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FCC TEST REPORT

FCC 47 CFR Part 15C
Industry Canada RSS-210
Digital transmission systems operating within the 2400 – 2483.5 MHz band

Report Reference No.....:	G0M-1407-3973-TFC247WF-V01
Testing Laboratory.....:	Eurofins Product Service GmbH
Address.....:	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation.....:	A2LA Accredited Testing Laboratory, Certificate No.: 1983.01 FCC Filed Test Laboratory, Reg.-No.: 96970 IC OATS Filing assigned code: 3470A
Applicant's name.....:	BARTEC PIXAVI AS
Address.....:	Domkirkeplassen 2 4006 Stavanger NORWAY
Test specification:	
Standard.....:	47 CFR Part 15C KDB Publication No. 558074 D01 v03r02 RSS-210, Issue 8, 2010-12 RSS-Gen, Issue 3, 2010-12 ANSI C63.4:2009
Equipment under test (EUT):	
Product description	Smartphone
Model No.	ImpactX
Additional Model(s)	GravityX
Brand Name(s)	None
Hardware version	rev B0
Firmware / Software version	Android 4.2.2
	FCC-ID: YML-X7SERIES IC: 9249A-X7SERIES
Test result	**Passed**

Possible test case verdicts:	
- neither assessed nor tested ..... :	N/N
- required by standard but not appl. to test object..... :	N/A
- required by standard but not tested..... :	N/T
- not required by standard for the test object ..... :	N/R
- test object does meet the requirement..... :	P (Pass)
- test object does not meet the requirement..... :	F (Fail)

Testing:

Test Lab Temperature..... :	20 – 23 °C	
Test Lab Humidity ..... :	32 – 38 %	
Date of receipt of test item ..... :	2014-08-05	
Date (s) of performance of tests ..... :	2014-09-30 - 2014-10-16	
Compiled by ..... :	Toralf Jahn	
Tested by (+ signature)..... : (Responsible for Test)	Toralf Jahn	T. J .....
Approved by (+ signature) ..... :	Christian Weber	C. Weber .....
Date of issue ..... :	2014-11-17	
Total number of pages ..... :	119	

General remarks:

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

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

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

Additional comments:

The additional model GravityX is identical to the model ImpactX. Both models use the same pcb and the same software. Only the mobile communication module is deactivated. Therefore the results for the WiFi tests are applicable to both models.

Version History

Version	Issue Date	Remarks	Revised by
01	2014-11-17	Initial Release	

REPORT INDEX

1 Equipment (Test item) Description

Description	Smartphone	
Model	ImpactX	
Additional Model(s)	GravityX	
Brand Name(s)	None	
Serial number	None	
Hardware version	rev B0	
Software / Firmware version	Android 4.2.2	
FCC-ID	YML-X7SERIES	
IC	9249A-X7SERIES	
Equipment type	End product	
Radio type	Transceiver	
Radio technology	WLAN b/g/n (20 MHz only)	
Operating frequency range	2412 - 2462 MHz	
Assigned frequency band	2400 - 2483.5 MHz	
Main test frequencies	F_{LOW}	2412 MHz
	F_{MID}	2437 MHz
	F_{HIGH}	2462 MHz
Spreading	CCK, DSSS, OFDM	
Modulations	BPSK, QPSK, 16-QAM, 64-QAM	
Number of channels	11	
Channel spacing	5 MHz	
Number of antennas	1	
Antenna	Type	integrated
	Model	M830510
	Manufacturer	Ethertronics
	Gain	+1.1 dBi (manufacturer declaration)
Manufacturer	BARTEC PIXAVI AS Domkirkeplassen 2 4006 Stavanger NORWAY	
Power supply	V_{NOM}	3.7 VDC
	V_{MIN}	3.1 VDC
	V_{MAX}	4.2 VDC
AC/DC-Adaptor	Model	AN4111
	Vendor	ANSMANN
	Input	100-240 VAC / 50-60 Hz
	Output	5.0 VDC / 1 A

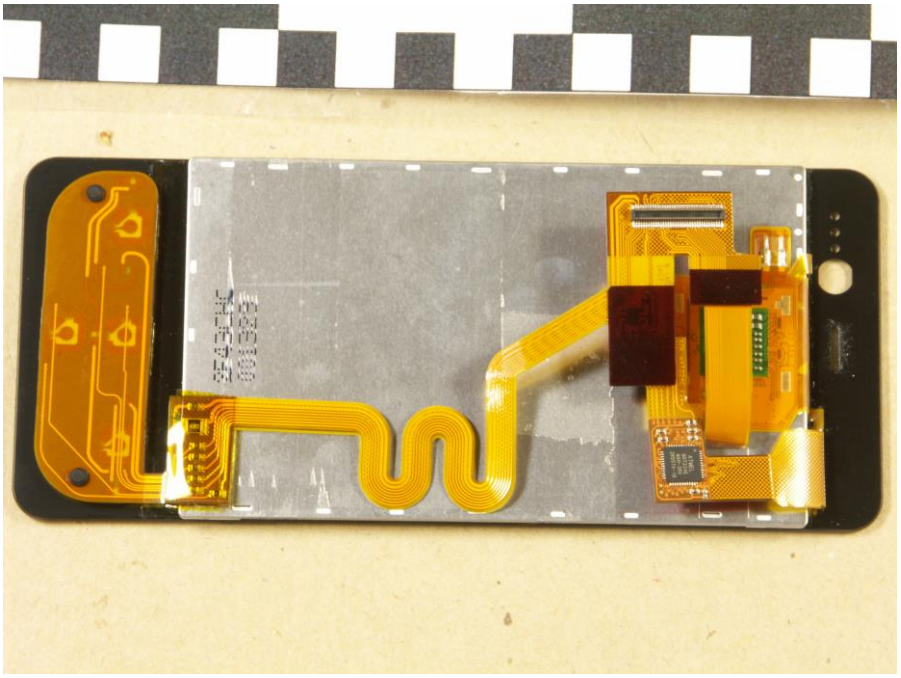
1.1 Photos – Equipment External

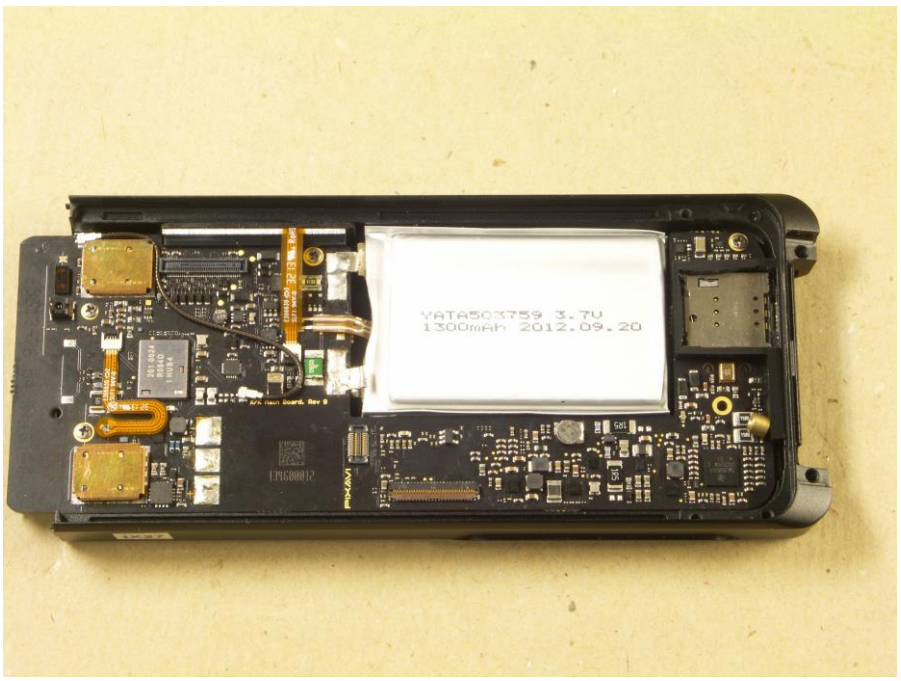
CONDUCTED SAMPLE FRONT

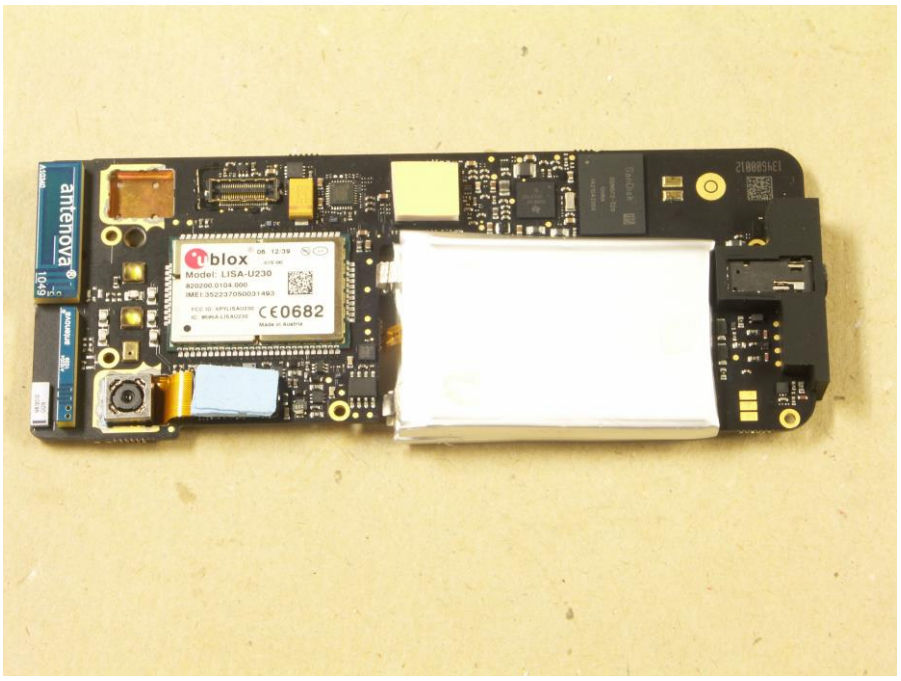

CONDUCTED SAMPLE BACK


RADIATED SAMPLE


1.2 Photos – Equipment internal

INSIDE


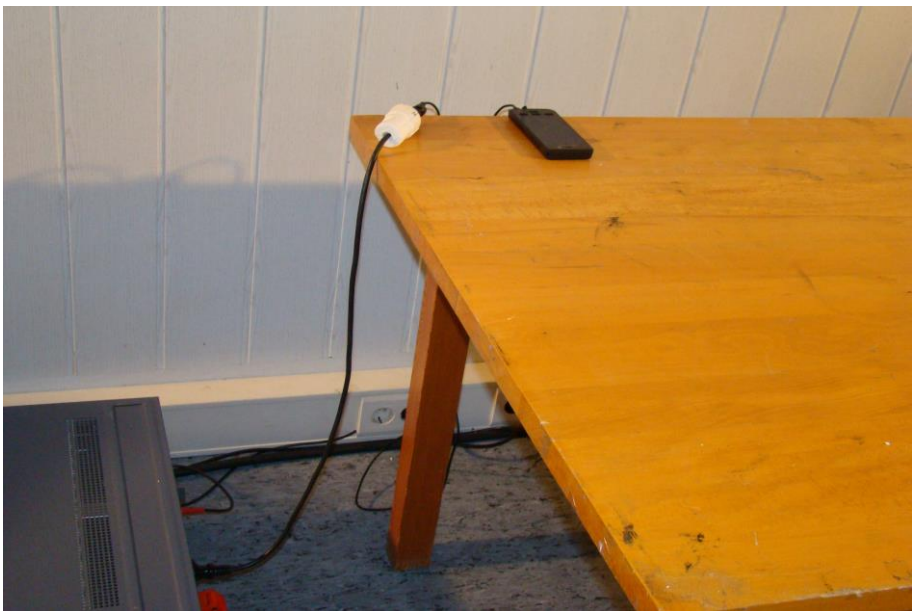
PCB


PCB


1.3 Photos – Test setup

RADIATED SETUP

CONDUCTED SETUP



1.4 Supporting Equipment Used During Testing

Product Type*	Device	Manufacturer	Model No.	Comments
None				

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

AE : Auxiliary/Associated Equipment, or

SIM : Simulator (Not Subjected to Test)

CABL : Connecting cables

1.5 Test Modes

Mode #	Description	
DSSS	General conditions:	EUT powered via USB cable.
	Radio conditions:	Mode = standalone transmit Spreading = DSSS Modulation = BPSK Data rate = 1 Mbps Bandwidth = 20 MHz Duty cycle = 100 % Power level = 15 dBm firmware setting
OFDM	General conditions:	EUT powered via USB cable.
	Radio conditions:	Mode = standalone transmit Spreading = OFDM Modulation = QPSK Data rate = 6 Mbps Bandwidth = 20 MHz Duty cycle = 100 % Power level = 15 dBm firmware setting
Receive	General conditions:	EUT powered via USB cable.
	Radio conditions:	Mode = standalone receive Spreading = DSSS / OFDM
AC-Powerline	General conditions:	EUT powered by AC/DC adaptor.
	Radio conditions:	Mode = standalone transmit Spreading = DSSS 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

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

6dB Bandwidth					
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

Power spectral density					
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	2014-10

1.7 Sample emission level calculation

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

Reading:

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

A.F.:

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

Reading on Analyzer (dBµV) + A.F. (dB) = Net field strength (dBµV/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:

Limit (dBµV/m) = 20*log (µV/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 dBµV	+	26 dB	=	47.5 dBµV/m	:	47.5 dBµV/m - 57.0 dBµV/m	= -9.5 dB

2 Result Summary

FCC 47 CFR Part 15C, IC RSS-210				
Product Specific Standard Section	**Requirement – Test**	**Reference Method**	**Result**	**Remarks**
RSS-Gen 4.6.1	Occupied Bandwidth	RSS-Gen 4.6.1	N/R	Informational only
FCC § 15.247(a)(2) IC RSS-210 § A8.2	6dB Bandwidth	KDB Publication No. 558074	PASS	
FCC § 15.247(b)(3) IC RSS-210 § A8.4	Maximum peak conducted power	KDB Publication No. 558074	PASS	
FCC § 15.247(e) IC RSS-210 § A8.2	Power spectral density	KDB Publication No. 558074	PASS	
47 CFR 15.207 RSS-Gen 7.2.4	AC power line conducted emissions	KDB Publication No. 558074 / ANSI C63.4	PASS	
FCC § 15.247(d) IC RSS-210 § A8.5	Band edge compliance	KDB Publication No. 558074	PASS	
FCC § 15.247(d) IC RSS-210 § A8.5	Conducted spurious emissions	KDB Publication No. 558074	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	KDB Publication No. 558074 / 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

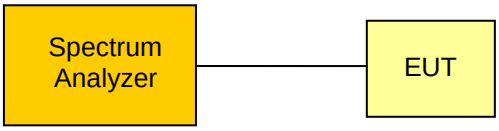
3.1 Test Conditions and Results – Occupied Bandwidth

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



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}	2412	DSSS	14.1
F_{MID}	2437	DSSS	14.2
F_{HIGH}	2462	DSSS	14.1
F_{LOW}	2412	OFDM	16.7
F_{MID}	2437	OFDM	16.8
F_{HIGH}	2462	OFDM	16.7
F_{LOW}	2412	HT20	18.1
F_{MID}	2437	HT20	18.0
F_{HIGH}	2462	HT20	18.0

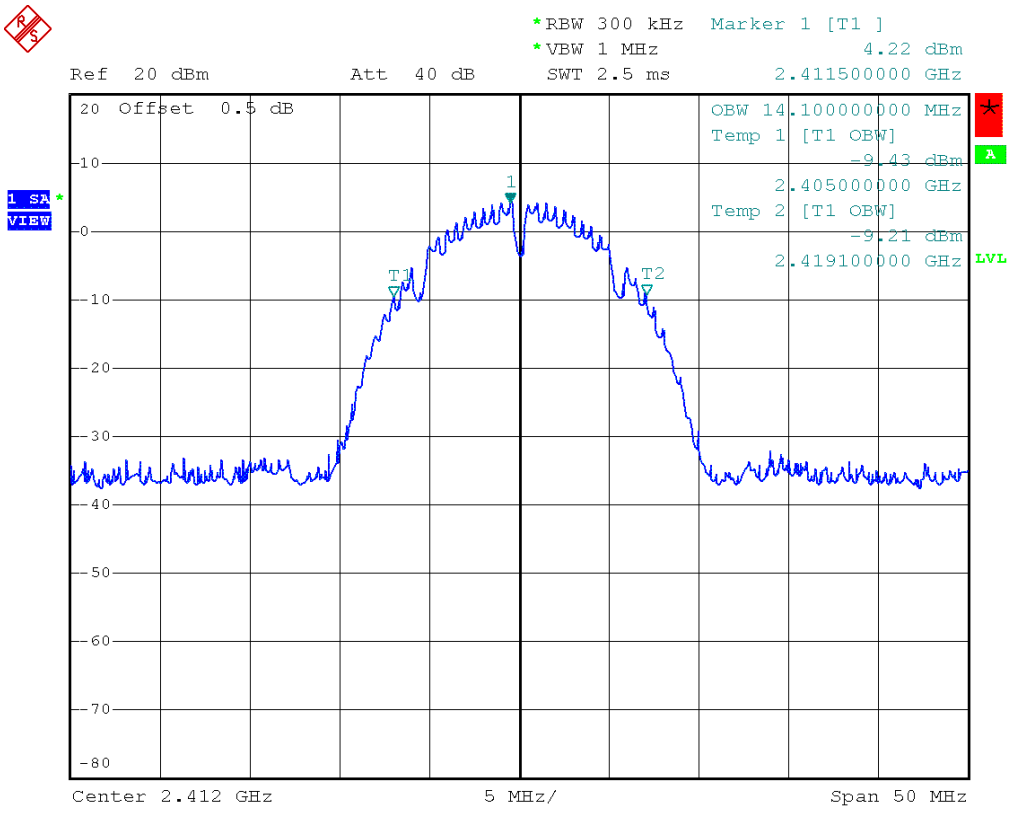
Comments:

Occupied Bandwidth – DSSS F_{LOW}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	

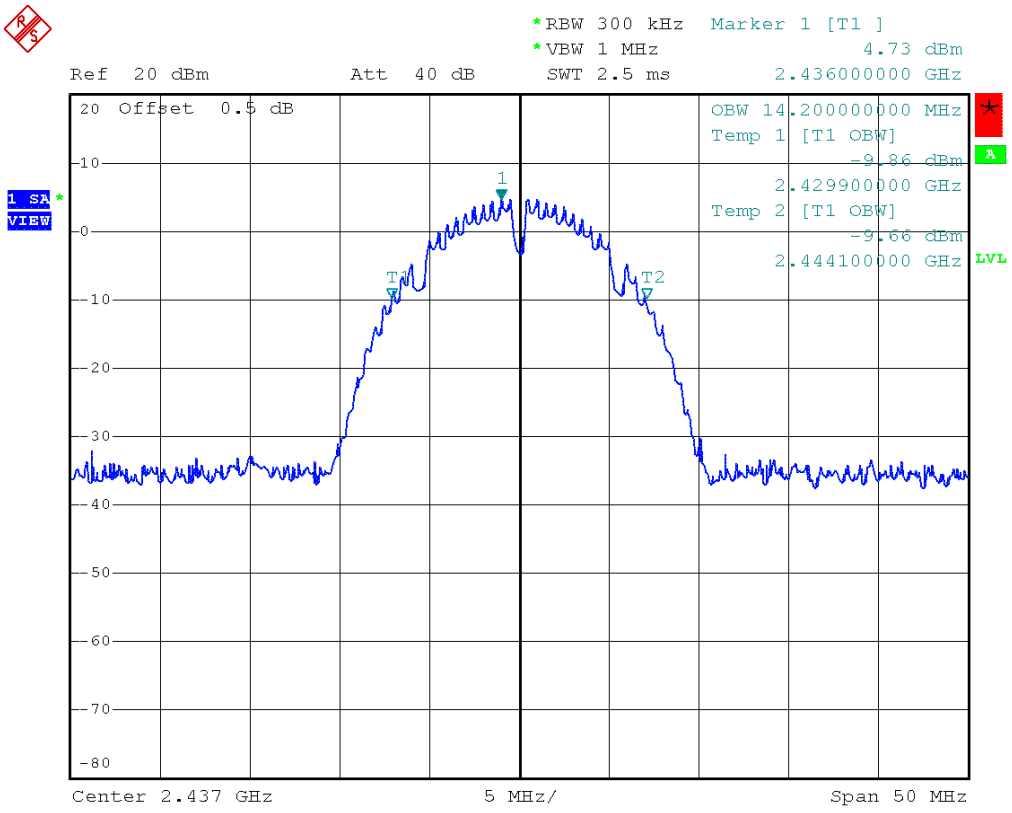


Occupied Bandwidth – DSSS F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	



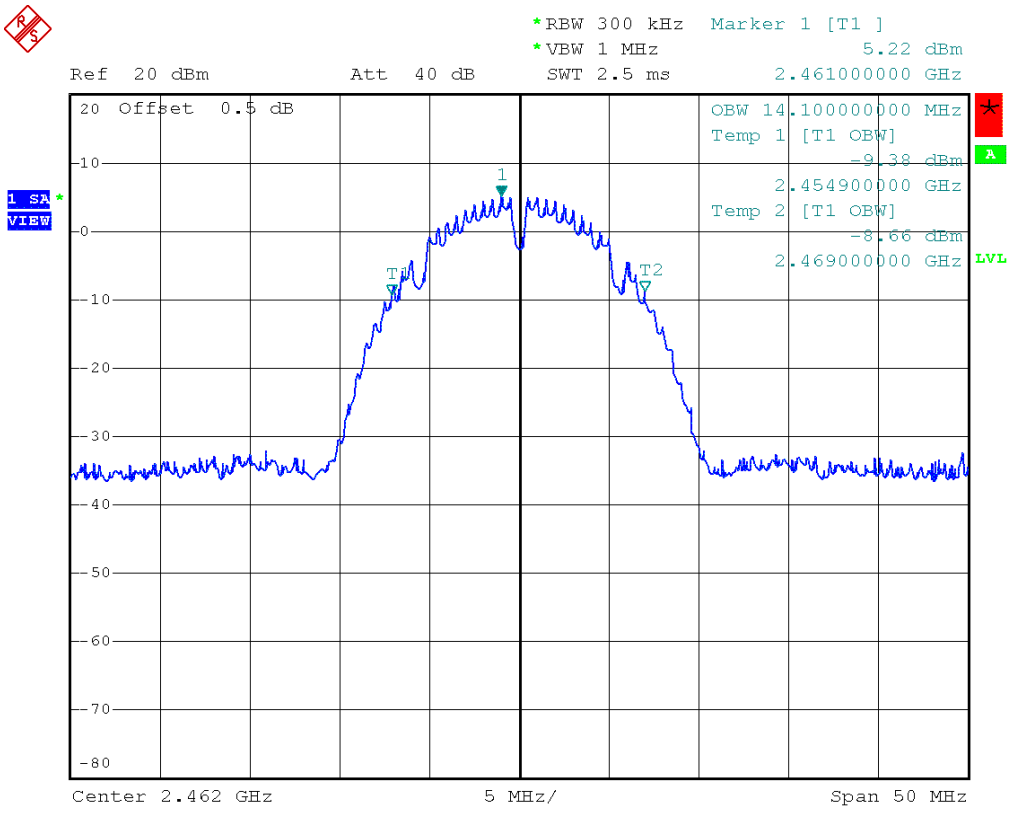
Comment: Occupied bandwidth: 14200 KHz
Date: 16.OCT.2014 09:34:01

Occupied Bandwidth – DSSS F_{HIGH}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	



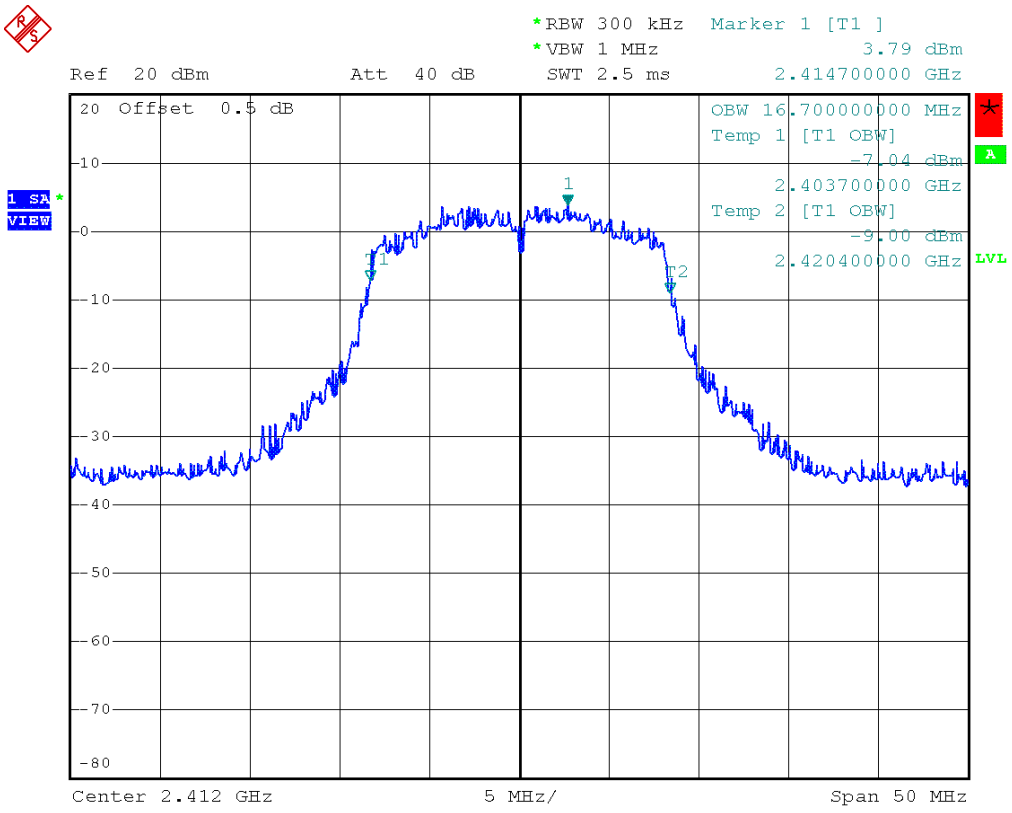
Comment: Occupied bandwidth: 14100 KHz
Date: 16.OCT.2014 09:35:03

Occupied Bandwidth – OFDM F_{LOW}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	



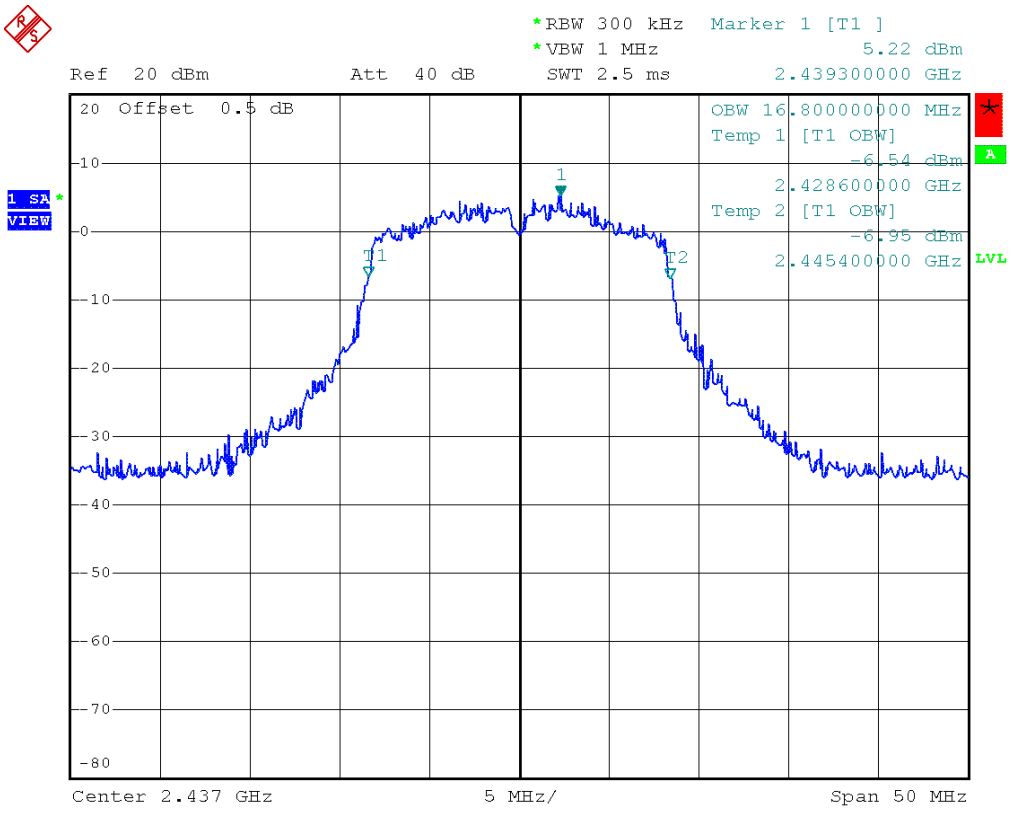
Comment: Occupied bandwidth: 16700 KHz
Date: 16.OCT.2014 09:26:28

Occupied Bandwidth – OFDM F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	

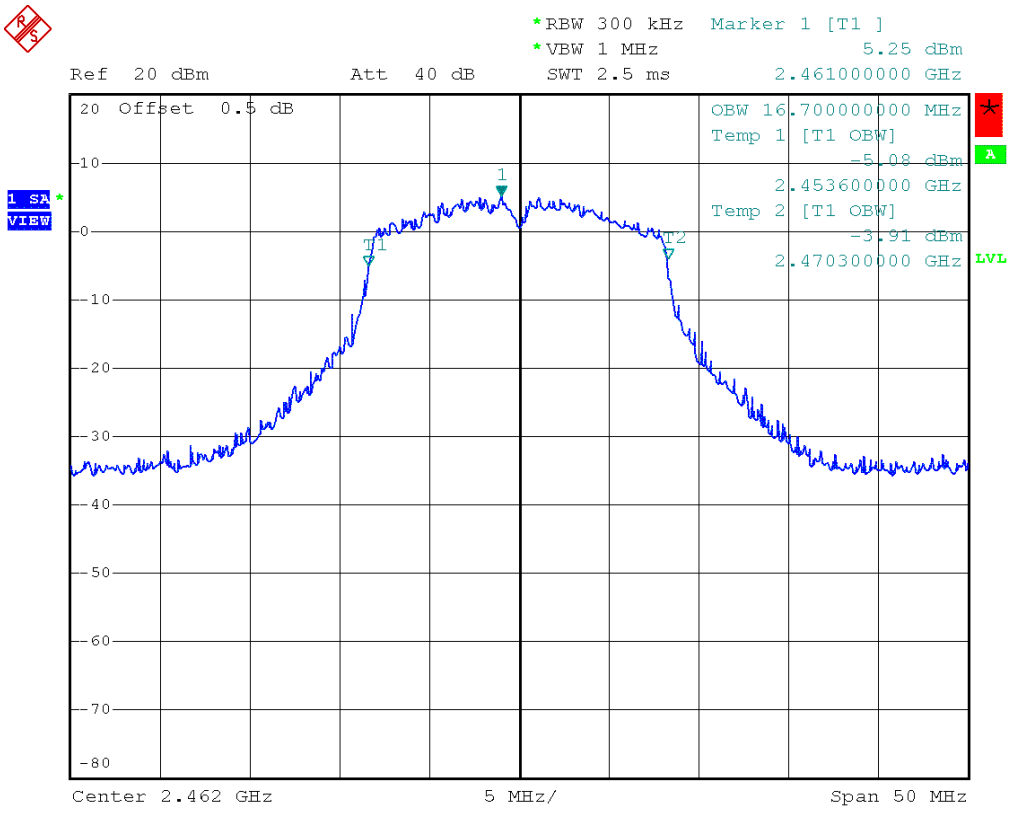


Occupied Bandwidth – OFDM F_{HIGH}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	

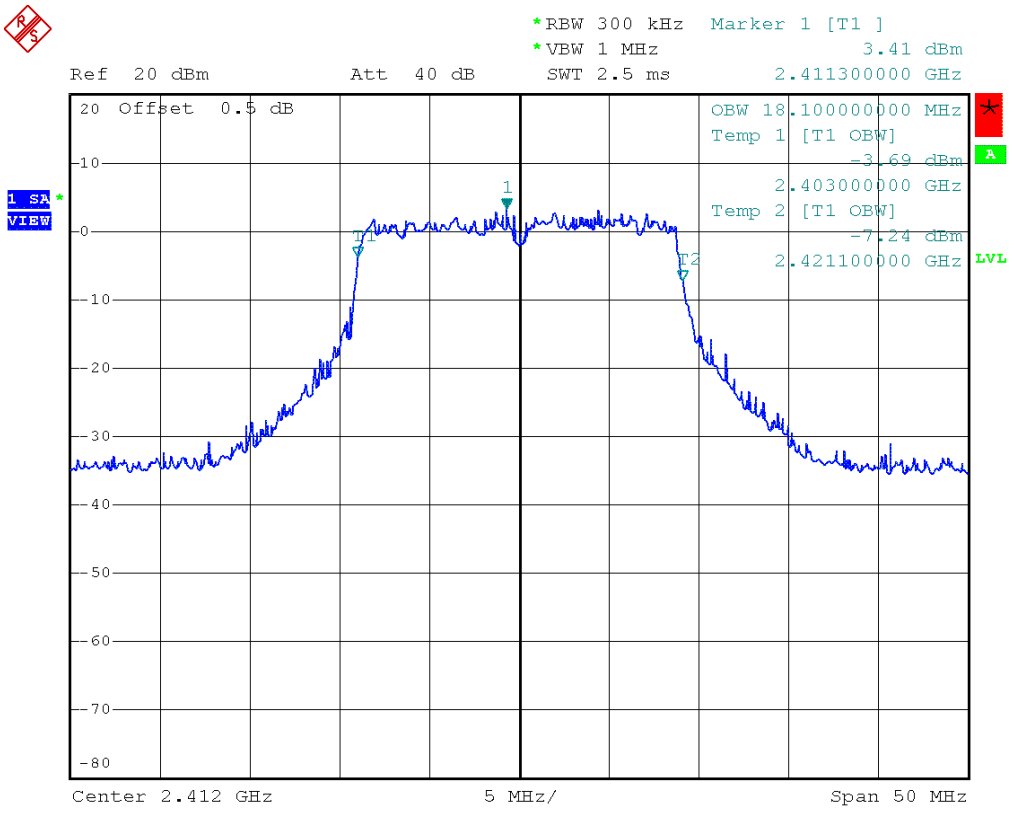


Occupied Bandwidth – HT20 F_{LOW}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	



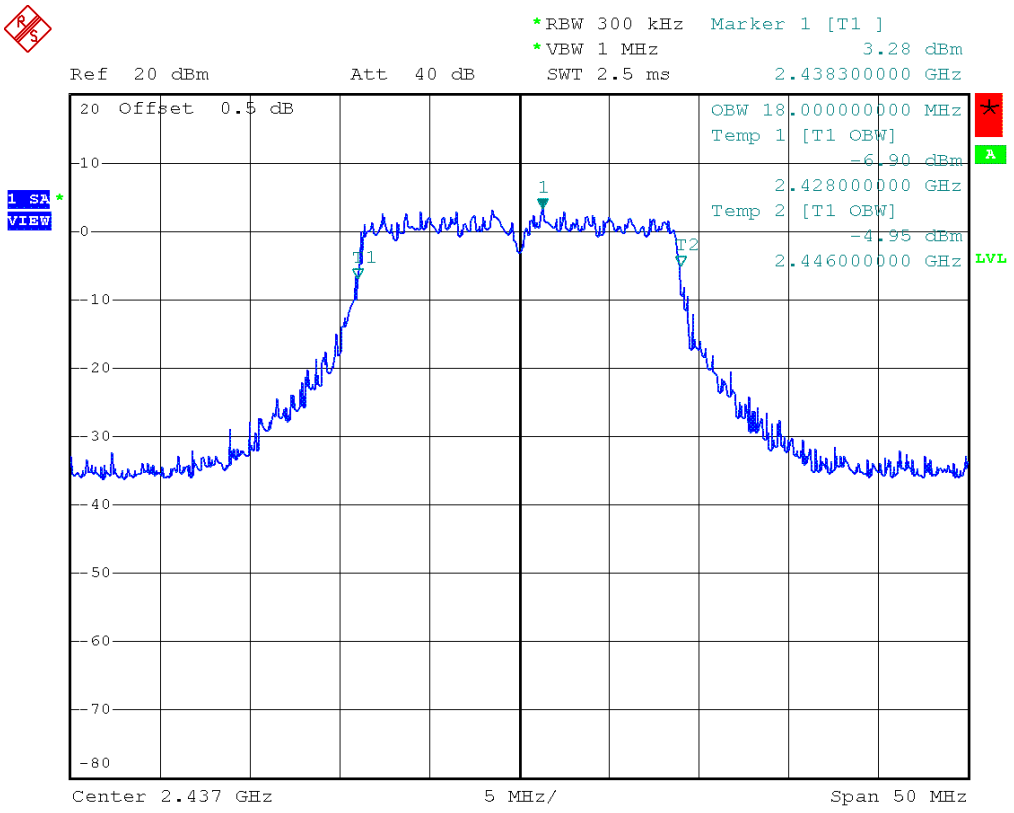
Comment: Occupied bandwidth: 18100 KHz
Date: 16.OCT.2014 09:40:47

Occupied Bandwidth – HT20 F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	



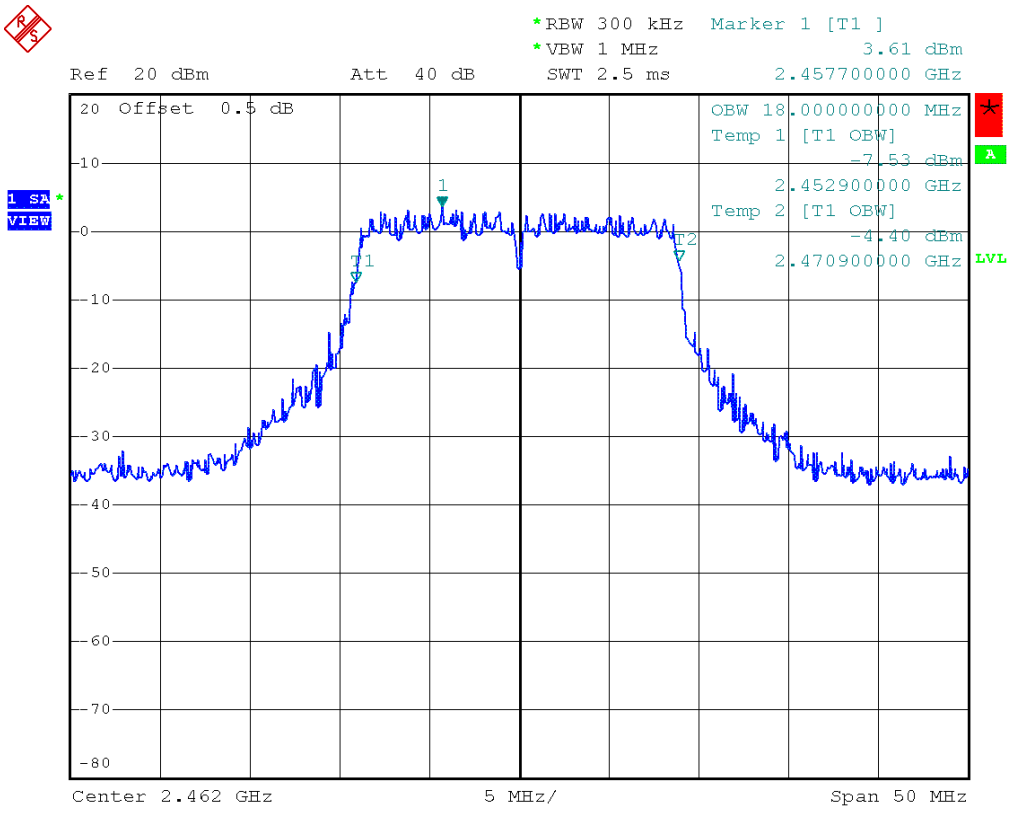
Comment: Occupied bandwidth: 18000 KHz
Date: 16.OCT.2014 09:42:11

Occupied Bandwidth – HT20 F_{HIGH}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3973

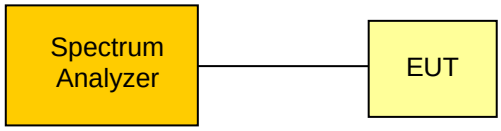
Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	



Comment: Occupied bandwidth: 18000 KHz
Date: 16.OCT.2014 09:38:26

3.2 Test Conditions and Results – 6 dB Bandwidth

6 dB Bandwidth acc. FCC 15.247 / IC RSS-210	Verdict: PASS
EUT requirement rule parts and clause	Reference
	FCC 15.247(a)(2) / IC RSS-210 A8.2
Test according to measurement reference	Reference Method
	FCC KDB Publication No. 558074
Test frequency range	Tested frequencies
	F_{LOW} / F_{MID} / F_{HIGH}
Limits	
Limit	
≥ 500kHz	
Test setup	



Test procedure

1. EUT set to test mode
2. Span set to at least twice the emission spectrum
3. Detector set to peak and max hold and RBW is set to 100 kHz
4. Envelope peak value of emission spectrum is selected
5. Marker on envelope of spectrum is set to level of -6 dB to the left of the peak
6. Marker on envelope of spectrum is set to level of -6 dB to the right of the peak
7. 6 dB Bandwidth is determined by marker frequency separation

Test results

Channel	Frequency [MHz]	Mode	6 dB Bandwidth [kHz]	Limit [kHz]	Result
F_{LOW}	2412	DSSS	9129	500	PASS
F_{MID}	2437	DSSS	9288	500	PASS
F_{HIGH}	2462	DSSS	9192	500	PASS
F_{LOW}	2412	OFDM	15672	500	PASS
F_{MID}	2437	OFDM	15288	500	PASS
F_{HIGH}	2462	OFDM	15288	500	PASS
F_{LOW}	2412	HT20	17832	500	PASS
F_{MID}	2437	HT20	17856	500	PASS
F_{HIGH}	2462	HT20	17784	500	PASS

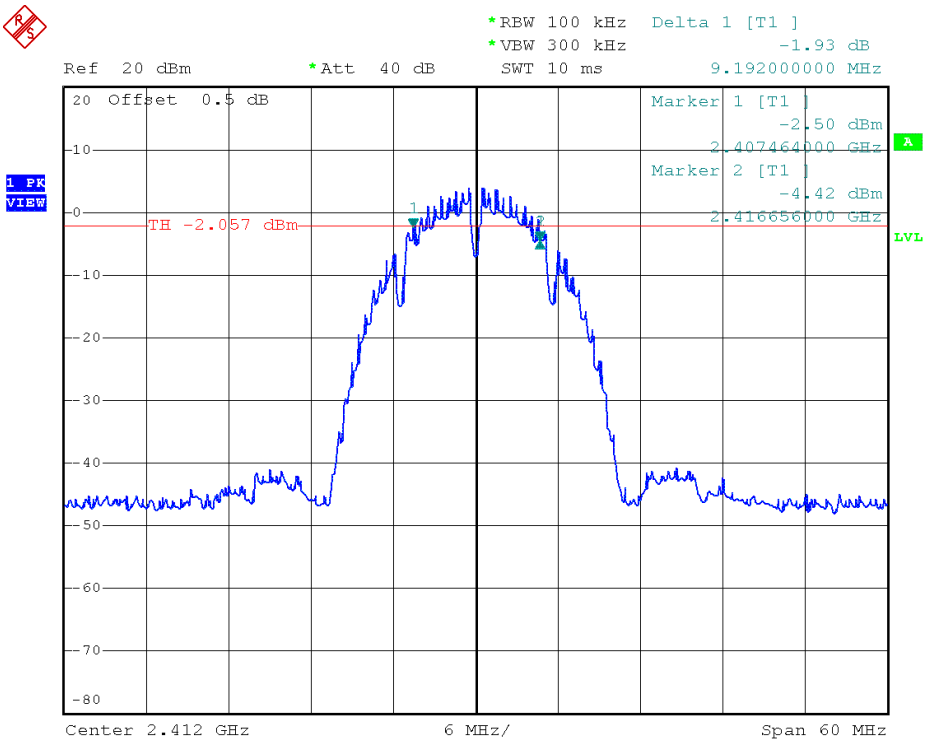
Comments:

6 dB Bandwidth – DSSS F_{LOW}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



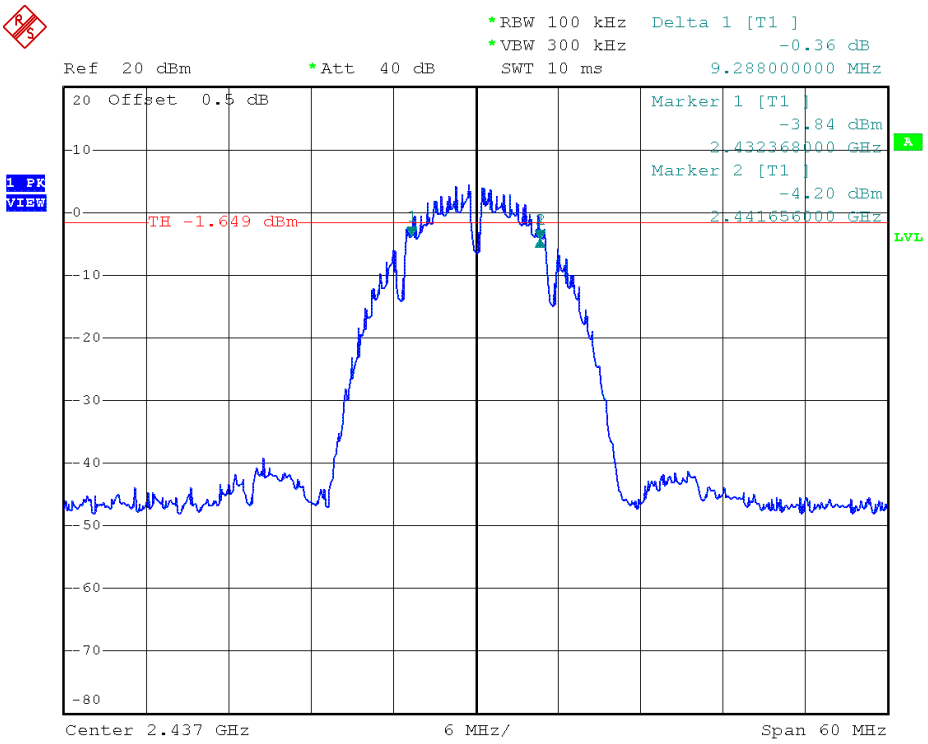
Comment: 6 dB bandwidth: 9192 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 12:44:32

6 dB Bandwidth – DSSS F_{MID}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



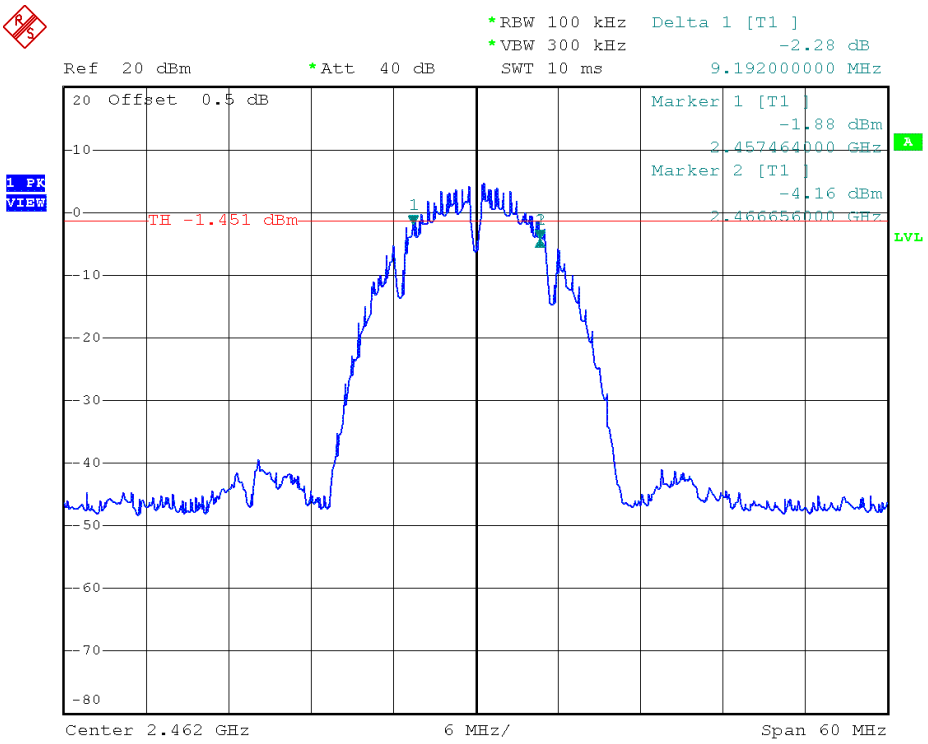
Comment: 6 dB bandwidth: 9288 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 12:50:06

6 dB Bandwidth – DSSS F_{HIGH}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



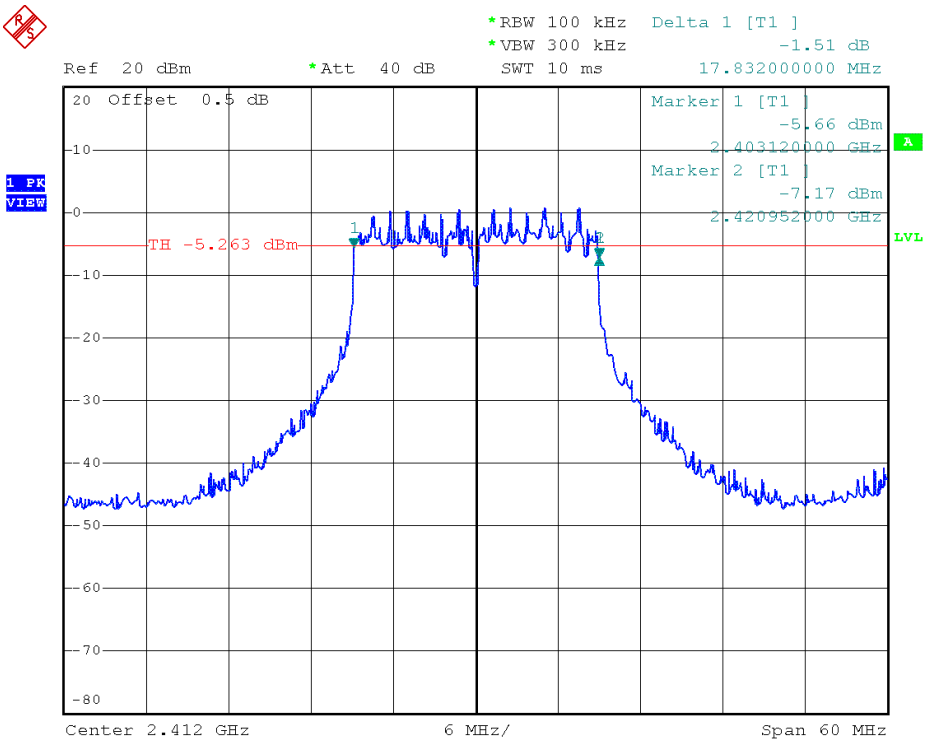
Comment: 6 dB bandwidth: 9192 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 12:52:58

6 dB Bandwidth – HT20 F_{LOW}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



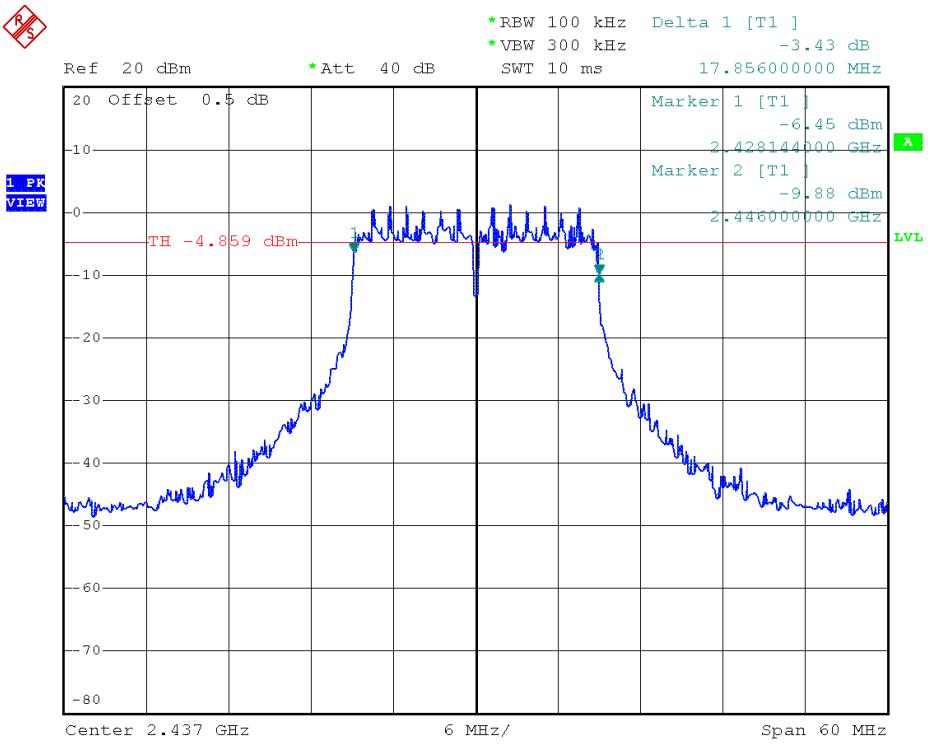
Comment: 6 dB bandwidth: 17832 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 13:07:26

6 dB Bandwidth – HT20 F_{MID}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



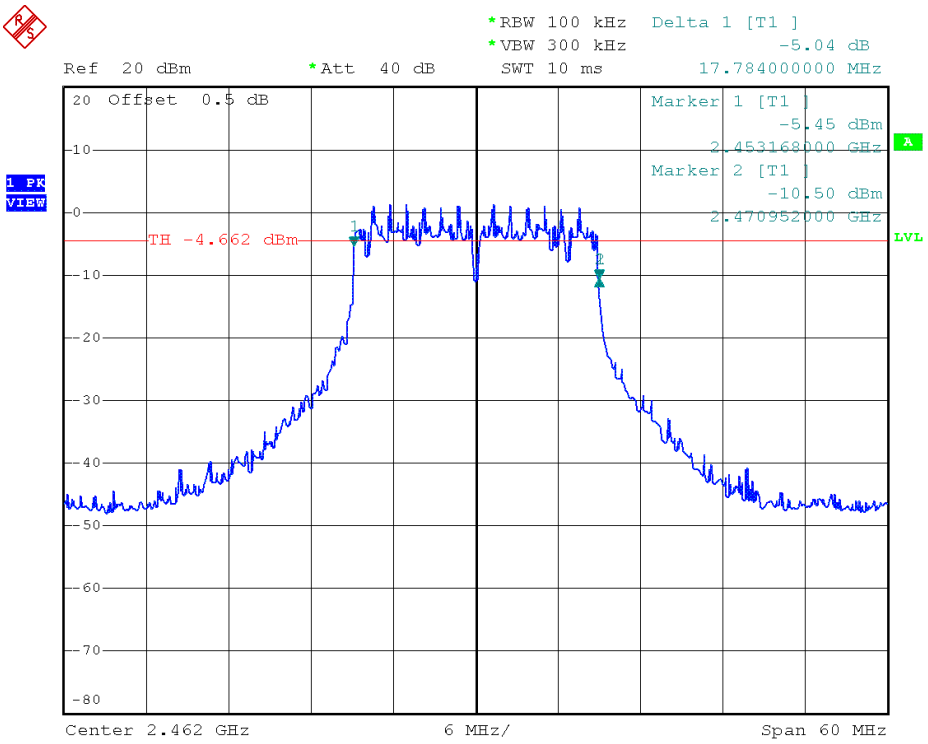
Comment: 6 dB bandwidth: 17856 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 13:17:24

6 dB Bandwidth – HT20 F_{HIGH}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



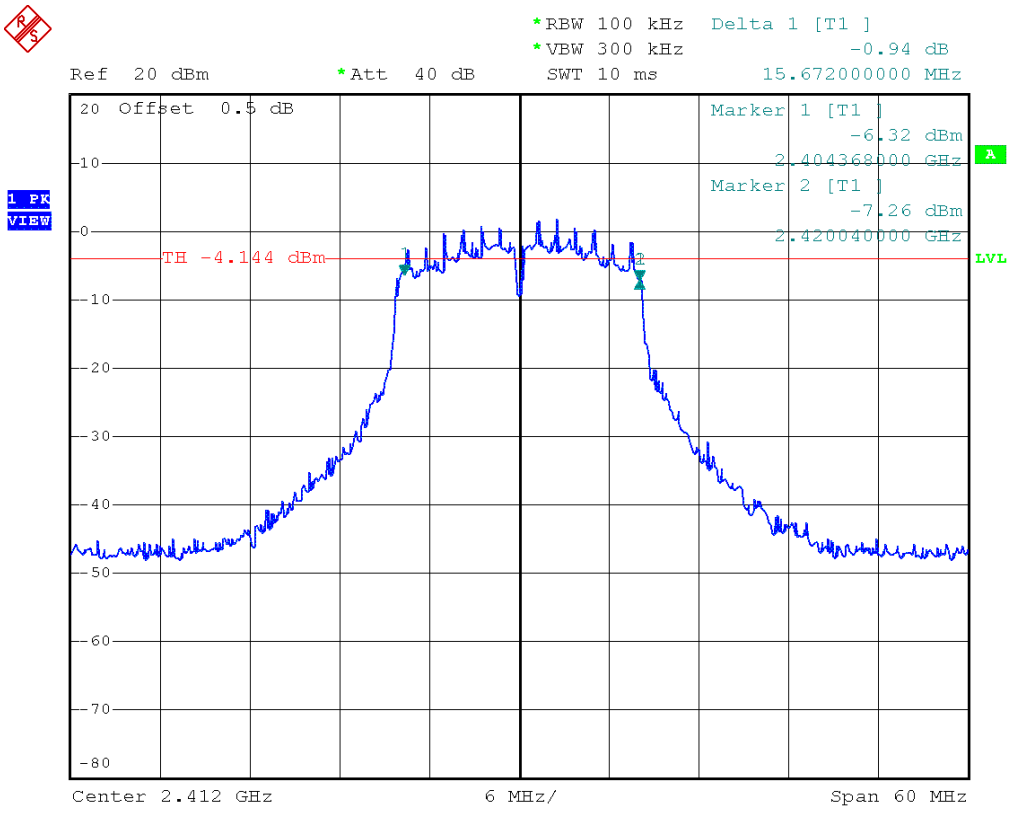
Comment: 6 dB bandwidth: 17784 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 13:28:04

6 dB Bandwidth – OFDM F_{LOW}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



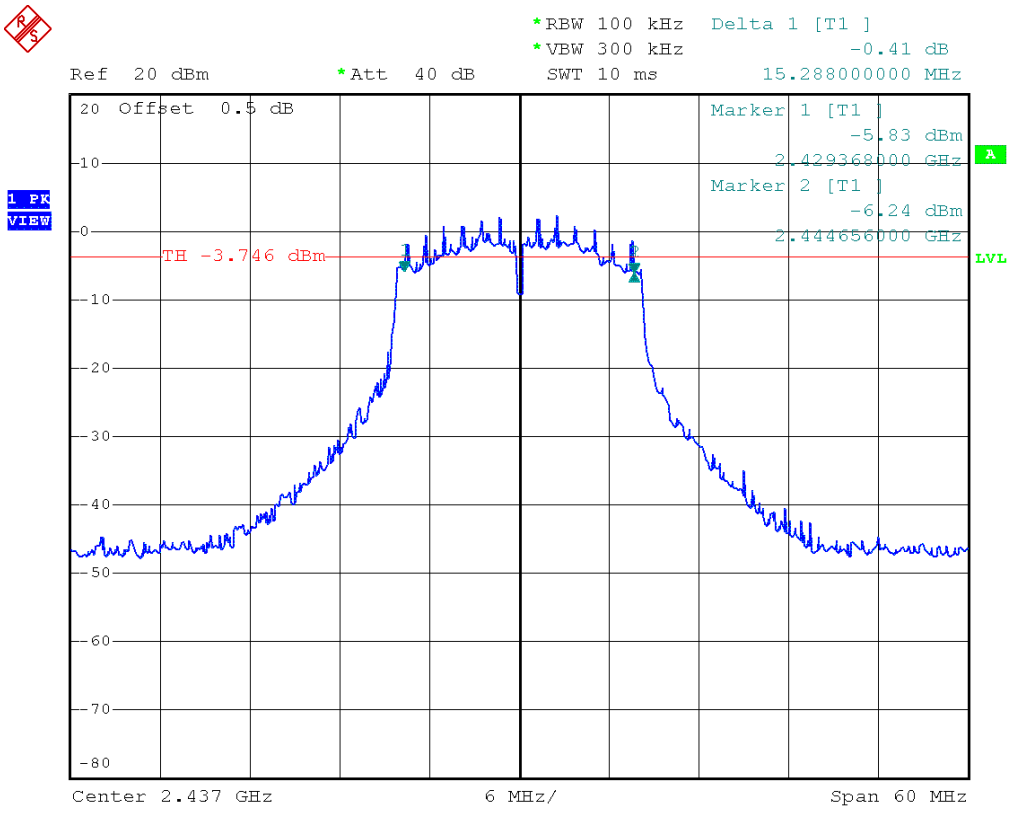
Comment: 6 dB bandwidth: 15672 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 13:02:29

6 dB Bandwidth – OFDM F_{MID}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



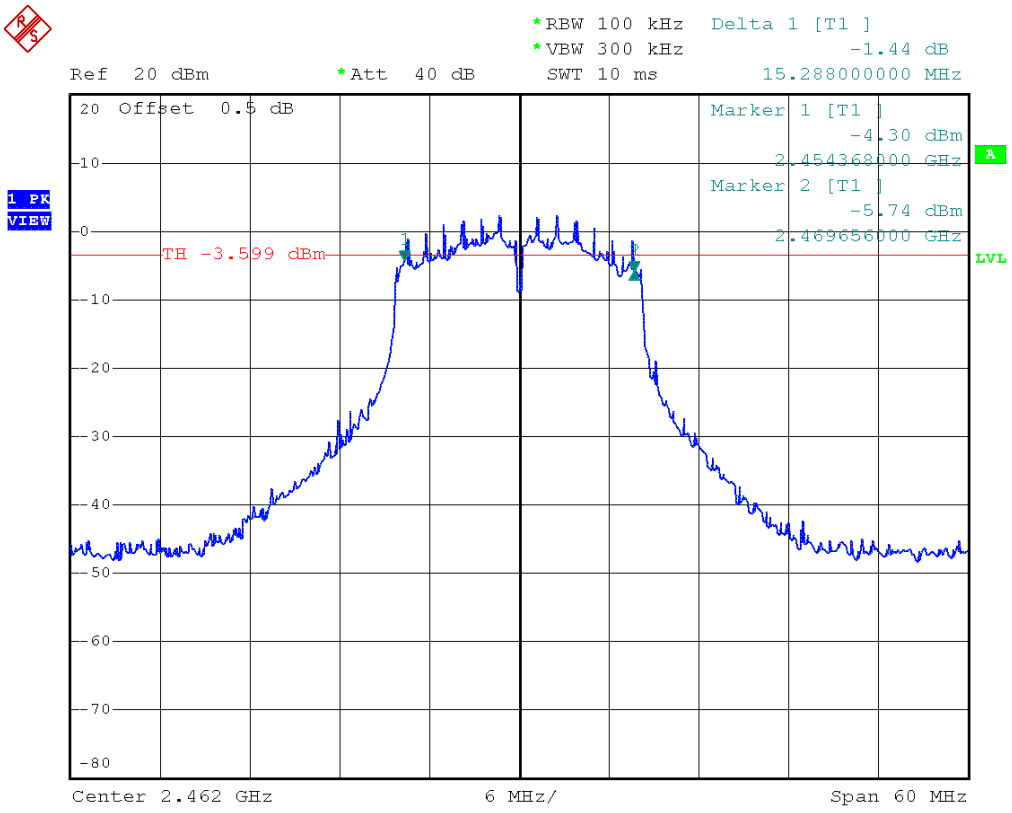
Comment: 6 dB bandwidth: 15288 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 13:03:59

6 dB Bandwidth – OFDM F_{HIGH}

Minimum 6 dB Bandwidth acc. to FCC 15.247

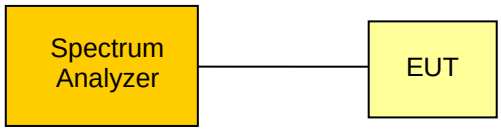
Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 8.1 DTS (558074 D01 Meas Guidance)
Note 2:	Minimum 6 dB Bandwidth conducted



Comment: 6 dB bandwidth: 15288 KHz > 500 KHz; verdict: PASS
Date: 15.OCT.2014 13:05:22

3.3 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)(3) / IC RSS-210 A8.4
Test according to measurement reference	Reference Method
	FCC KDB Publication No. 558074
Test frequency range	Tested frequencies
	F_{LOW} / F_{MID} / F_{HIGH}
Measurement mode	Peak
Maximum antenna gain	1.1 dBi ⇒ Limit correction = 0 dB
Limits	
Limit	
1 W (30 dBm)	
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	
	
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]
F_{LOW}	2412	3.7 VDC	DSSS	13.6	0.023	30	-16.4
F_{MID}	2437	3.7 VDC	DSSS	14.2	0.026	30	-15.8
F_{HIGH}	2462	3.7 VDC	DSSS	14.5	0.028	30	-15.5
F_{LOW}	2412	3.7 VDC	OFDM	20.1	0.102	30	-09.9
F_{MID}	2437	3.7 VDC	OFDM	20.5	0.112	30	-09.5
F_{HIGH}	2462	3.7 VDC	OFDM	20.9	0.123	30	-09.1
F_{LOW}	2412	3.7 VDC	HT20	20.2	0.105	30	-09.8
F_{MID}	2437	3.7 VDC	HT20	20.6	0.115	30	-09.4
F_{HIGH}	2462	3.7 VDC	HT20	21.0	0.126	30	-09.0
Comments:							

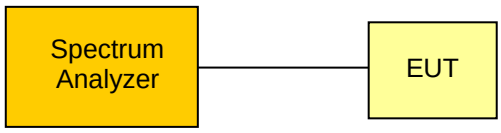
3.4 Test Conditions and Results – Power spectral density

Power spectral density acc. FCC 15.247 / IC RSS-210	**Verdict: PASS**
EUT requirement rule parts and clause	Reference
	FCC 15.247(e) / IC RSS-210 A8.2
Test according to measurement reference	Reference Method
	FCC KDB Publication No. 558074
Test frequency range	Tested frequencies
	F_{MID}
Measurement mode	Peak

Limits

8 dBm / 3 kHz

Test setup



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 is set large enough to capture maximum emissions in passband, RBW is set to 3kHz
4. Peak power density is determined from peak emission of envelope

Test results

Channel	Frequency [MHz]	Test mode	Peak frequency [MHz]	Peak power density [dBm]	Limit [dBm/3kHz]	Margin [dB]
F_{LOW}	2412	DSSS	2412	3.7	8.0	-04.3
F_{MID}	2437	DSSS	2437	4.3	8.0	-03.7
F_{HIGH}	2462	DSSS	2460	4.1	8.0	-03.9
F_{LOW}	2412	OFDM	2414	1.5	8.0	-06.5
F_{MID}	2437	OFDM	2439	2.0	8.0	-06.0
F_{HIGH}	2462	OFDM	2464	2.2	8.0	-05.8
F_{LOW}	2412	HT20	2417	0.5	8.0	-07.5
F_{MID}	2437	HT20	2439	1.1	8.0	-06.9
F_{HIGH}	2462	HT20	2445	1.4	8.0	-06.6

Comments: Measurements were performed with 100 kHz RBW.

3.5 Test Conditions and Results – AC power line conducted emissions

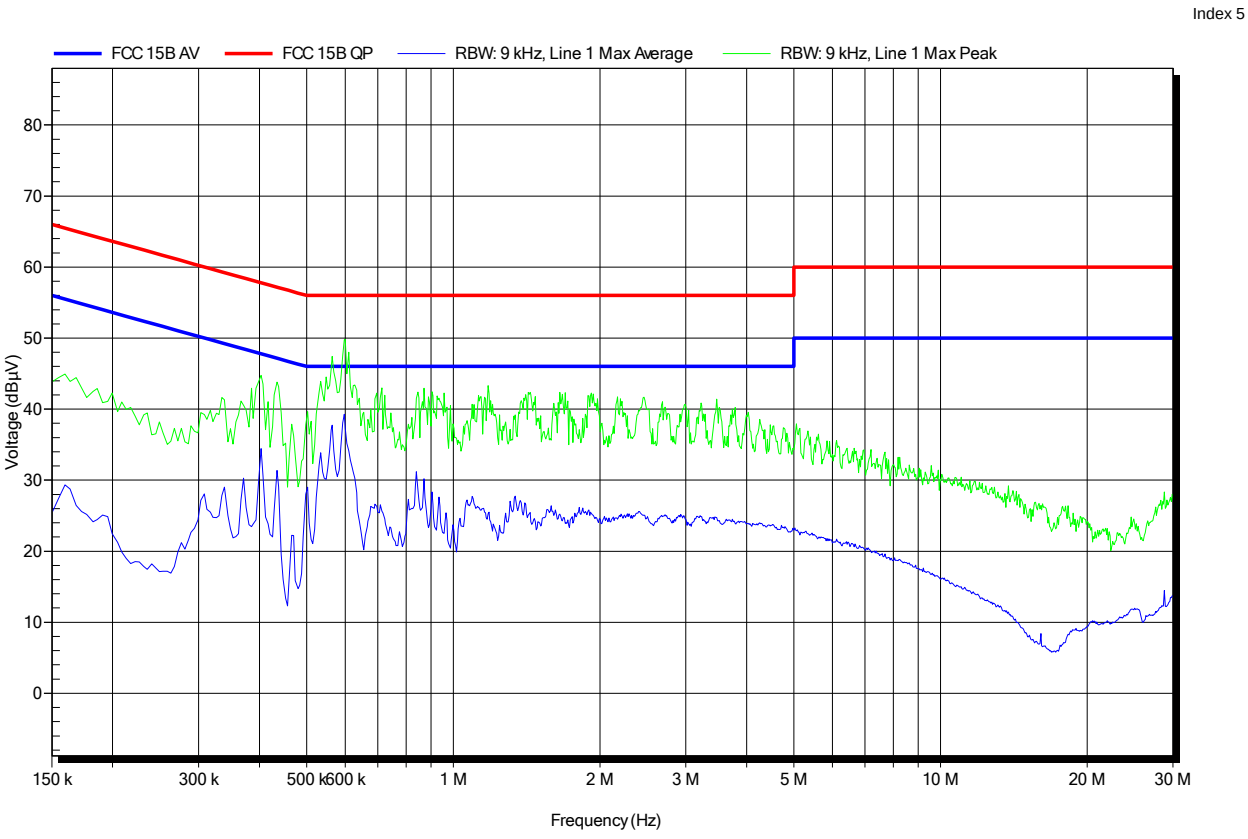
Power line conducted emissions acc. FCC 47 CFR 15.207 / IC RSS-Gen				**Verdict: PASS**
Test according referenced standards	Reference Method			
	ANSI C63.4			
Fully configured sample scanned over the following frequency range	Frequency range			
	0.15 MHz to 30 MHz			
Points of Application	Application 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 part 15 b

Project number: G0M-1407-3973

Manufacturer:	BARTEC PIXA VI AS
EUT Name:	Smartphone
Model:	Impact X
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pflug
Test Conditions:	Tnom: 23°C, Unom: 120VAC(AC/DC-adapter,AN4111)
LISN:	ESH2-Z5 L
Mode:	charging+GSM900MHz,pl5+WLAN
Test Date:	2014-08-26
Note:	



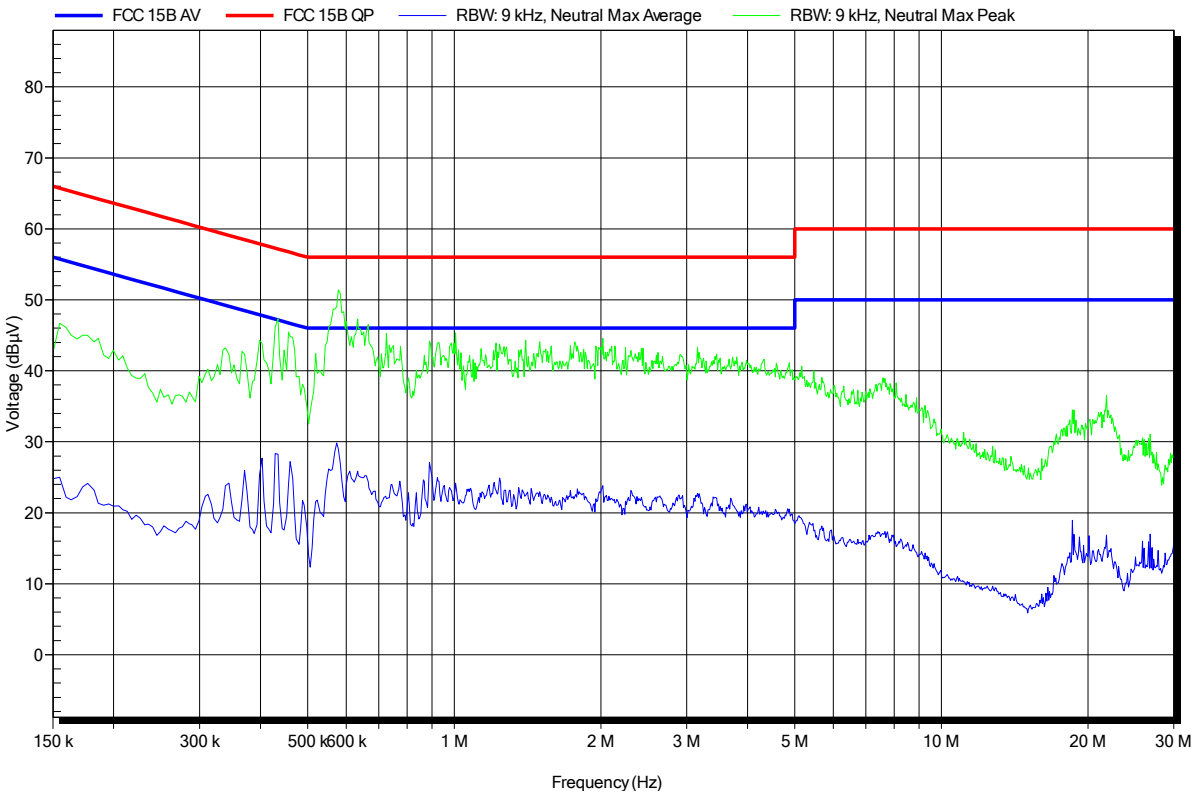
Conducted Emissions

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

Project number: G0M-1407-3973

Manufacturer:	BARTEC PIXA VI AS
EUT Name:	Smartphone
Model:	Impact X
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pflug
Test Conditions:	Tnom: 25°C, Unom: 120VAC(AC/DC-adapter,AN4111)
LISN:	ESH2-Z5 N
Mode:	charging+GSM900MHz,pl5+WLAN
Test Date:	2014-08-26
Note:	

Index 11



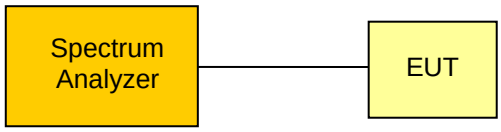
3.6 Test Conditions and Results – Band edge compliance

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 KDB Publication No. 558074
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



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]
F_{LOW}	2412	DSSS	-40.75	-20	-20.75
F_{HIGH}	2462	DSSS	-41.69	-20	-21.69
F_{LOW}	2412	OFDM	-33.01	-20	-13.01
F_{HIGH}	2462	OFDM	-39.68	-20	-19.68
F_{LOW}	2412	HT20	-31.50	-20	-11.50
F_{HIGH}	2462	HT20	-38.42	-20	-18.42

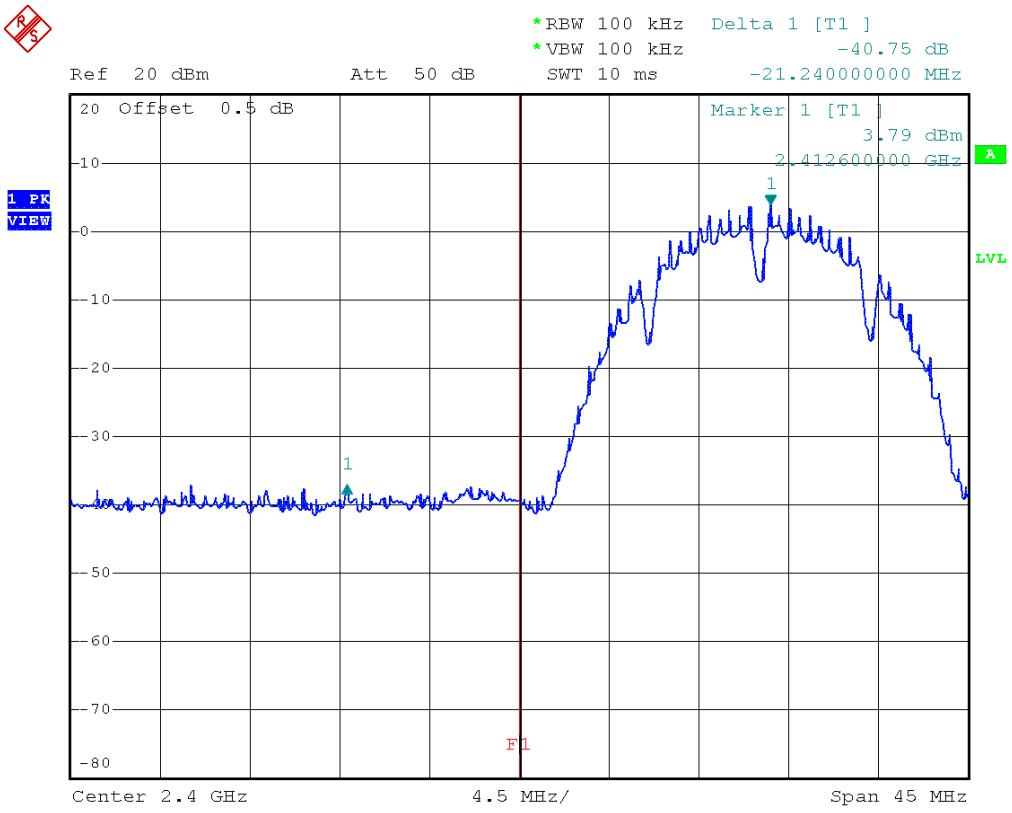
Comments:

Band-edge compliance – DSSS F_{LOW}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 13.2 Marker-delta method (558074 D01 Meas Guidance)
Note 2:	upper Band-edge, conducted measurement



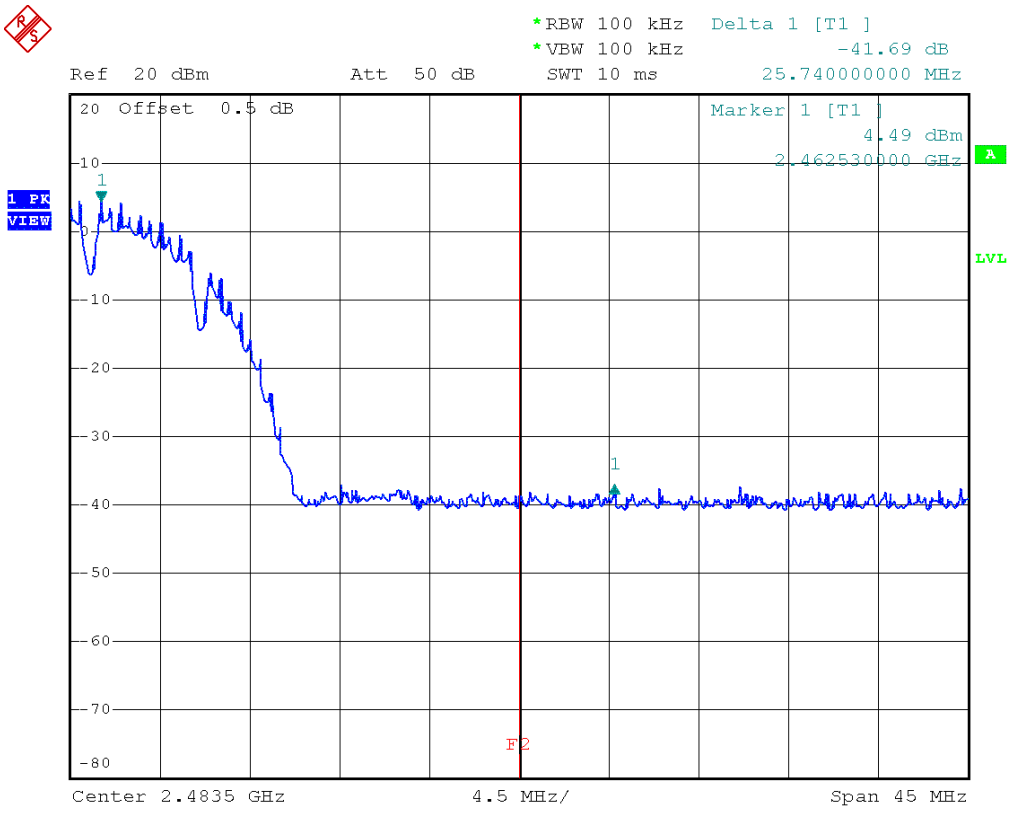
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.OCT.2014 13:44:12

Band-edge compliance – DSSS F_{HIGH}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 13.2 Marker-delta method (558074 D01 Meas Guidance)
Note 2:	upper Band-edge, conducted measurement



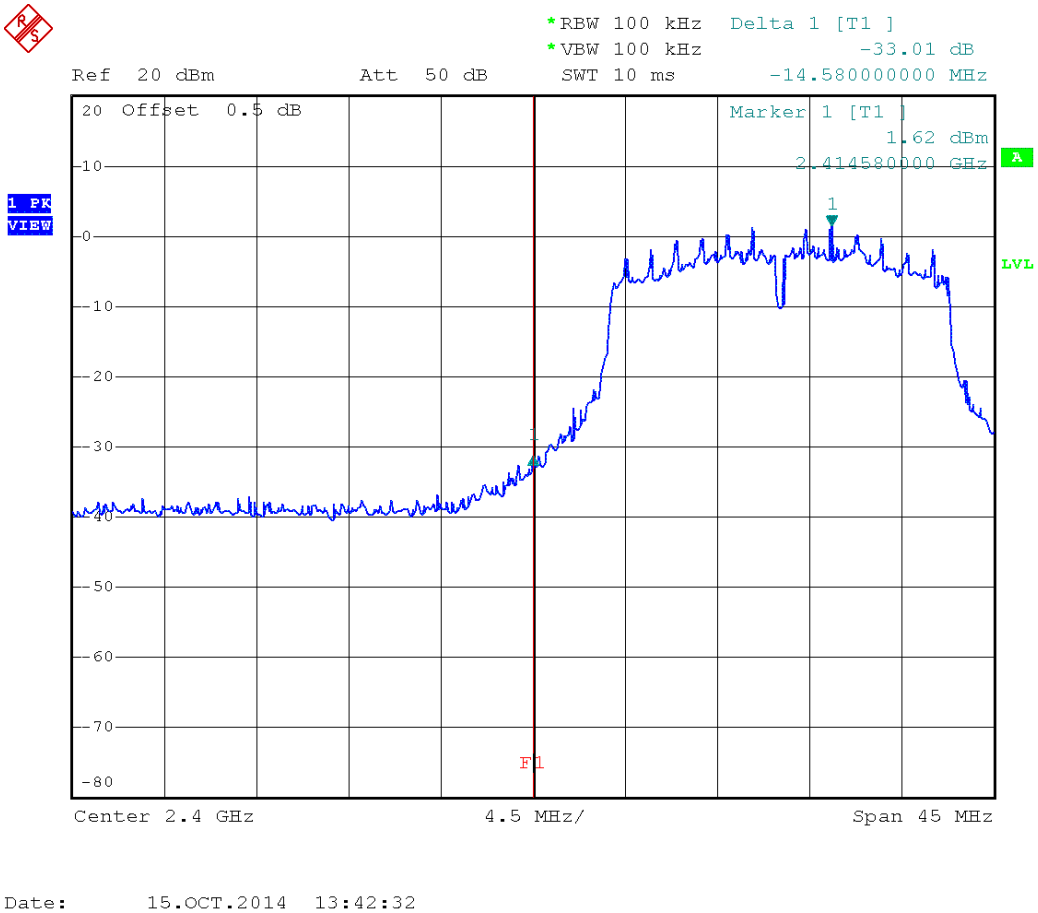
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.OCT.2014 13:48:45

Band-edge compliance – OFDM F_{LOW}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 13.2 Marker-delta method (558074 D01 Meas Guidance)
Note 2:	upper Band-edge, conducted measurement

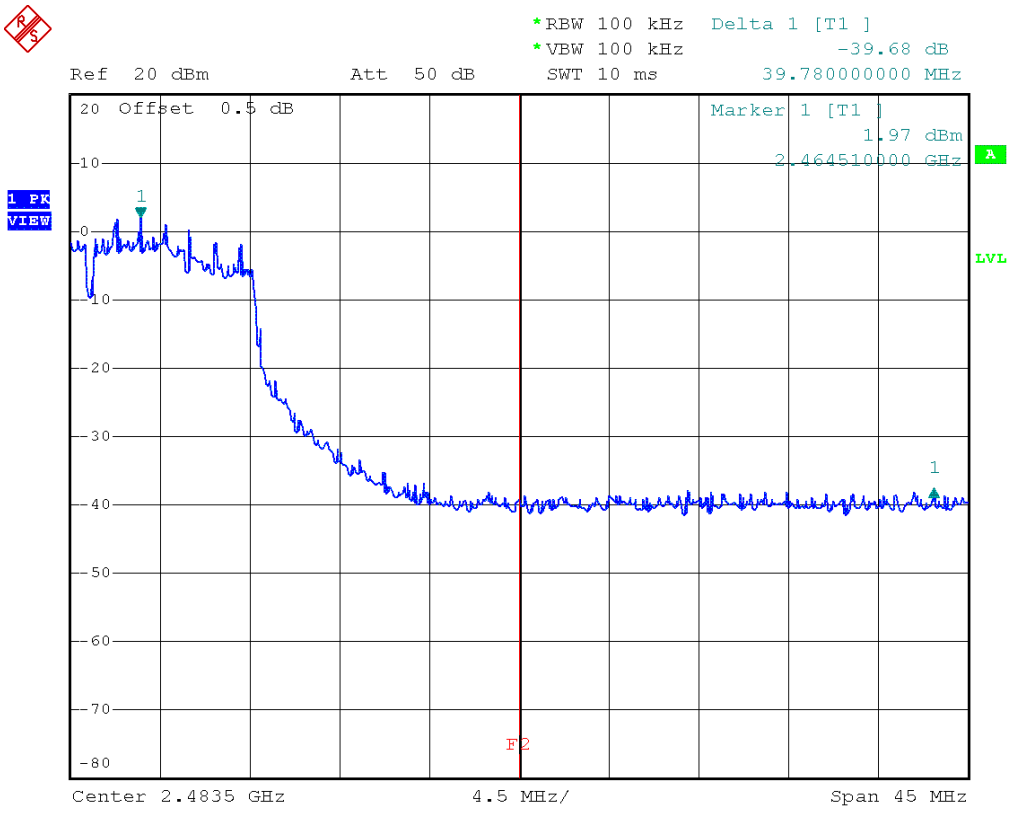


Band-edge compliance – OFDM F_{HIGH}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 13.2 Marker-delta method (558074 D01 Meas Guidance)
Note 2:	upper Band-edge, conducted measurement



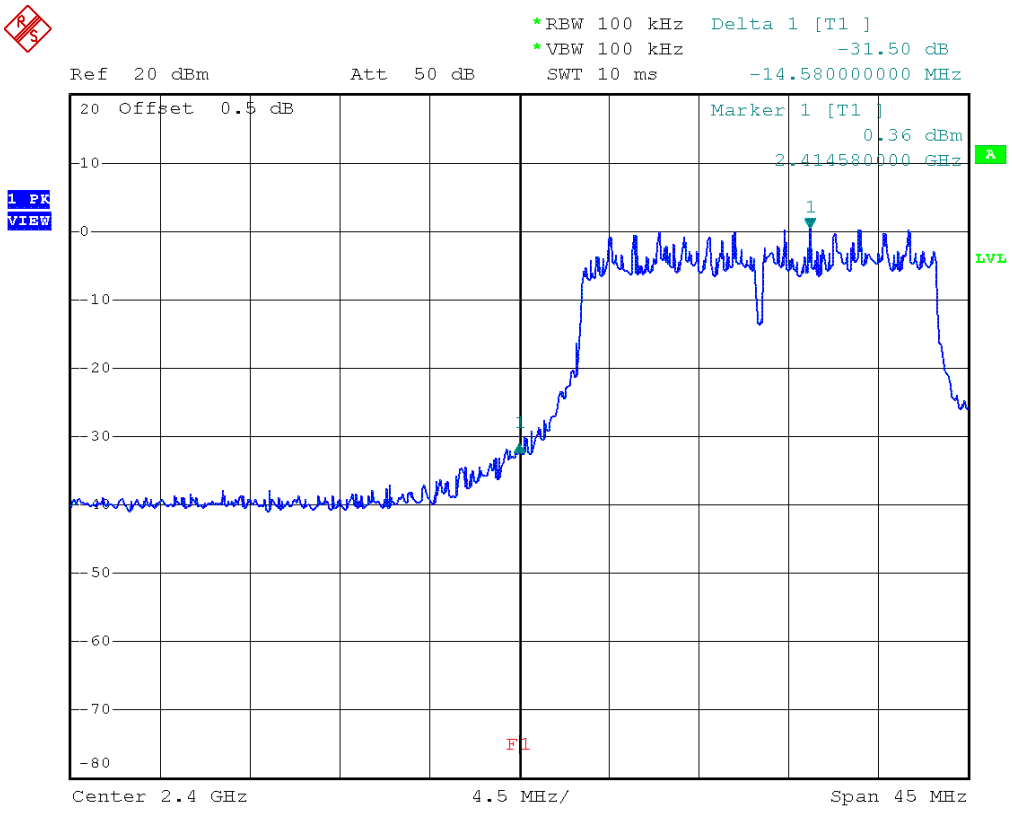
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.OCT.2014 13:50:35

Band-edge compliance – HT20 F_{LOW}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 13.2 Marker-delta method (558074 D01 Meas Guidance)
Note 2:	upper Band-edge, conducted measurement



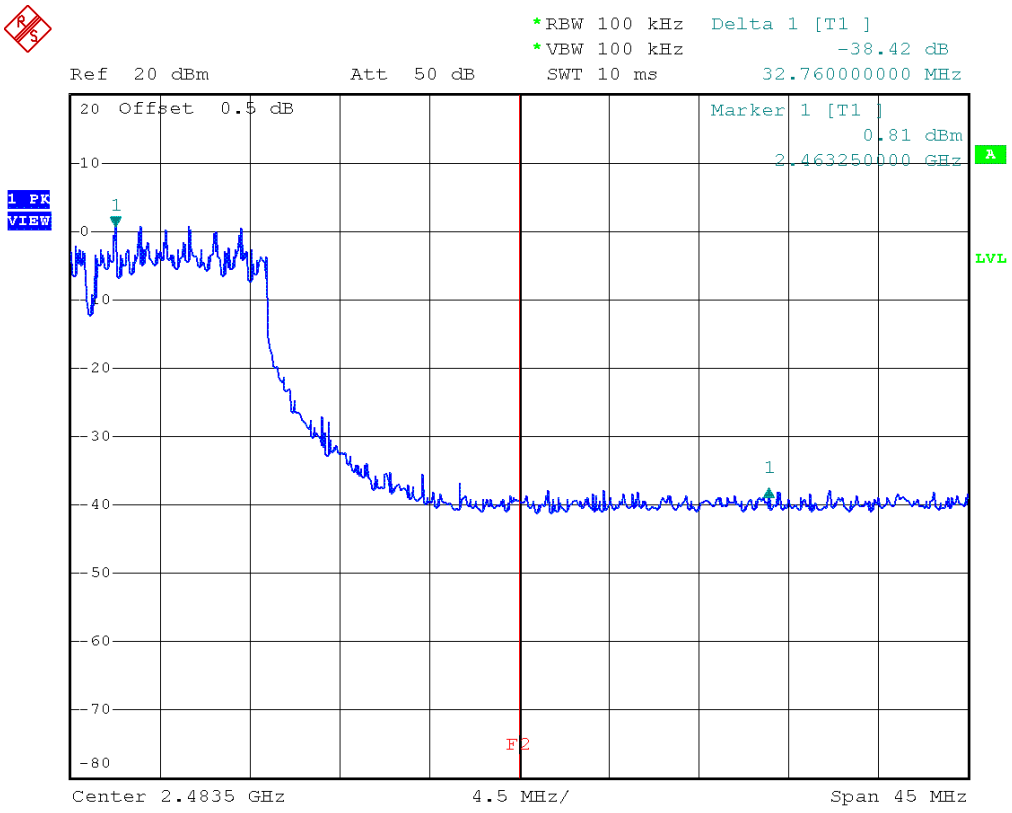
Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.OCT.2014 13:45:55

Band-edge compliance – HT20 F_{HIGH}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Procedure 13.2 Marker-delta method (558074 D01 Meas Guidance)
Note 2:	upper Band-edge, conducted measurement



Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 15.OCT.2014 13:47:26

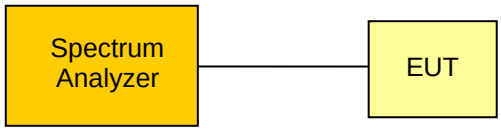
3.7 Test Conditions and Results – Conducted spurious emissions

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 KDB Publication No. 558074
Test frequency range	Tested frequencies
	10 MHz – 10th 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



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

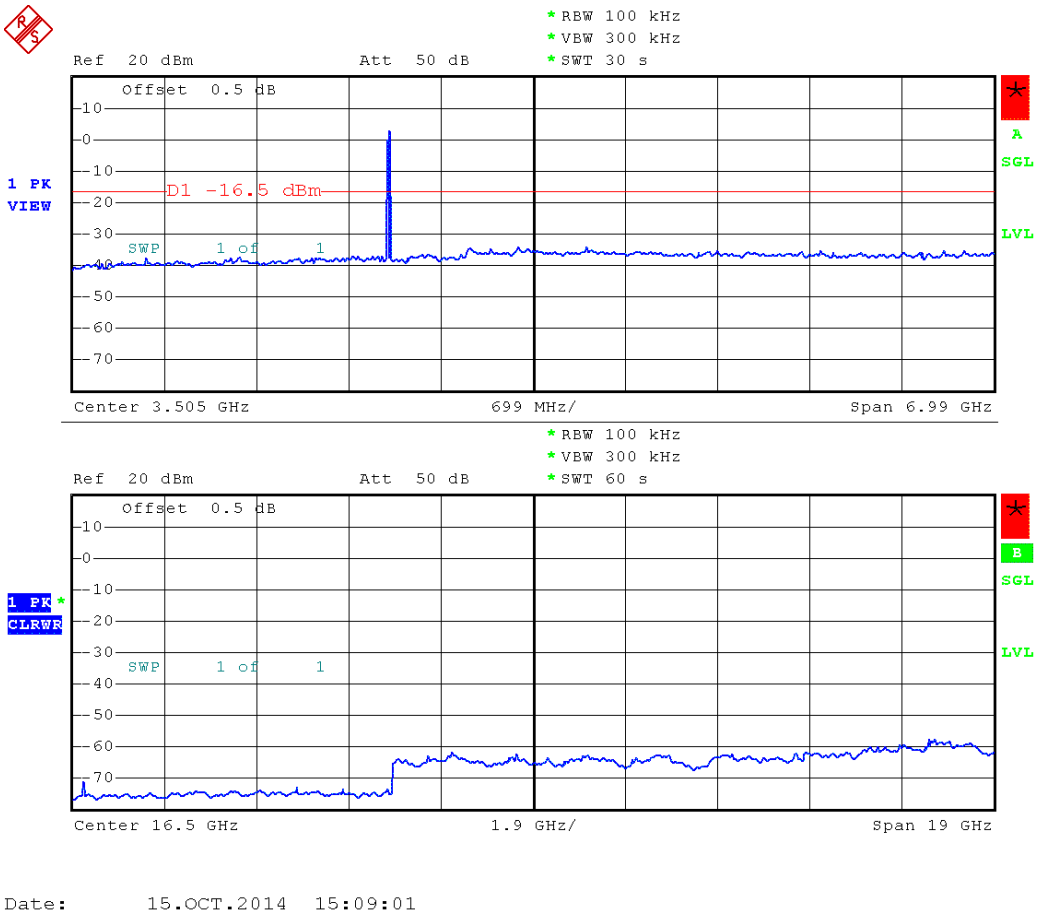
Channel	Frequency [MHz]	Mode	Emission [MHz]	Emission Level [dbm]	Peak power [dBm]	Limit [dBm]	Margin [dB]
F_{LOW}	2412	DSSS	25500	-63.0	3.5	-16.5	-46.50
F_{MID}	2437	DSSS	25400	-62.0	4.0	-16.0	-46.00
F_{HIGH}	2462	DSSS	25450	-62.5	4.4	-15.6	-46.90
F_{LOW}	2412	OFDM	25050	-27.8	2.2	-17.8	-10.00
F_{MID}	2437	OFDM	24860	-27.1	1.7	-18.3	-08.80
F_{HIGH}	2462	OFDM	25760	-27.0	2.1	-17.9	-09.10
F_{LOW}	2412	HT20	25400	-62.0	0.5	-19.5	-42.50
F_{MID}	2437	HT20	25500	-62.5	0.9	-19.1	-43.40
F_{HIGH}	2462	HT20	24450	-63.0	1.1	-18.9	-44.10

Conducted spurious emissions – DSSS F_{LOW}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement

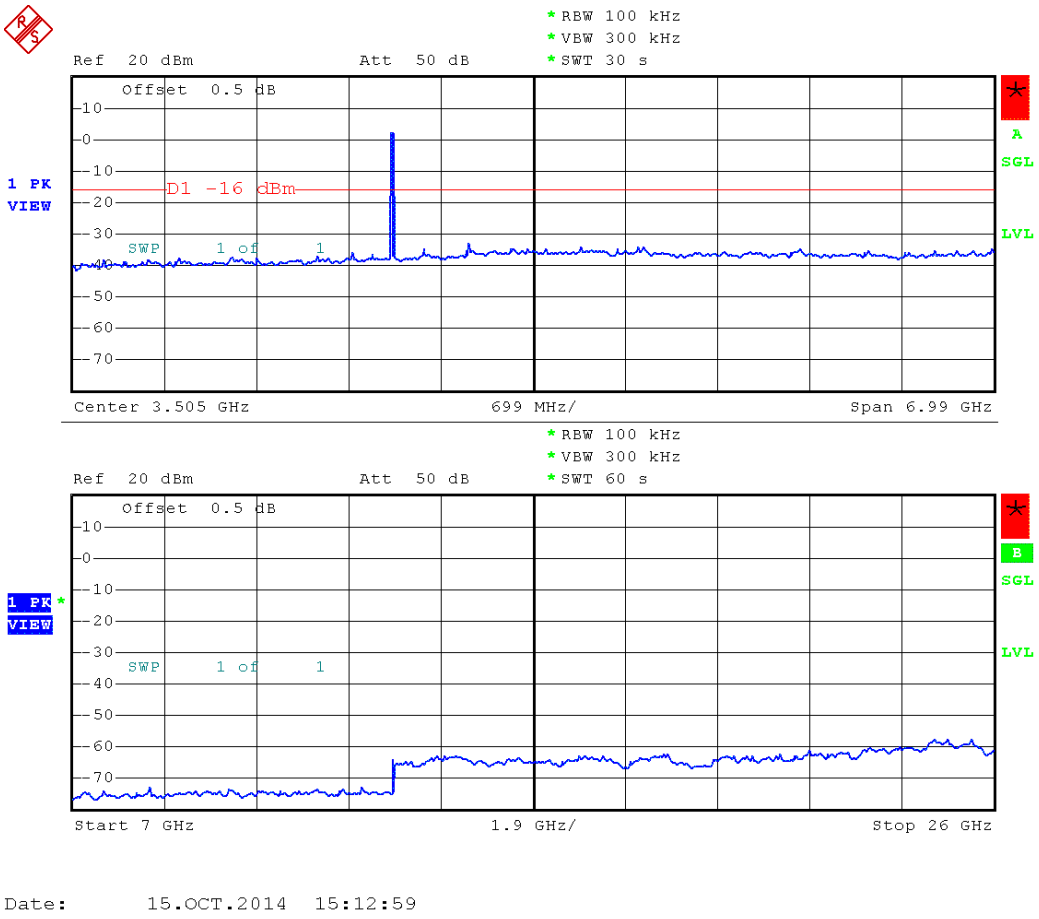


Conducted spurious emissions – DSSS F_{MID}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement

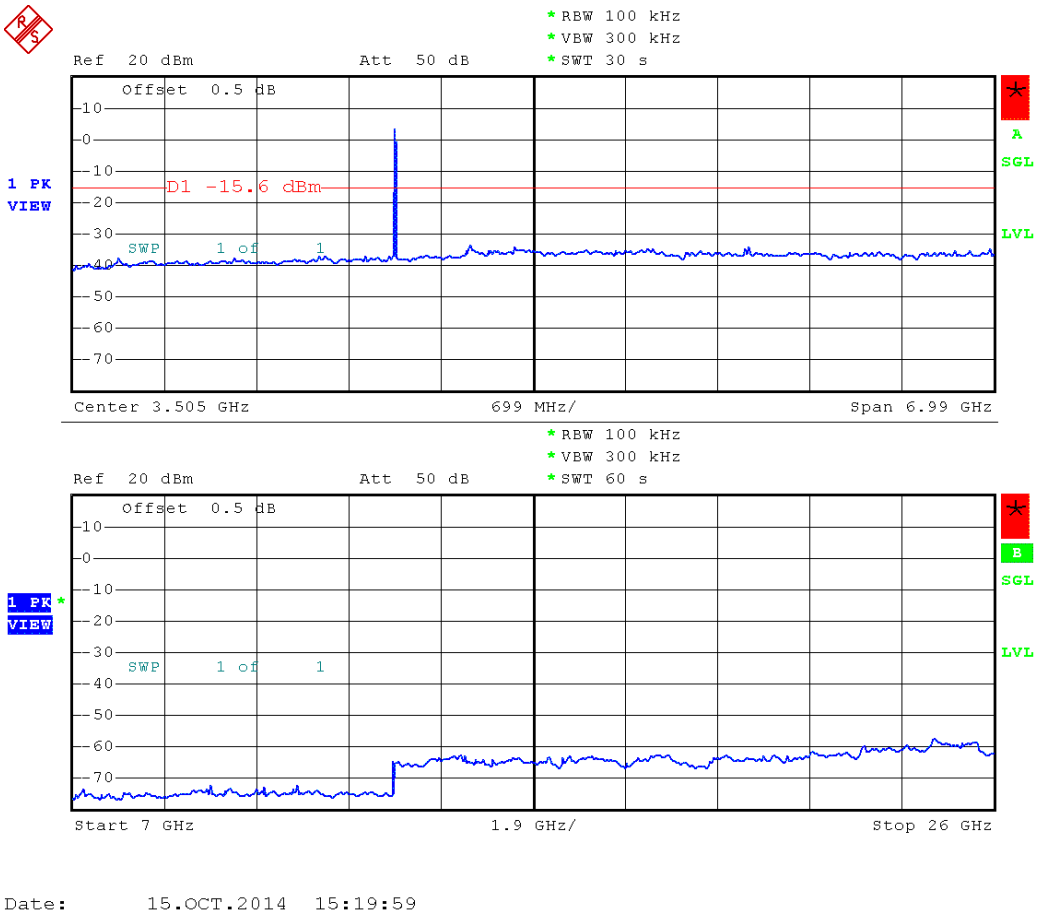


Conducted spurious emissions – DSSS F_{HIGH}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN DSSS, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement

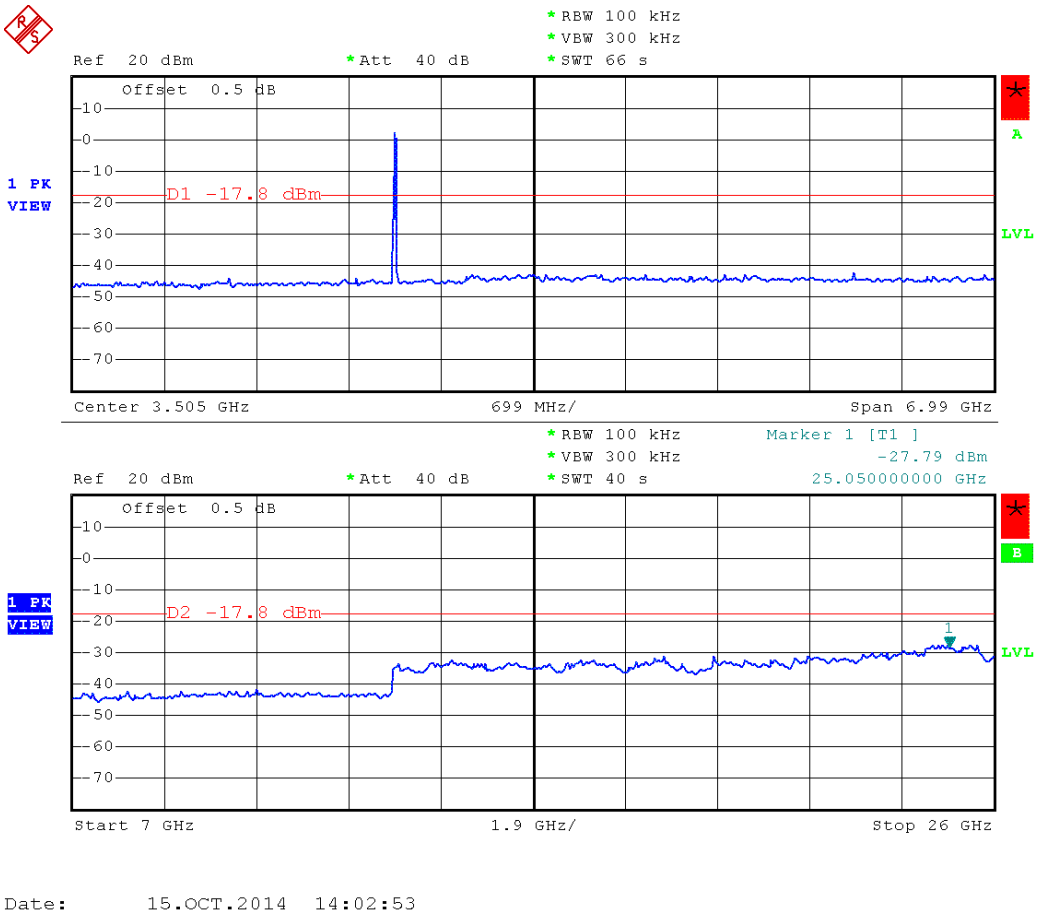


Conducted spurious emissions – OFDM F_{LOW}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement

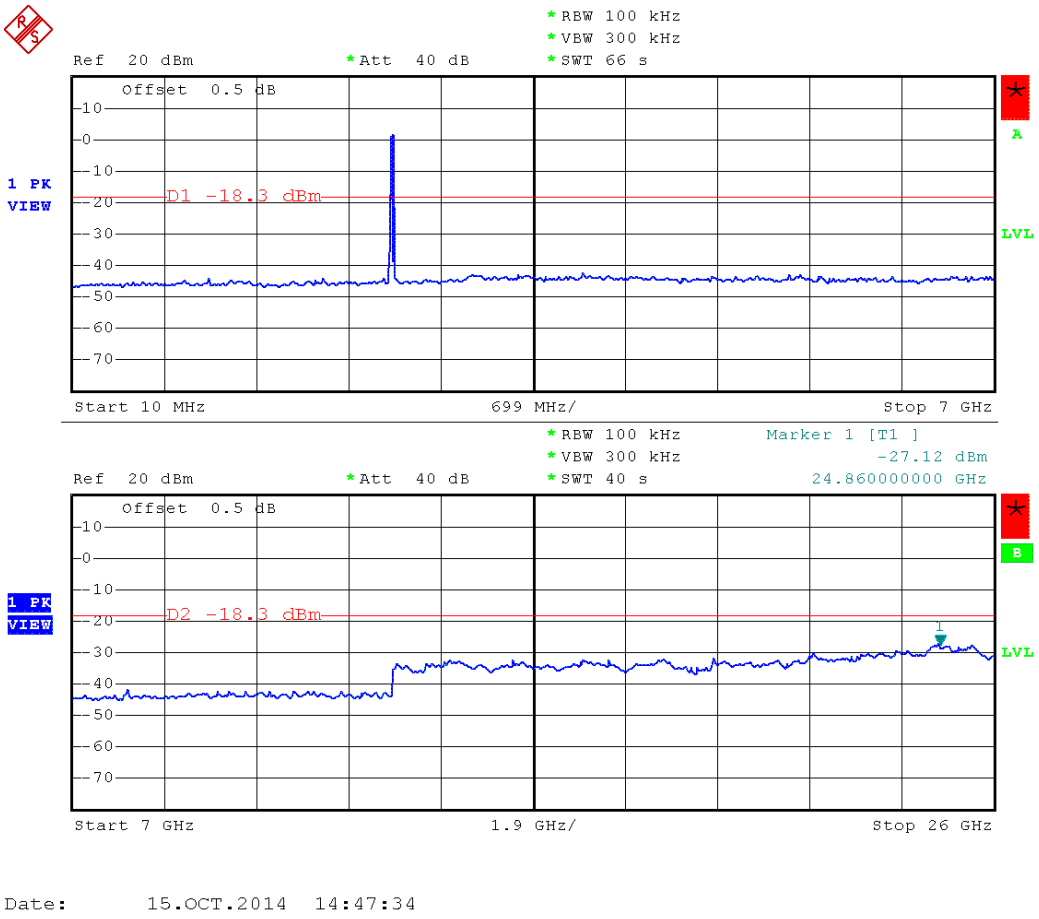


Conducted spurious emissions – OFDM F_{MID}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement

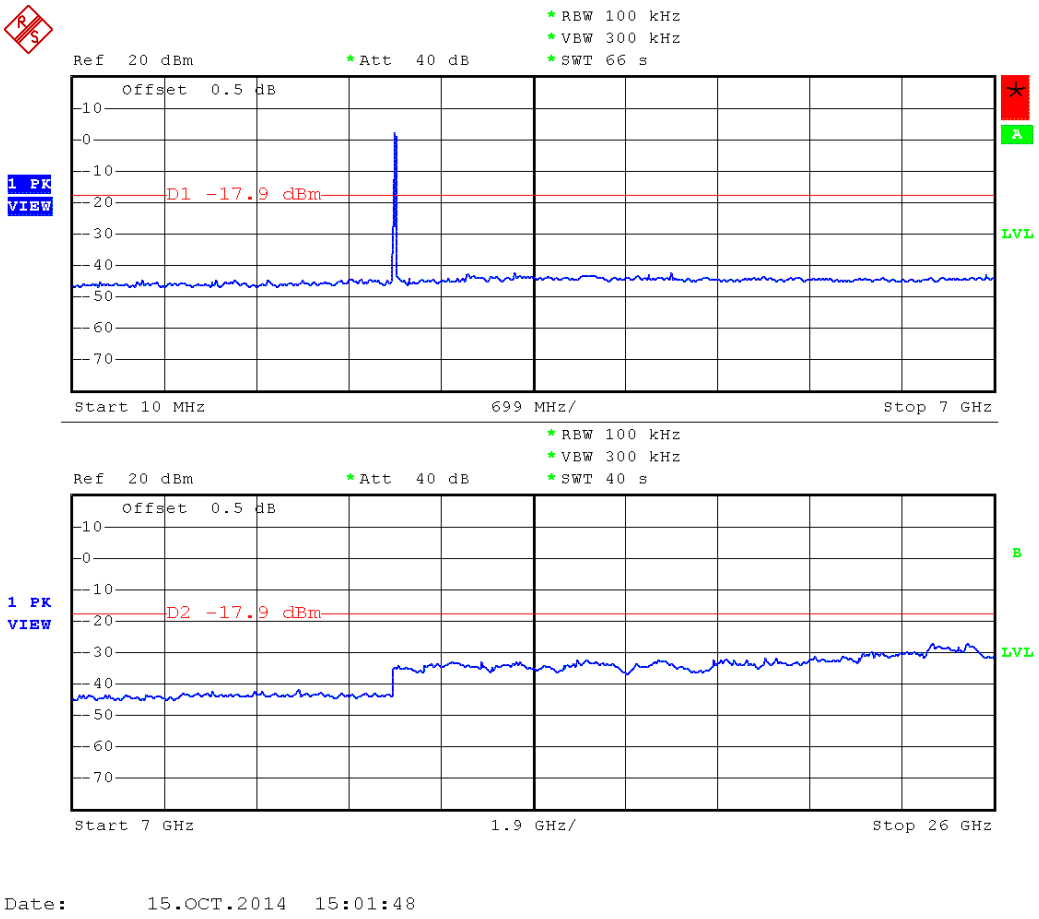


Conducted spurious emissions – OFDM F_{HIGH}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN OFDM, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement

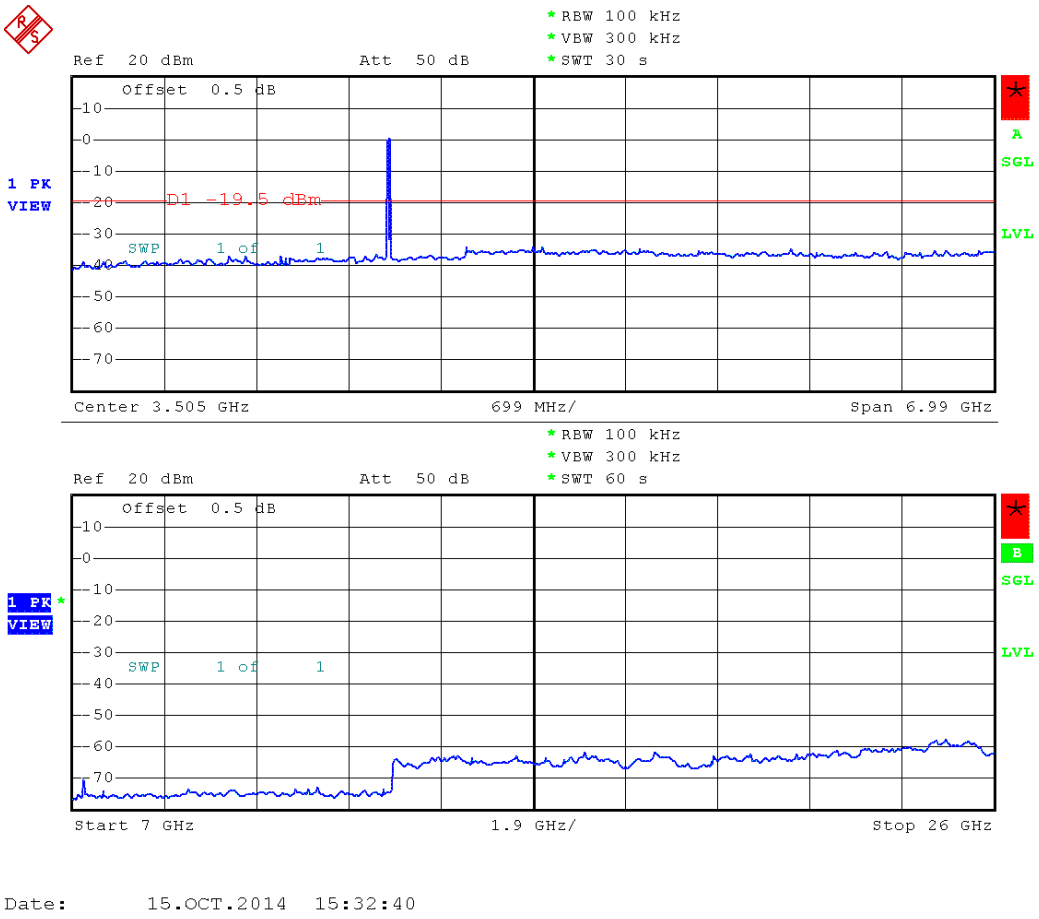


Conducted spurious emissions – HT20 F_{LOW}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2412 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement

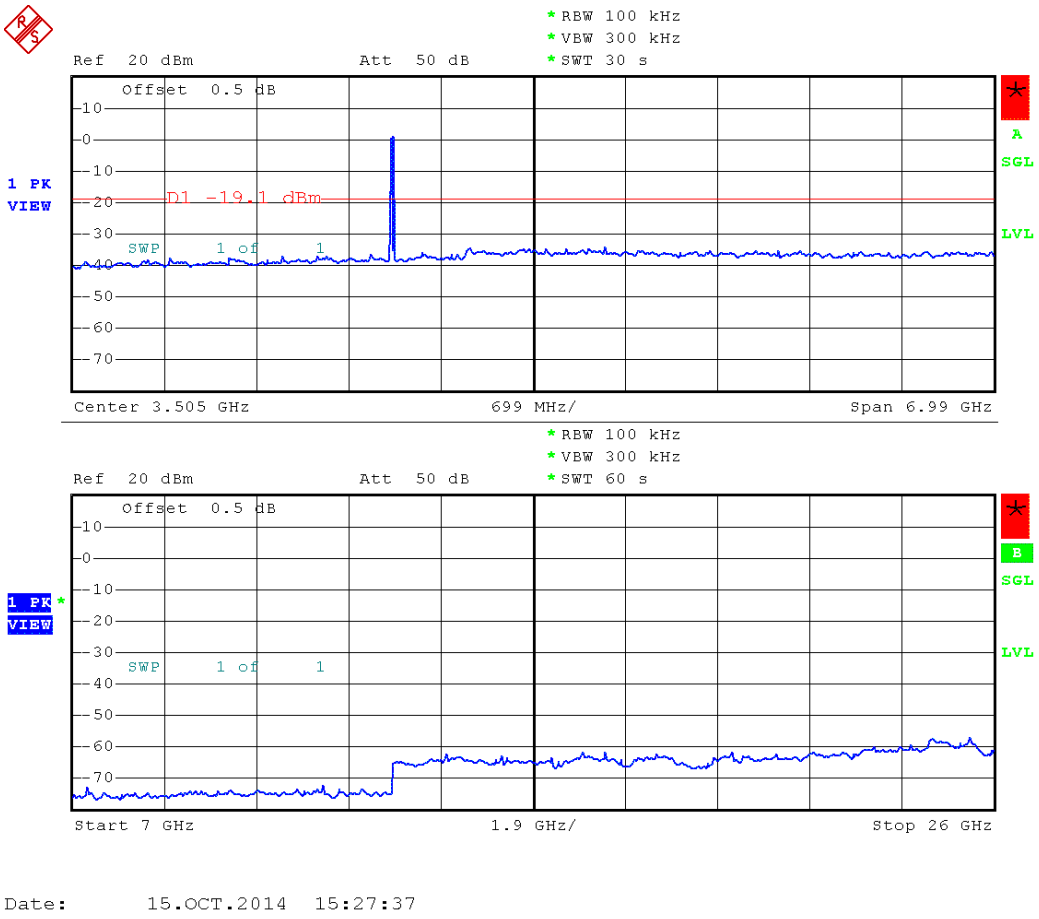


Conducted spurious emissions – HT20 F_{MID}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2437 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement

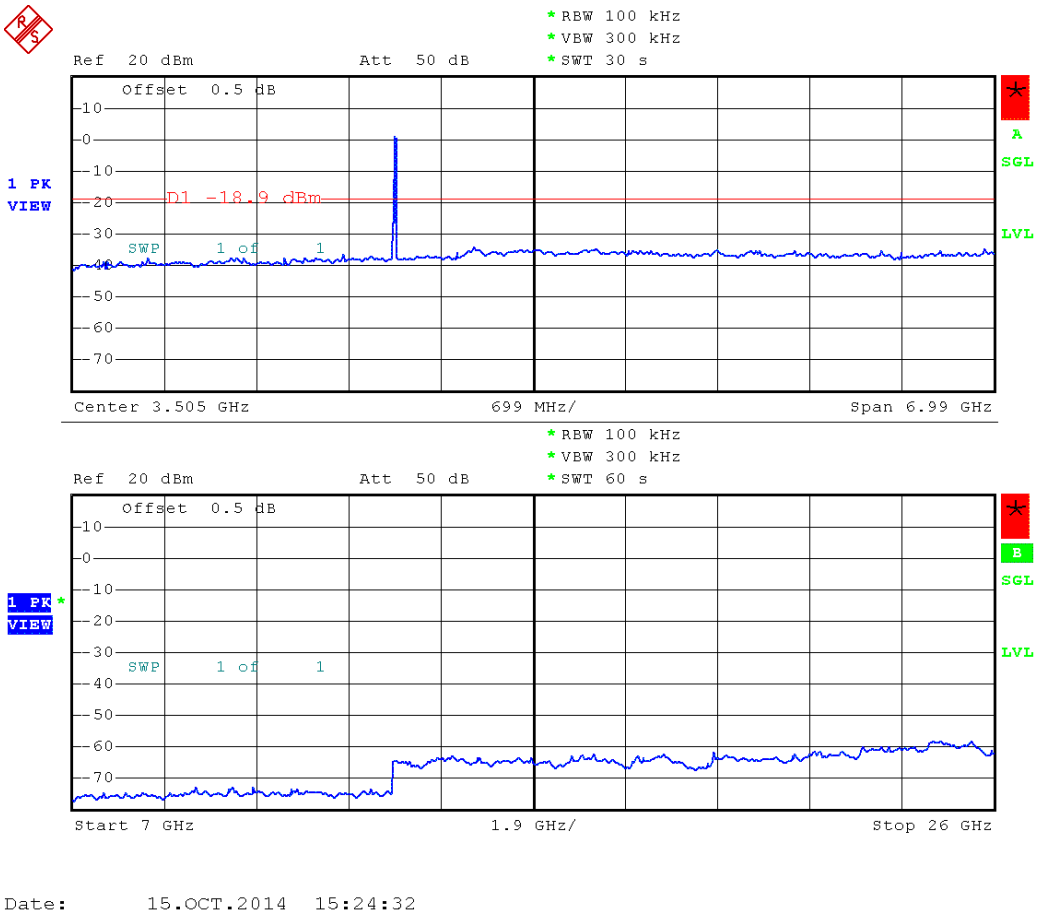


Conducted spurious emissions – HT20 F_{HIGH}

Spurious Emissions acc. to FCC 15.247

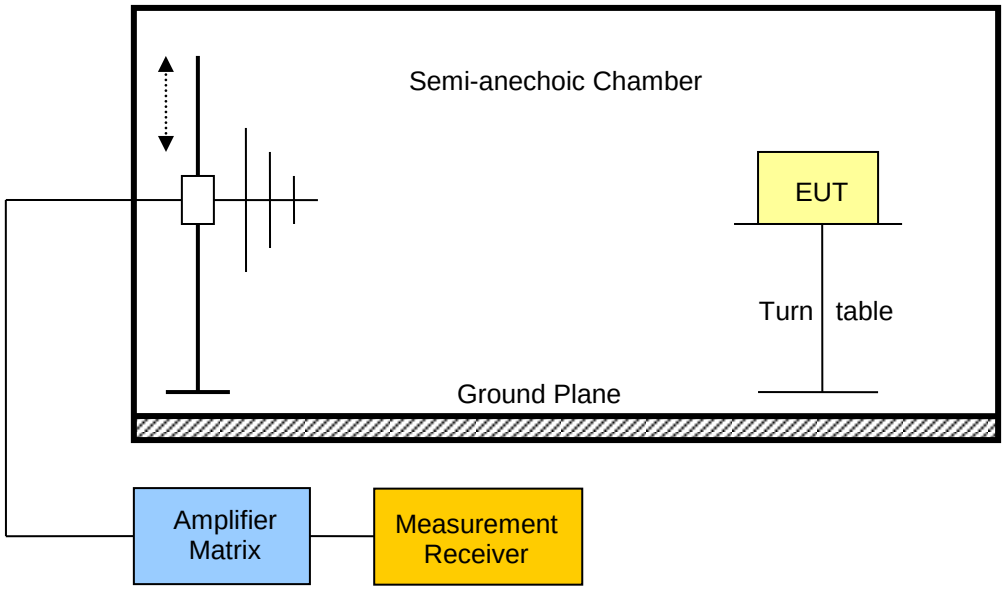
Project Number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Toralf Jahn
Test Conditions:	Tnom / Vnom
Mode:	Tx, WLAN HT20, 2462 MHz
Test Date:	2014-10-15
Verdict:	PASS
Note 1:	Spurious in non-restricted frequency bands (558074 D01 Meas Guidance)
Note 2:	conducted measurement



3.8 Test Conditions and Results – Transmitter radiated emissions

Transmitter radiated emissions acc. to 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 KDB Publication No. 558074 / ANSI C63.4		
Test frequency range		Tested frequencies		
		30 MHz – 10th Harmonic		
Limits				
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]
30 – 88	Quasi-Peak	100	40	3
88 – 216	Quasi-Peak	150	43.5	3
216 – 960	Quasi-Peak	200	46	3
960 – 1000	Quasi-Peak	500	54	3
> 1000	Average	500	54	3
Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)). When average radiated emission measurements are specified, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.				
Test setup				



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

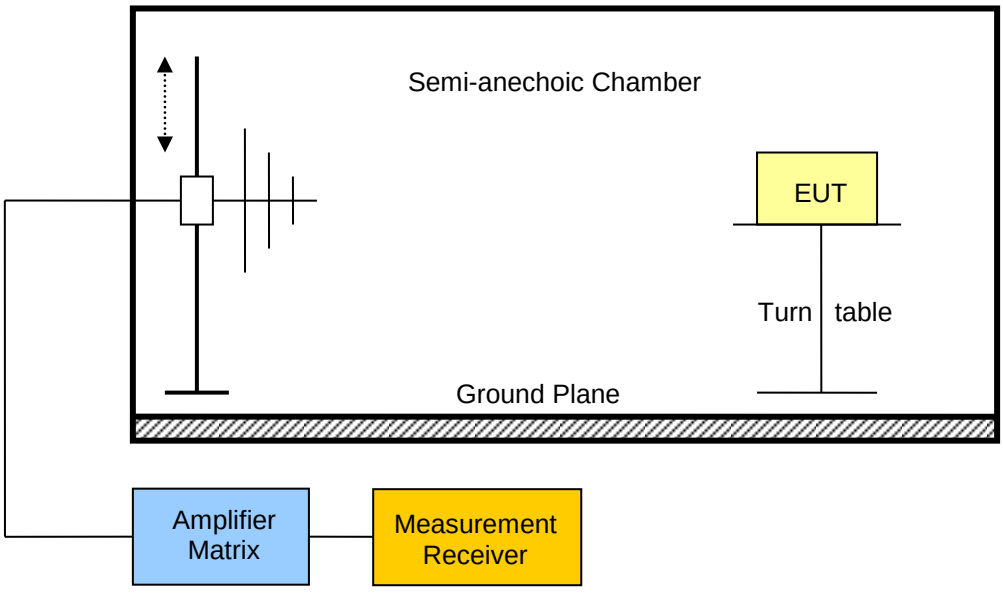
Test results – Internal Antenna

Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dbµV/m]	Det.	Pol.	Limit [dbµV/m]	Limit dist. [m]*	Margin [dB]
F_{LOW}	2412	DSSS	241.6	27.25	pk	ver	46.00	3	-18.75
F_{LOW}	2412	DSSS	2386	51.60	pk	hor	74.00	3	-22.40
F_{LOW}	2412	DSSS	2386	44.30	RMS	hor	54.00	3	-09.70
F_{HIGH}	2462	DSSS	2487.7	55.30	pk	hor	74.00	3	-18.70
F_{HIGH}	2462	DSSS	2487.7	45.40	RMS	hor	54.00	3	-08.60
F_{HIGH}	2462	HT20	17964	48.83	pk	ver	74.00	3	-25.17
F_{LOW}	2412	HT20	2400	83.19	pk	hor	95.00	3	-11.81
F_{HIGH}	2462	HT20	2483.5	62.95	pk	hor	74.00	3	-11.05
F_{HIGH}	2462	HT20	2483.5	41.11	RMS	hor	54.00	3	-12.89
F_{HIGH}	2462	HT20	3856	53.78	pk	hor	74.00	3	-20.22
F_{HIGH}	2462	HT20	3856	40.12	avg	hor	54.00	3	-13.88
F_{HIGH}	2462	HT20	3973	54.33	pk	ver	74.00	3	-19.67
F_{HIGH}	2462	HT20	3973	40.51	avg	ver	54.00	3	-13.49

Comments: * Physical distance between EUT and measurement antenna.

3.9 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 – 3th 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 [dbµV/m]	Det.	Limit [dBµV/m]	Margin [dB]
F_{MID}	2437	907.2	21.95	pk	46	-24.05
F_{MID}	2437	1198	42.08	pk	53.98	-11.9
F_{MID}	2437	1198	42.05	pk	53.98	-11.93

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: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-10-06
Note:	worst case

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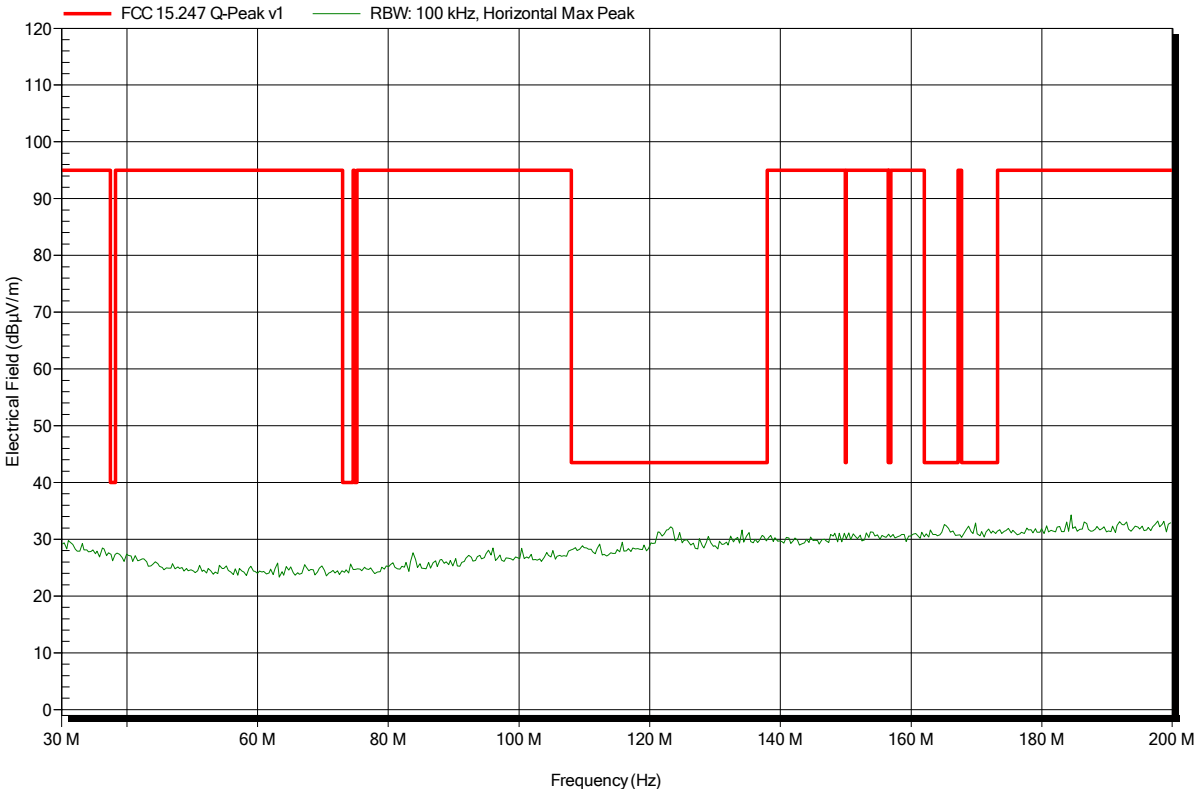

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-10-06
Note:	worst case

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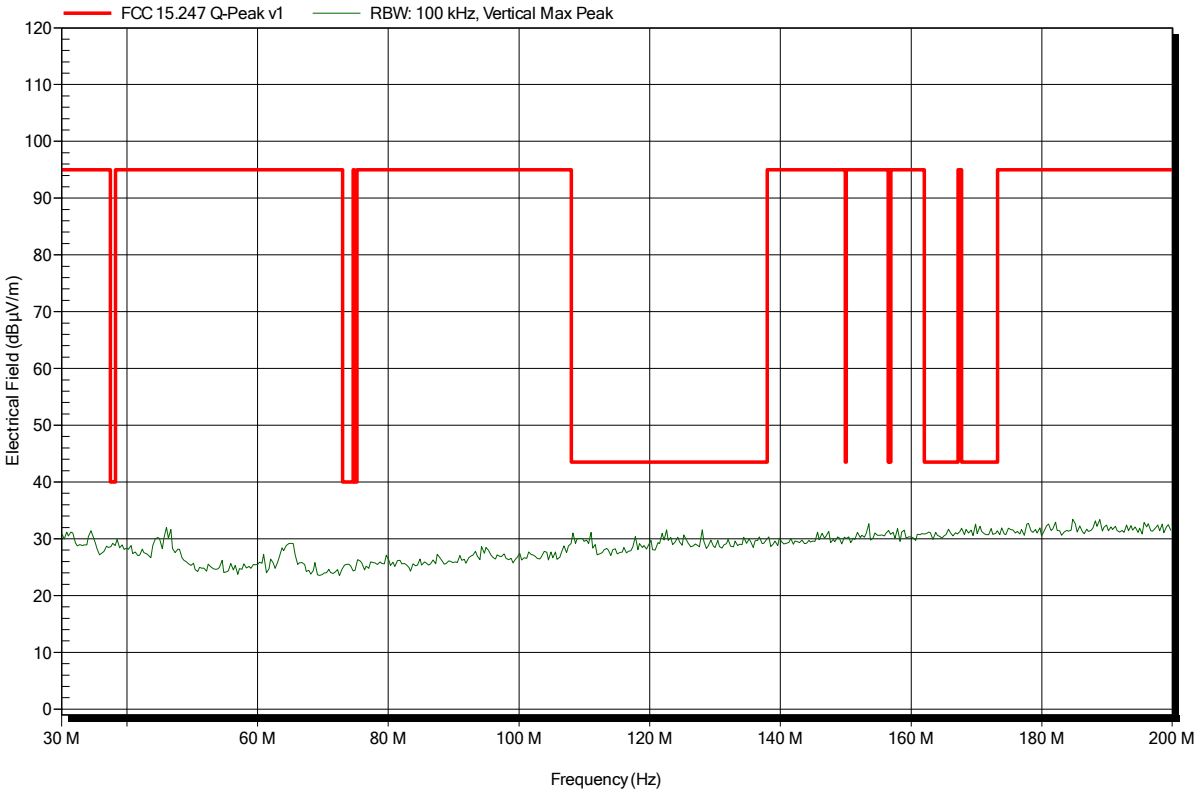

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-10-06
Note:	worst case

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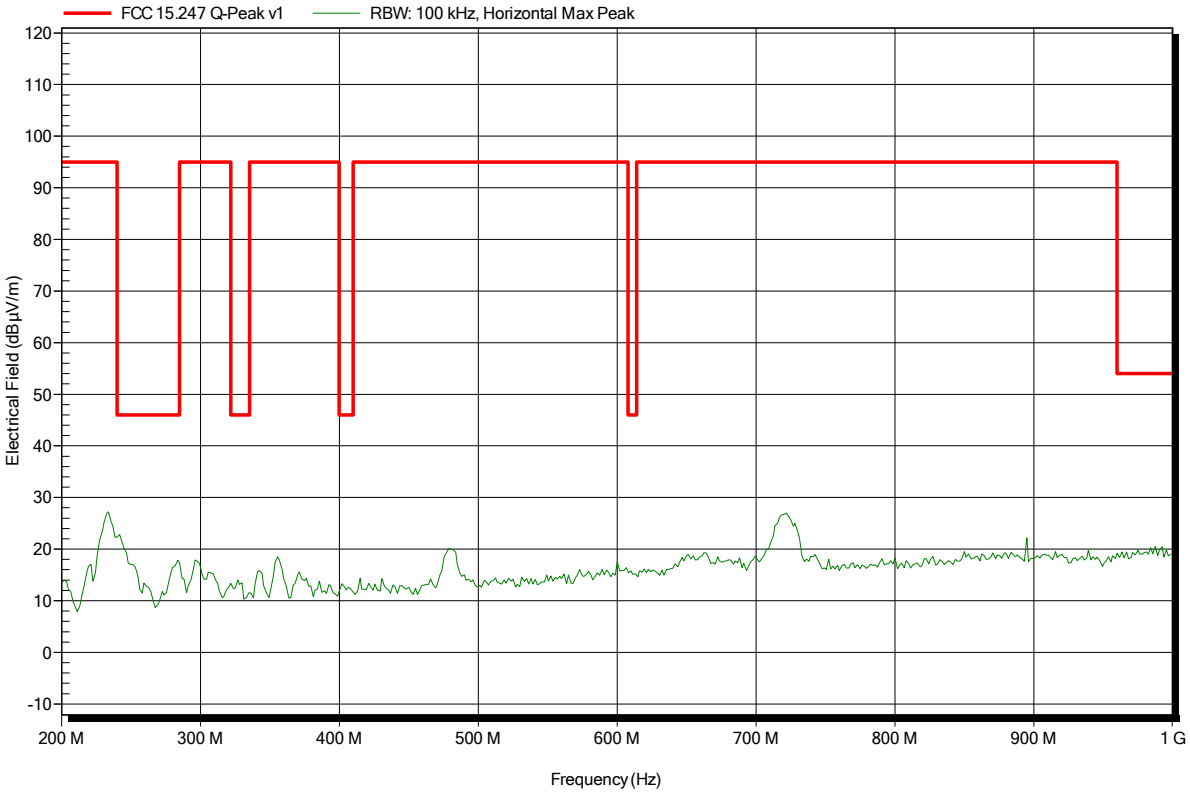

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-10-06
Note:	worst case

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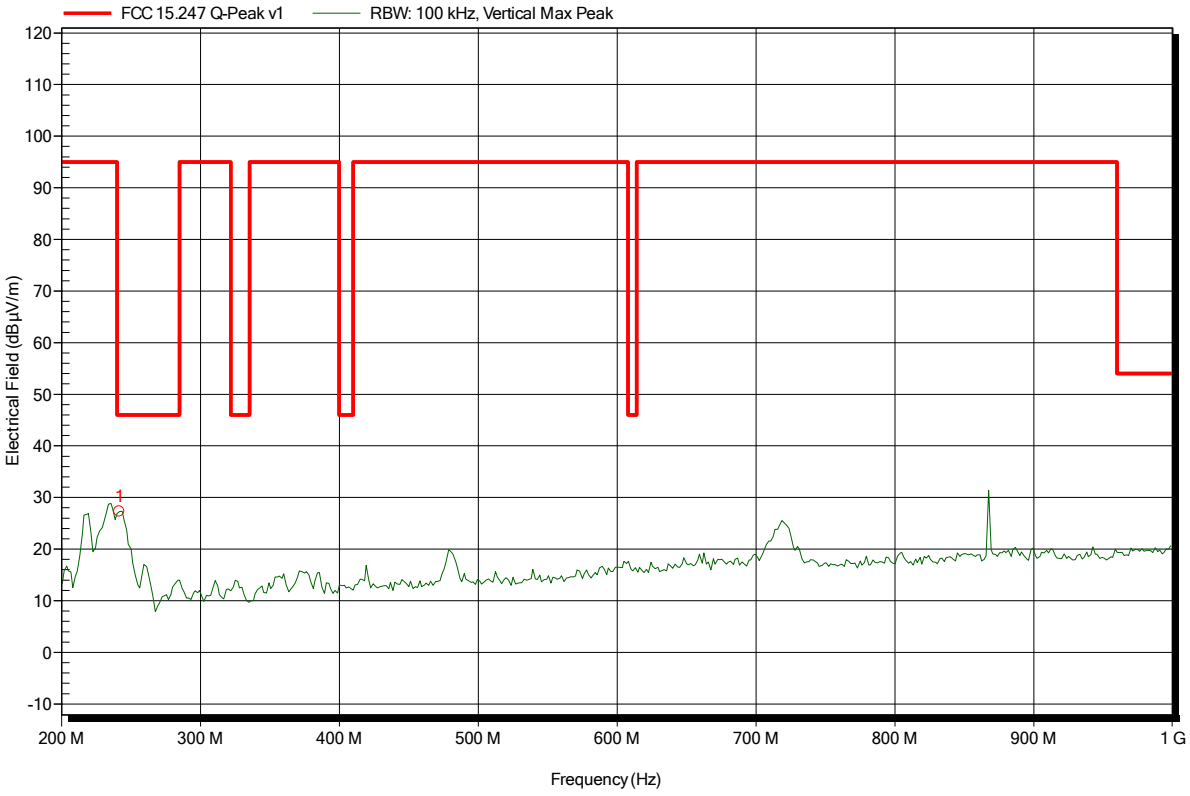

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
241.6 MHz	27.25 dBµV/m	46 dBµV/m	-18.75 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-09-30
Note:	

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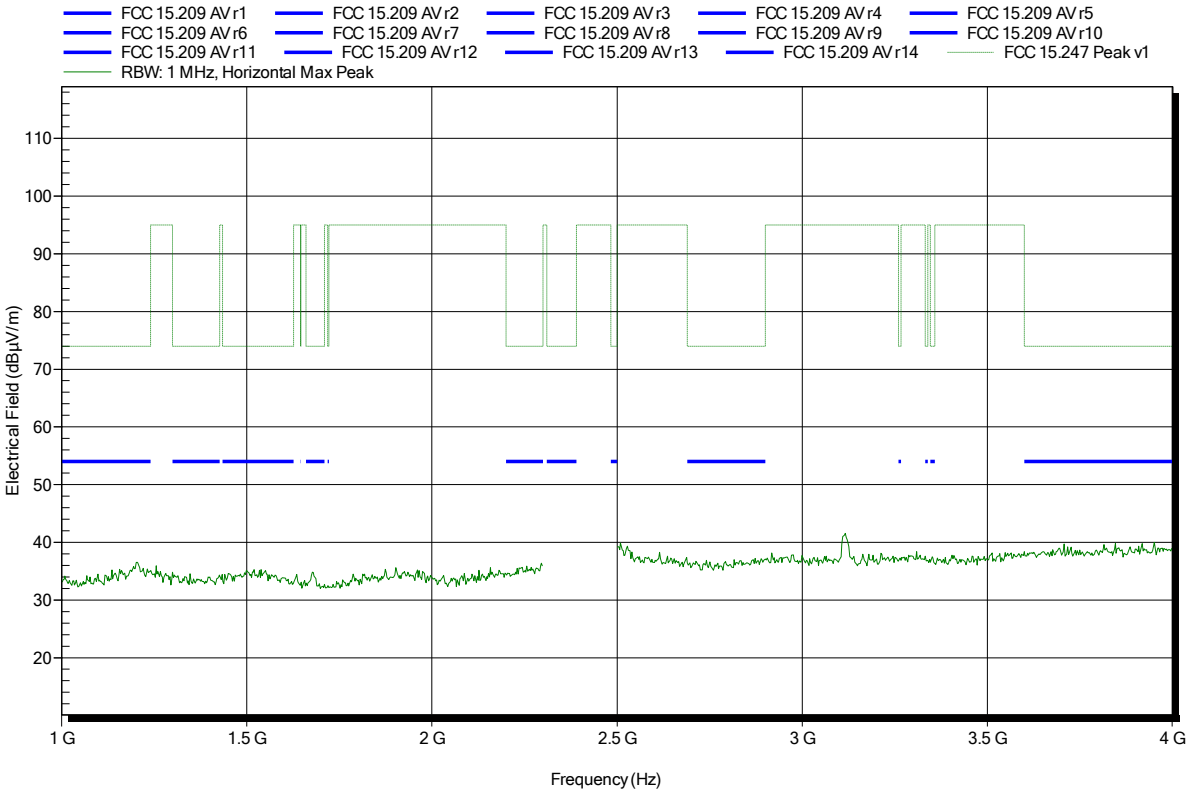

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 6
Test Date:	2014-09-30
Note:	

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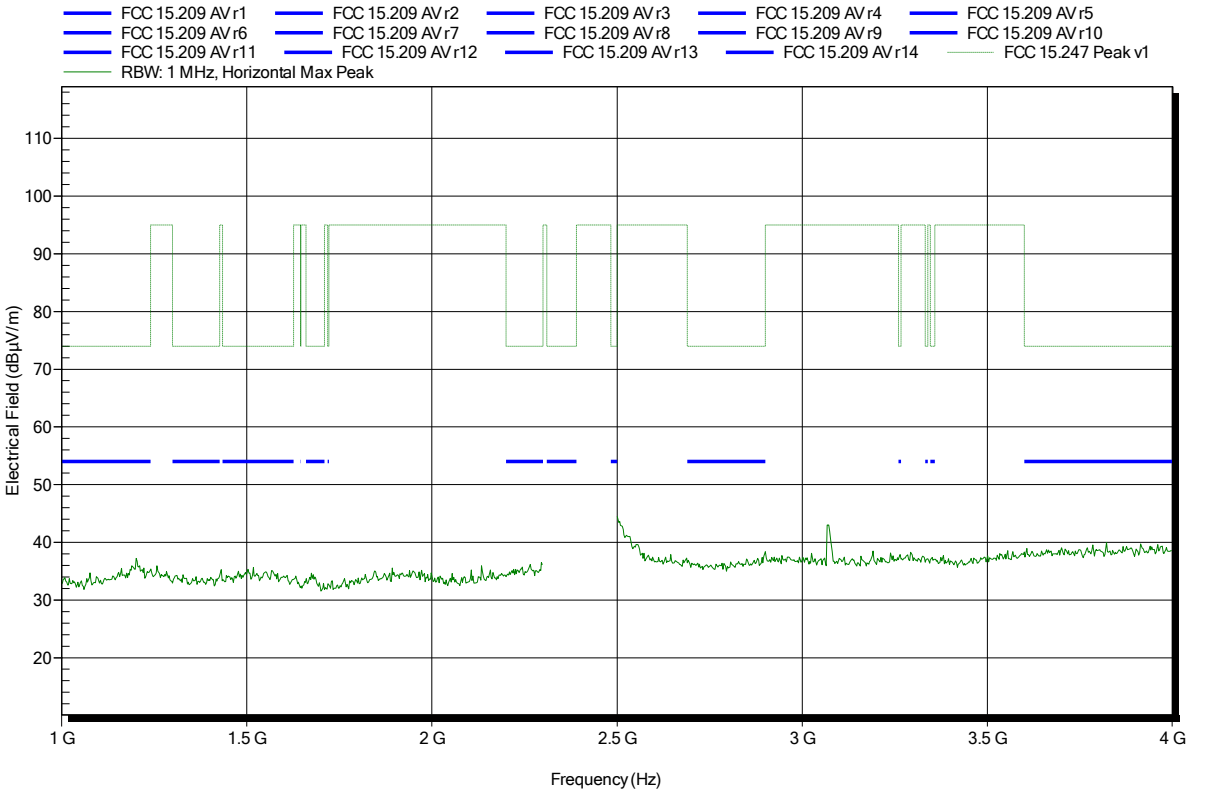

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-09-30
Note:	

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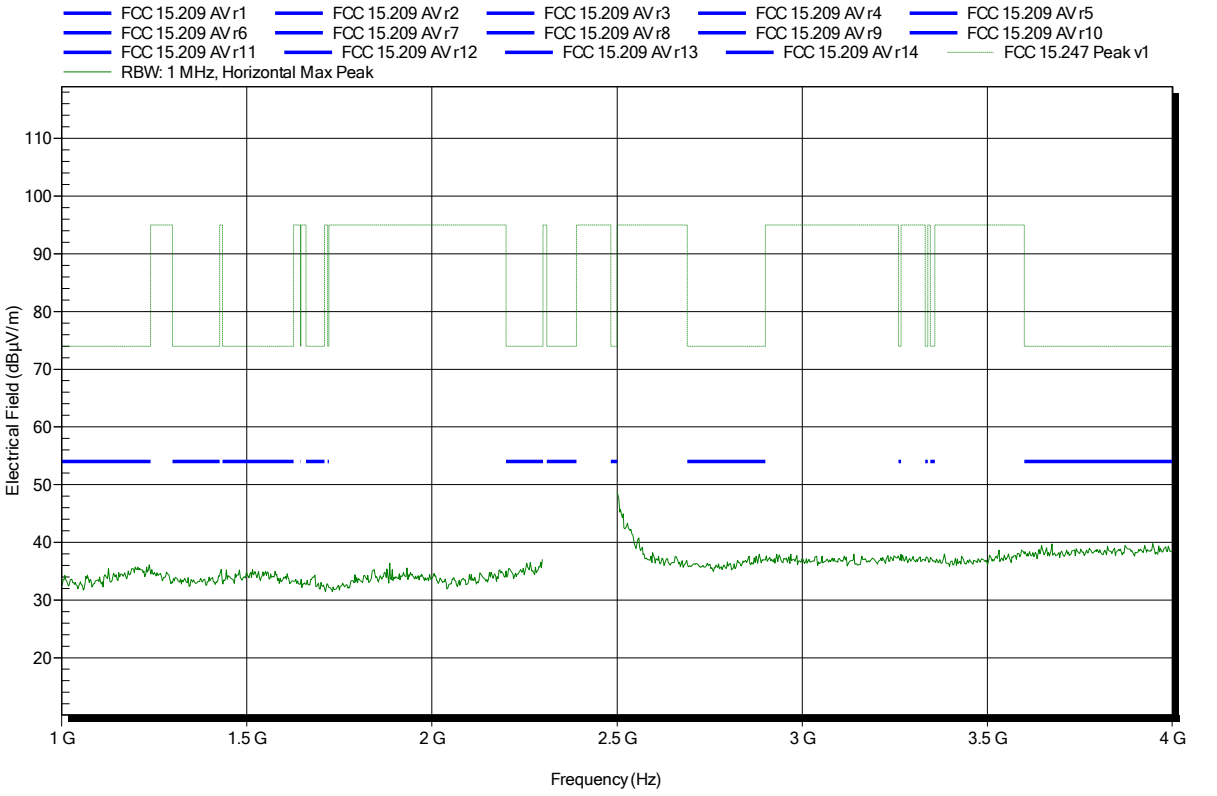

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-09-30
Note:	

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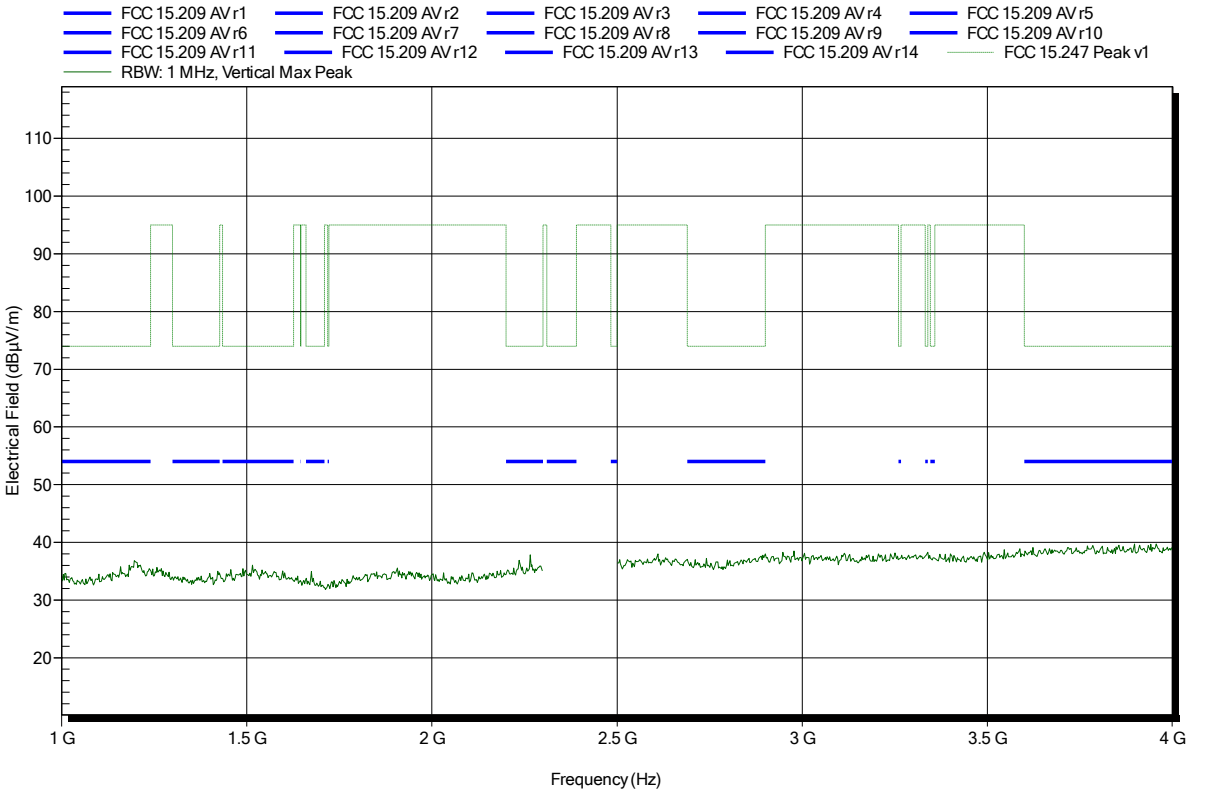

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 6
Test Date:	2014-09-30
Note:	

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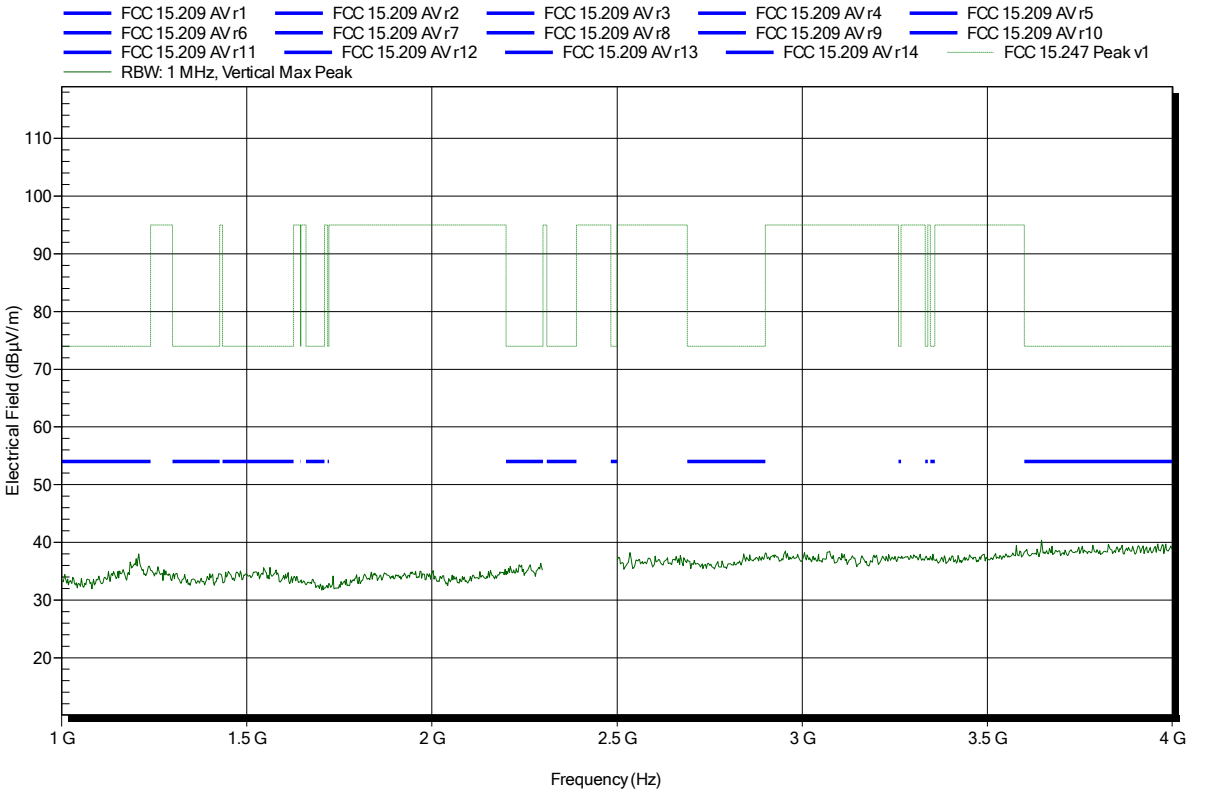

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-09-30
Note:	

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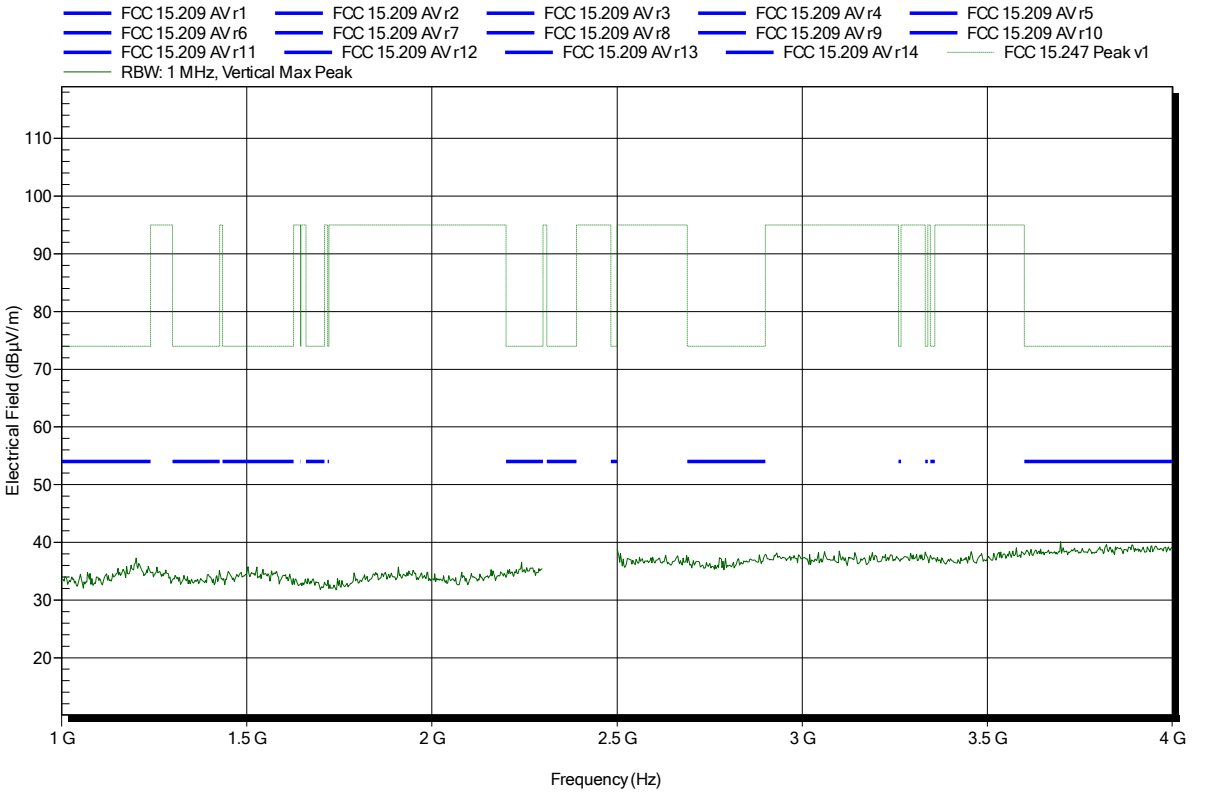

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-09-30
Note:	lower bandedge

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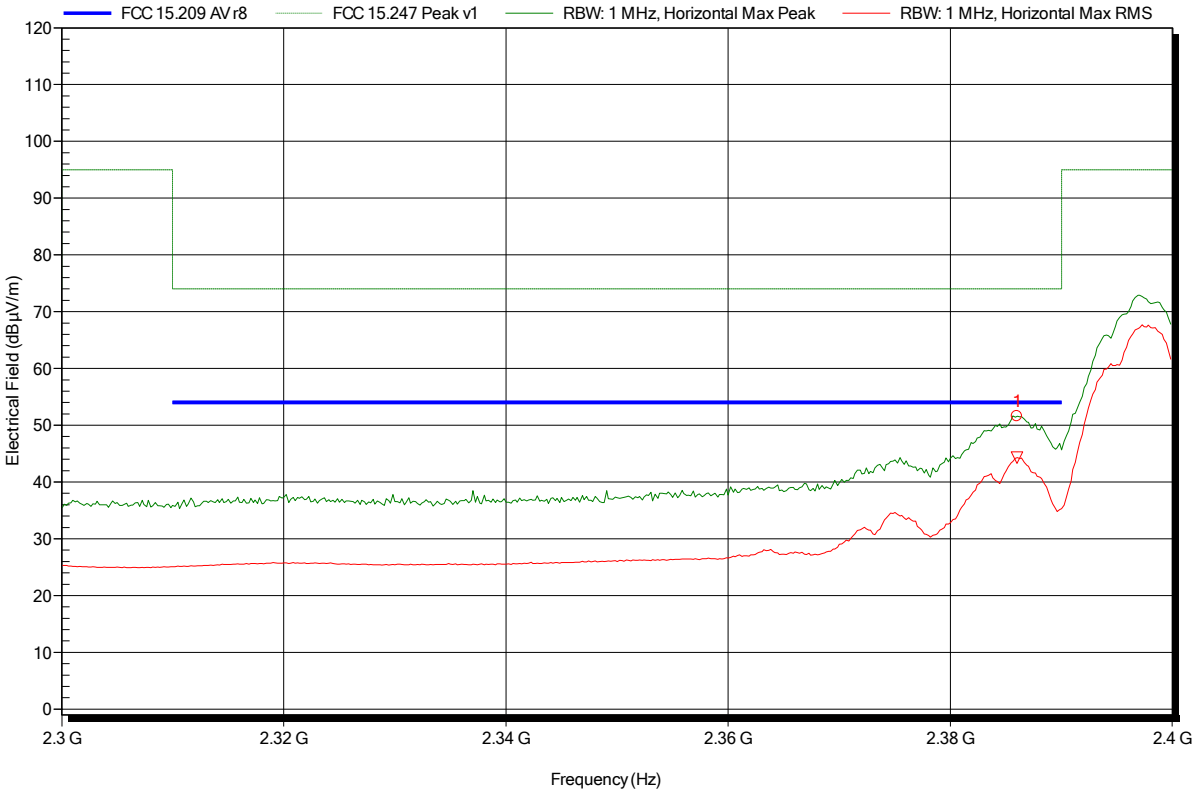

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.386 GHz	51.6 dBµV/m	74 dBµV/m	-22.4 dB	Pass

Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.386 GHz	44.3 dBµV/m	54 dBµV/m	-9.7 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-09-30
Note:	lower bandedge

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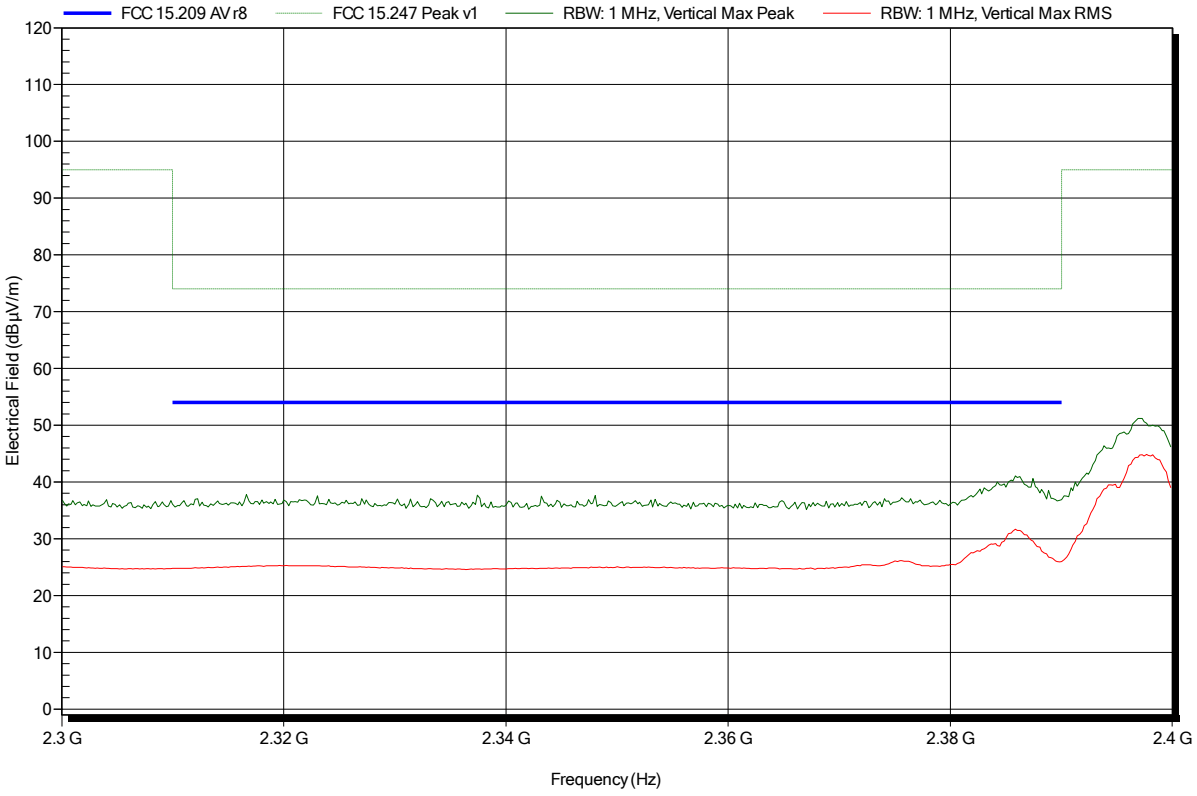

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-09-30
Note:	upper bandedge

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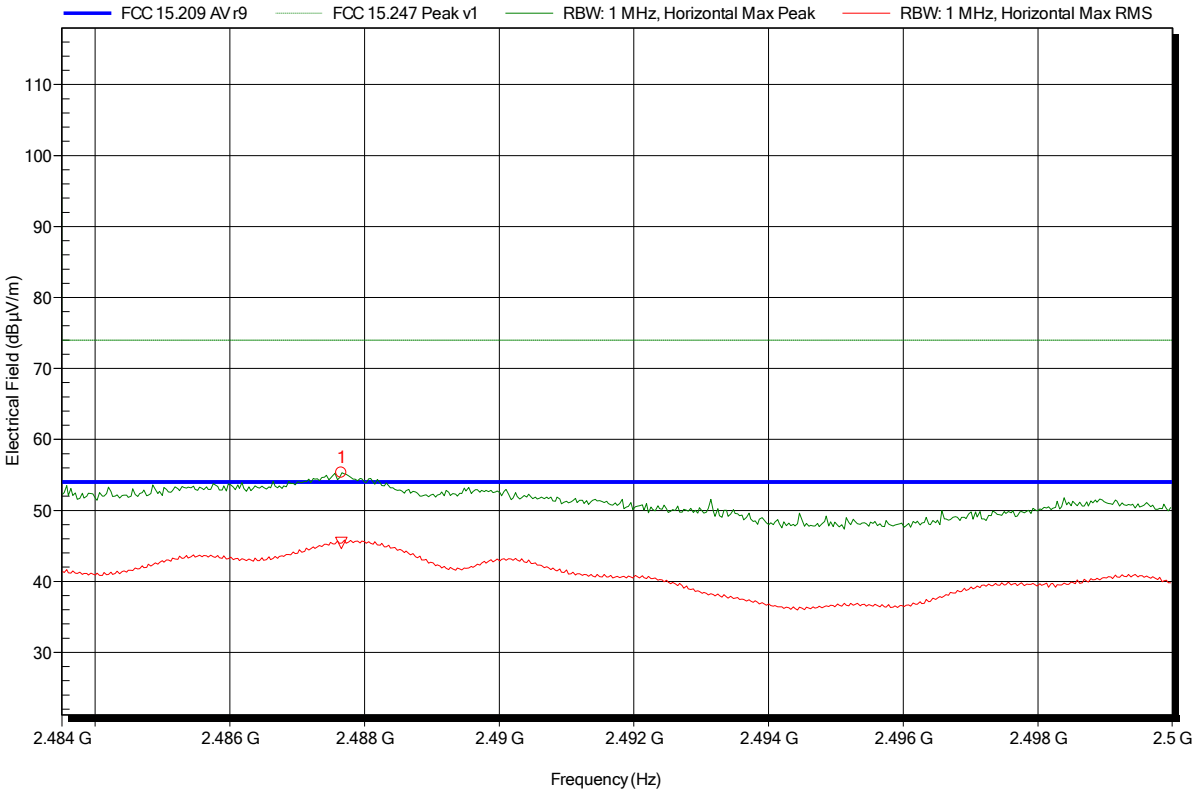

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4877 GHz	55.3 dBµV/m	74 dBµV/m	-18.7 dB	Pass

Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.4877 GHz	45.4 dBµV/m	54 dBµV/m	-8.6 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-09-30
Note:	upper bandedge

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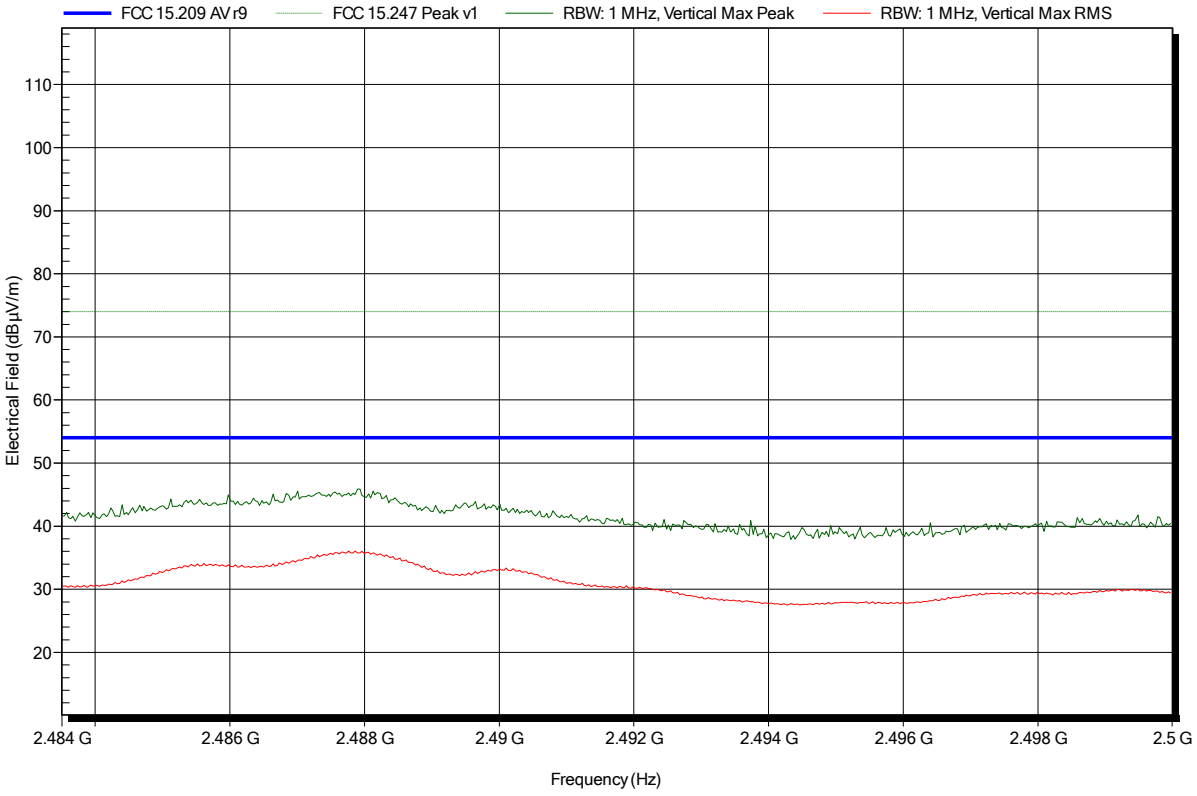

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-09-30
Note:	

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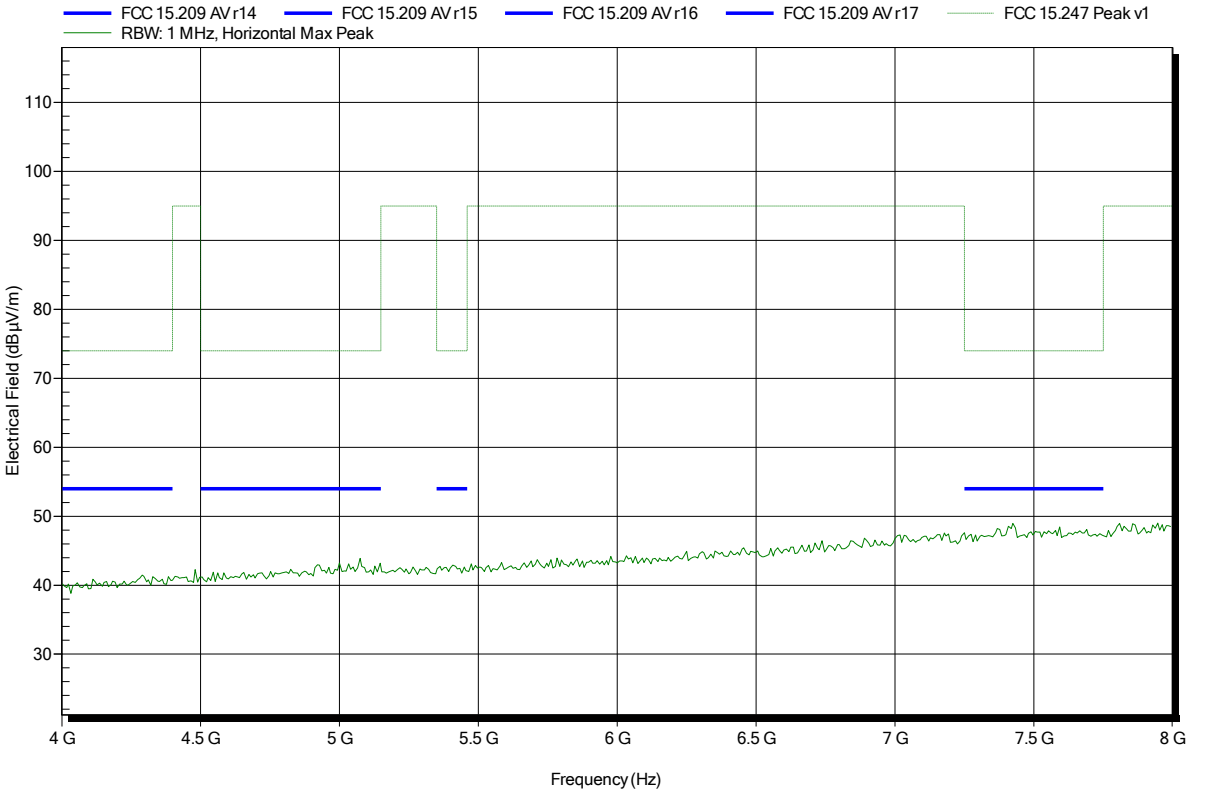

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 6
Test Date:	2014-09-30
Note:	

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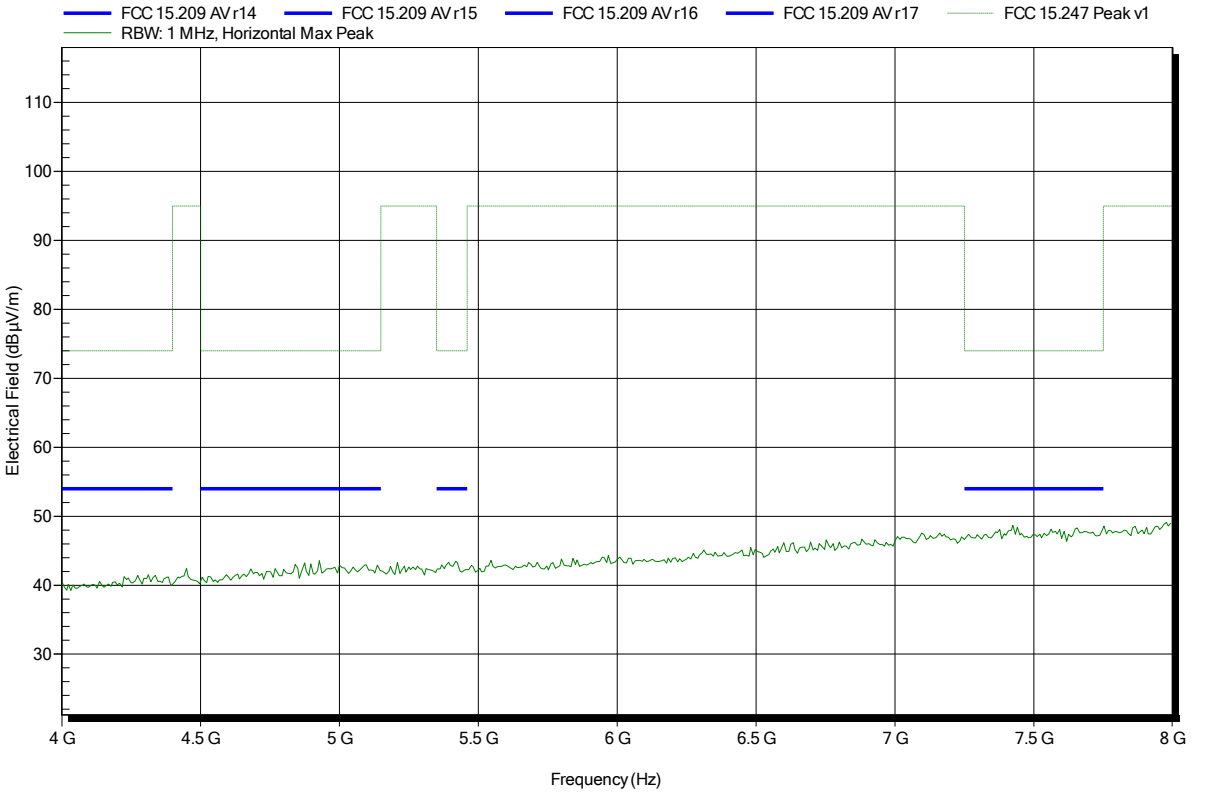

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-09-30
Note:	

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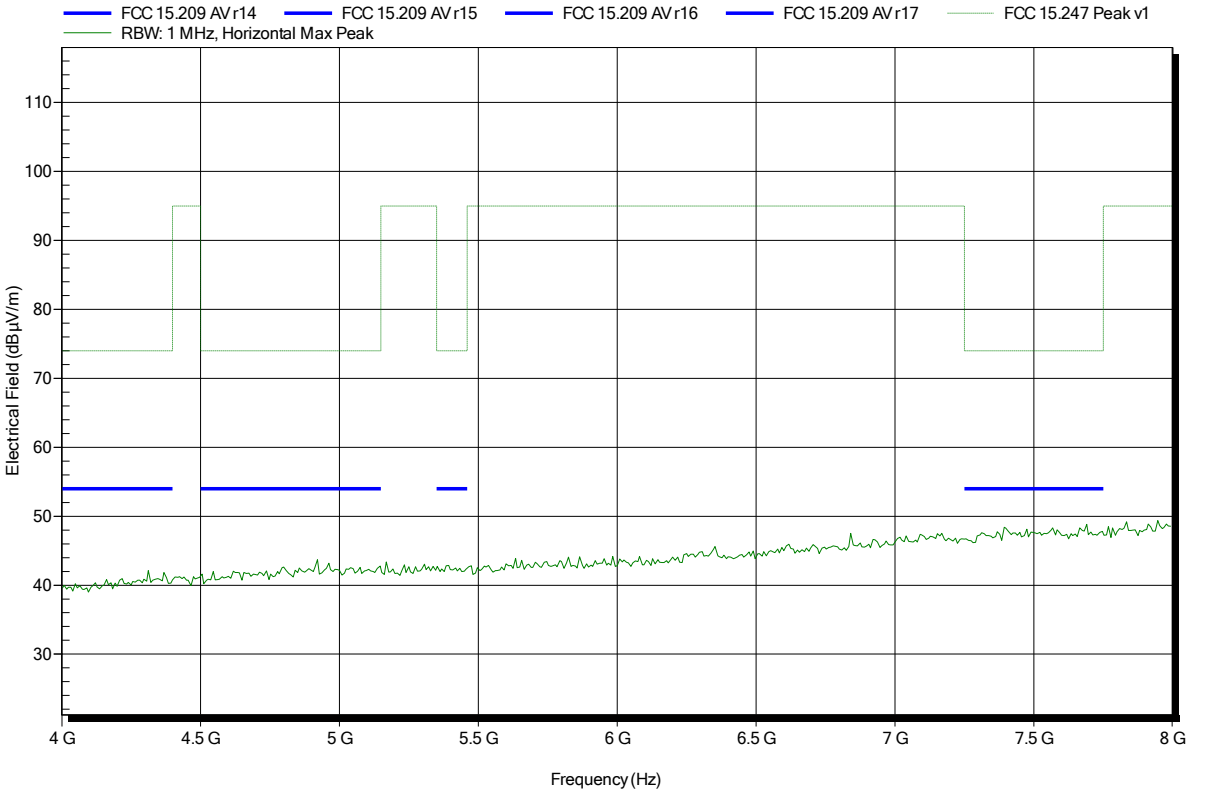

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-09-30
Note:	

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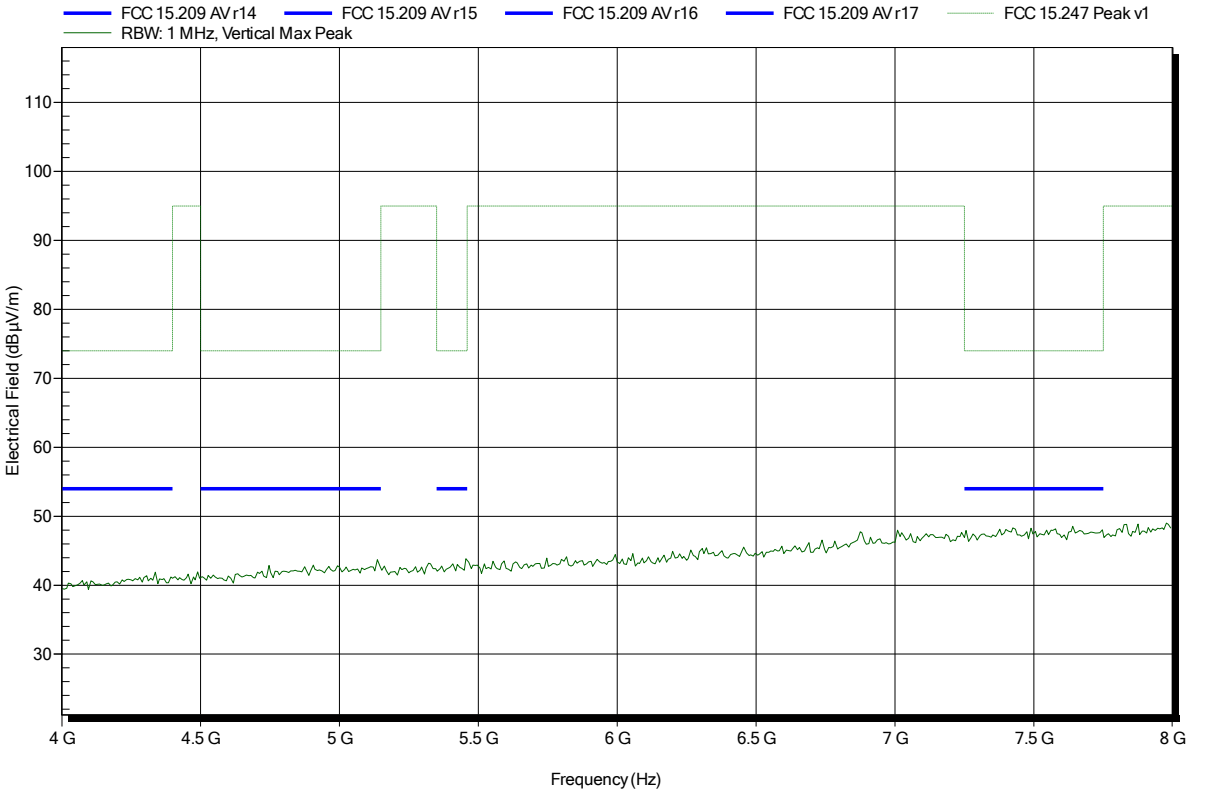

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 6
Test Date:	2014-09-30
Note:	

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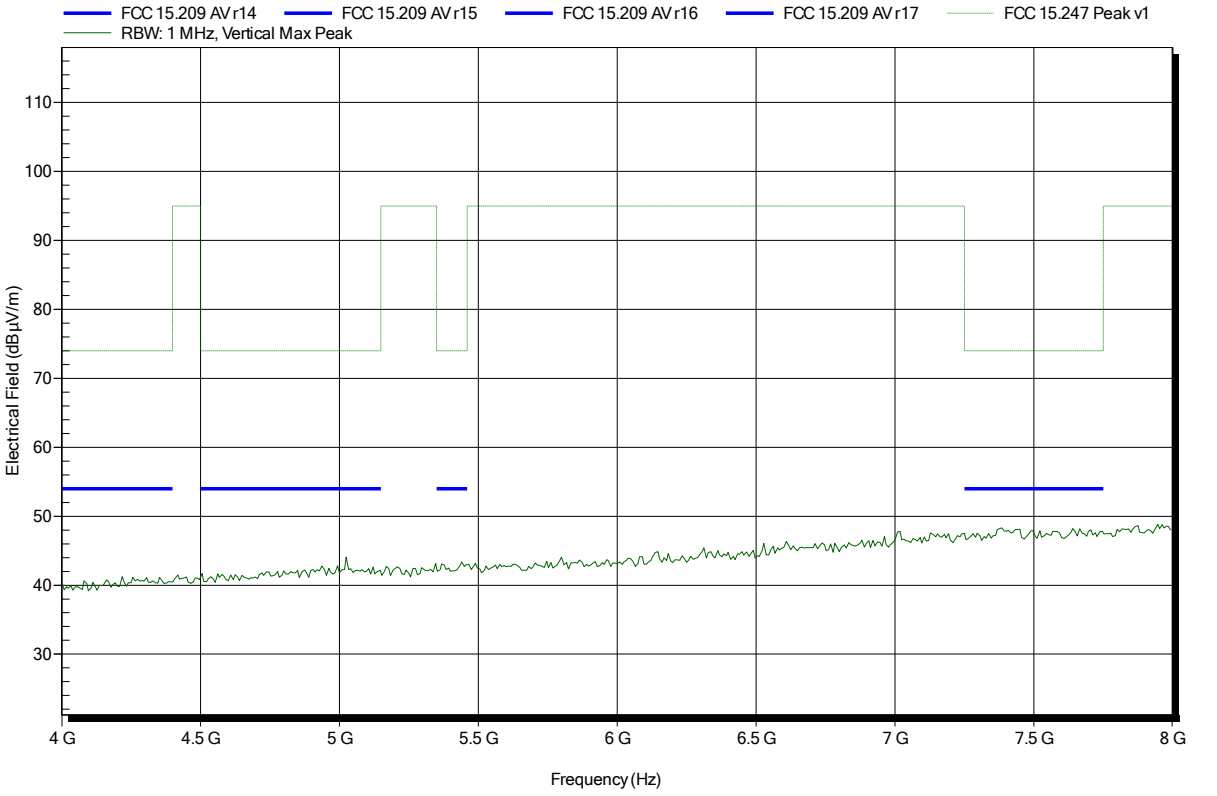

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-09-30
Note:	

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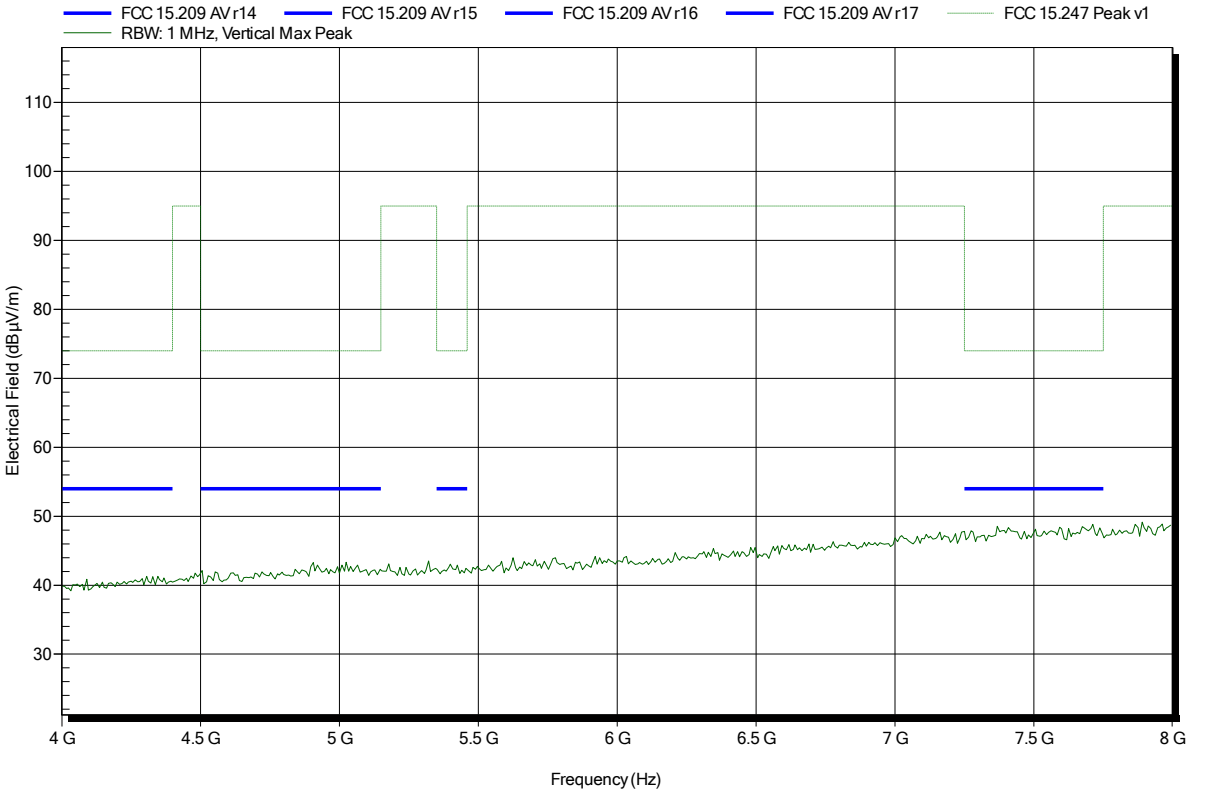

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-10-06
Note:	

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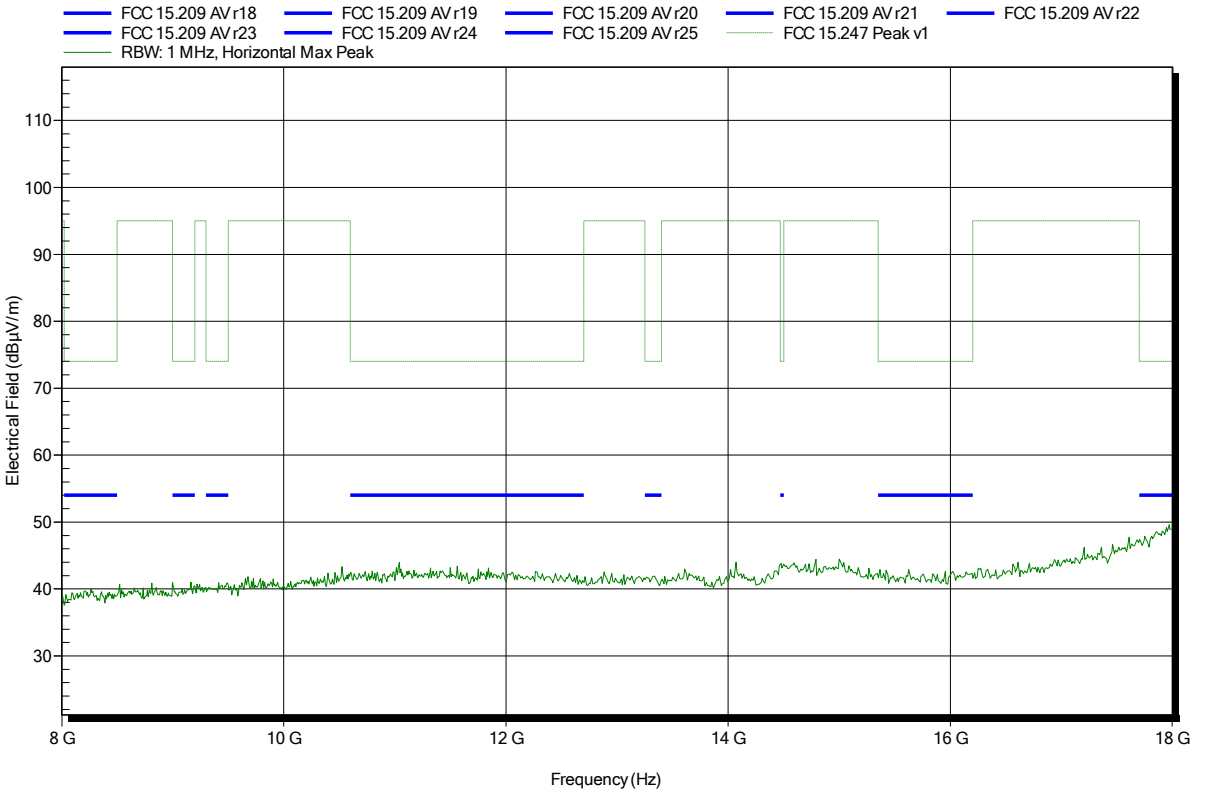

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; DSSS1 MBit, Ch 6
Test Date:	2014-10-06
Note:	

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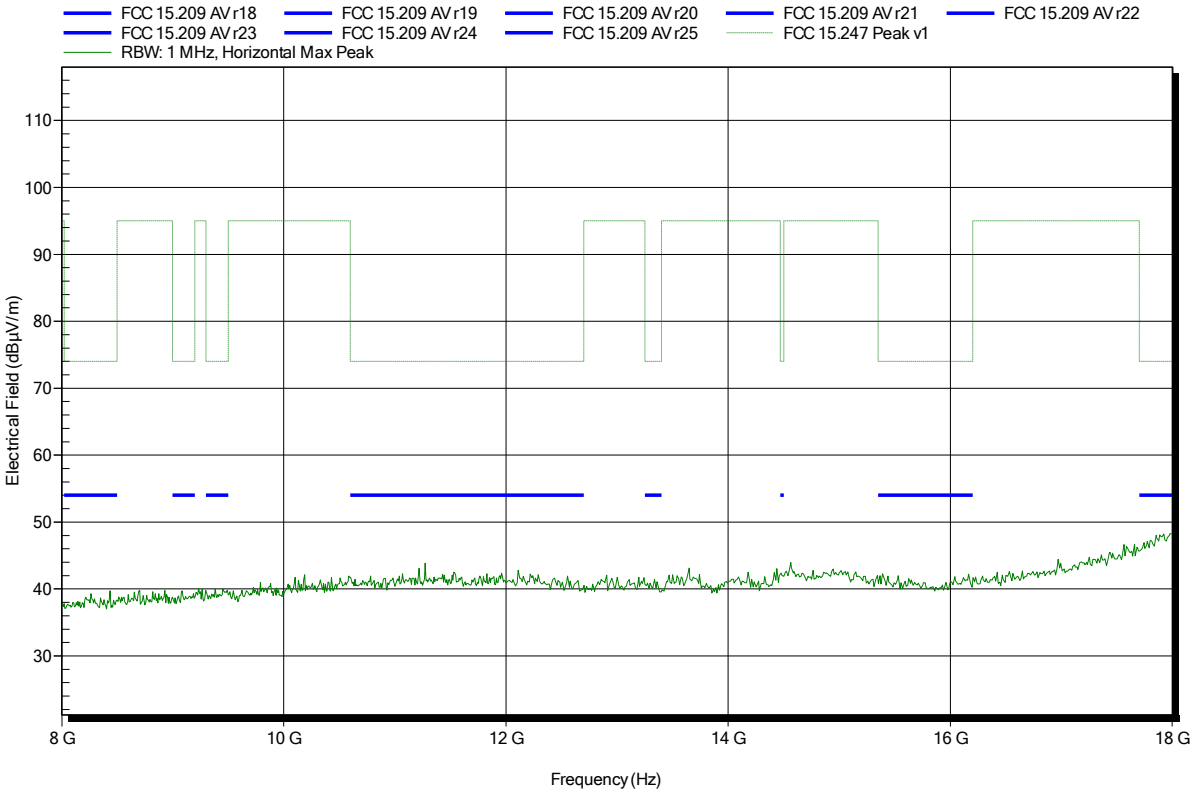

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-10-06
Note:	

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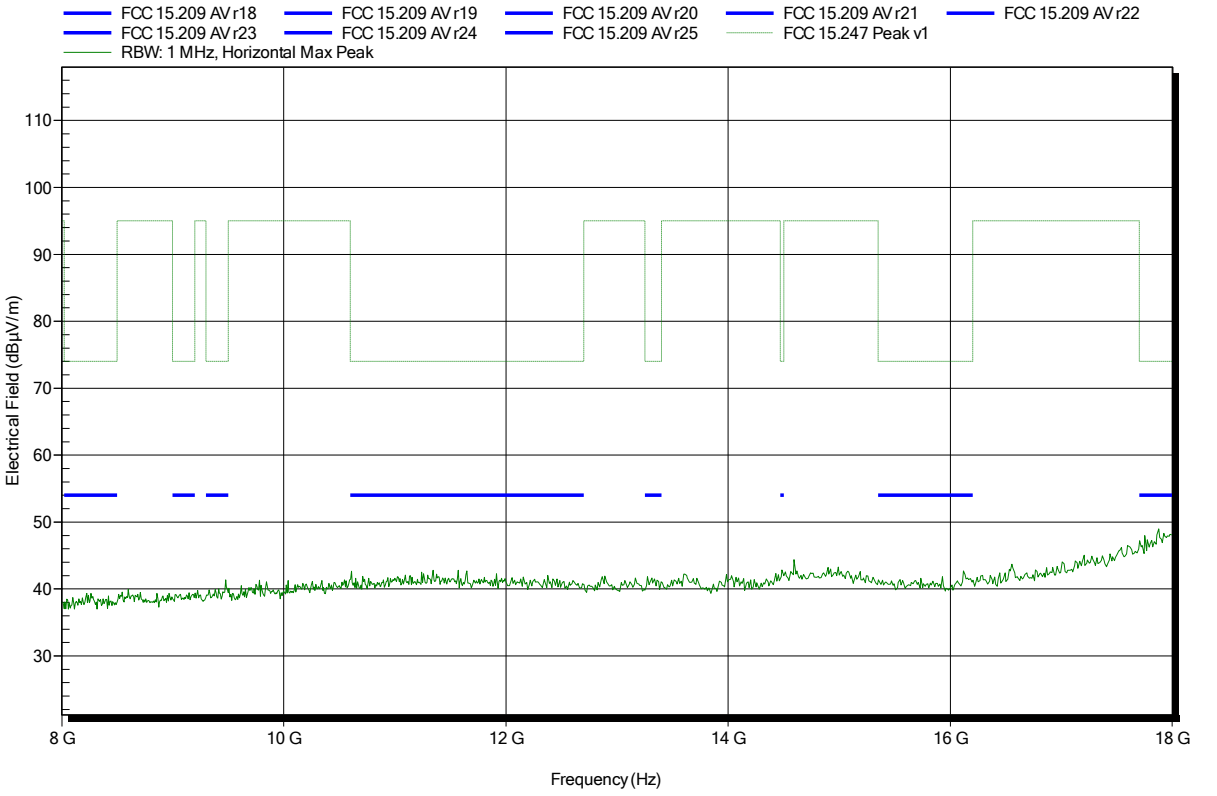

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-10-06
Note:	

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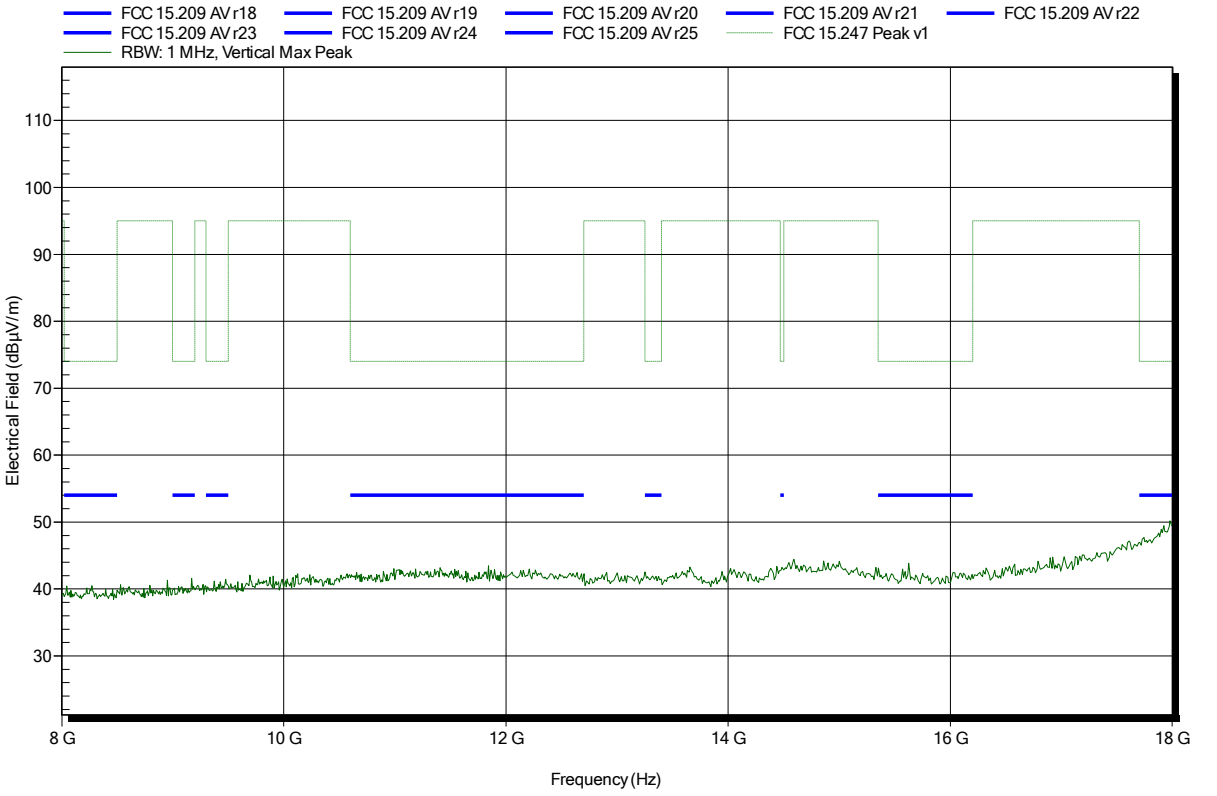

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; DSSS1 MBit, Ch 6
Test Date:	2014-10-06
Note:	

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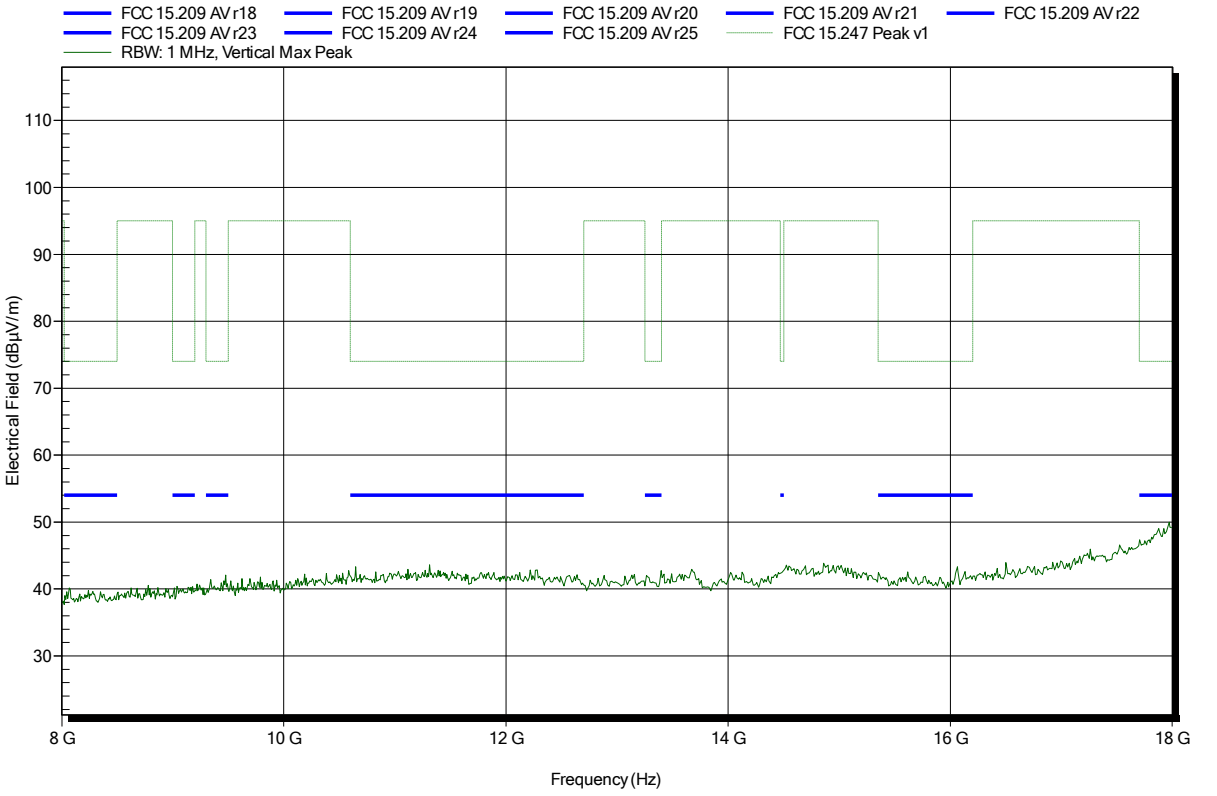

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-10-06
Note:	

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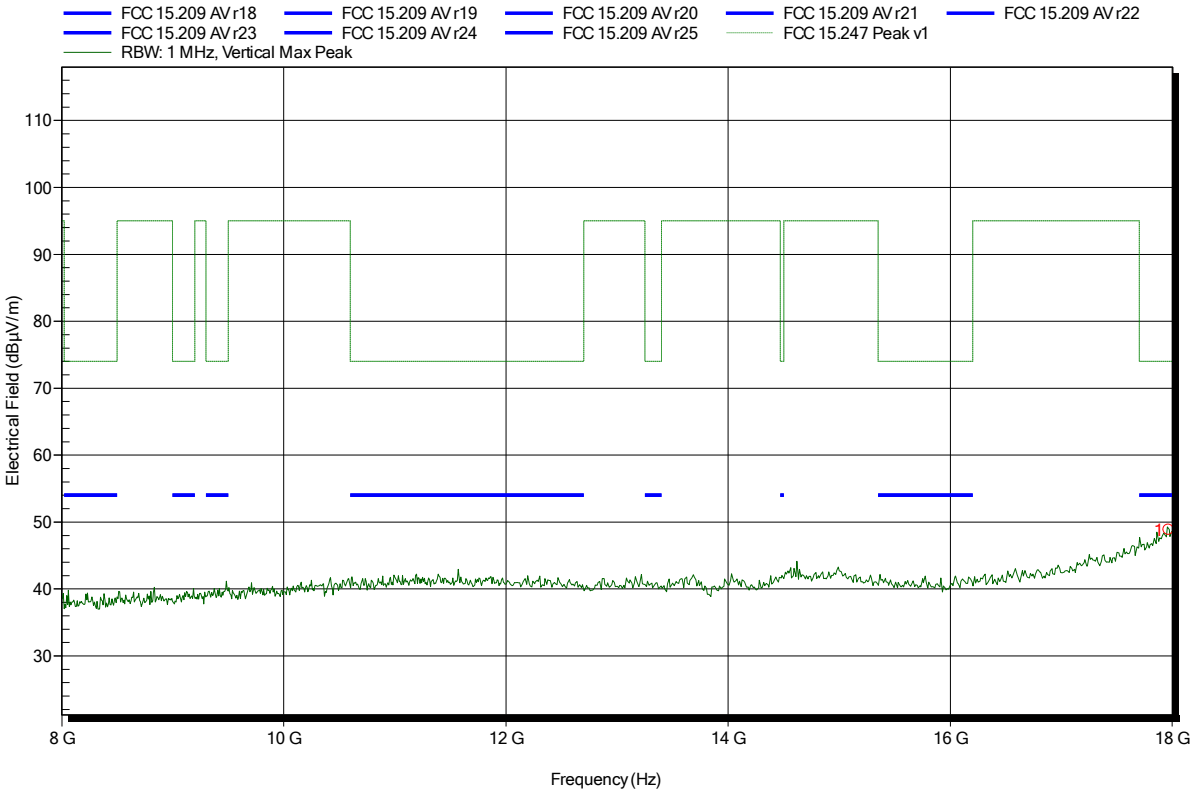

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
17.964 GHz	48.83 dBµV/m	74 dBµV/m	-25.17 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-10-06
Note:	

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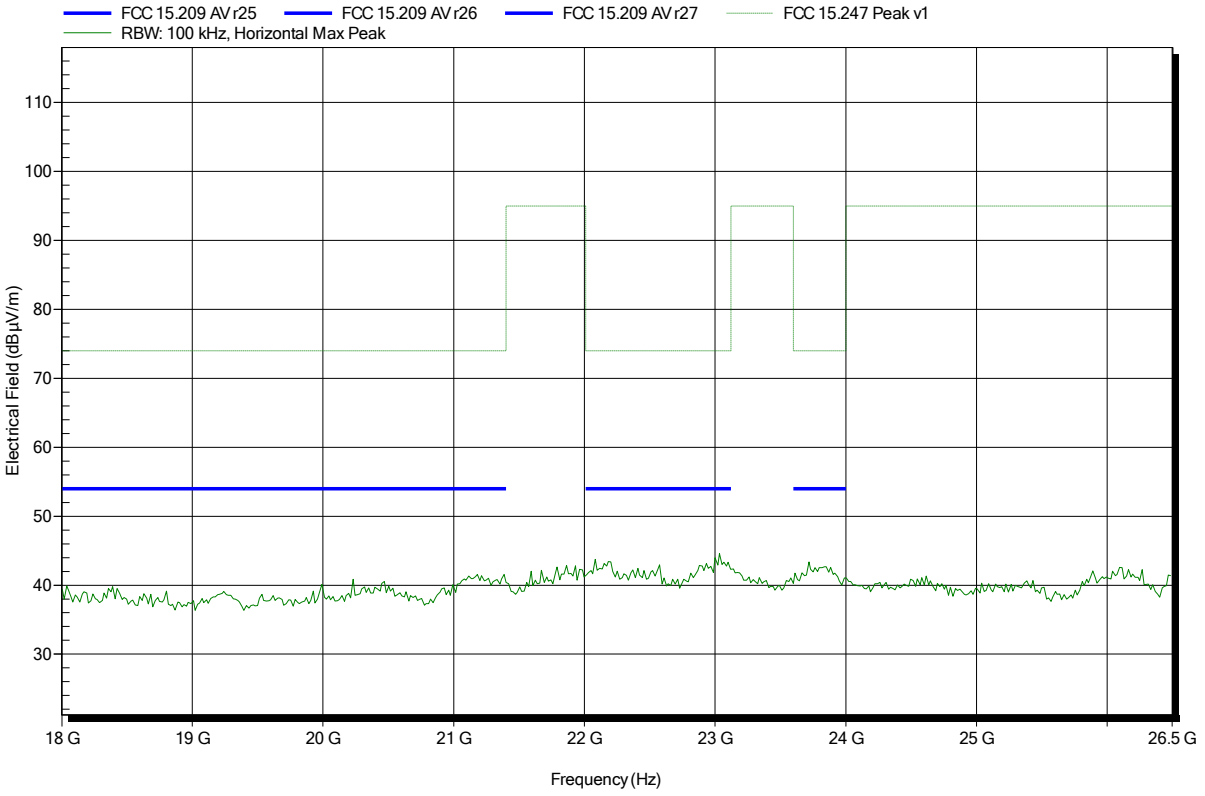

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m
Mode:	TX; DSSS1 MBit, Ch 6
Test Date:	2014-10-06
Note:	

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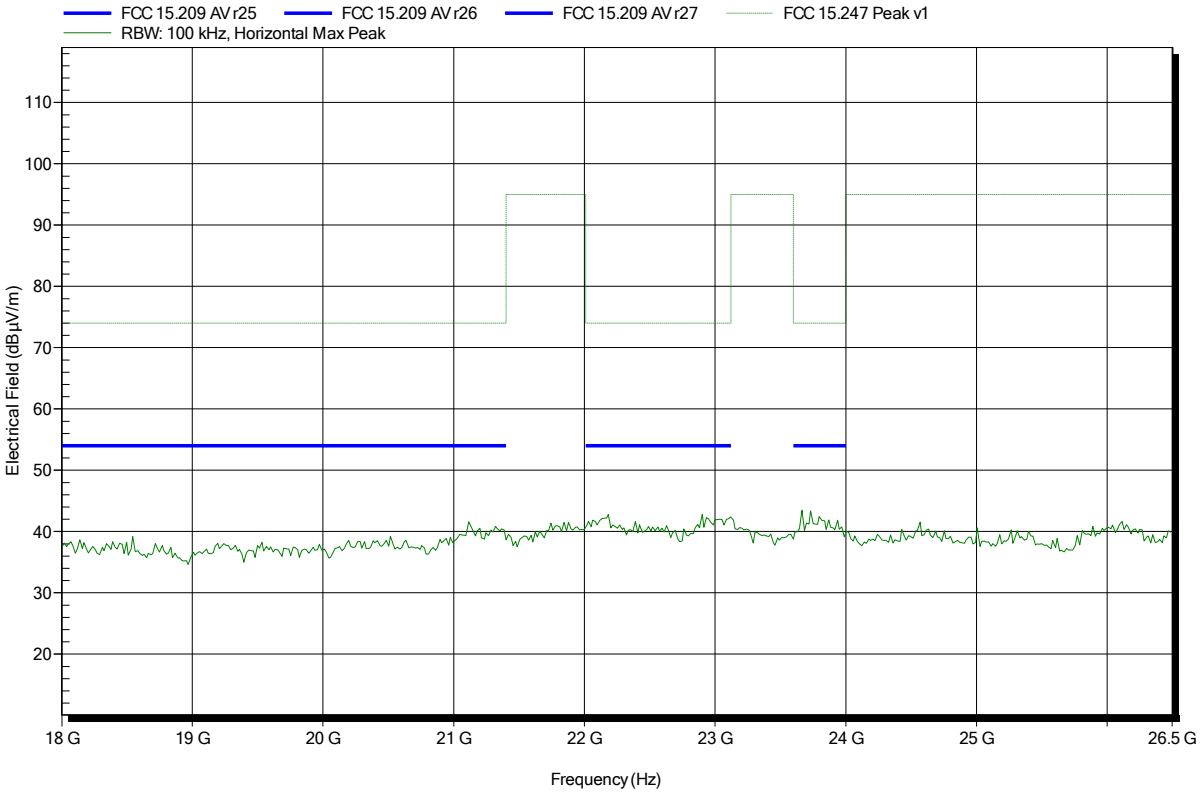

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-10-06
Note:	

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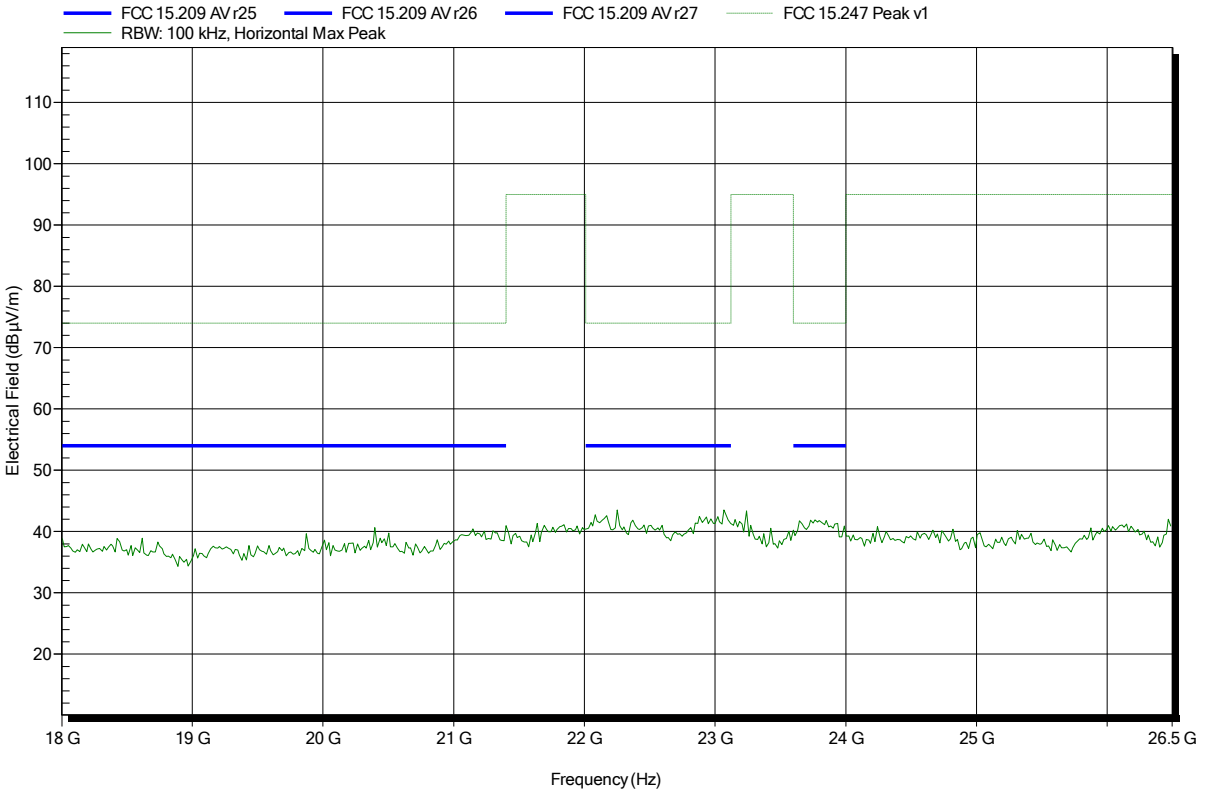

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m
Mode:	TX; DSSS1 MBit, Ch 1
Test Date:	2014-10-06
Note:	

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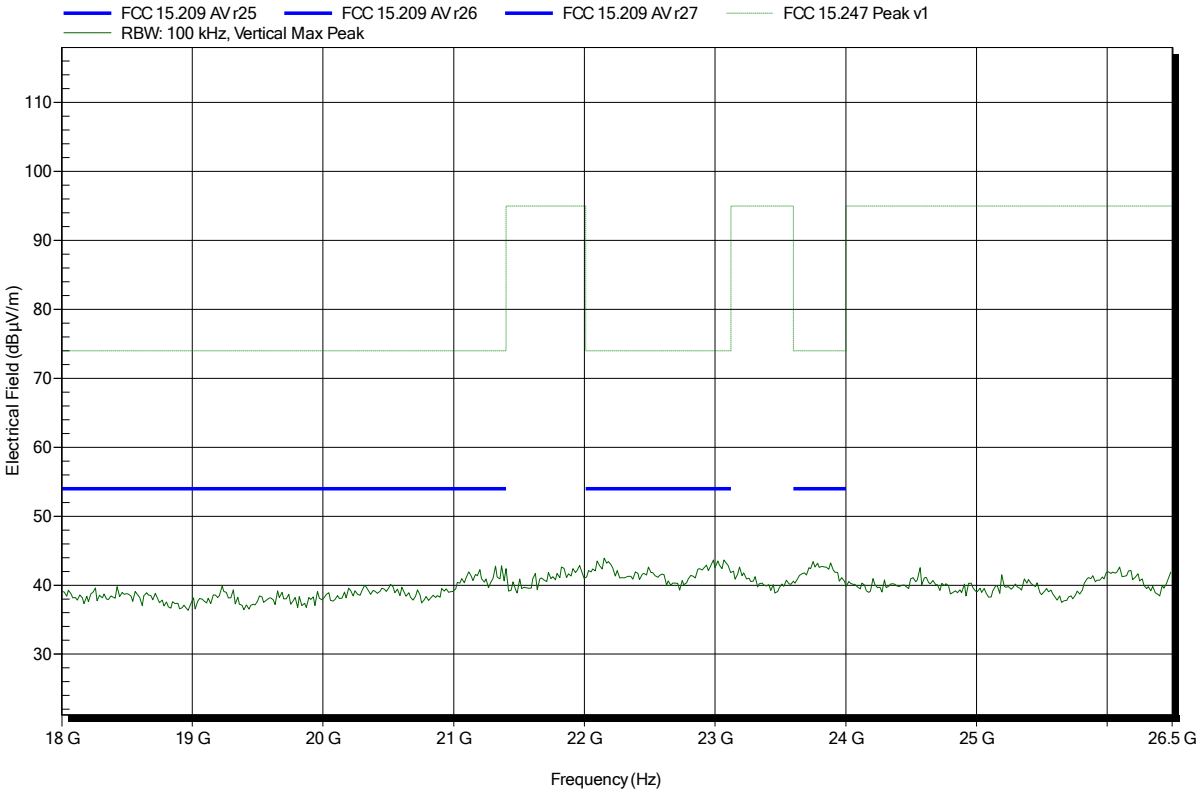

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m
Mode:	TX; DSSS1 MBit, Ch 6
Test Date:	2014-10-06
Note:	

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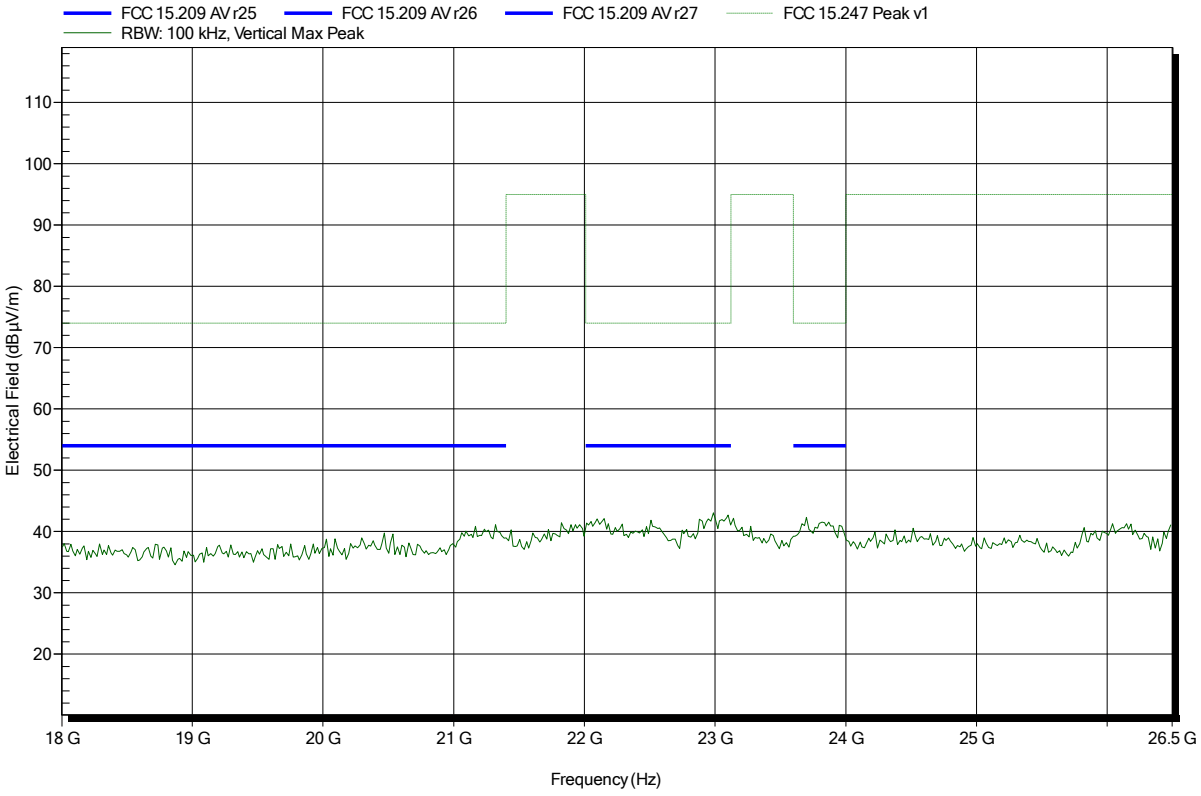

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m
Mode:	TX; DSSS1 MBit, Ch 11
Test Date:	2014-10-06
Note:	

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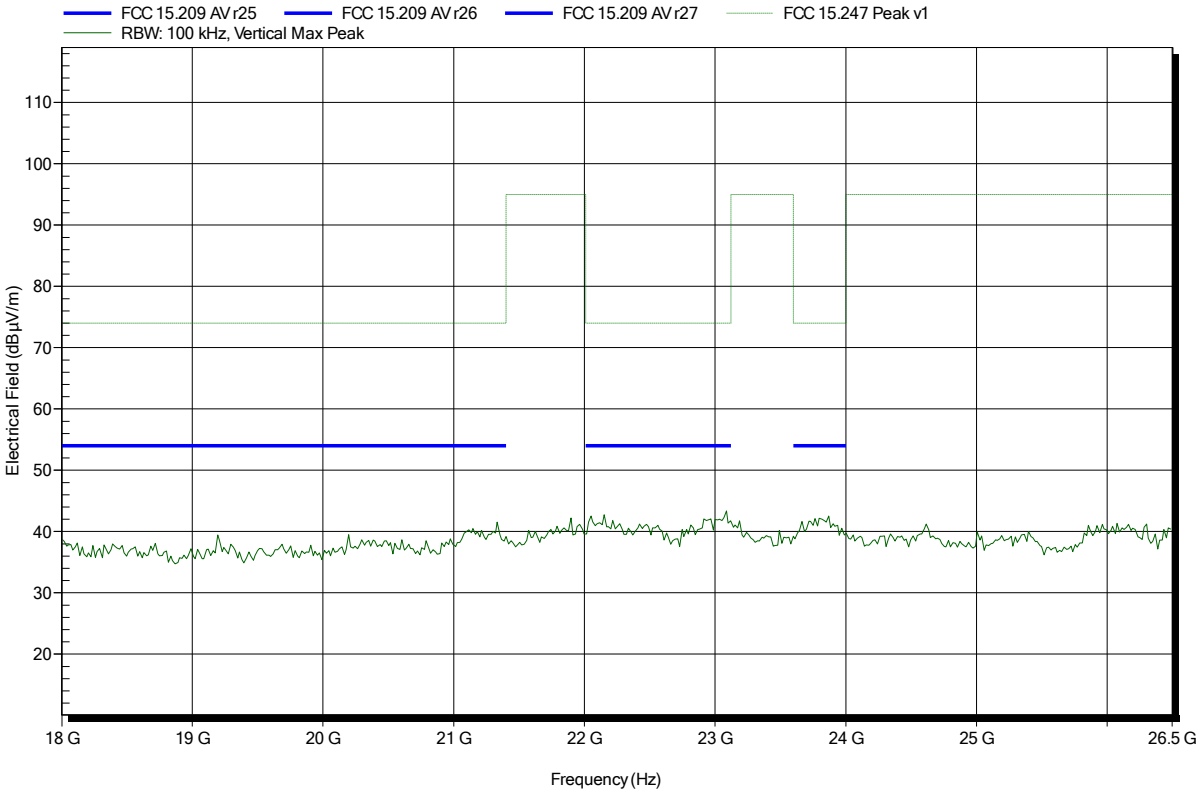

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 1
Test Date:	2014-10-06
Note:	

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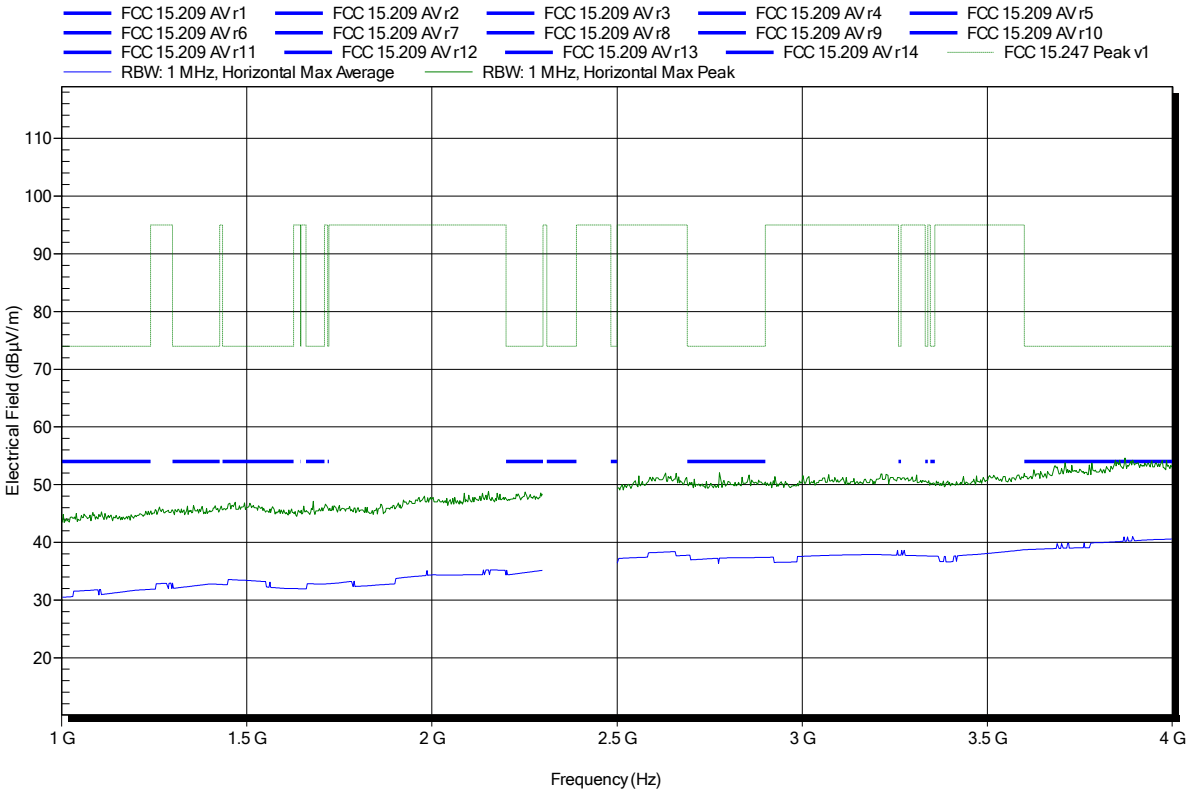

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 6
Test Date:	2014-10-06
Note:	

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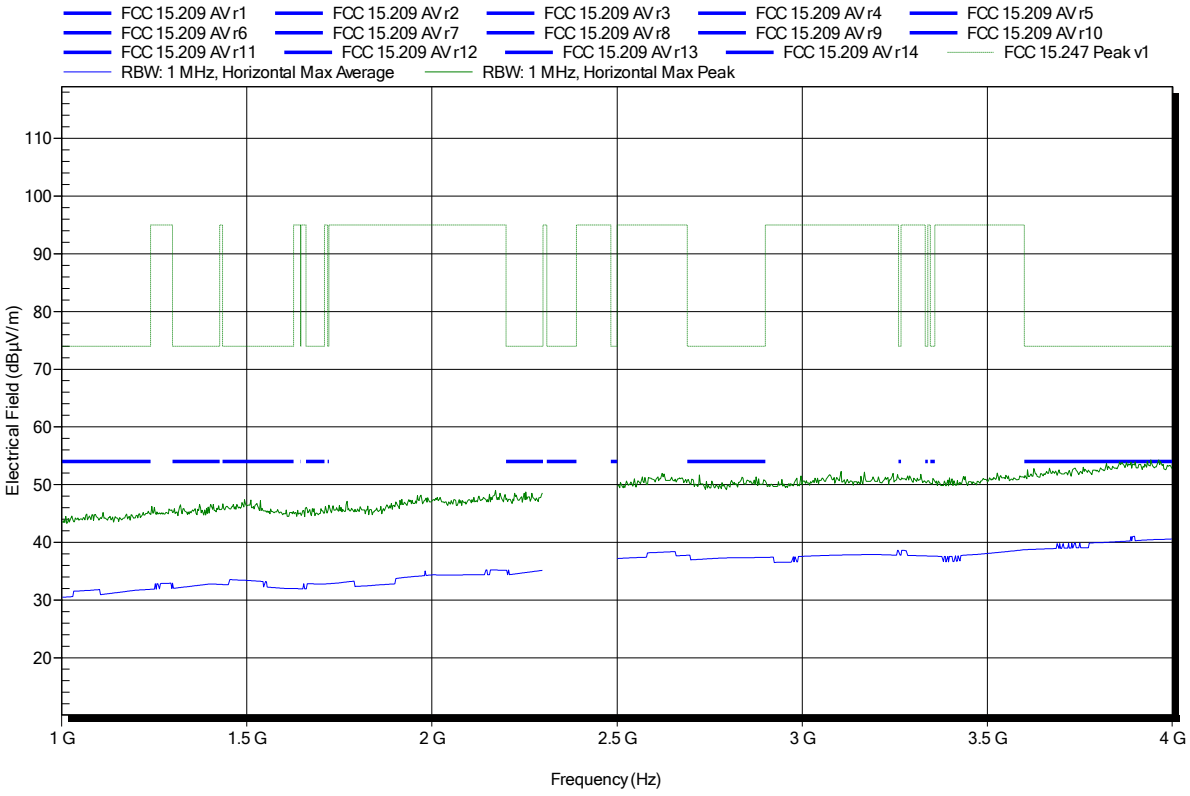

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; HT20, Ch 11
Test Date:	2014-09-30
Note:	

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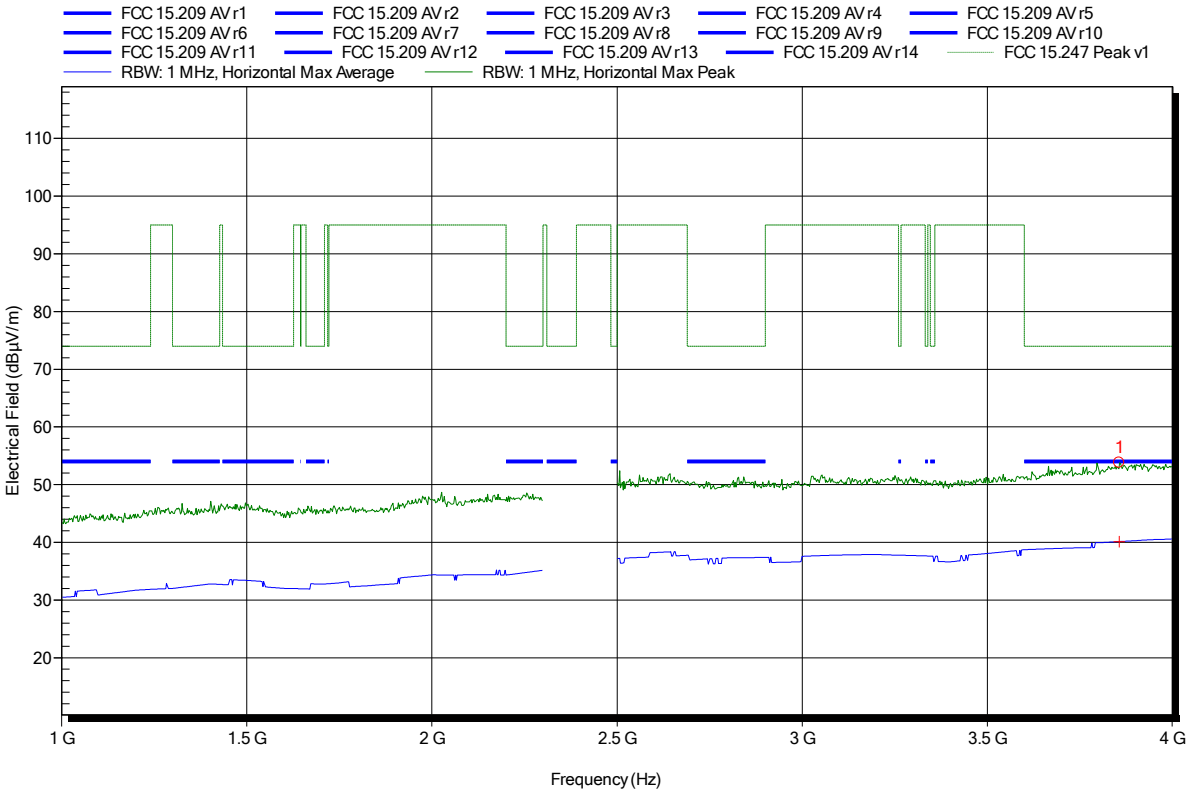

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
3.856 GHz	53.78 dBµV/m	74 dBµV/m	-20.22 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
3.856 GHz	40.12 dBµV/m	54 dBµV/m	-13.88 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 1
Test Date:	2014-10-06
Note:	

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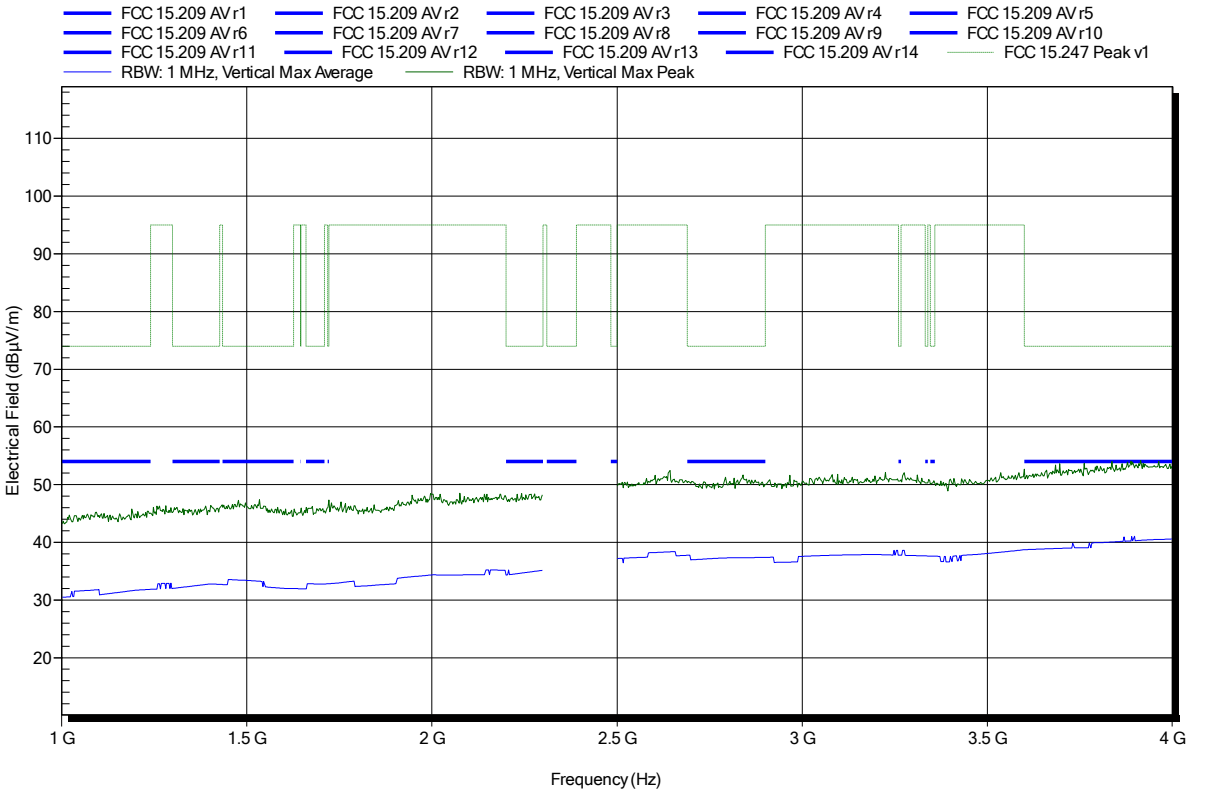

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 6
Test Date:	2014-10-06
Note:	

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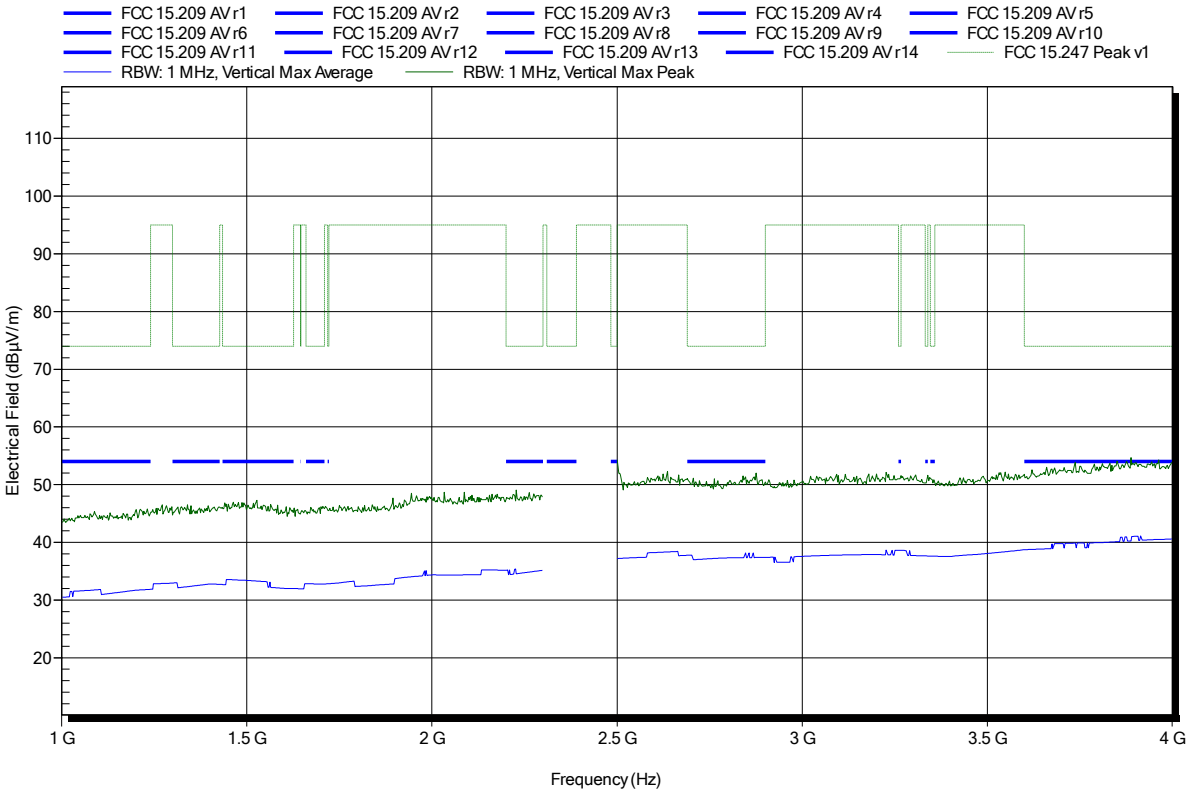

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; HT20, Ch 11
Test Date:	2014-09-30
Note:	

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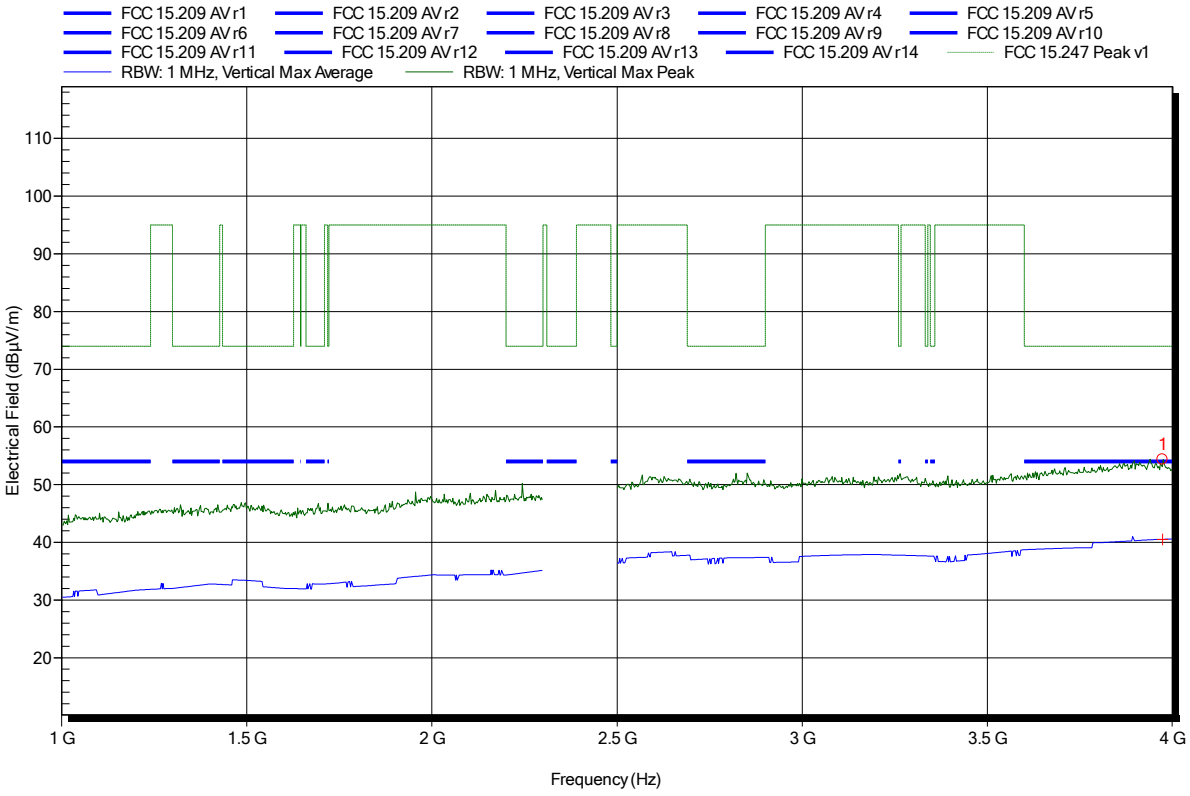

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
3.973 GHz	54.33 dBµV/m	74 dBµV/m	-19.67 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
3.973 GHz	40.51 dBµV/m	54 dBµV/m	-13.49 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 1
Test Date:	2014-10-06
Note:	lower bandedge

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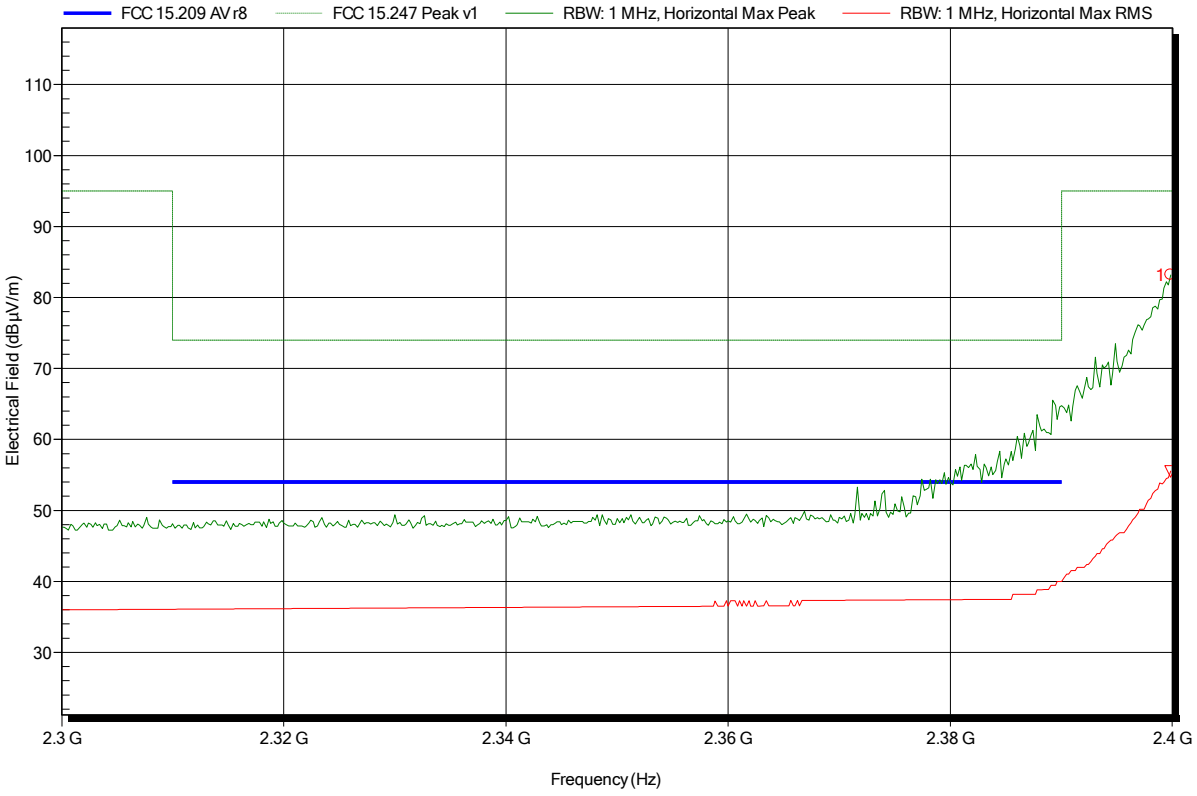

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4 GHz	83.19 dBµV/m	95 dBµV/m	-11.81 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 1
Test Date:	2014-10-06
Note:	lower bandedge

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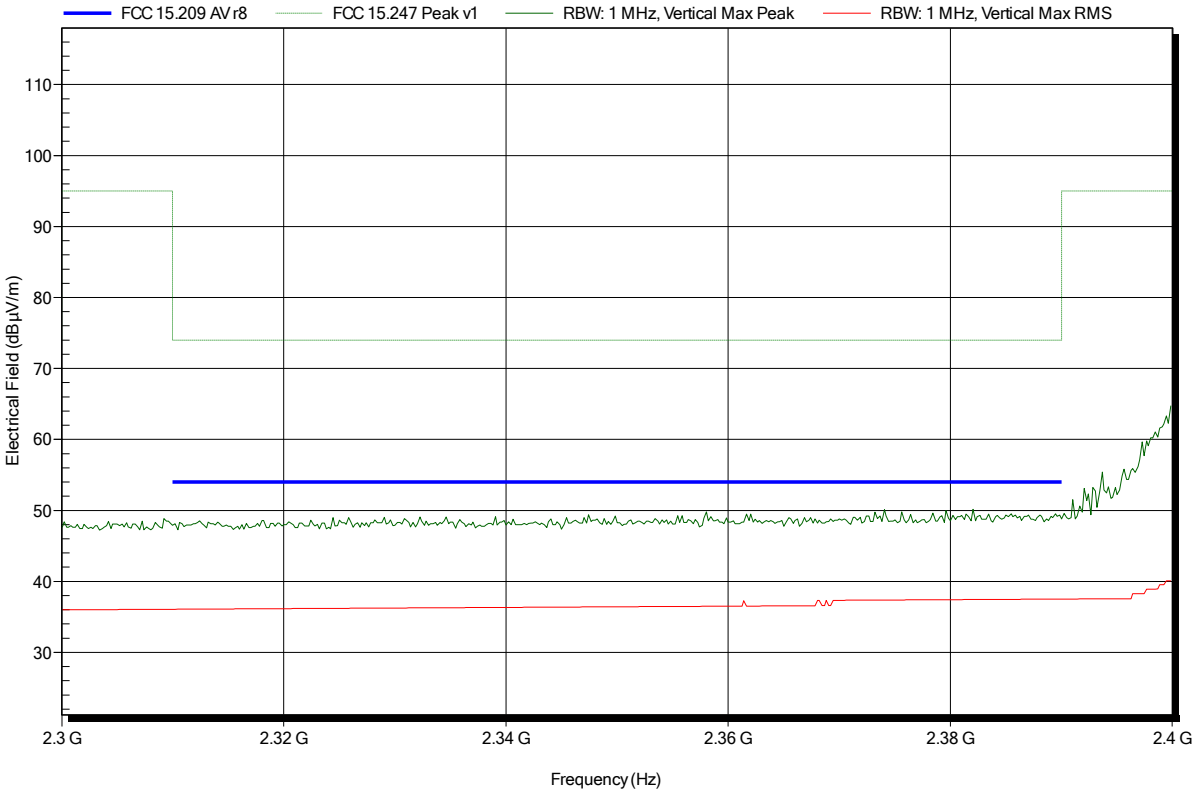

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; HT20, Ch 11
Test Date:	2014-09-30
Note:	upper bandedge

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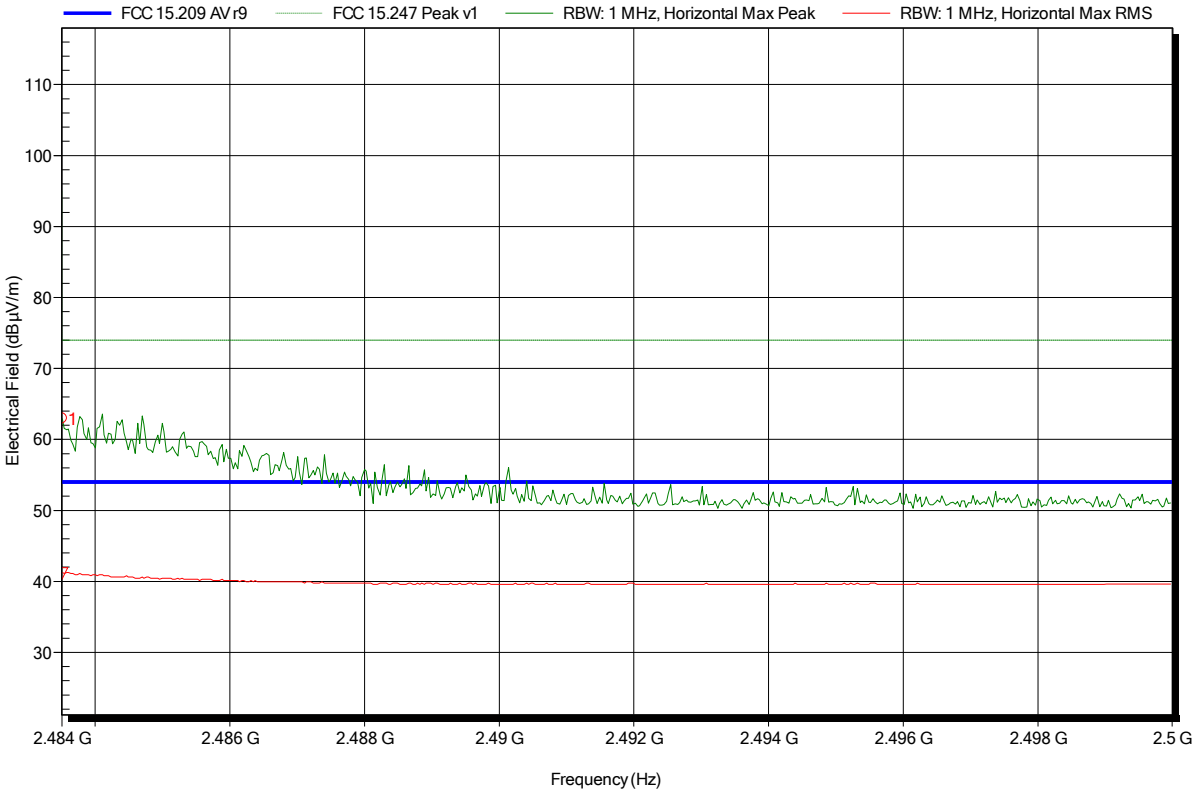

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	62.95 dBµV/m	74 dBµV/m	-11.05 dB	Pass

Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.4835 GHz	41.11 dBµV/m	54 dBµV/m	-12.89 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; HT20, Ch 11
Test Date:	2014-09-30
Note:	upper bandedge

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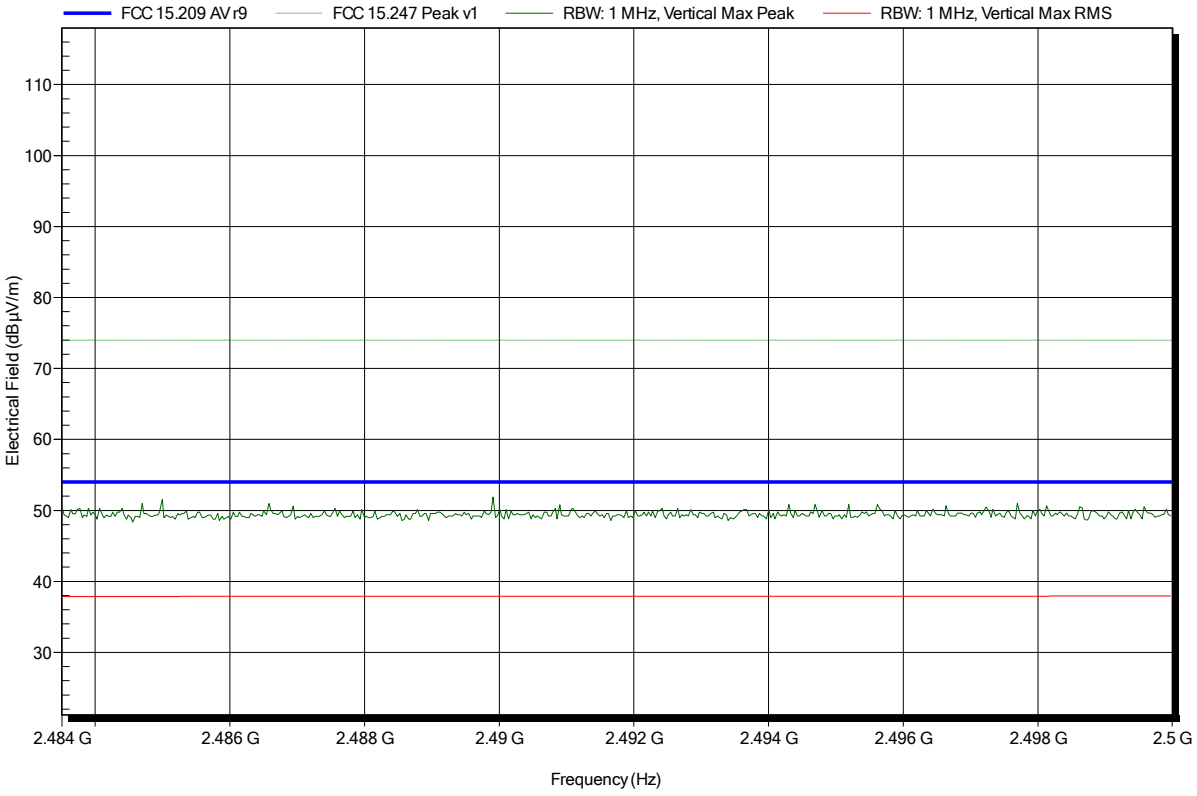

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 1
Test Date:	2014-10-06
Note:	

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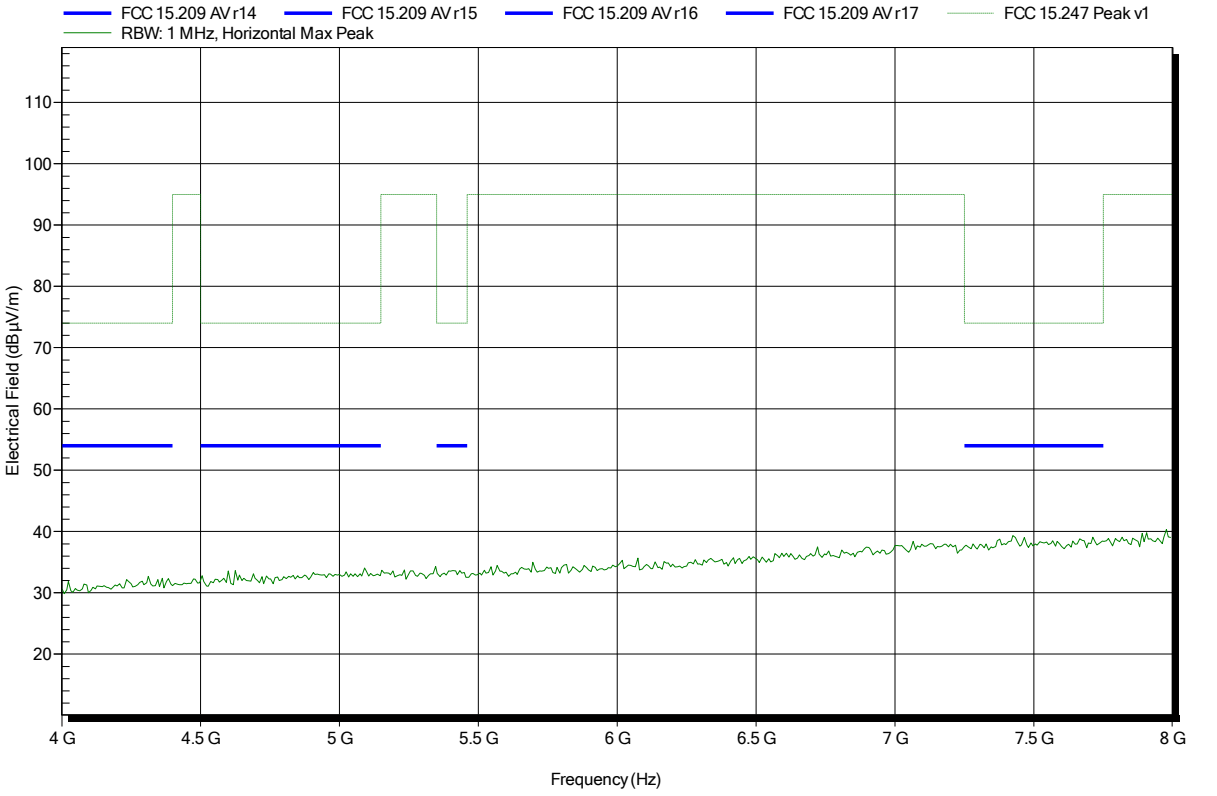

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 6
Test Date:	2014-10-06
Note:	

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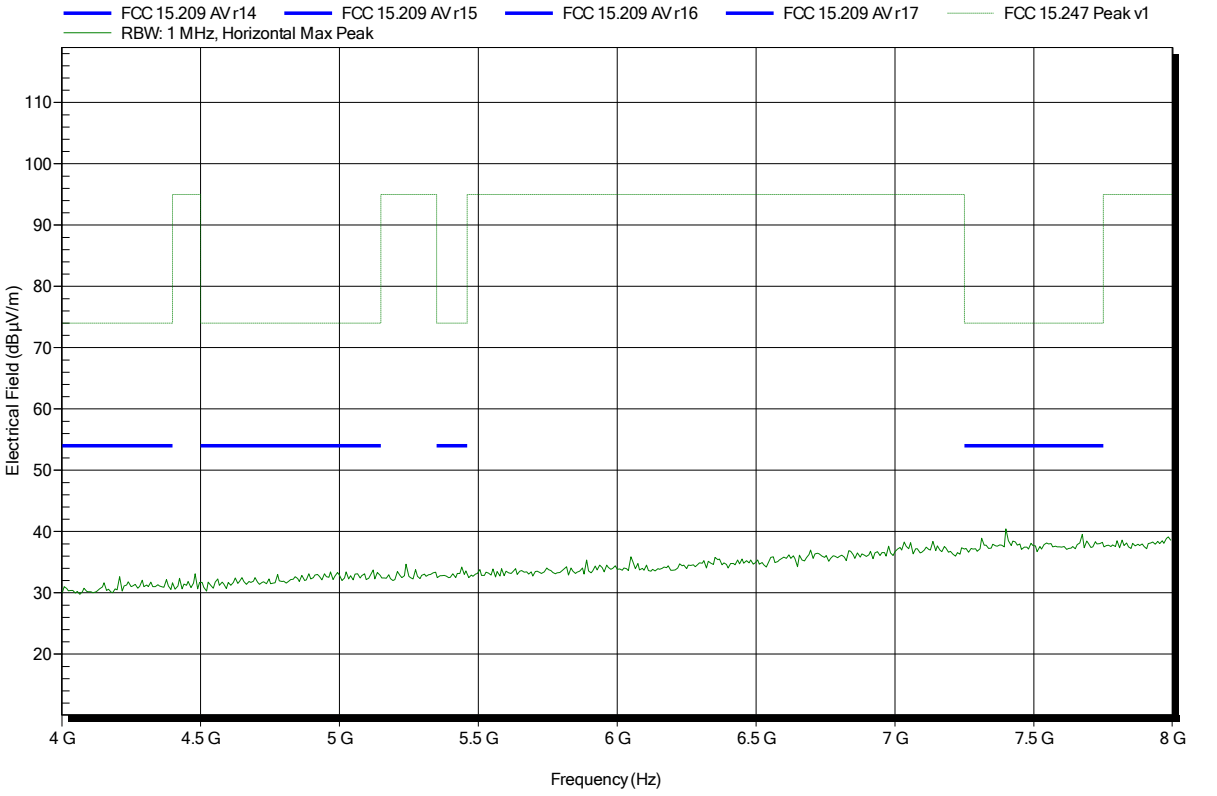

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; HT20, Ch 11
Test Date:	2014-09-30
Note:	

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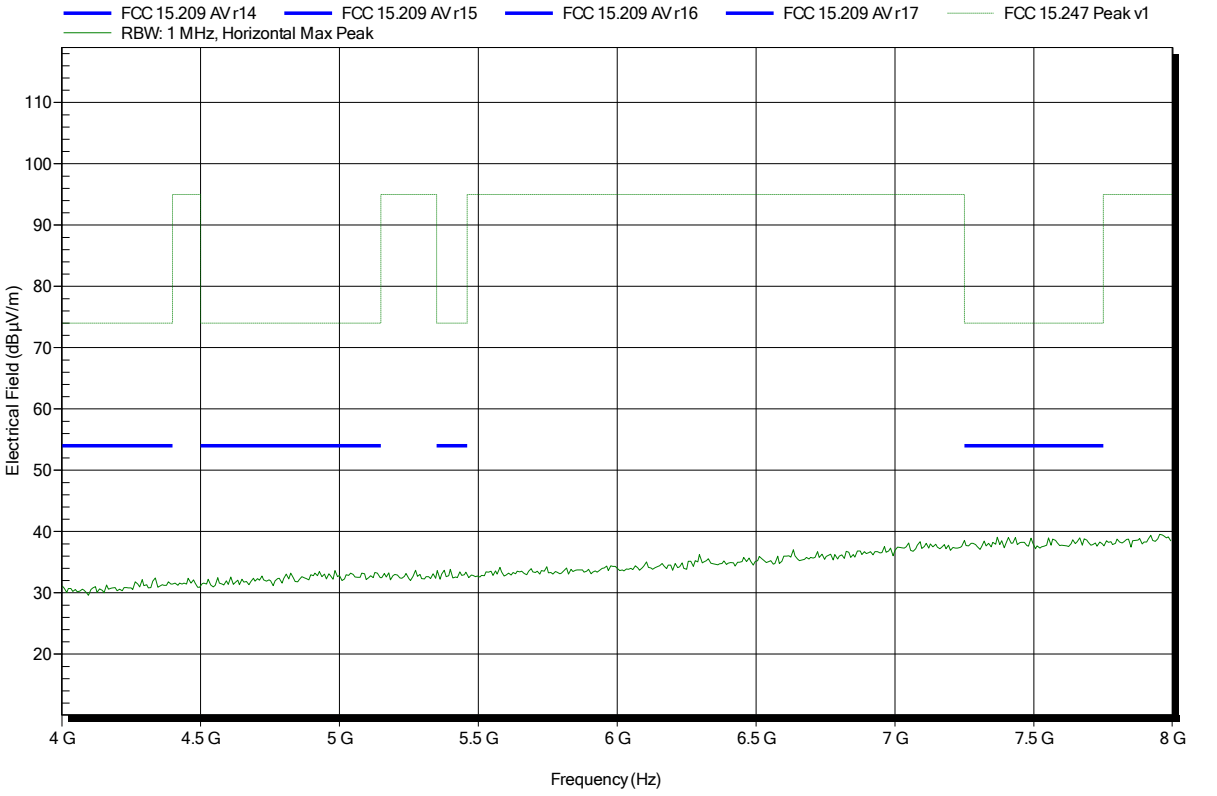

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 1
Test Date:	2014-10-06
Note:	

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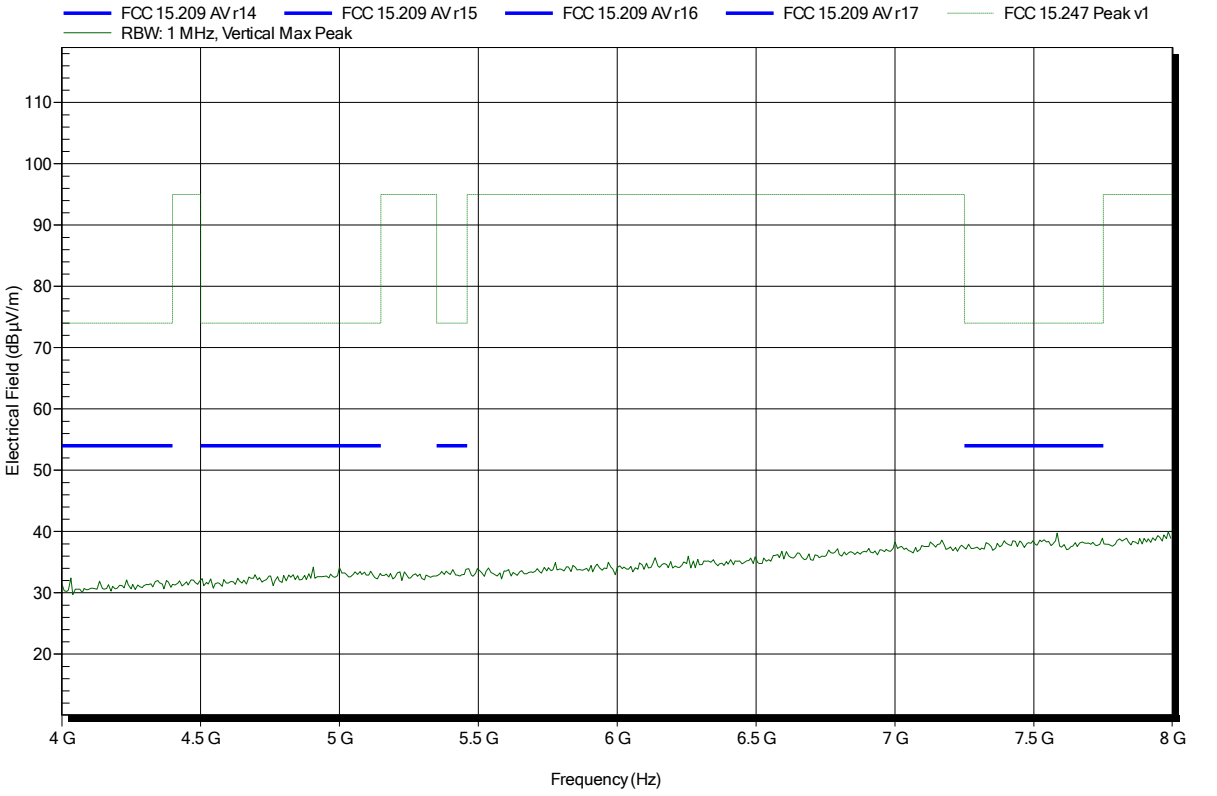

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; HT20, Ch 6
Test Date:	2014-10-06
Note:	

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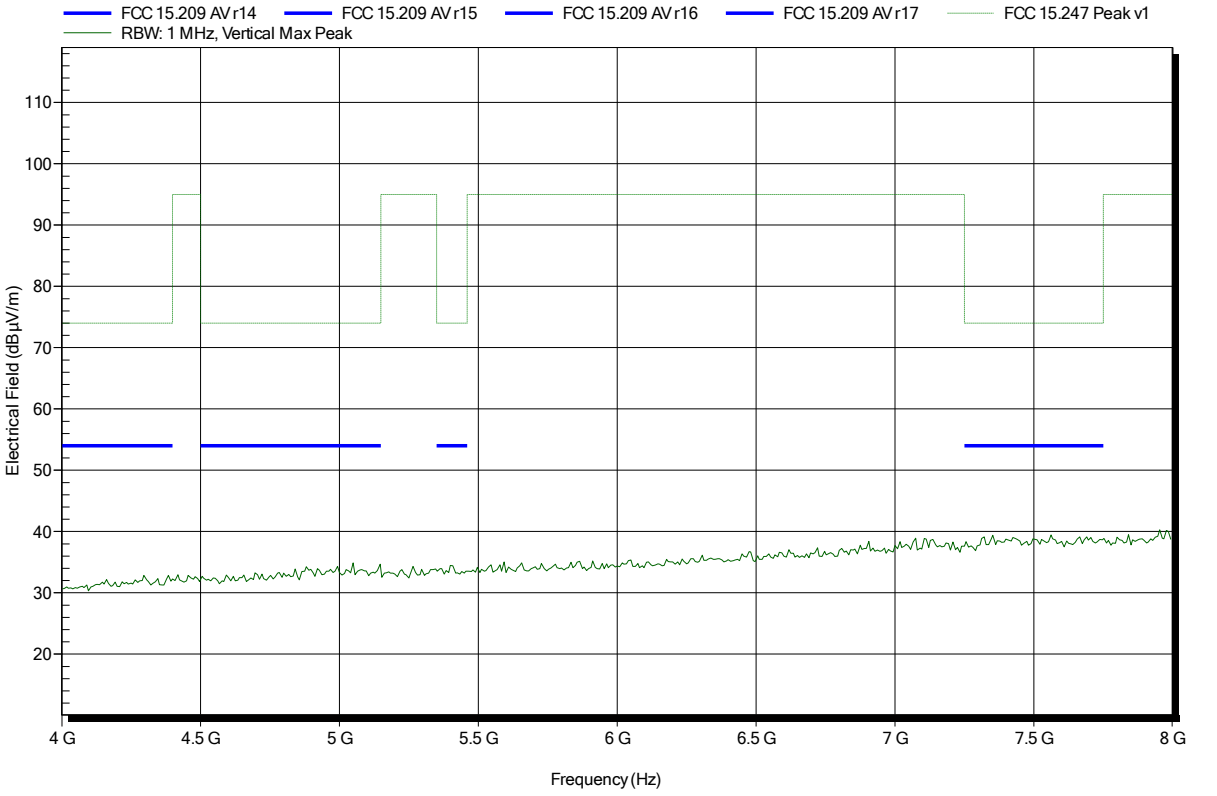

Spurious emissions according to FCC 15.247

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	ImpactX
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 5.0VDC via USB
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; HT20, Ch 11
Test Date:	2014-09-30
Note:	

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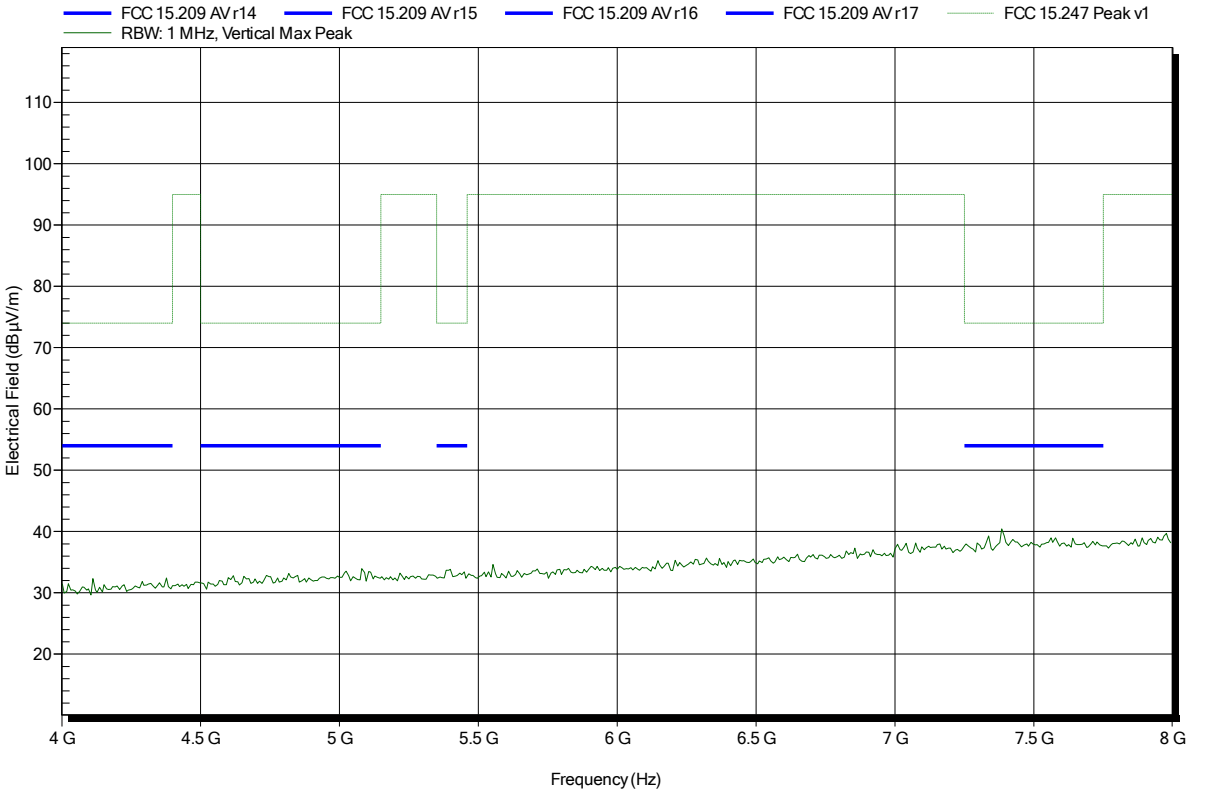


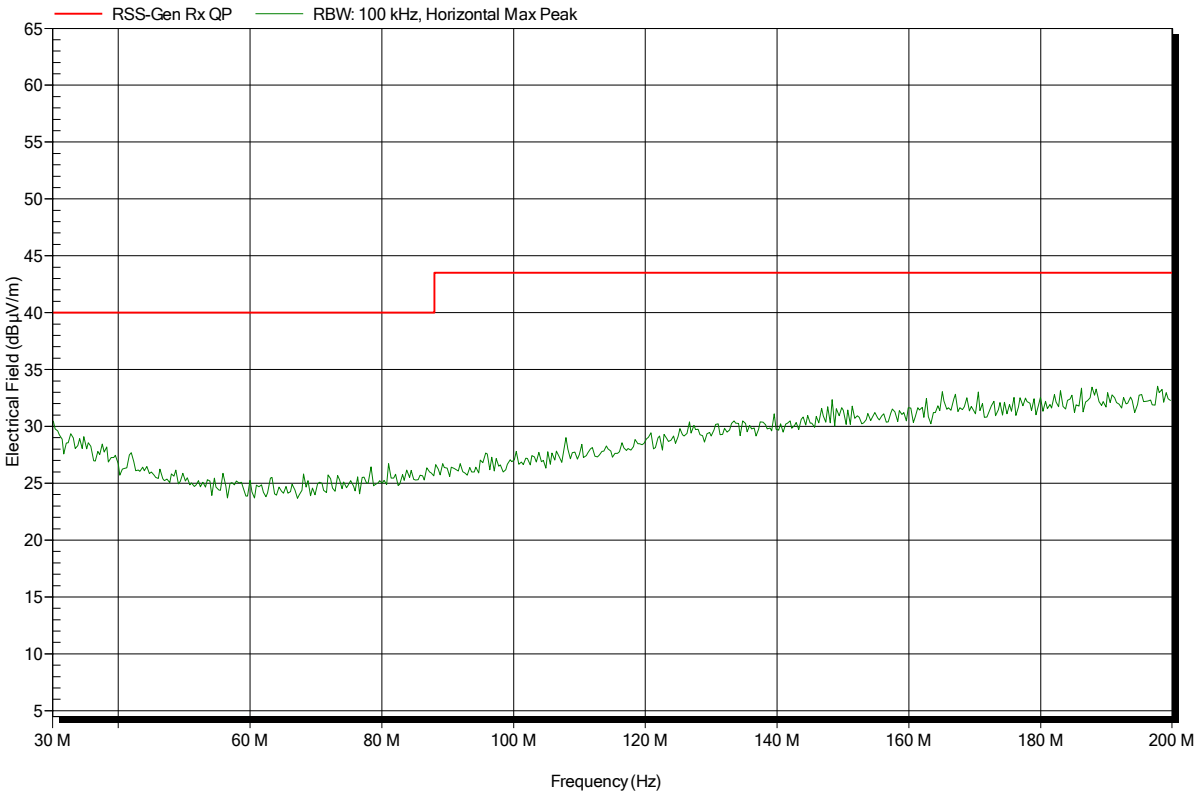
ANNEX B Receiver radiated spurious emissions

Spurious emissions according to RSS-GEN

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	Impactx
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 3.7 VDC battery
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	RX; Rx Ch6
Test Date:	2014-10-06
Note:	

Index 6

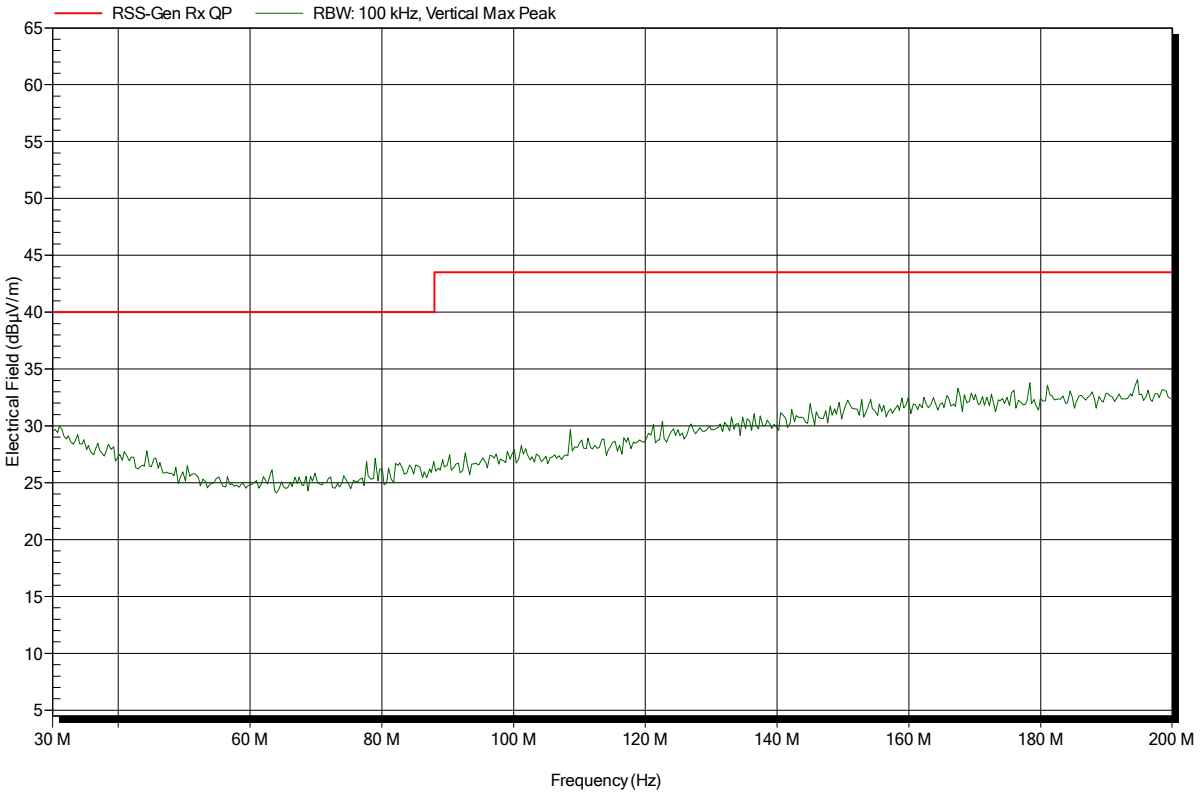


Spurious emissions according to RSS-GEN

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	Impactx
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 3.7 VDC battery
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	RX; Rx Ch6
Test Date:	2014-10-06
Note:	

Index 5

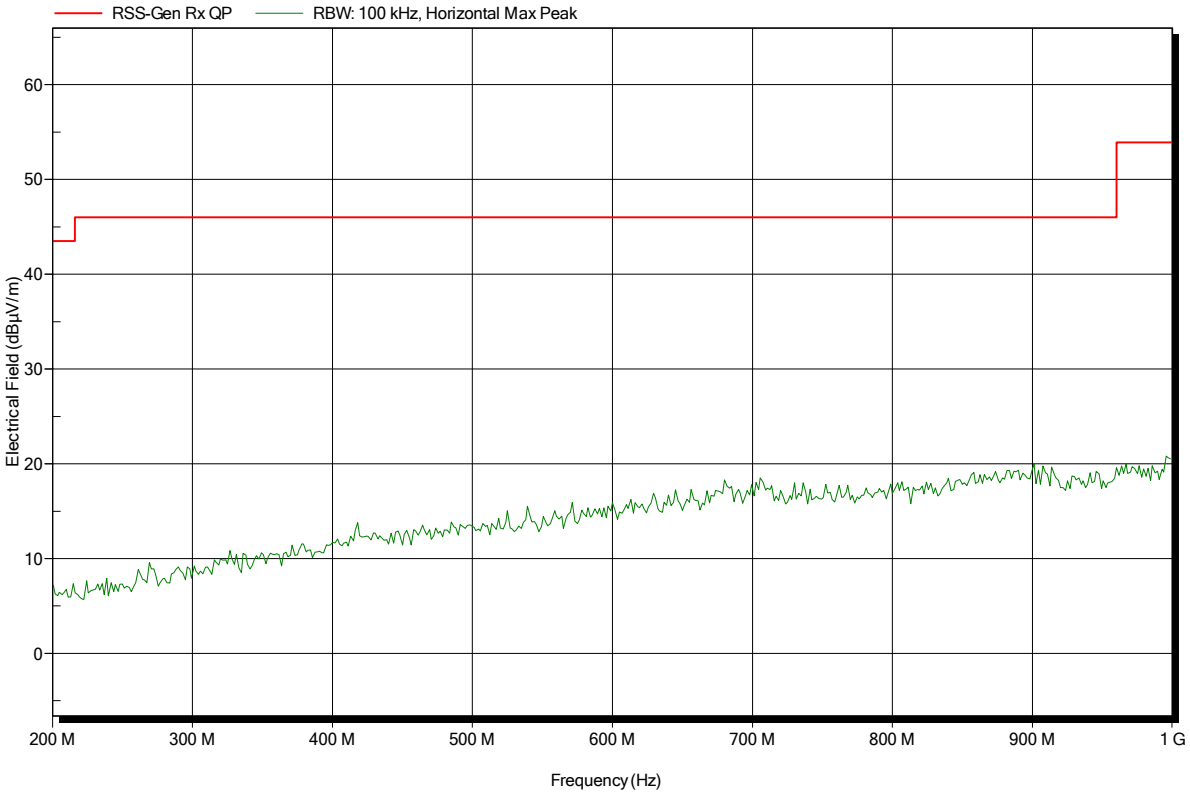


Spurious emissions according to RSS-GEN

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	Impactx
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 3.7 VDC battery
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	RX; Rx Ch6
Test Date:	2014-10-06
Note:	

Index 7

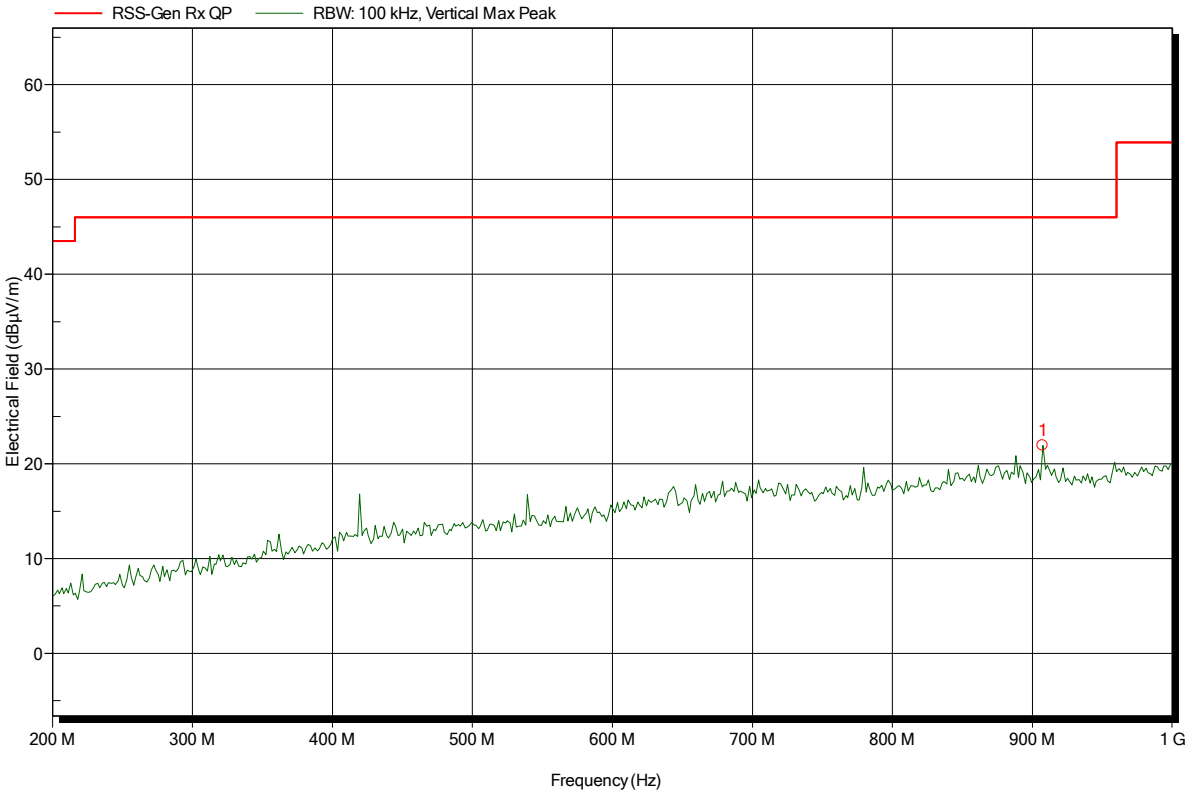


Spurious emissions according to RSS-GEN

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	Impactx
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 3.7 VDC battery
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	RX; Rx Ch6
Test Date:	2014-10-06
Note:	

Index 8



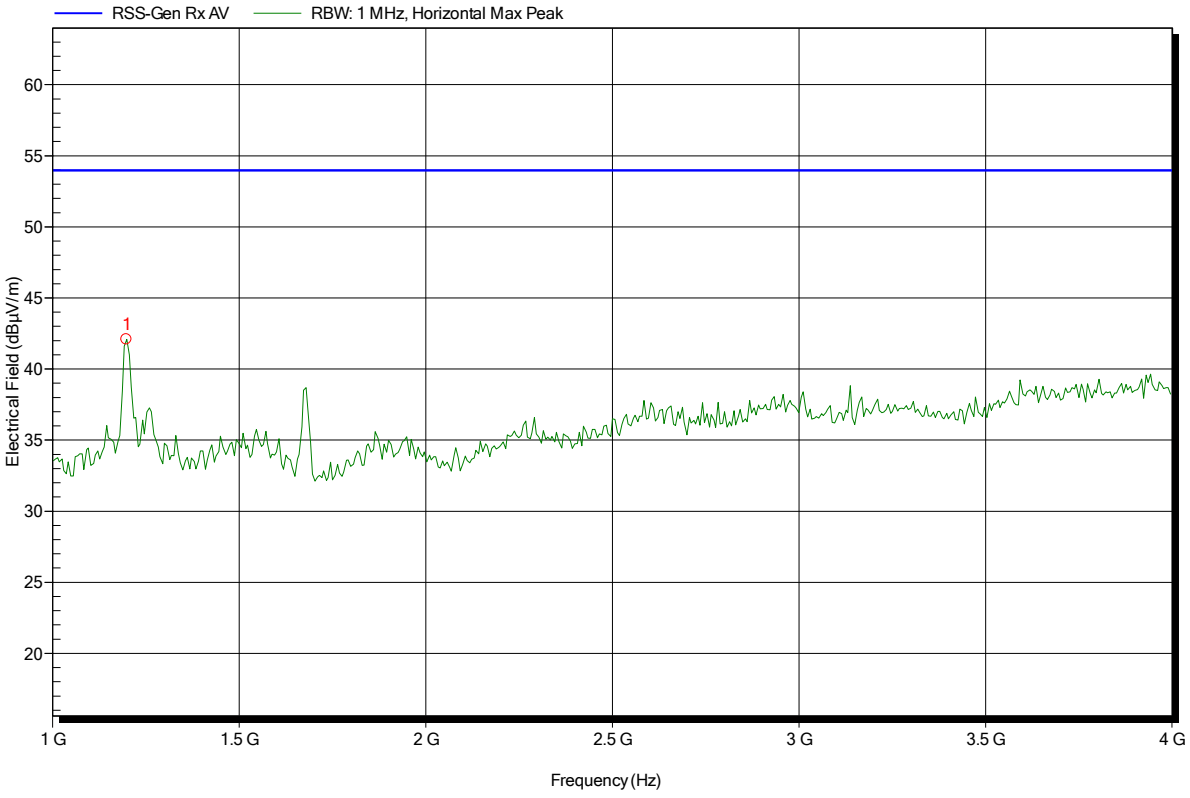
Frequency	Peak	Peak Limit	Peak Difference	Status
907.2 MHz	21.95 dBµV/m	46 dBµV/m	-24.05 dB	Pass

Spurious emissions according to RSS-GEN

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	Impactx
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 3.7 VDC battery
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; Rx Ch6
Test Date:	2014-10-06
Note:	

Index 1



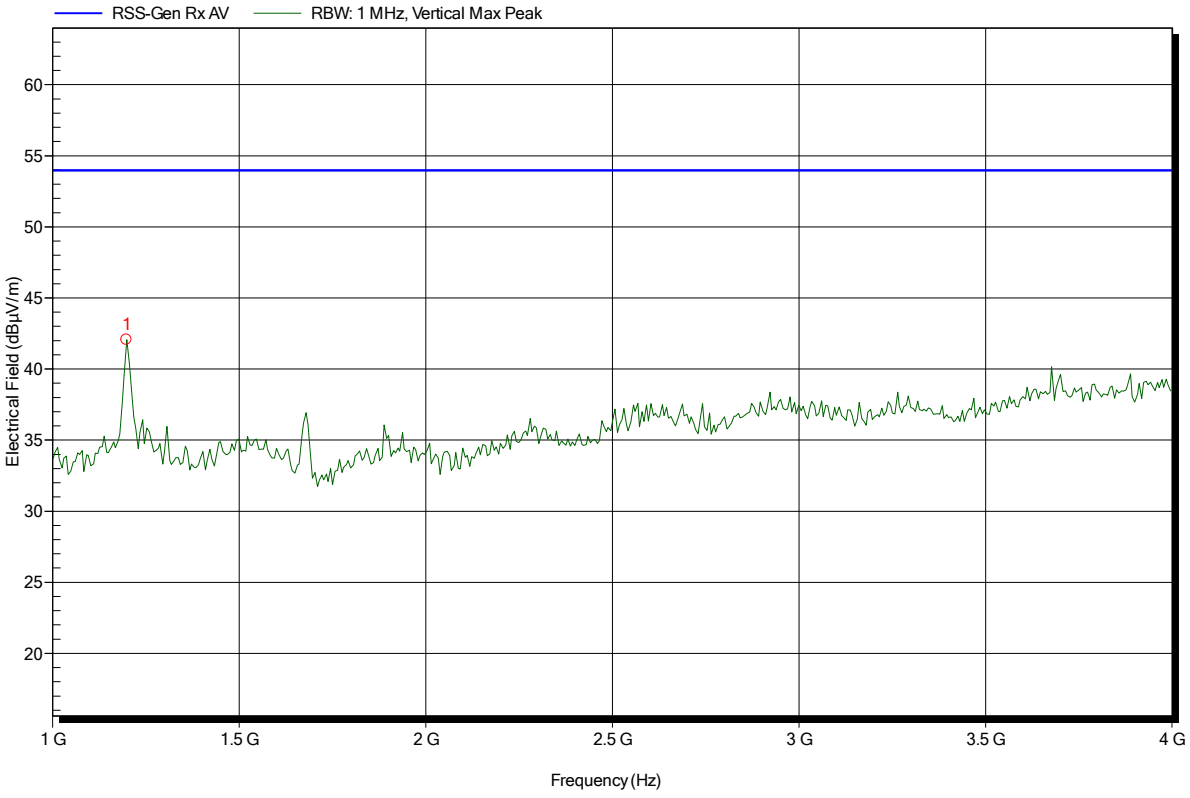
Frequency	Peak	Peak Limit	Peak Difference	Status
1.198 GHz	42.08 dBµV/m	53.98 dBµV/m	-11.9 dB	Pass

Spurious emissions according to RSS-GEN

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	Impactx
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 3.7 VDC battery
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; Rx Ch6
Test Date:	2014-10-06
Note:	

Index 3



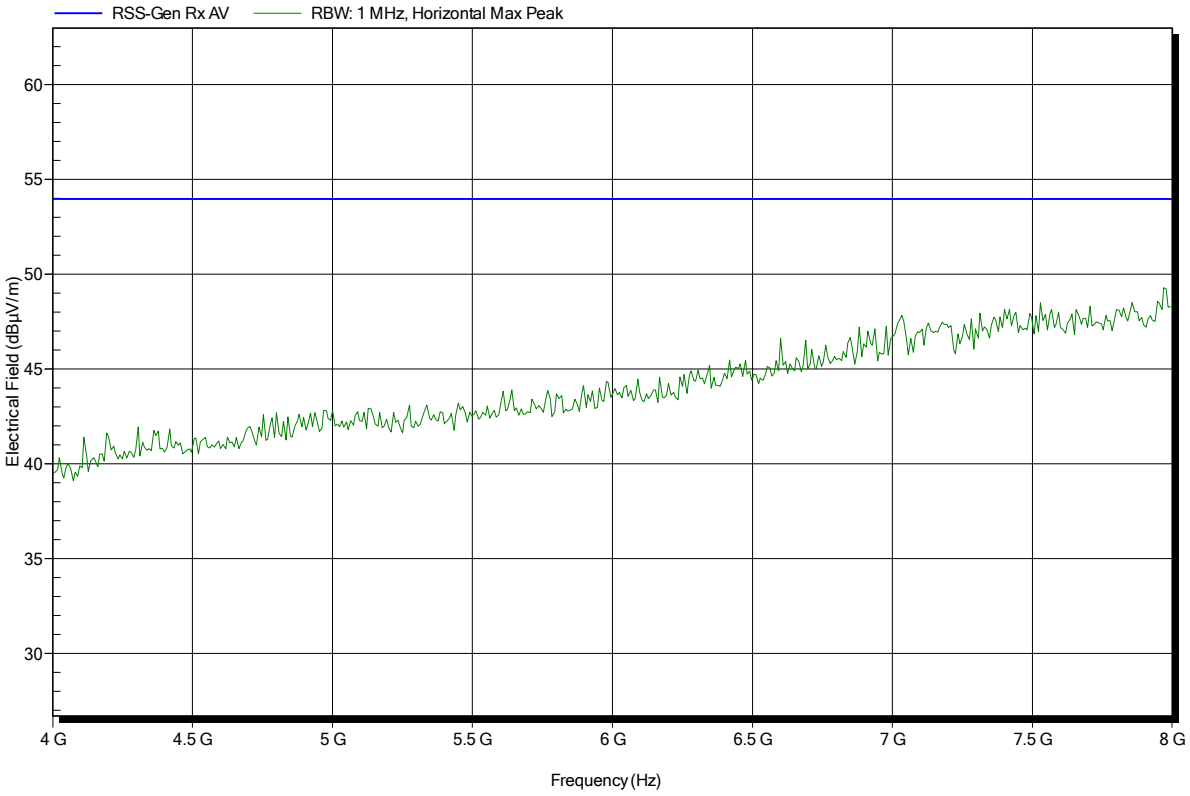
Frequency	Peak	Peak Limit	Peak Difference	Status
1.198 GHz	42.05 dBµV/m	53.98 dBµV/m	-11.93 dB	Pass

Spurious emissions according to RSS-GEN

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	Impactx
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 3.7 VDC battery
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; Rx Ch6
Test Date:	2014-10-06
Note:	

Index 2



Spurious emissions according to RSS-GEN

Project number: G0M-1407-3973

Applicant:	BARTEC PIXAVI AS
EUT Name:	Smartphone
Model:	Impactx
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Conditions:	Tnom: 24°C, Vnom: 3.7 VDC battery
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; Rx Ch6
Test Date:	2014-10-06
Note:	

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