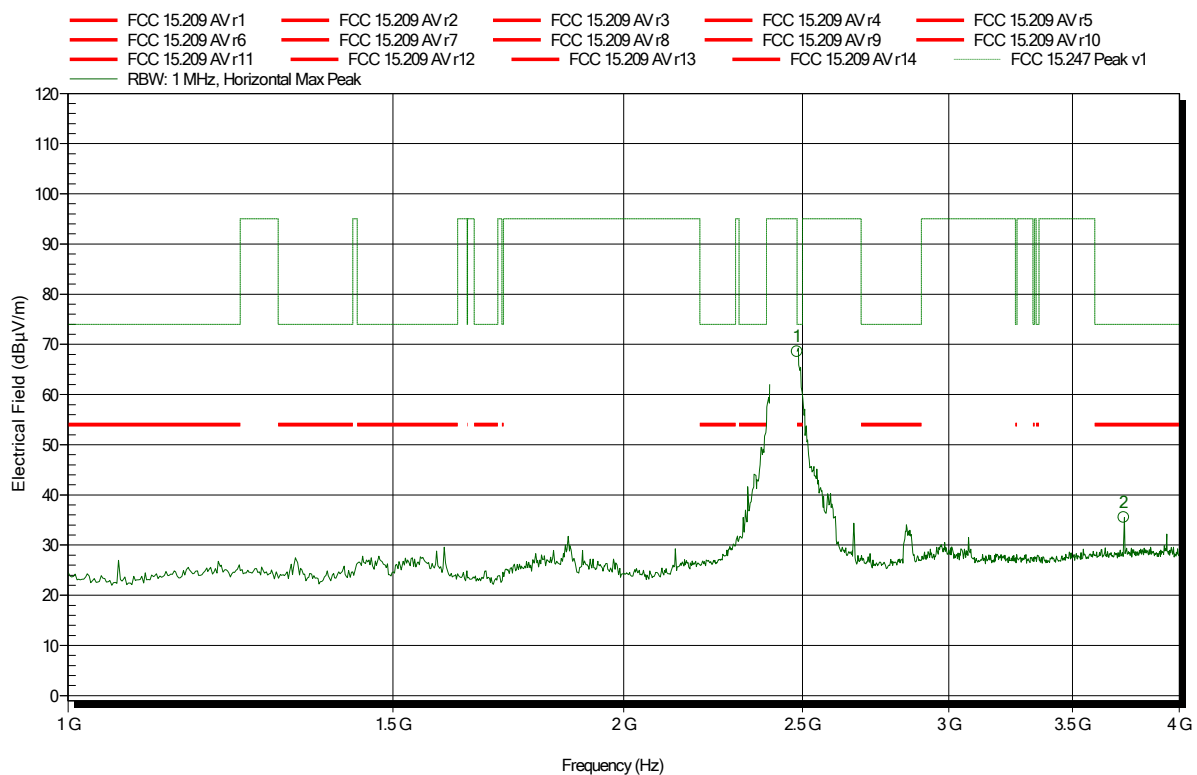


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.n; MCS0; HT40; 2447 MHz
 Test Date: 2019-04-16
 Note:

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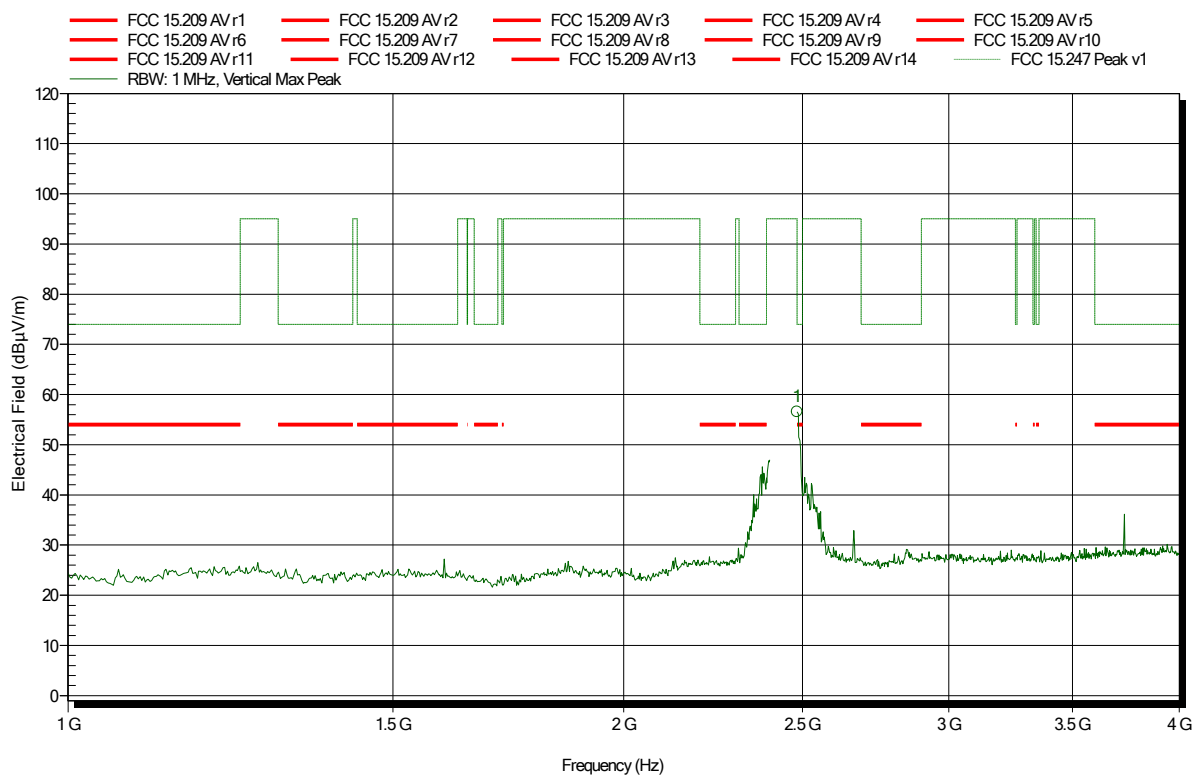
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	68.58 dBμV/m	74 dBμV/m	-5.42 dB	Pass
3.7327 GHz	35.49 dBμV/m	74 dBμV/m	-38.51 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2447 MHz
Test Date: 2019-04-16
Note:

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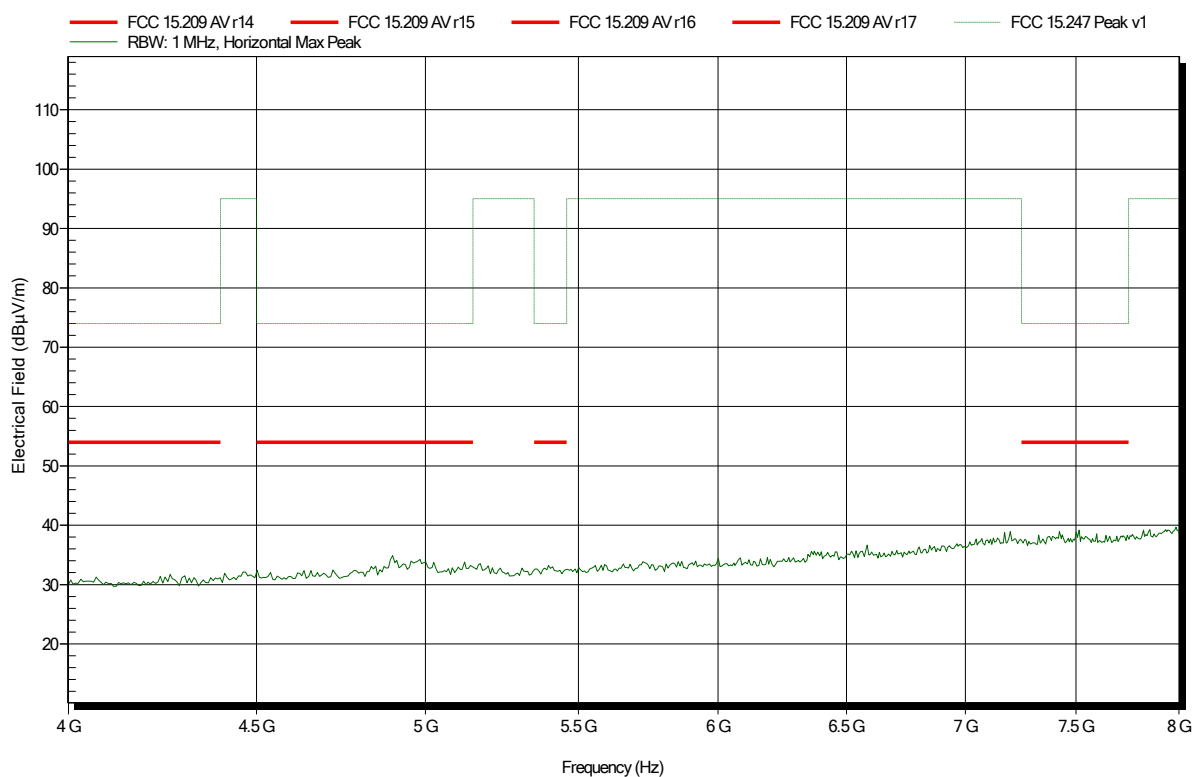
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	56.54 dBµV/m	74 dBµV/m	-17.46 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2447 MHz
Test Date: 2019-04-16
Note:

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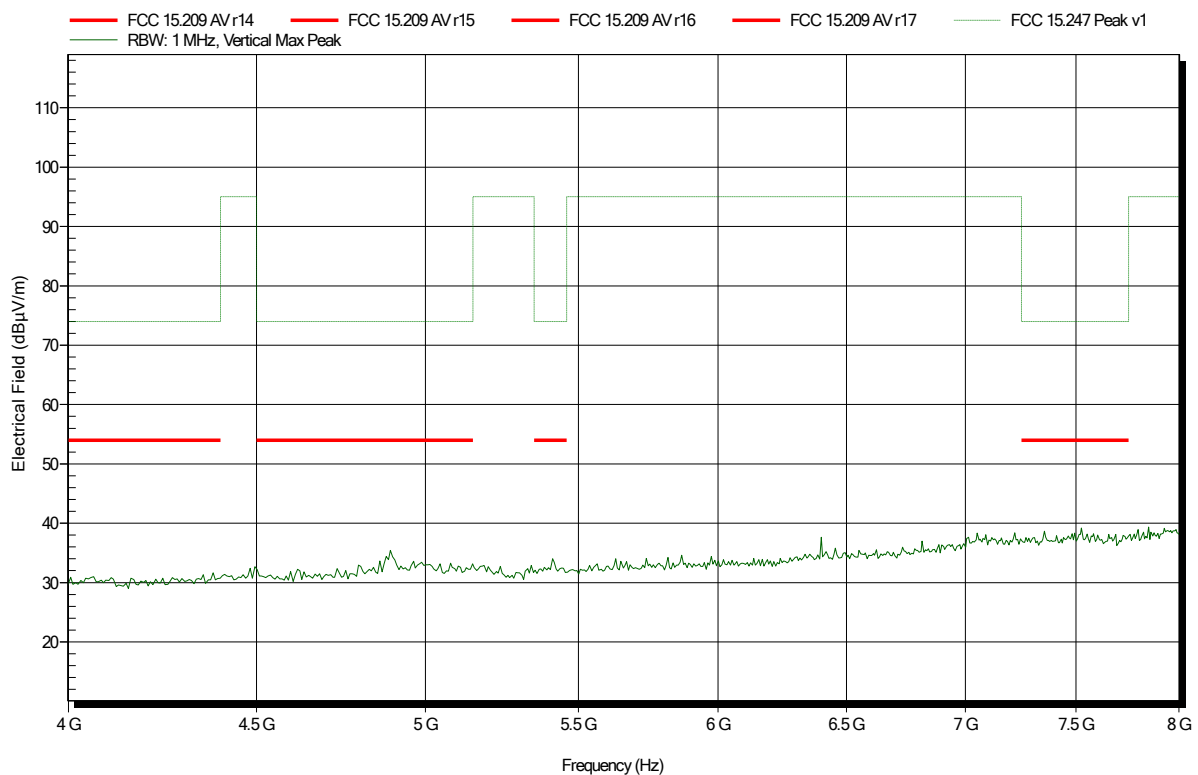


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2447 MHz
Test Date: 2019-04-16
Note:

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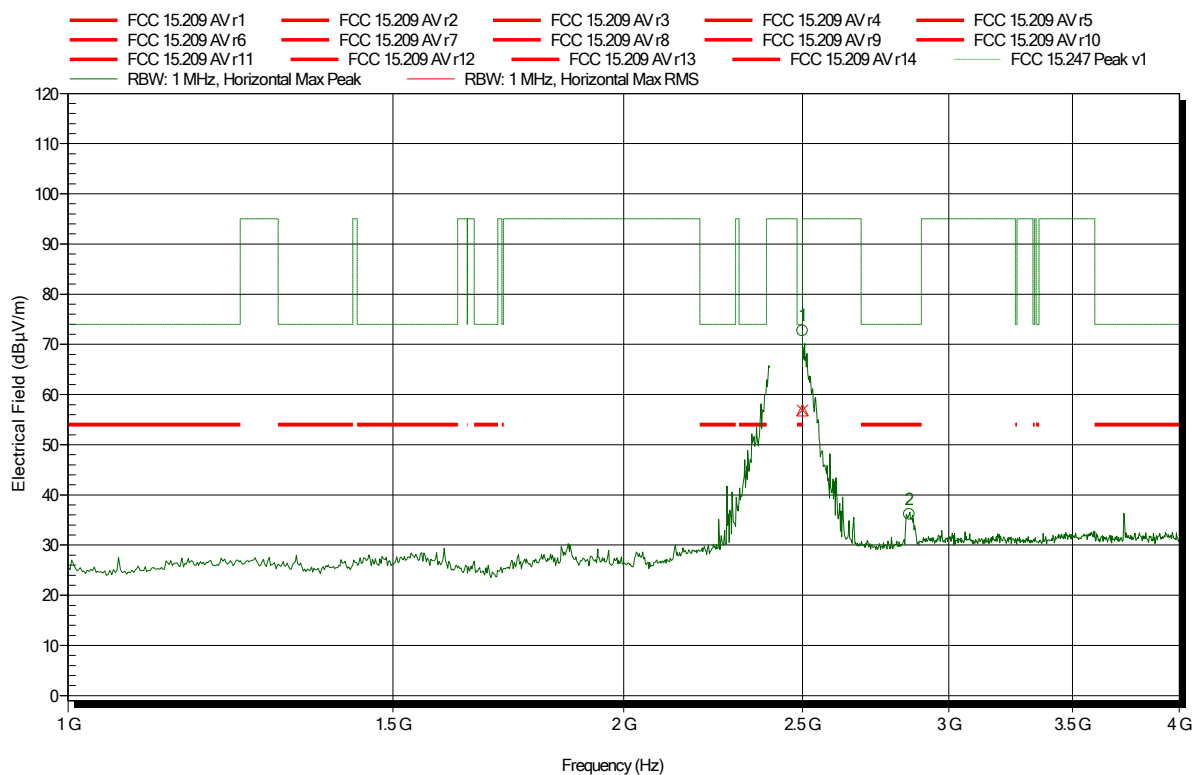


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.n; MCS0; HT40; 2452 MHz
 Test Date: 2019-04-16
 Note:

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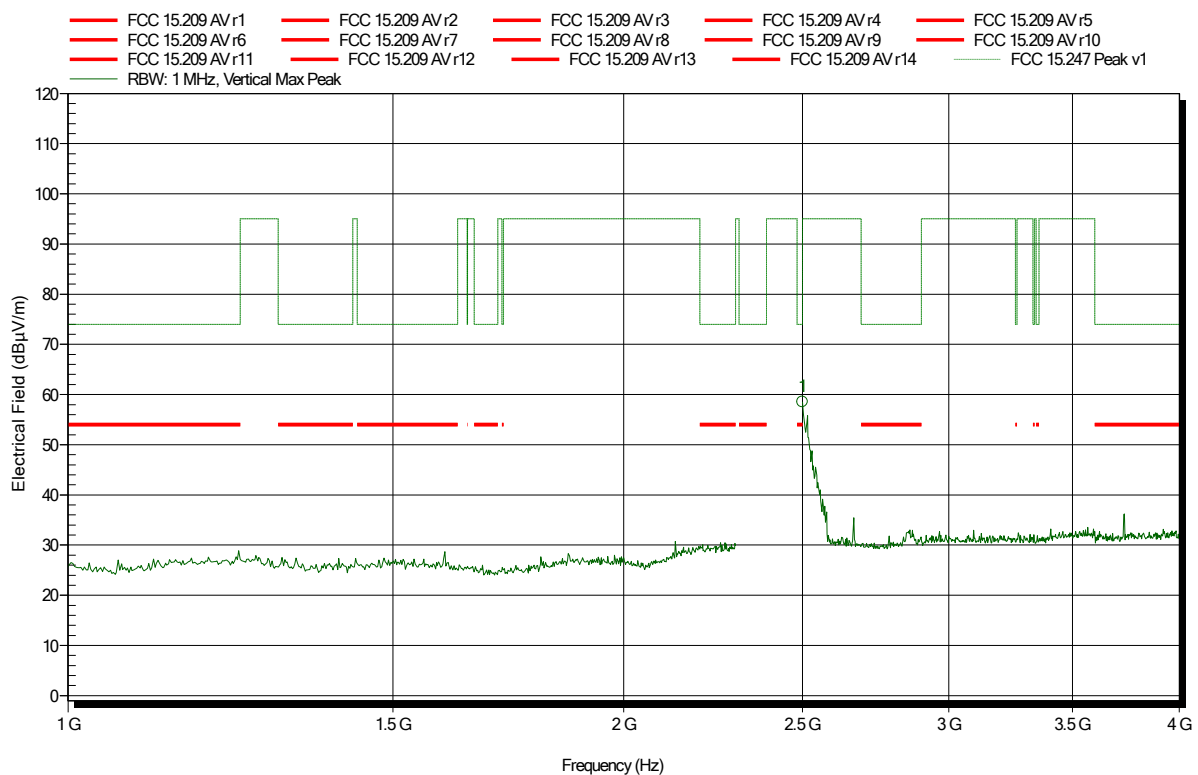
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.5 GHz	72.68 dBµV/m	95 dBµV/m	-22.32 dB	Pass
2.856 GHz	36.16 dBµV/m	74 dBµV/m	-37.84 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE802.11.n; MCS0; HT40; 2452 MHz
 Test Date: 2019-04-16
 Note:

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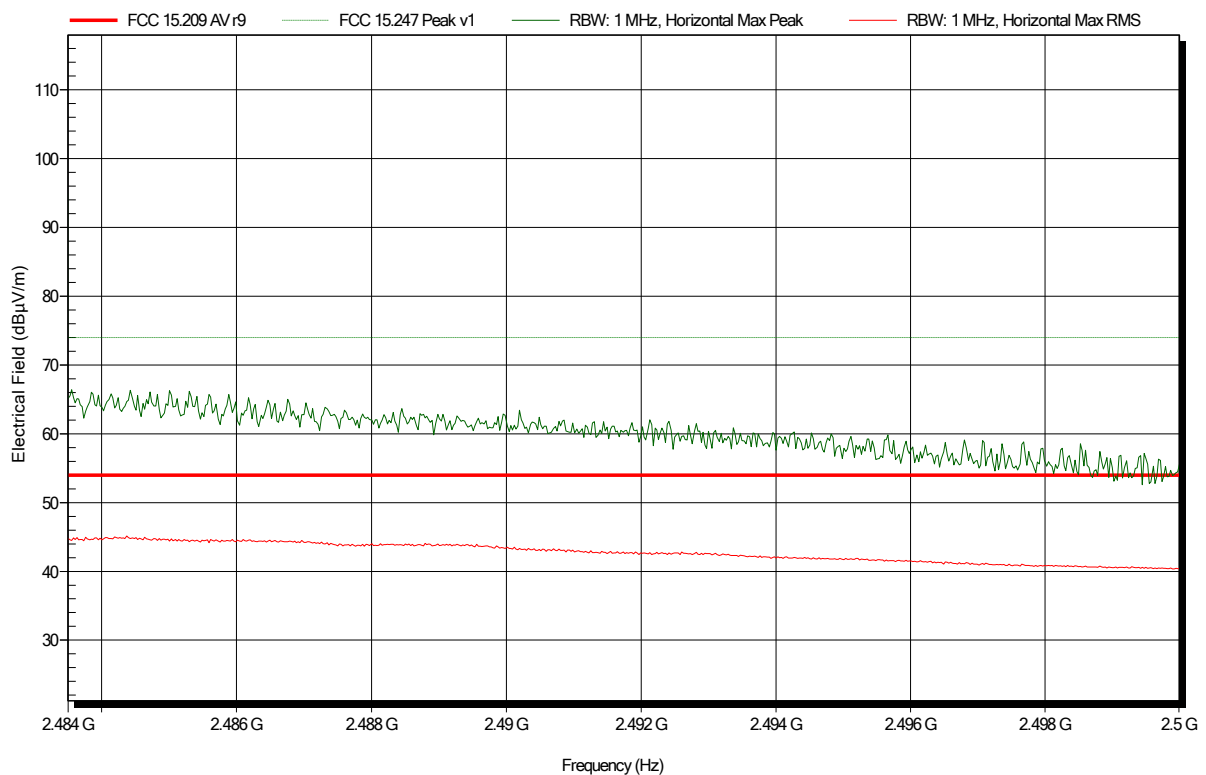
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.5 GHz	58.52 dBµV/m	74 dBµV/m	-15.48 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2452 MHz
Test Date: 2019-04-16
Note: upper bandedge

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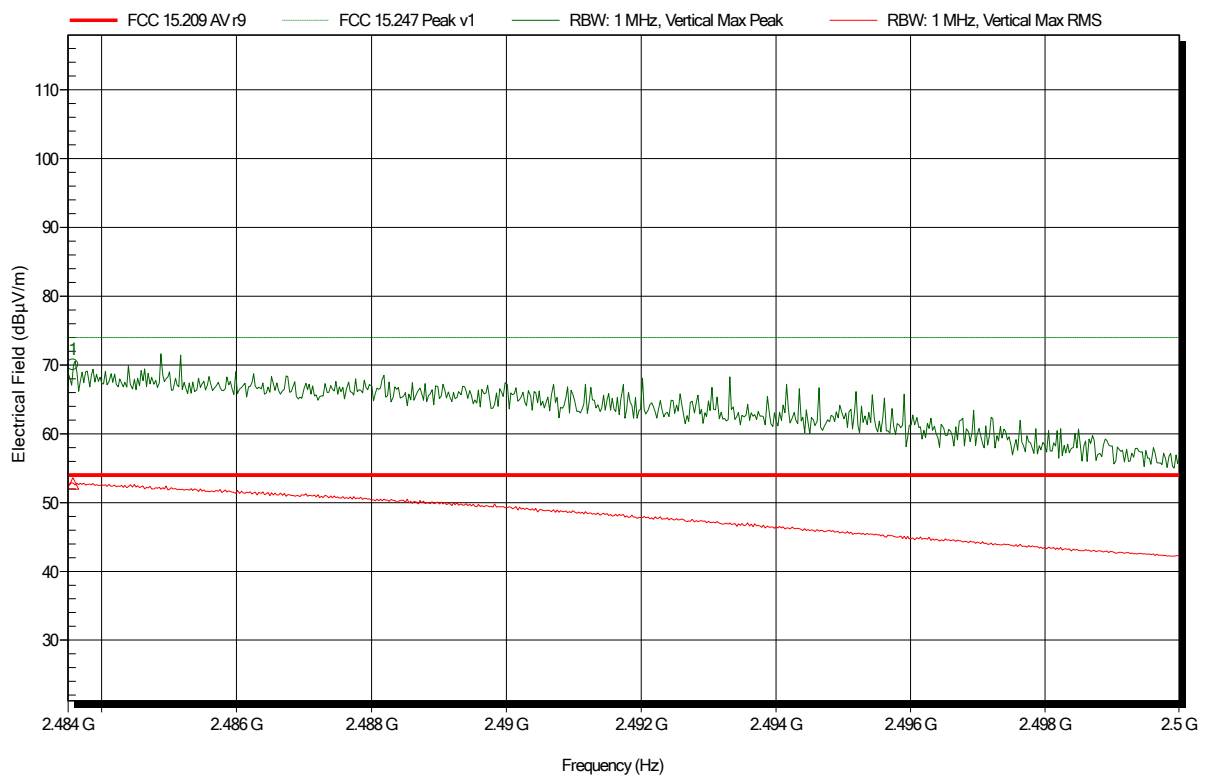


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2452 MHz
Test Date: 2019-04-16
Note: upper bandedge

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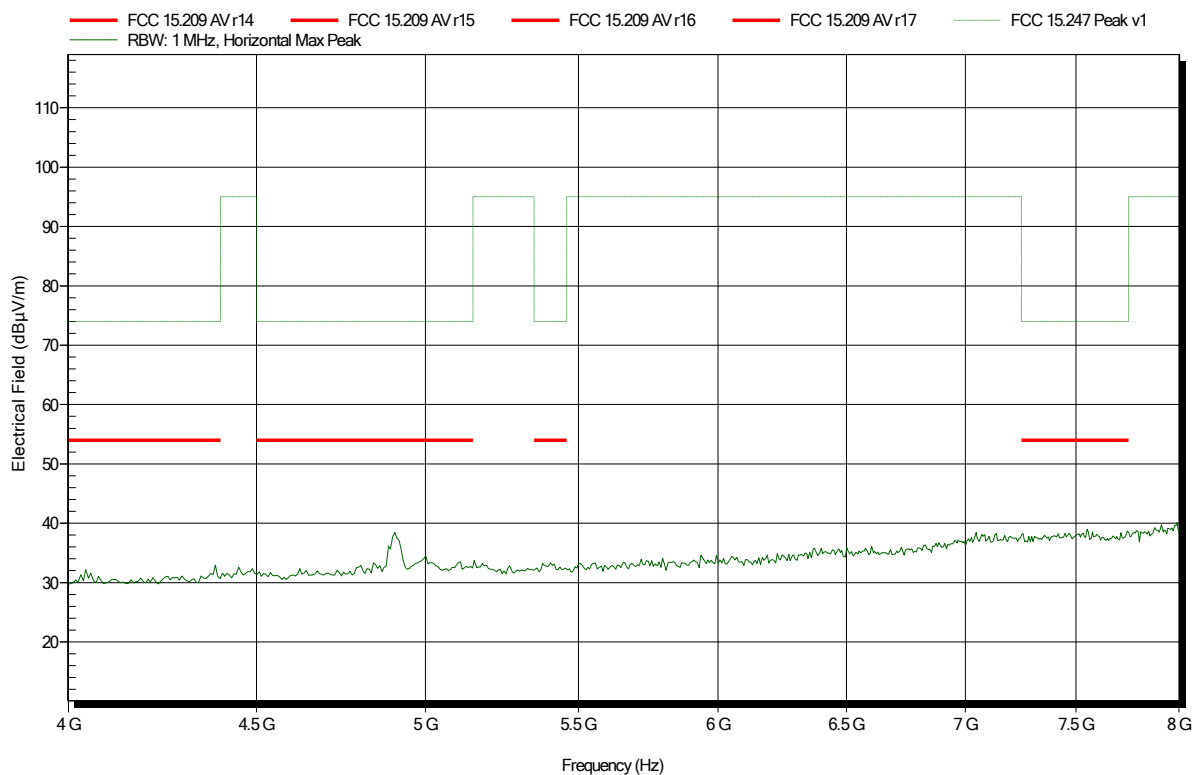
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4836 GHz	70.05 dBµV/m	74 dBµV/m	-3.95 dB	Pass

Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2452 MHz
Test Date: 2019-04-16
Note:

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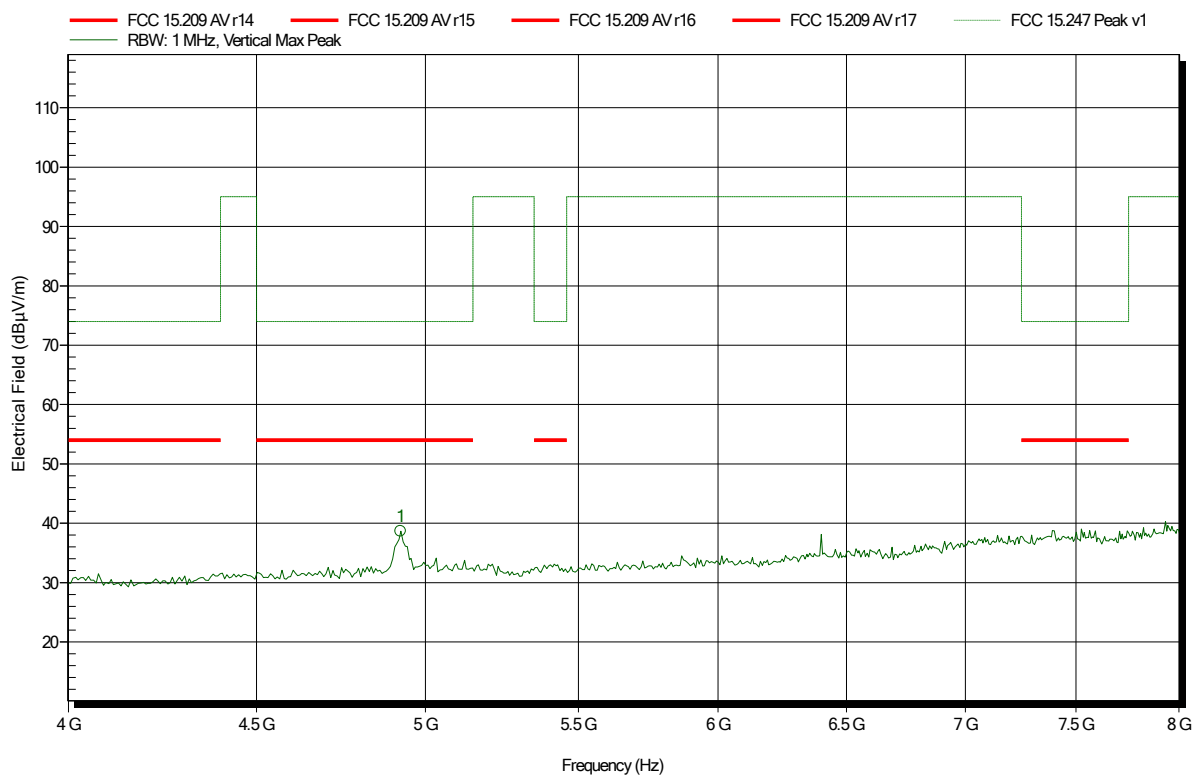


Spurious emissions according to FCC 47 e-CFR §15.247

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 22°C, Vnom: 3.7 VDC (battery)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE802.11.n; MCS0; HT40; 2452 MHz
Test Date: 2019-04-16
Note:

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Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.923 GHz	38.64 dBµV/m	74 dBµV/m	-35.36 dB	Pass

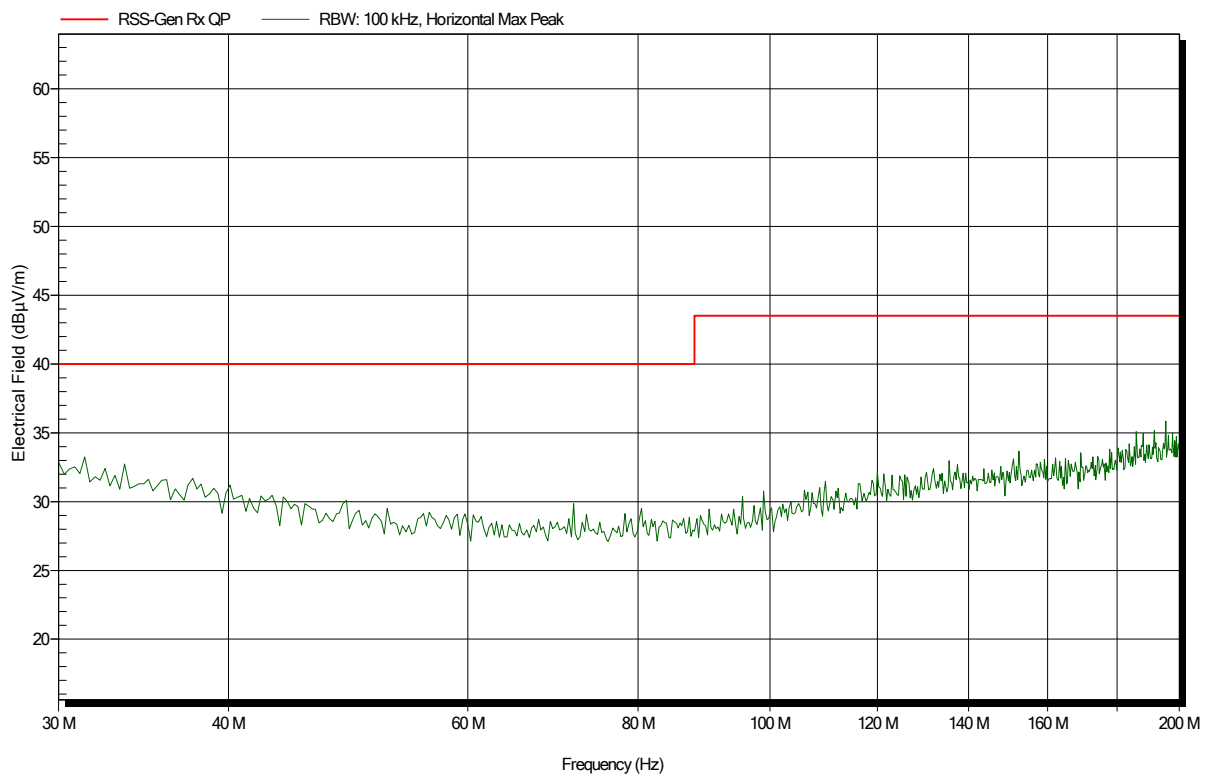
ANNEX B Receiver spurious emissions

Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Rohde & Schwarz HK 116, Horizontal
 Measurement distance: 3 m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

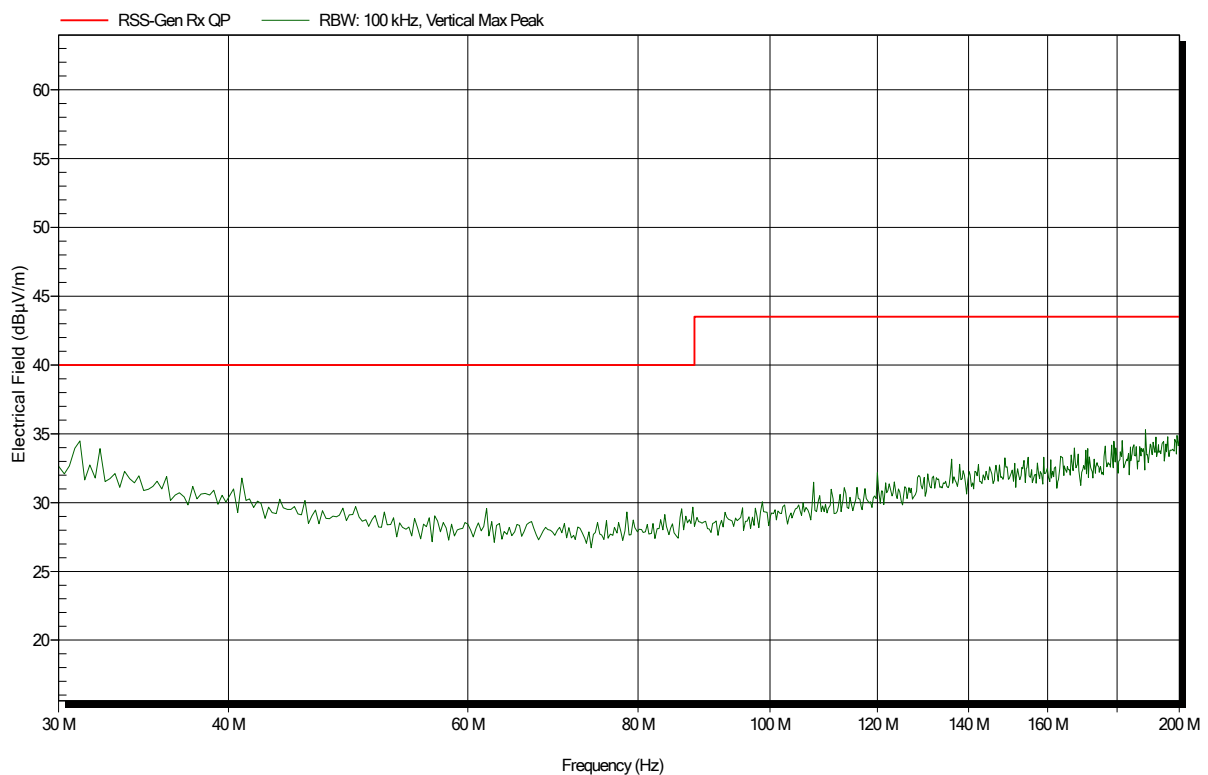
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Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127
 Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Rohde & Schwarz HK 116, Vertical
 Measurement distance: 3 m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

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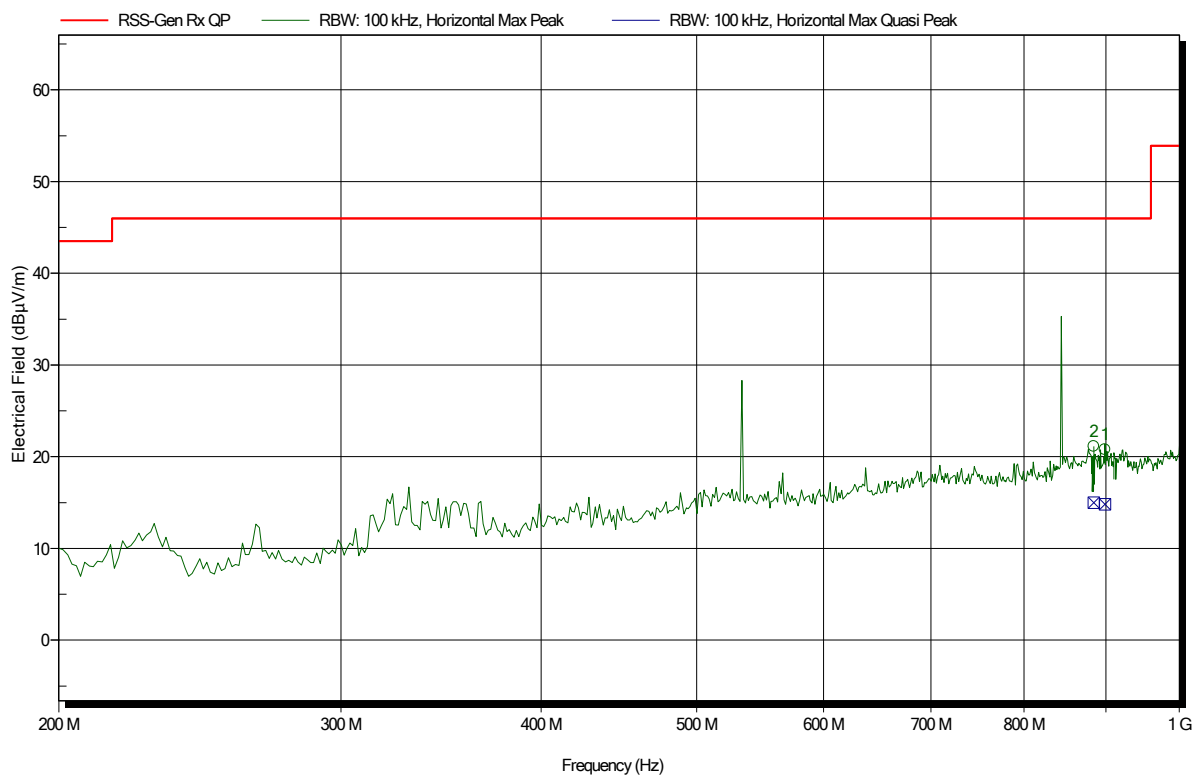


Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Rohde & Schwarz HL 223, Horizontal
 Measurement distance: 3 m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

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Frequency	Peak	Peak Limit	Peak Difference	Status	Angle	Height
884.431 MHz	21.14 dBµV/m	46 dBµV/m	-24.86 dB	Pass	146 Degree	1.2 m
898.718 MHz	20.79 dBµV/m	46 dBµV/m	-25.21 dB	Pass	101 Degree	1.2 m

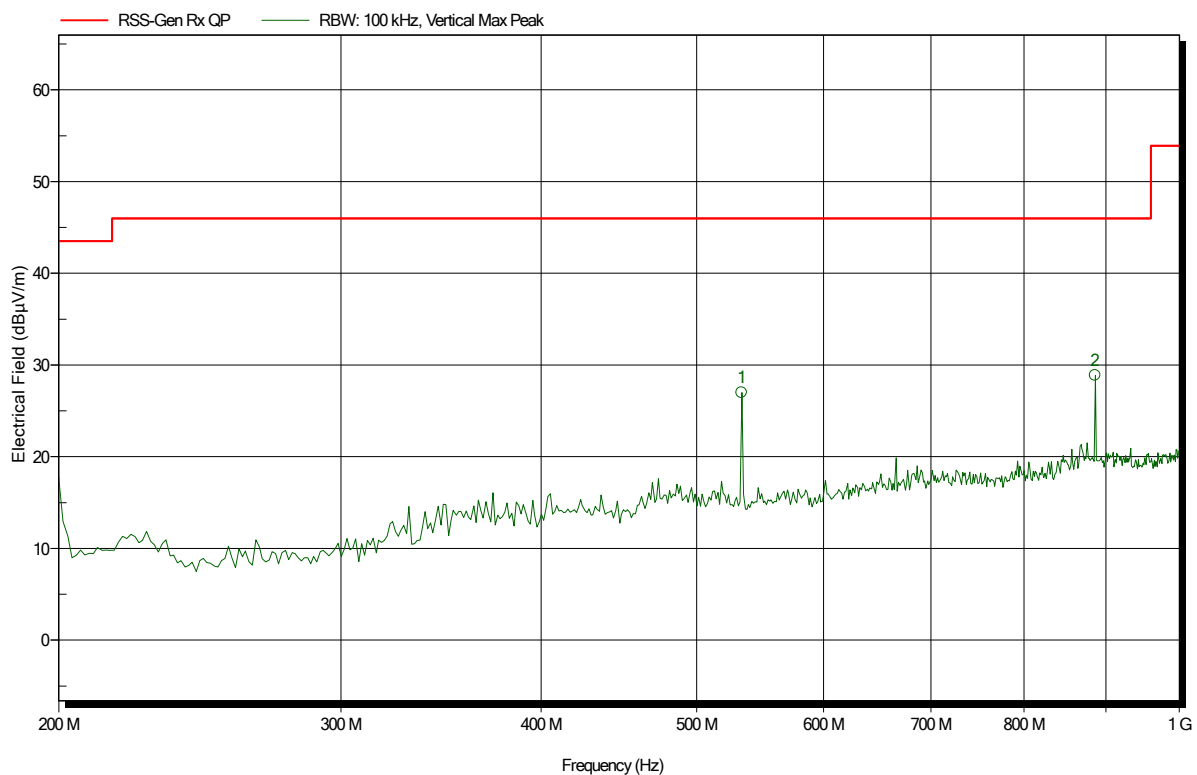
Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
884.431 MHz	14.98 dBµV/m	46 dBµV/m	-31.02 dB	Pass	146 Degree	1.2 m
898.718 MHz	14.83 dBµV/m	46 dBµV/m	-31.17 dB	Pass	101 Degree	1.2 m

Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
EUT Name: Audio Communication Device
Model: C3
Test Site: Eurofins Product Service GmbH
Operator: Charline Graf
Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
Antenna: Rohde & Schwarz HL 223, Vertical
Measurement distance: 3 m
Mode: RX; IEEE 802.11.g; 2437 MHz
Test Date: 2019-04-16
Note:

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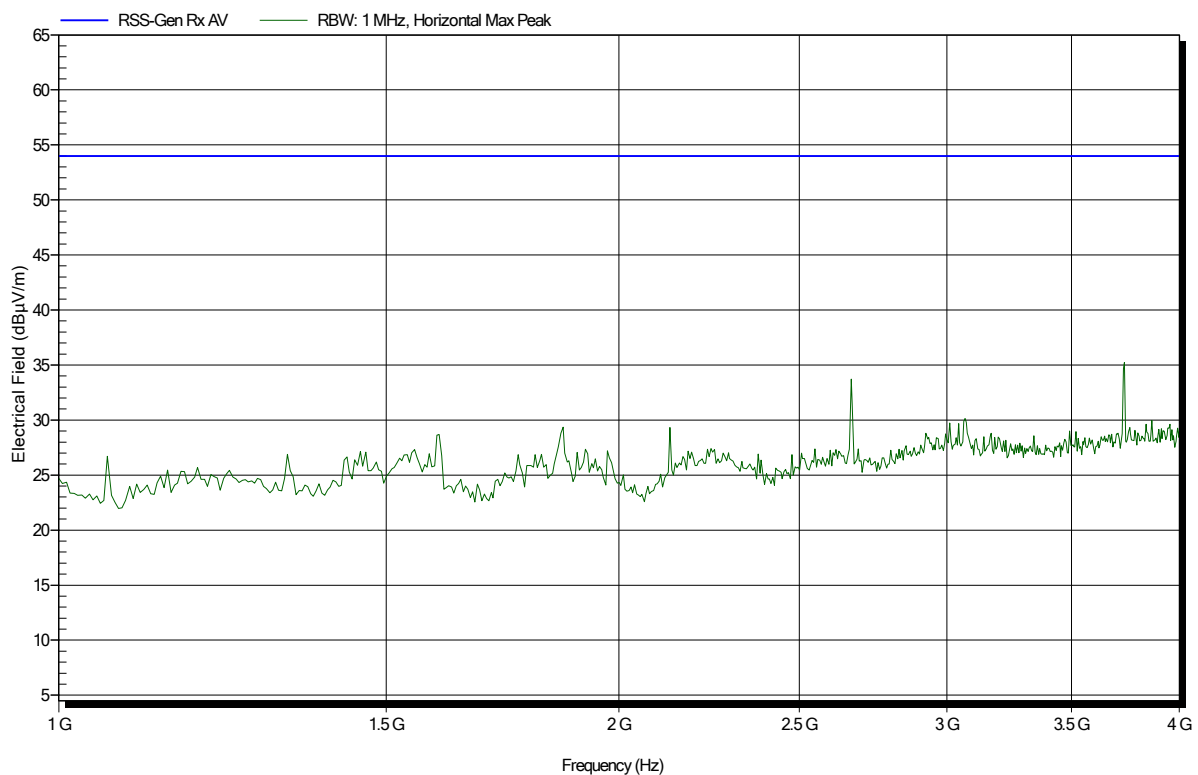
Frequency	Peak	Peak Limit	Peak Difference	Status	Angle	Height
533.333 MHz	27 dBµV/m	46 dBµV/m	-19 dB	Pass	315 Degree	1.2 m
885.897 MHz	28.87 dBµV/m	46 dBµV/m	-17.13 dB	Pass	337 Degree	1.2 m

Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

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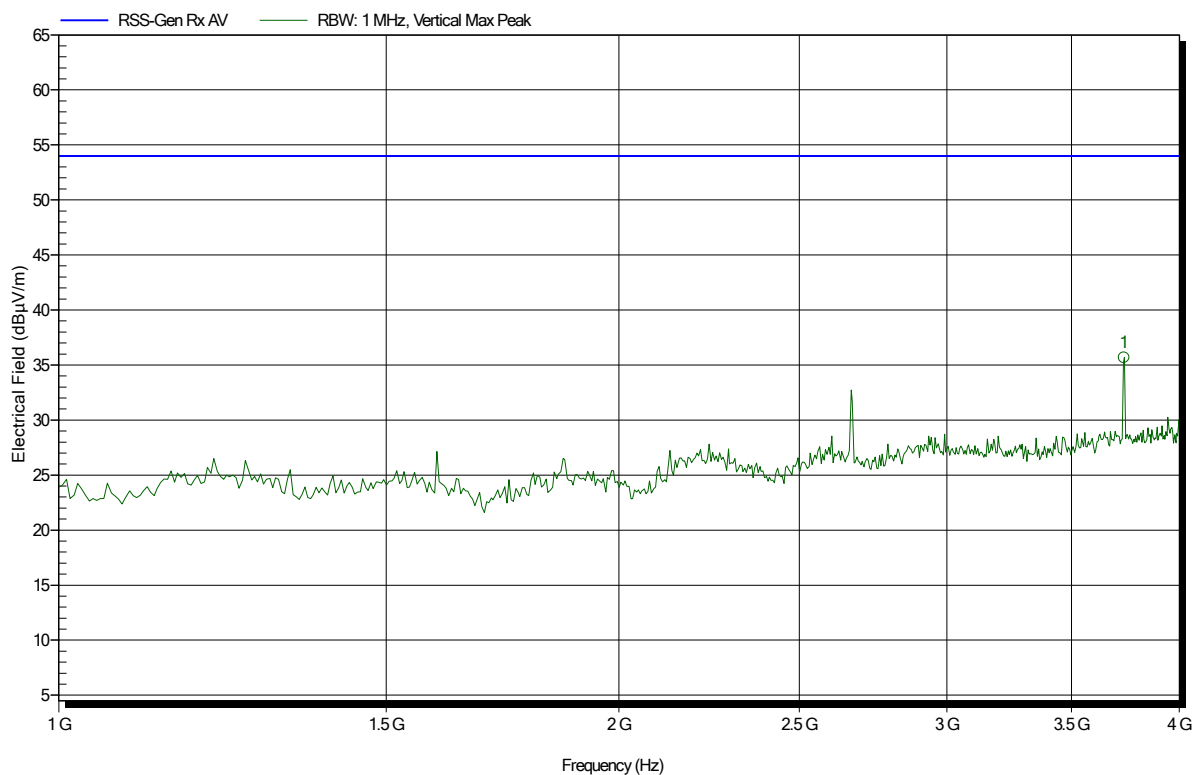


Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

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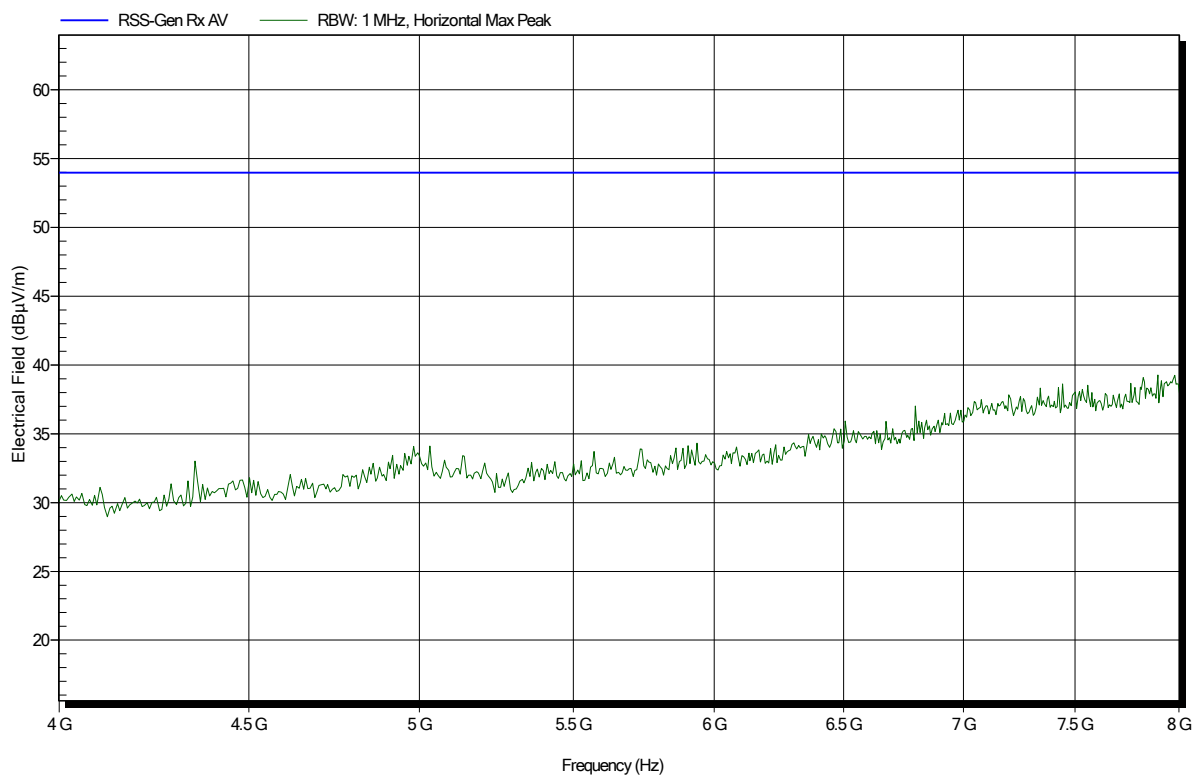
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
3.736 GHz	35.68 dBµV/m	53.98 dBµV/m	-18.3 dB	Pass

Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

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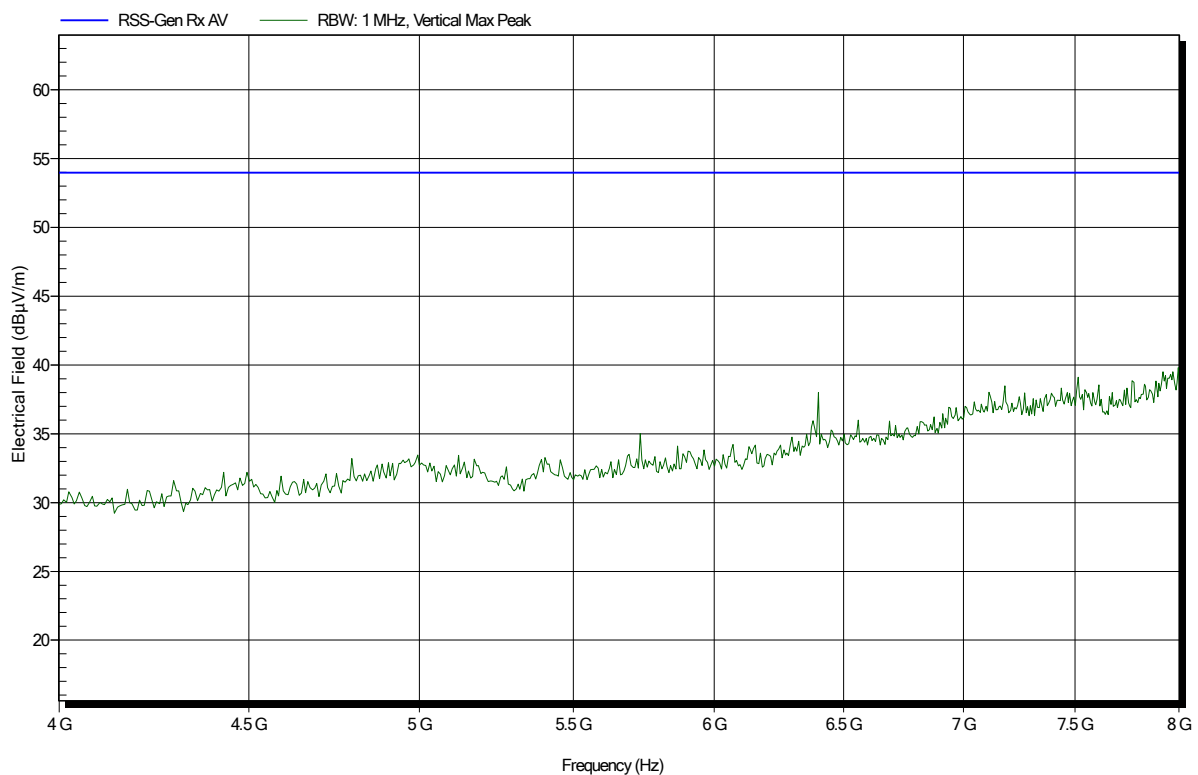


Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127

Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

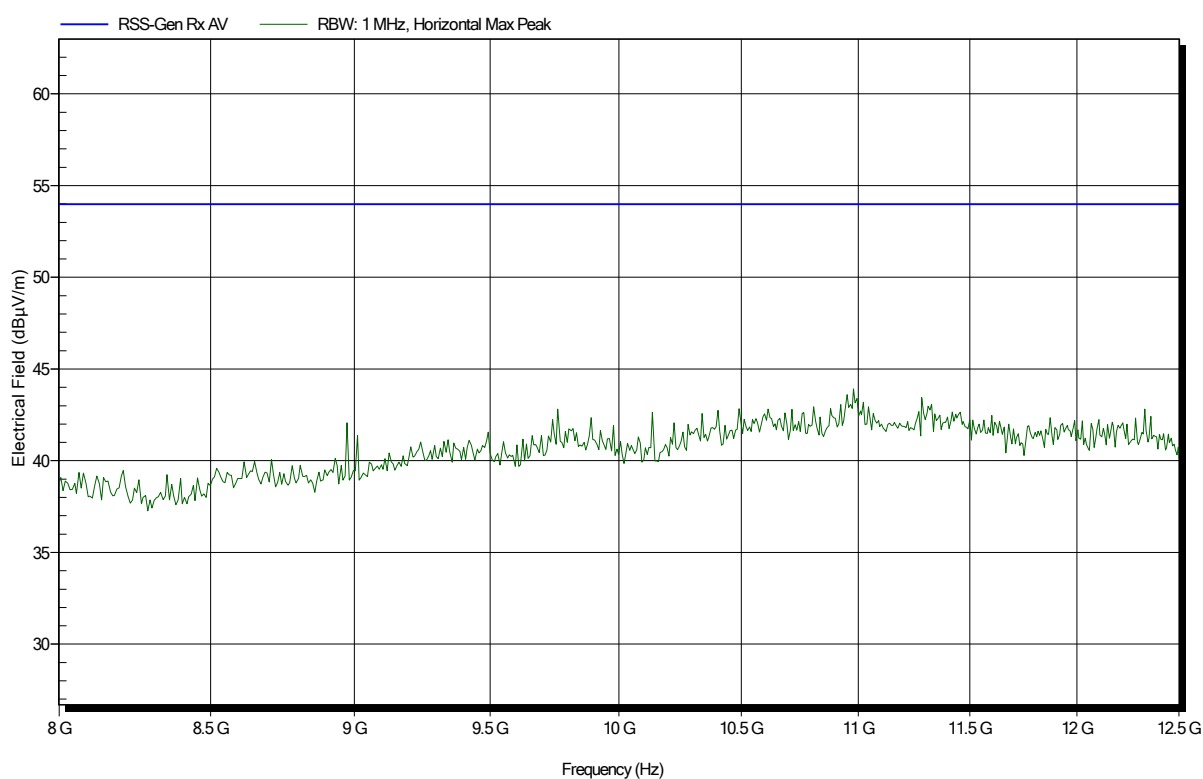
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Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127
 Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

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Spurious emissions according to RSS-247 Issue 2

Project number: G0M-1903-8127
 Applicant: peiker Consumer Electronics Evolution GmbH
 EUT Name: Audio Communication Device
 Model: C3
 Test Site: Eurofins Product Service GmbH
 Operator: Charline Graf
 Test Conditions: Tnom: 23°C, Vnom: 3.7 VDC (battery)
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 1 m converted to 3m
 Mode: RX; IEEE 802.11.g; 2437 MHz
 Test Date: 2019-04-16
 Note:

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